OXFORD

STRATEGY
in the Contemporary World

Sixth Edition

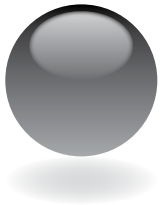
John Baylis, James J. Wirtz, and Colin S. Gray

Strategy in the Contemporary World

New to this edition

Significantly updated, the sixth edition features two new chapters:

- 'Geography and Strategy', by Daniel Moran, which explores how the physical environment shapes war on land, at sea, in space, and in the air.
- 'Strategic Studies: The West and the Rest', by Amitav Acharya and Jiajie He, which explores non-Western contributions to strategic thinking and the need to take these ideas seriously.



Strategy in the Contemporary World

An Introduction to Strategic Studies

SIXTH EDITION

Edited by

John Baylis,

James J. Wirtz,

Colin S. Gray

OXFORD
UNIVERSITY PRESS

OXFORD
UNIVERSITY PRESS

Great Clarendon Street, Oxford, OX2 6DP,
United Kingdom

Oxford University Press is a department of the University of Oxford.
It furthers the University's objective of excellence in research, scholarship,
and education by publishing worldwide. Oxford is a registered trade mark of
Oxford University Press in the UK and in certain other countries

© Oxford University Press 2019

The moral rights of the authors have been asserted

Third edition 2010
Fourth edition 2013
Fifth edition 2016

Impression: 1

All rights reserved. No part of this publication may be reproduced, stored in
a retrieval system, or transmitted, in any form or by any means, without the
prior permission in writing of Oxford University Press, or as expressly permitted
by law, by licence or under terms agreed with the appropriate reprographics
rights organization. Enquiries concerning reproduction outside the scope of the
above should be sent to the Rights Department, Oxford University Press, at the
address above

You must not circulate this work in any other form
and you must impose this same condition on any acquirer

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data
Data available

Library of Congress Control Number: 2018949229

ISBN 978–0–19–253689–1

Printed in Great Britain by
Bell & Bain Ltd., Glasgow

Links to third party websites are provided by Oxford in good faith and
for information only. Oxford disclaims any responsibility for the materials
contained in any third party website referenced in this work.

This book is dedicated to the grandchildren of John Baylis—Leo, Connie-Jo, and Olly—in the hope that they will live in a more peaceful world

Brief Contents

Acknowledgements xv

List of Contributors xvi

Guided Tour of Textbook Features xx

Guided Tour of the Online Resources xxii

1 Introduction: Strategy in the Contemporary World 1
John Baylis and James J. Wirtz

PART I **Enduring Issues of Strategy**

2 The History of the Practice of Strategy from Antiquity to Napoleon 19
Beatrice Heuser

3 The Evolution of Modern Warfare 36
Michael Sheehan

4 Strategic Theory 56
Thomas G. Mahnken

5 The Causes of War and the Conditions of Peace 72
John Garnett and John Baylis

6 Strategic Culture 89
Jeffrey S. Lantis and Darryl Howlett

7 Law, Politics, and the Use of Force 108
Justin Morris

8 Technology and Warfare 127
Eliot A. Cohen

9 Intelligence and Strategy 144
Roger Z. George

10 Strategy and Defence Planning 165
Colin S. Gray

PART II Contemporary Problems

11 Irregular Warfare: Terrorism and Insurgency 183
James D. Kiras

12 The Second Nuclear Age: Nuclear Weapons in the Twenty-First Century 202
C. Dale Walton

13 The Control of Weapons of Mass Destruction 220
John Baylis

14 Conventional Power and Contemporary Warfare 238
John Ferris

15 Geography and Strategy 255
Daniel Moran

16 Humanitarian Intervention and Peace Operations 273
Sheena Chestnut Greitens

17 The Rise of Cyberpower 291
John B. Sheldon

18 Geopolitics and Grand Strategy 308
Stefanie Ortmann and Nick Whittaker

PART III The Future of Strategy

19 Strategic Studies: The West and the Rest 329
Amitav Acharya and Jiajie He

20 Strategic Studies and its Critics 348
Columba Peoples

21 A New Agenda for Security and Strategy? 366
James J. Wirtz

22 The Practice of Strategy 385
Colin S. Gray and Jeannie L. Johnson

23 Does Strategic Studies Have a Future? 404
Lawrence Freedman

Bibliography 421

Index 439

Detailed Contents

Acknowledgements xv

List of Contributors xvi

Guided Tour of Textbook Features xx

Guided Tour of the Online Resources xxii

1 Introduction: Strategy in the Contemporary World 1
John Baylis and James J. Wirtz

Introduction 1

What is Strategic Studies? 4

Strategic Studies and the Classical Realist Tradition 6

What Criticisms are Made of Strategic Studies? 8

What is the Relationship between Strategic Studies and Security Studies? 12

PART I **Enduring Issues of Strategy**

2 The History of the Practice of Strategy from Antiquity to Napoleon 19
Beatrice Heuser

Introduction: Definitions of Strategy 19

Antiquity 20

The West European Middle Ages 24

Early Modern Europe 26

From the American War of Independence to the Napoleonic Wars 30

Conclusion 32

3 The Evolution of Modern Warfare 36
Michael Sheehan

Introduction 36

The Napoleonic Legacy 37

The Industrialization of War 40

Naval Warfare 43

Total War 45

Nuclear Weapons and Revolutionary Warfare 50

Conclusion: Postmodern War 52

4 Strategic Theory 56
Thomas G. Mahnken
Introduction 56
The Logic of Strategy 57
Clausewitz's *On War* 61
Sun Tzu and Mao 66
Conclusion 69

5 The Causes of War and the Conditions of Peace 72
John Garnett and John Baylis
Introduction 72
The Study of War 73
Human Nature Explanations of War 76
Wars 'Within' and 'Beyond' States 83
Conclusion 86

6 Strategic Culture 89
Jeffrey S. Lantis and Darryl Howlett
Introduction 89
Thinking about Culture and Strategy 90
Sources of Strategic Culture 93
Constructivism and Strategic Culture 96
Continuing Issues: Change or Continuity? 98
Delineating Non-State, State, and Multistate Strategic Cultures 101
Strategic Culture and Weapons of Mass Destruction 103
Conclusion 105

7 Law, Politics, and the Use of Force 108
Justin Morris
Introduction: The Efficacy of International Law 108
Why States Obey the Law 110
International Law and the Use of Force 113
Jus ad Bellum 117
Jus in Bello 120
Conclusion 124

8 Technology and Warfare 127
Eliot A. Cohen
Introduction: Technophiles and Technophobes 127
Some Ways of Thinking about Military Technology 128
Mapping Military Technology 131

The Revolution in Military Affairs Debate 133
Asymmetric Challenges 137
Challenges of the New Technology 138
Conclusion: The Future of Military Technology 140

9 Intelligence and Strategy 144
Roger Z. George
Introduction 144
What is Intelligence? 145
Intelligence as Enabler of US Strategy 150
Strategic Surprise: Causes and Correctives 153
Intelligence Performance Since Major 9/11 Reforms 157
Managing the Information Domain 160
Conclusion 162

10 Strategy and Defence Planning 165
Colin S. Gray
Introduction 165
Strategy, Politics, and Defence Planning 166
Problems with the Future 168
Approaches to Defence Planning 172
Guidance for Defence Planning 175
Conclusion 178

PART II **Contemporary Problems**

11 Irregular Warfare: Terrorism and Insurgency 183
James D. Kiras
Introduction 183
Subverting the System: The Theory and Practice of Irregular Warfare 186
Defending the System: Counterinsurgency and Counterterrorism in Theory and Practice 191
Irregular Warfare Now and in the Future 197
Conclusion 199

12 The Second Nuclear Age: Nuclear Weapons in the Twenty-First Century 202
C. Dale Walton
Introduction 202
The First Nuclear Age 204
Risks in the Second Nuclear Age 206

Adapting to the Second Nuclear Age 211
Conclusion: Looking Towards the Third Nuclear Age? 216
Deterrence in Changing Political and Technological Circumstances 217

13 The Control of Weapons of Mass Destruction 220
John Baylis
Introduction 220
Arms Control during the Cold War 221
The Residual Role of Arms Control in the Post-Cold War Era 224
From Arms Control to Counterproliferation 226
The Challenges of Counterproliferation 229
The Diplomatic Option: Military Responses Withheld? 230
Does Arms Control Have a Future? 231
Conclusion 236

14 Conventional Power and Contemporary Warfare 238
John Ferris
Introduction: Power and War—A History 238
New World Orders: 1945, 1989, 2001 239
Power and Hyperpower 241
Military Affairs: Revolution and Counter-Revolution 243
Arts of War 244
Military Balances 246
World on the Scales 248
War, What is it Good For? 250
Conclusion 252

15 Geography and Strategy 255
Daniel Moran
Introduction: The Lie of the Land 255
Land Warfare: The Quest for Victory 256
Maritime Strategy 260
Air Power 264
The Final Frontier: Space War 267
War by Other Means: Cyberspace 269
Conclusion 271

16 Humanitarian Intervention and Peace Operations 273
Sheena Chestnut Greitens
Introduction 273
The Changing Face of Peacekeeping 274

The Politics of Humanitarian Intervention 278
The Military Character of Peace Operations 283
Conclusion: Problems and Prospects 287

17 The Rise of Cyberpower 291
John B. Sheldon
Introduction 291
Terms and Definitions 292
Cyberspace, Cyberpower, and the Infosphere 296
A New Dimension for Conflict 299
A Twenty-First-Century Revolution in Military Affairs? 302
Conclusion 306

18 Geopolitics and Grand Strategy 308
Stefanie Ortmann and Nick Whittaker
Introduction 308
The Second World War, the Cold War, and the Development of Grand Strategy 314
Geopolitics and Grand Strategy Today 316
Grand Strategy in a Complex World 319
Rethinking Geopolitics 321
Conclusion 324

PART III **The Future of Strategy**

19 Strategic Studies: The West and the Rest 329
Amitav Acharya and Jiajie He
Introduction 329
'Strategy and Ethnocentrism' Revisited 330
Strategic Studies During the Cold War 332
The Changing Nature of Conflict 333
Non-Military Threats 335
Strategic Studies and the Global Power Shift 337
Strategic Culture and Grand Strategy Debates in China and India 340
Conclusion: Strategic Studies and Global International Relations 344

20 Strategic Studies and its Critics 348
Columba Peoples
Introduction 348
Strategy and its Critics in the 'Golden Age' 349
Strategic Studies Strikes Back 352

Critical Approaches to Strategic Studies 355
A Continuing Debate? 362
Conclusion 364

21 A New Agenda for Security and Strategy? 366
James J. Wirtz
Introduction 366
The Need for a Conceptual Framework 368
Population: The Demographics of Global Politics 370
Commons Issues 373
Direct Environmental Damage 375
Disease 378
Sensitivities and Vulnerabilities 381
Conclusion 382

22 The Practice of Strategy 385
Colin S. Gray and Jeannie L. Johnson
Introduction: Strategic Expertise 385
Improving a Strategic Education 386
The General Theory of Strategy 391
A Call for Consummate (Re)Assessing 400
Conclusion 401

23 Does Strategic Studies Have a Future? 404
Lawrence Freedman
Introduction: The Development of Strategic Studies 404
In and Out of the Cold War 406
Strategy and the Crisis in Social Science 409
The Academic and Policy Worlds 411
Realism: Old and New 415
The Study of Armed Force 416
Conclusion: Does Strategic Studies Have a Future? 418

Bibliography 421
Index 439

Acknowledgements

We would like to thank Sarah Iles and Emily Spicer of Oxford University Press for their advice and support with the sixth edition of our text. We benefited greatly from their very efficient analysis of a wide range of reviewers' comments on the previous edition of the book. These comments, as with previous editions, have proved invaluable to us in improving the text and adding new chapters. We also owe a great debt to Danielle Cohen of Lake Forest College. Her great efficiency, eye for detail, and hard work during the production of the book have been of considerable assistance to the editors.

John Baylis, James J. Wirtz, and Colin S. Gray

List of Contributors

Amitav Acharya is the UNESCO Chair in Transnational Challenges and Governance and Distinguished Professor of International Relations at American University. He is the author of *Whose Ideas Matter?* (Cornell, 2009); *The Making of Southeast Asia* (Cornell, 2013); *Rethinking Power, Institutions and Ideas in World Politics* (Routledge, 2013), and *The End of American World Order* (Polity, 2014; Oxford, 2015).

John Baylis is Emeritus Professor of Politics and International Relations and a former Pro-Vice Chancellor at Swansea University. Prior to that he was Professor of International Politics and Dean of Social Sciences at Aberystwyth University. He has published more than 20 books and over a hundred chapters and articles. His books include *Anglo-American Defence Relations 1939–1984* (Macmillan, 1984); *Anglo-American Relations since 1939: The Enduring Alliance* (Manchester University Press, 1997); *Alternative Nuclear Futures: The Role of Nuclear Weapons in the Post-Cold War World*, with Robert O'Neill (Oxford University Press, 2000); *The Makers of Nuclear Strategy*, with John Garnett (Pinter, 1991); *The Globalization of World Politics*, with Steve Smith and Patricia Owens (7th edn, Oxford University Press, 2016); *An Introduction to Global Politics*, with Steven Lamy, Steve Smith, and Patricia Owens (4th edn, Oxford University Press, 2016); and *The British Nuclear Experience: The Role of Beliefs, Culture and Identity*, with Kristan Stoddart (Oxford University Press, 2015). He has a BA, MSc (Econ), PhD, and DLitt from Swansea and Aberystwyth Universities.

Eliot A. Cohen is Robert E. Osgood Professor of Strategic Studies at Johns Hopkins University's School of Advanced International Studies. His books include *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime* (Simon & Schuster, 2002); *Conquered into Liberty: Two Centuries of Battles Along the Great Warpath that Made the American Way of War* (Free Press, 2011); and, most recently, *The Big Stick: The Limits of Soft Power and the Necessity of Military Force* (Basic Books, 2017). From 2007 to 2009 he served as Counselor of the Department of State.

John Ferris is a Fellow of the Royal Society of Canada, and a Professor of History at the University of Calgary. He is an Honorary Professor at The Department of International Politics, The University of Aberyswyth, and The Department of Law and Politics at Brunel University, and an Associate Member of Nuffield College, Oxford. He publishes widely in military, international, strategic, and intelligence history, and strategic studies. He is the authorized historian of The Government Communications Headquarters, and his history of GCHQ will be published in 2019, the centenary of that institution.

Sir Lawrence Freedman is Emeritus Professor of War Studies at King's College London, where he has taught since 1982, and served as Vice-Principal. Elected a Fellow of the British Academy in 1995 and awarded the CBE in 1996, he was appointed Official Historian of the Falklands Campaign in 1997. He was awarded the KCMG in 2003. In June 2009 he was appointed to serve as a member of the official inquiry into Britain and the 2003 Iraq War. Professor Freedman has written extensively on nuclear strategy and the cold war, as well as commentating regularly on contemporary security issues. His most recent books are *Strategy: A History* (2013) and *The Future of War: A History* (2017).

The late John Garnett was Woodrow Wilson Professor of International Politics at the University of Wales, Aberystwyth, and, until his retirement, Chairman of the Centre for Defence Studies at King's College London. He was educated at the London School of Economics where he received a first-class honours degree and master's in international relations. He was the author of numerous books on international relations and strategic studies, including *Contemporary Strategy*

(Croom Helm, 1975) with John Baylis, Ken Booth, and Phil Williams; and *Makers of Nuclear Strategy* (Pinter, 1991) with John Baylis.

Roger Z. George has been Professor of National Security Practice at Occidental College and formerly taught strategy at the National War College. He was a career CIA intelligence analyst who served at the State and Defense departments and has been the National Intelligence Officer for Europe. He is co-editor (with James B. Bruce) of *Analyzing Intelligence: Origins, Obstacles, and Innovations* (2nd edn, 2014) and co-editor (with Harvey Rishikof) of *The National Security Enterprise: Navigating The Labyrinth* (2017).

Colin S. Gray is Emeritus Professor of Strategic Studies at the University of Reading. He has advised the American and British governments for many years. Among his books are a trilogy on strategy with Oxford University Press: *The Strategy Bridge: Theory for Practice* (2010); *Perspectives on Strategy* (2013); and *Strategy and Defence Planning: Meeting the Challenge of Uncertainty* (2014). His latest book, also with Oxford University Press, is *Theory of Strategy* (2018).

Sheena Chestnut Greitens is an Assistant Professor in the Department of Political Science at the University of Missouri. Her research focuses on international and domestic security issues, particularly in East Asia and under non-democratic regimes. Her first book, *Dictators and Their Secret Police*, was published by Cambridge University Press in 2016, and won the International Studies Association's best book award.

Jiajie He is a lecturer in the Department of International Politics at Fudan University, China. Her research interests include norm diffusion and localization theory, nation building in China and India, and ASEAN normative influence.

Beatrice Heuser has a Professorship of International Relations at the University of Glasgow. She holds degrees from the Universities of London (BA, MA) and Oxford (DPhil), and a Habilitation from the University of Marburg. She has taught at the Department of War Studies, King's College London, at five French universities/higher education institutions, and at two German universities, and has briefly worked at NATO headquarters. Her publications include *The Evolution of Strategy* (2010); *Reading Clausewitz* (2002); *Strategy before Clausewitz* (2018), and many works on nuclear strategy, NATO, and transatlantic relations.

Darryl Howlett obtained his master's degree from Lancaster University and his PhD from Southampton University. His publications include 'The Emergence of Stability: Deterrence-in-Motion and Deterrence Reconstructed', in Ian R. Kenyon and John Simpson (eds), *Deterrence and the Changing Security Environment* (Routledge, 2006).

Jeannie L. Johnson is an Assistant Professor in Political Science at Utah State University. She is the author of *The Marines, Counterinsurgency, and Strategic Culture: Lessons Learned and Lost in America's Wars* (Georgetown University Press, 2018) and the co-editor of *Crossing Nuclear Thresholds: Leveraging Socio-Cultural Insights into Nuclear Decisionmaking* (Palgrave Macmillan, 2018). Dr Johnson previously worked for the CIA's Directorate of Intelligence and the US State Department. She received her doctorate from the University of Reading in 2013.

James D. Kiras is Professor at the School of Advanced Air and Space Studies, Air University, Maxwell Air Force Base, Alabama, where he directs the courses on irregular warfare, military theory, and graduate-level research methods. He received his PhD from the University of Reading (UK), is a Senior Fellow of the Joint Special Operations University, United States Special Operations Command, Tampa, Florida, and consults and lectures frequently on the subjects of special operations and terrorism. Dr Kiras co-authored *Understanding Modern Warfare* (Cambridge University Press, rev. edn, 2016) and his first book was *Special Operations and Strategy: From World War II to the War on Terrorism* (Routledge, 2006).

Jeffrey S. Lantis is Chair of Global and International Studies and Professor of Political Science at the College of Wooster. He earned a PhD in political science from Ohio State University. A former Fulbright Senior Scholar in Australia, he is an expert on strategic culture, international security, and nuclear non-proliferation. Among his many books and academic journal articles, Lantis is author of *Arms and Influence: US Technology Innovations and the Evolution of International Security Norms* (Stanford University Press, 2016) and editor of *Strategic Cultures and Security Policies in the Asia-Pacific* (Routledge, 2015).

Thomas G. Mahnken is President and Chief Executive Officer of the Center for Strategic and Budgetary Assessments and Senior Research Professor at the Philip Merrill Center for Strategic Studies at The Johns Hopkins University's Paul H. Nitze School of Advanced International Studies (SAIS). His books include *Strategy in Asia* (Stanford University Press, 2014), *Competitive Strategies for the 21st Century* (Stanford University Press, 2012); *Technology and the American Way of War Since 1945* (Columbia University Press, 2008); and *Uncovering Ways of War: US Intelligence and Foreign Military Innovation, 1918–1941* (Cornell University Press, 2002). He is editor of *The Journal of Strategic Studies*.

Daniel Moran is Professor of International and Military History in the Department of National Security Affairs at the Naval Postgraduate School in Monterey, California. He was educated at Yale and Stanford Universities, and has been a member of the Institute for Advanced Study at Princeton, and professor of strategy at the Naval War College in Newport, Rhode Island. Professor Moran teaches and writes about strategic theory, American foreign relations, and the history of war and international relations since the nineteenth century.

Justin Morris is Senior Lecturer in the School of Law and Politics at the University of Hull, UK. He was Head of (the then) Department of Politics and International Studies from 2007 to 2013. His primary research interests include: the great powers and the notion of great power responsibility, the United Nations Security Council, and the Responsibility to Protect (specifically in relation to forcible intervention), topics on which he has authored a number of articles. He is co-author (with the late Professor Hilaire McCoubrey) of *Regional Peacekeeping in the Post-Cold War Era* and co-editor (with Dr Richard Burchill and Professor Nigel White) of *International Conflict and Security Law: Essays in Memory of Hilaire McCoubrey*.

Stefanie Ortmann is a Lecturer in International Relations at the University of Sussex. Her research interests include Russia as a great power in the post-cold war world and the return of a narrative of 'rising powers' in world politics as well as critical geopolitics. She has written about the geopolitical concept of spheres of influence, Russia as a great power and its influence in Central Asia, and conspiracy theories.

Columba Peoples is Senior Lecturer in International Relations in the School of Sociology, Politics and International Studies at the University of Bristol, UK. He received his PhD from the University of Wales, Aberystwyth in 2007, and is the author of *Justifying Ballistic Missile Defence: Technology, Security and Culture* (Cambridge University Press, 2010) and co-author (with Nick Vaughan-Williams) of *Critical Security Studies: An Introduction* (Routledge, 2015).

Michael Sheehan is Professor of International Relations at Swansea University. He is a graduate of Aberystwyth University (BSc in International Politics 1976, PhD 1985). He is the author of 11 books on security, the most recent being *International Security: An Analytical Survey* (Lynne Rienner, 2005); *The International Politics of Space* (Routledge, 2007); and *Securing Outer Space* (Routledge, 2009, co-edited with Natalie Bormann). He is currently researching Arctic security issues.

John B. Sheldon is Chairman of ThorGroup GmbH, a space and cyberspace consulting company. He was previously a Senior Fellow in Global Security Studies at the Munk School of Global

Affairs at the University of Toronto in Canada. A former British diplomat, John holds bachelor and master's degrees from the University of Hull, UK, and a PhD in politics and international relations from the University of Reading, UK.

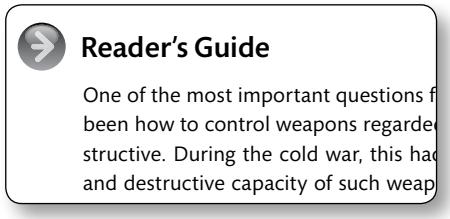
C. Dale Walton is Program Chair and Associate Professor of International Relations at Lindenwood University in St Charles, Missouri, as well as a Senior Research Fellow with the John W. Hammond Institute for Free Enterprise. Prior to coming to Lindenwood, he taught at the University of Reading (UK) and Missouri State University. Dr Walton has published three monographs: *Grand Strategy and the Presidency: Foreign Policy, War, and the American Role in the World* (2012); *Geopolitics and the Great Powers in the Twenty-First Century: Multipolarity and the Revolution in Strategic Perspective* (2007); and *The Myth of Inevitable US Defeat in Vietnam* (2002). He also is one of the co-authors of *Understanding Modern Strategy* (2nd edn, Cambridge University Press, 2016).

Nick Whittaker teaches international relations and sociology at the International Study Centre, University of Sussex. His research interests include critical geopolitics and British identity and foreign policy. He has recently been published in *Geopolitics* with the article 'The Island Race: Ontological Security and Critical Geopolitics in British Parliamentary Discourse'.

James J. Wirtz is the Dean of the School of International Graduate Studies, Naval Postgraduate School, Monterey, California. He is the author of *Understanding Intelligence Failure* (Routledge, 2017).

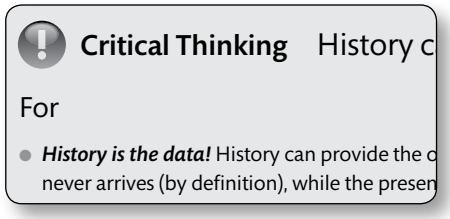
Guided Tour of Textbook Features

This book is enriched with a range of learning tools to help you navigate the text and reinforce your knowledge of Strategic Studies. This guided tour shows you how to get the most out of your textbook package and engage effectively with these learning features.



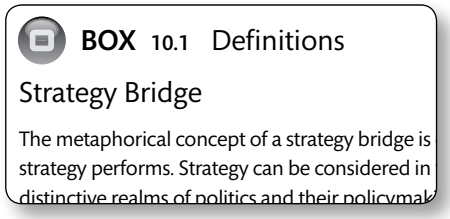
Reader's Guides

Reader's Guides at the beginning of every chapter provide a clear overview of the scope of coverage within each topic and introduce the contextual background of each chapter.



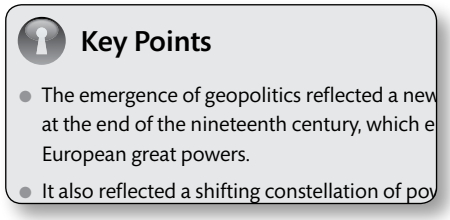
Critical Thinking

By debating a key topic from each chapter, these boxes encourage you to critically evaluate core questions, presenting opposing arguments so that a reasoned and well-informed conclusion can be formed. Questions encourage you to critically reflect on alternative perspectives and help you to build the important skills of analysis and argumentation.



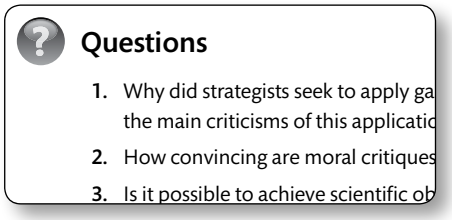
Boxes

Throughout the book, boxes on *Key Perspectives*, *Key Concepts* and *Definitions* provide you with extra information and contextual background on key topics that complement your understanding of the main chapter text.



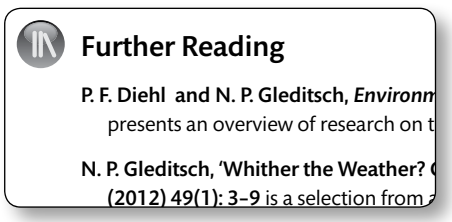
Key Points

Each chapter ends with a set of key points that summarize the most important arguments to provide an at a glance overview of the issues raised within each chapter.



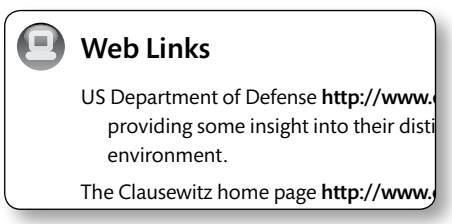
End of Chapter Questions

A set of carefully devised questions has been provided to help you assess your comprehension of core concepts and prompt critical evaluation of key arguments.



Further Reading

To take your learning further, reading lists have been provided to help you familiarise yourself with the key academic literature.



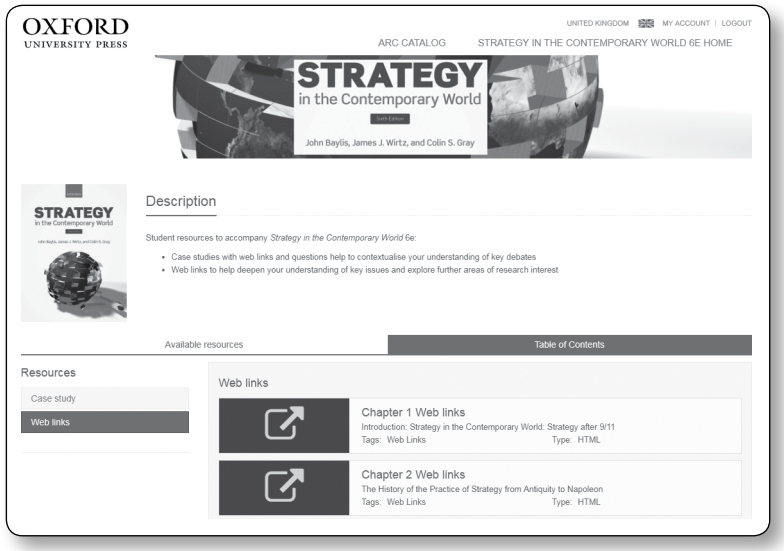
Web Links

At the end of every chapter you will find an annotated summary of useful websites that are central to Strategic Studies to help you explore areas of further research interest.

Guided Tour of the Online Resources

The online resources that accompany this book provide students and instructors with ready-to-use teaching and learning materials. These resources are free of charge and provide opportunities to contextualise and consolidate understanding and further develop skills of critical analysis.

www.oup.com/uk/baylis_strategy6e/



For students:

Case Studies

Six additional case studies with web links and questions help to contextualise your understanding of key debates, focusing on the following conflicts:

1. Afghanistan
2. The South Ossetian war
3. The US–Coalition invasion and occupation of Iraq
4. The conflict in the Congo
5. The Russian war in Chechnya
6. The Iran–Iraq War
7. Additional Case Studies: The Israeli–Palestinian Conflict

Web Links

Web links have been provided to help deepen your understanding of key issues and explore further areas of research interest.

For adopting lecturers:

PowerPoint Slides

These complement each chapter of the book and provide a useful resource in preparing lectures and handouts; they can be fully customized to meet the needs of the course.

Test Bank

This ready-made electronic testing resource can be customized to meet your teaching needs, offering a range of questions to use in lectures and seminars to assess and reinforce students' understanding.

Introduction: Strategy in the Contemporary World

JOHN BAYLIS AND JAMES J. WIRTZ

Chapter Contents

Introduction 1
What is Strategic Studies? 4
Strategic Studies and the Classical Realist Tradition 6
What Criticisms are Made of Strategic Studies? 8
What is the Relationship between Strategic Studies and Security Studies? 12

Introduction

Books often reflect a specific historical context, shaped by the hopes, fears, and problems that preoccupy authors and policymakers alike. This is especially true of books on strategy, security studies, and public policy because contemporary issues are of paramount importance to authors in these fields. Our efforts also reflect contemporary threats and opportunities. When we gathered in September 2000 to present chapters for the first edition of this volume, we wanted to create a textbook that demonstrated the continued relevance of strategy and strategic studies to interpreting contemporary issues, using insights gained from the classic works on strategy. At that time, some observers suggested that strategy was an obsolete vestige of a dark past, something that would be forgotten in a brighter future. Little did we know that, one year later, the 'New World Order' would be shattered by the al-Qaeda attacks on the Pentagon and the World Trade Center. The wars in Afghanistan and Iraq, the terrorist bombings in Madrid in 2004 and London in 2005, and the proliferation of nuclear weapons to North Korea erased any lingering doubts about the relevance of strategy when it came time to produce the second and third editions of this volume. By the time we gathered again in September 2011 to discuss the fourth edition of our project, the 'al-Qaeda' decade appeared to have come to an end. But as we scanned the strategic horizon, we began to consider the possibility of a renewal of balance of power politics along the Pacific Rim, a showdown between the West and Iran over its nuclear weapons programme, and the potential threat posed by cyberwar. The list of challenges and issues confronting us continued to grow as we worked to assemble our sixth edition. ISIS has emerged out of the remnants of al-Qaeda, new weapons (unmanned vehicles) and forms of warfare ('gray zone' conflict) are commonplace, and a return of great power rivalry not only in Asia, but also in Europe, which was raised as a possibility in the fifth edition, is now a grim reality.

It is clear that interest in strategic studies is cyclical and reflects the times. Strategic studies emerged during the early years of the cold war when political leaders, government officials, and academics interested in security issues wrestled with the problems of how to survive and prosper in the nuclear age, when Armageddon might be just minutes away. Given the experiences of the 1930s, when appeasement and 'utopian' ideas of collective security had largely failed to ensure peace, the prevailing mindset during the cold war was one of 'realism'. It was believed that in a world characterized by anarchy and unending competition, states inevitably exercised power to secure their national interests. For nuclear age realists, however, power had to be exercised in a way that promoted the interests of the state, while at the same time avoiding conflict which would lead to the destruction not only of the states involved but of civilization as a whole. This predicament gave rise to theories of deterrence, limited war, and arms control that dominated the literature of strategic studies (and indeed international relations) during the period from the 1950s to the 1980s. Writings by Herman Kahn, Bernard Brodie, Henry Kissinger, Albert Wohlstetter, and Thomas Schelling became classics in the field.

Did the key assumptions inherent in the strategic studies literature lead to the adoption of particular security policies, or did policy itself drive the writing on the subject? The answer to these questions remains a matter of debate. Some believed that the literature reflected existing realities; others believed that the writings themselves helped to generate a particular way of looking at the world and legitimized the use of military power. An iterative process was probably at work, however, as theory and practice modified and reinforced each other.

The great strength of the literature on strategic studies was that it reflected the harsh realities of a world in which military power was (regardless of utopian ideals) an instrument of state policy. One of its weaknesses, however, was the inherent conservatism in realist thinking that implied that the contemporary world was the best of all possible worlds. For good theoretical and practical reasons, realists hoped that the cold war, with its magisterial confrontation between the United States and the Soviet Union, would continue into the indefinite future. Significant change, because it raised the spectre of nuclear Armageddon, was a prospect that was nearly too horrific to contemplate and too risky to act upon.

With the relatively peaceful collapse of the Soviet Union, realism came under suspicion and the ideas and policies of disarmament advocates and utopian thinkers began to hold greater sway in policy circles. The 1990s was the decade of the 'peace dividend' and 'dot.com' mania as the information revolution entered consumer and business culture. The preoccupation of strategists with the state, and its use of military power, was viewed by a new generation of 'utopian' scholars as part of the problem of international security itself. Strategists were often seen as 'dinosaurs'. Preoccupied with 'old thinking', they appeared unwilling to come to terms with the fact that force was apparently fading as a factor in world politics. The traditional emphasis on the military aspects of security was challenged by scholars who believed that the concept should be broadened and deepened. According to this view, there were political, economic, societal, and environmental aspects of security that had been ignored. Some scholars asserted that 'security' as a concept had been used by elites to push issues to the top of the political agenda or to secure additional resources for particular policies and government organizations and military programmes. In the view of some critics, official policy was pushed along by armies of military contractors and manufacturers, government workers, and members of the military who had a vested interest in keeping war alive to preserve their careers and livelihoods.

By the mid-1990s, these criticisms of traditional realist thinking were transformed into mainstream scholarship. Security studies emerged as an area of intellectual enquiry that increasingly eclipsed strategic studies. Researchers came to focus on the nature of security itself and how greater security might be achieved at the individual, societal, and even global levels, compared with the cold war preoccupation with state security, defined only in military terms. Although security studies reflected a wider range of theoretical positions than had characterized strategic studies in the past, there was a strong normative (realists would say utopian) dimension to much of the writing, especially from those of a post-positivist persuasion. The end of the cold war fundamentally challenged the conservative tendency in realism (and the strategic studies literature). Peaceful change was now a reality, and military power was no longer seen by many as the predominant prerequisite for security. The balance of terror between East and West had not simply been mitigated (in line with the theories proposed in the strategic studies literature) but had now been transcended, opening up the prospects for a new, more peaceful world.

Although the post-cold war euphoria and the literature that followed in its wake were very much a product of their time, there were warning signs in the years leading up to the millennium that the emergence of peace, or as Francis Fukuyama put it 'an end of history' (meaning an end of major conflicts), might have been premature. The first Gulf War, the conflicts associated with the disintegration of Yugoslavia, and civil wars in Africa demonstrated all too clearly that military force remained a ubiquitous feature of the contemporary world. It was at this point, just as the al-Qaeda attacks took place in September 2001, that the first edition of this book was published. The book reflected a growing feeling that perhaps too much emphasis in security studies literature had been given to non-military security. The volume suggested that, useful as this new literature was, there was still room for scholarship that focused on the reality that military power remained a significant feature of world politics. Ironically, by the time the initial edition hit the bookshelves, few felt inclined to argue with that position.

Although the first edition had much to say about those present circumstances, the ensuing editions contain a more mature set of reflections on the role of military power in the contemporary world and the changes that have occurred over the last two decades. While our sixth edition includes analyses of the conflicts in Afghanistan, Iraq, Libya, Georgia, Lebanon, and Gaza, our contributors have also broadened the coverage of key facets of strategy. We also explore the debates about whether there has been a revolution in military affairs and the future of warfare, given the phenomenal pace of information age innovation that has produced drone and cyberwarfare and nascent applications of artificial intelligence on the battlefield. Attention is also given to the strategic implications of the changing structure of global politics and the role of American military power in a world in transition. At a broader conceptual level, this edition also explores the continuing relevance of various theories of peace and security in a world that is vastly different from the cold war era when these concepts were central to most thinking about strategic studies. Looking back from the perspective of this sixth edition, it is illustrative to note that issues that barely received mention at the turn of the last century—cyberwarfare, transnational terrorism, and 'hybrid warfare'—now seem to be enduring issues for consideration by strategists. Great power competition, which then seemed to be a vestige of the past, now appears to be again a phenomenon of our times.

To set the scene for the chapters that follow, this introduction answers three questions: (1) What is strategic studies? (2) What criticisms are made of strategic studies? and (3) What is the relationship of strategic studies to security studies?

What is Strategic Studies?

The definitions of 'strategy' contained in Box 1.1 display some common features but also significant differences. The definitions by Carl von Clausewitz, Field Marshal Count H. Von Moltke, B. H. Liddell Hart, and André Beaufre all focus on a fairly narrow definition, which relates military force to the objectives of war. This reflects the origins of the word strategy, which is derived from the ancient Greek term for 'generalship'. The definitions from Gregory Foster and Robert Osgood, however, draw attention to the broader focus on 'power', while Williamson Murray and Mark Grimslay highlight the dynamic quality of 'process' inherent in the formulation of strategy. Recently, writers have emphasized that strategy (particularly in

BOX 1.1 Definitions

Definitions of Strategy

Strategy [is] the use of engagements for the object of war.

Carl von Clausewitz

Strategy is the practical adaptation of the means placed at a general's disposal to the attainment of the object in War.

Von Moltke

Strategy is the art of distributing and applying military means to fulfill the ends of policy.

Liddell Hart

Strategy is . . . the art of the dialectic of force or, more precisely, the art of the dialectic of two opposing wills using force to resolve their dispute.

André Beaufre

Strategy is ultimately about effectively exercising power.

Gregory D. Foster

Strategy is a plan of action designed in order to achieve some end; a purpose together with a system of measures for its accomplishment.

J. C. Wylie

Strategy is a process, a constant adaptation to the shifting conditions and circumstances in a world where chance, uncertainty, and ambiguity dominate.

W. Murray and M. Grimslay

Strategy must now be understood as nothing less than the overall plan for utilizing the capacity for armed coercion—in conjunction with economic, diplomatic, and psychological instruments of power—to support foreign policy most effectively by overt, covert, and tacit means.

Robert Osgood

The realm of strategy is one of bargaining and persuasion as well as threats and pressure, psychological as well as physical effects, and words as well as deeds. This is why strategy is the central political art. It is about getting more out of a situation than the starting balance of power would suggest. It is the art of creating power.

Lawrence Freedman

the nuclear age) has a peacetime as well as a wartime application. Strategy embodies more than just the study of wars and military campaigns. Strategy is the application of military power to achieve political objectives, or more specifically 'the theory and practice of the use, and threat of use, of organized force for political purposes' (Gray 1999a). Broader still is the concept of Grand Strategy, which involves the coordination and direction of 'all the resources of a nation, a band of nations, towards the attainment of the political objectives' sought (Liddell Hart [1941] 1967).

Because strategy provides the bridge between military means and political goals, students of strategy require knowledge of both politics and military operations. Strategy deals with the difficult problems of national policy, the areas where political, economic, psychological, and military factors overlap. There is no such thing as purely military advice when it comes to issues of strategy. This point has also been made in a different way by Henry Kissinger, who stated that:

> the separation of strategy and policy can only be achieved to the detriment of both. It causes military power to become identified with the most absolute application of power and it tempts diplomacy into an over-concern with finesse.
>
> Kissinger (1957)

Strategy is best studied from an interdisciplinary perspective. To understand the dimensions of strategy, it is necessary to know something about politics, economics, psychology, sociology, and geography, as well as technology, force structure, and tactics.

Strategy is also essentially a pragmatic and practical activity. This is summed up in Bernard Brodie's comment that '[s]trategic theory is a theory of action'. It is a 'how to do it' study, a guide to accomplishing objectives and attaining them efficiently. As in many other branches of politics, the question that matters in strategy is: will the idea work? As such, in some ways strategic studies is 'policy relevant'. It can be an intellectual aid to official performance. At the same time, however, it can also be pursued as 'an idle academic pursuit for its own sake' (Brodie 1973).

Strategic studies cannot, however, be regarded as a discipline in its own right. It is a subject with a sharp focus—the role of military power—but no clear parameters, and it relies on arts, sciences, and social science subjects for ideas and concepts. Scholars who have contributed to the literature on the subject have come from very different fields. Herman Kahn was a physicist, Thomas Schelling was an economist, Albert Wohlstetter was a mathematician, Henry Kissinger was a historian, and Bernard Brodie was a political scientist.

Given the different academic backgrounds of strategic thinkers, it is not surprising that strategic studies has witnessed an ongoing debate about methodology (i.e. how to study the subject). Bernard Brodie, who more than anyone else helped to establish strategic studies as a subject in the aftermath of the Second World War, initially argued that strategy should be studied 'scientifically'. He was concerned that strategy was 'not receiving the scientific treatment it deserves either in the armed services or, certainly, outside them'. In his 1949 article entitled 'Strategy as Science', Brodie called for a methodological approach to the study of strategy similar to the one adopted by economics. Strategy, he argued, should be seen as 'an instrumental science for solving practical problems'. What he wanted was a more rigorous, systematic form of analysis of strategic issues compared with the rather narrow approach to security problems adopted by the military, who were preoccupied with tactics and technology.

As Brodie himself was later to recognize, however, the enthusiasm for science, which he had helped to promote, meant that strategic studies in the 1950s 'developed a scientistic strain and overreached itself'. By the 1960s, Brodie was calling for a 'mid-course correction'. The conceptualization of strategy using economic models and theories had been taken further than he had expected. Brodie was concerned about the 'astonishing lack of political sense' and the 'ignorance of diplomatic and military history' that seemed to be evident among those writing about strategy. Brodie's worries were heeded. From the 1970s onwards, more comparative historical analysis was introduced into strategic studies (see Chapter 10).

The academic approach to the study of strategy also raised concerns about the neglect of operational military issues. For Brodie (echoing Clemenceau) strategy was too serious a business to be left to the generals. As strategic studies developed in the late 1940s, civilian analysts came to dominate the field. By the 1980s, however, there was a growing feeling that many of the civilian strategists in university departments and academic think tanks were ignoring the capabilities and limitations of military units and operations in their analyses and theorizing. For a new breed of strategists, the reality of operational issues had to be brought back into their studies. Military science had become the 'missing discipline'. Writing in 1997, Richard K. Betts suggested that 'if strategy is to integrate policy and operations, it must be devised not just by politically sensitive soldiers but by military sensitive civilians'. Just as Brodie had been concerned about the overly narrow approach of the military in 1949, so Betts was concerned that the pendulum had swung too far in the opposite direction. As Stephen Biddle has demonstrated in his volume entitled *Military Power*, in the end it was left to civilian strategists to make headway in understanding the changes unfolding on the modern battlefield (Biddle 2004).

This concern with operational issues helped to revive an interest among strategists about the different 'elements' or 'dimensions' of strategy. In his study *On War*, Clausewitz argued that 'everything in strategy is very simple, but that does not mean that everything is very easy'. Reflecting this sentiment, Clausewitz pointed out that strategy consisted of moral, physical, mathematical, geographical, and statistical elements. Michael Howard, in a similar vein, refers to the social, logistical, operational, and technological dimensions of strategy. This notion of strategy consisting of a broad, complex, pervasive, and interpenetrating set of dimensions is also explored in Colin Gray's study, entitled *Modern Strategy*. Gray identifies three main categories ('People and politics'; 'Preparation for war'; and 'War proper') and 17 dimensions of strategy. Under the 'People and politics' heading he focuses on people, society, culture, politics, and ethics. 'Preparation for war' includes economics and logistics, organization, military administration, information and intelligence, strategic theory and doctrine, and technology. The dimensions of 'War proper' consist of military operations, command, geography, friction, the adversary, and time. Echoing Clausewitz, Gray argues that the study of strategy is incomplete if it is considered in the absence of any one of these (interrelated) dimensions.

Strategic Studies and the Classical Realist Tradition

What are the traditional philosophical underpinnings or assumptions of the scholars, soldiers, and policymakers who have written about strategy? Most contemporary strategists in the Western world belong to the same intellectual tradition. They share a set of assumptions about the nature of international political life, and the kind of reasoning that can best handle political–military problems. This set of assumptions is often referred to by the term 'realism'.

Although there are differences among 'realists', there are certain views and assumptions that most would agree on. These can be best illustrated under the headings of human nature; anarchy and power; and international law, morality, and institutions.

Human Nature

Most traditional realists are pessimistic about human nature. Reflecting the views of philosophers like Thomas Hobbes, people are seen as 'inherently destructive, selfish, competitive, and aggressive'. Hobbes accepted that human beings are capable of generosity, kindness, and cooperation, but the pride and egoism inherent in human nature mean that mankind is also prone to conflict, violence, and great evil. For realist writers, one of the great tragedies of the human condition is that these destructive traits can never be eradicated. Reflecting this view, Herbert Butterfield argued that 'behind the great conflicts of mankind is a terrible human predicament which lies at the heart of the story' (in Butterfield and Wight 1966). Thus, realism is not a normative theory in the sense that it purports to offer a way to eliminate violence from the world. Instead, it offers a way to cope with the ever-present threat of conflict by the use of strategy to minimize the likelihood and severity of international violence. Realists tend to stress what they see as the harsh realities of world politics and are somewhat contemptuous of Kantian approaches that highlight the possibility of 'permanent peace'. As Gordon Harland has argued:

> Realism is a clear recognition of the limits of reason in politics: the acceptance of the fact that political realities are power realities and that power must be countered with power; that self-interest is the primary datum in the action of all groups and nations.
>
> Herzog (1963)

In an anarchical system, power is the only currency of value when security is threatened.

Anarchy and Power

Given this rather dark view of the human condition, realists tend to view international relations in similarly pessimistic terms. Conflict and war are seen as endemic in world politics and the future as likely to be much like the past. States (on which realists focus their attention) are engaged in a relentless competitive struggle. In contrast to the way in which conflicts are dealt with in domestic society, however, the clash between states is more difficult to resolve because there is no authoritative government to create justice and the rule of law. In the absence of world government, realists note that states have adopted a 'self-help' approach to their interests and especially their security. In other words, they reserve the right to use lethal force to achieve their objectives, a right that individuals living in civil society have given up to the state. Who wins in international relations does not depend on who is right according to some moral or legal ruling. As Thucydides demonstrated in his account of the Peloponnesian wars, power determines who gets their way. In international relations, *might* makes *right*.

International Law, Morality, and Institutions

Realists see a limited role for 'reason', law, morality, and institutions in world politics. In a domestic context, law can be an effective way for societies to deal with competing selfish

interests. In an international system without a supranational government, states will agree to laws when it suits them, but will disregard them when their interests are threatened. When states want to break the rules, there is very little to stop them from doing it apart from countervailing force.

Similarly, realists do not believe that moral considerations can significantly constrain the behaviour of states. Some realists believe that very little attention should be given to moralizing about the state of world politics. They point to the absence of a universal moral code and to the disregard of constraining moral principles by policymakers, especially when they believe their vital interests are threatened. This is not to argue that realists are wholly insensitive to moral questions. Great realist thinkers, including Rheinhold Niebuhr and Hans Morgenthau, agonized about the human condition. Most realist writers, however, attempt to explain the way the world is, rather than how it ought to be. Realists view international institutions (e.g. the United Nations or the Nuclear Non-proliferation Treaty) in much the same light as they view law and morality. Just as law and morality are unable to constrain state behaviour significantly when important state interests are threatened, international institutions can also only play a limited role in preventing conflict. Realists do not dismiss the opportunities created by institutions for greater cooperation. They see these institutions, however, not as truly independent actors but as agents set up by states to serve their national interests. As long as institutions do this, the member states will support them, but when support for the institution threatens national interests, nations tend to abandon or ignore them. Realists point to the inability of the League of Nations to stop aggression in the interwar period, or the way the United Nations became a hostage to the cold war, as evidence of the limited utility of these organizations. When it really mattered, international institutions could not act against the interests of their member states.

What Criticisms are Made of Strategic Studies?

Although the shared philosophical underpinnings of strategists have helped to give the subject intellectual coherence, many realist assumptions have been subjected to fierce criticism. This critique has been discussed in detail elsewhere (Gray 1982b and Chapter 20), but our purpose here is to give a flavour of the concern expressed by critics of strategic studies. Strategists are said to be:

- obsessed with conflict and force;
- insufficiently concerned with ethical issues;
- not scholarly in their approach;
- part of the problem, not the solution;
- state-centric;
- liable to adopt a narrow theoretical approach.

Many critics argue that because strategists focus on the role of military power, they tend to be preoccupied by violence and war. Because their view of the world is conflict-oriented, they tend to ignore the more cooperative, peaceful aspects of world politics. This leads critics to

claim that strategists have a distorted, rather than realistic, view of the world. Some critics have gone so far as to suggest that strategists are fascinated by violence, and even take grim satisfaction in describing the darker side of the human condition.

For their part, strategists accept that they are interested in violence and conflict. In their own defence, however, they point out that just as a doctor of heart disease does not claim to deal with all aspects of health, so they do not claim to be studying every aspect of international relations. They reject the view that they have a distorted view of the world, and that they are fascinated in an unhealthy sense by violence.

The claim to moral neutrality, sometimes made by strategists, is another shortcoming identified by critics. Strategists are depicted as clinical, cool, and unemotional in the way they approach the study of war, despite the fact that, in the nuclear age, millions of lives are at risk in the calculations that take place about strategic policies. Emphasizing the moral outrage felt by some, J. R. Newman described Herman Kahn's book, *On Thermonuclear War*, as 'a moral tract on mass murder, how to commit it, how to get away with it, how to justify it'. Philip Green, in his study entitled *Deadly Logic* (1966), also accused strategists who wrote about nuclear deterrence as being 'egregiously guilty of avoiding the moral issue altogether, or misrepresenting it'.

Although many strategists have justified the moral neutrality of their approach in terms of scholarly detachment, some have been sensitive to this criticism. As a result, a number of studies of ethical issues have been written. These include Joseph Nye's book *Nuclear Ethics*, Michael Walzer's *Just and Unjust Wars*, and Steven P. Lee's study *Morality, Prudence and Nuclear Weapons*. These books (together with the more critical studies by writers like Green) now form an important part of the literature on strategic studies.

Another important criticism levelled against strategic studies is that it represents a fundamental challenge to the values of liberal, humane scholarship that define a university. The implication is that strategy is not a scholarly subject and should not be taught at a university. This criticism has a number of related parts. First, according to Philip Green, strategy is pseudo-scientific, using apparent scientific method to give it a spurious air of legitimacy. Second, because strategists often advise governments on a paid basis, they are operating 'in a manner incompatible with the integrity of scholarship'. E. P. Thornton described the cosy relationship between strategists and government officials as 'suspect, corrupt and at enmity with the universal principles of humane scholarship'. Third, critics charge that strategists not only provide advice to governments, but they are also involved in policy advocacy—which is not part of scholarship. Critics claim that strategists are a vestige of government and spend their time providing advice on how to either achieve or justify dubious international objectives.

With a qualification on the issue of policy advocacy, strategists reject the view that their subject should not be found in a university (see Box 1.2). They would argue that war cannot be made to disappear simply by ignoring it (Leon Trotsky, a leading figure in the Bolshevik revolution, put it best: 'You might not have an interest in war, but war has an interest in you'). They argue that war and peace are issues of profound importance that can, and should, be studied in a scholarly way. There have been attempts at developing a scientific approach to strategy (and as Brodie recognized, some writers might have taken this too far), but the debate about methodology is not confined to strategic studies. The nature of science in a social science context remains a lively, ongoing debate.

BOX 1.2 Key Perspectives

Strategic Studies in the Academy

The study of strategy in universities may be defended on several different, yet complementary, grounds. In strictly academic terms, the subject poses sufficient intellectual challenge as to merit inclusion in, or even as, a course of study fully adequate to stretch mental resources. In, and of itself, that argument is sufficient to justify the inclusion of strategic studies in university curricula, but one can, and should, proceed to argue that the study of strategy is socially useful . . . Many views are defensible concerning the proper and appropriate duties of a university. This author chooses a liberal, permissive perspective. He sees value in a field of study that seeks truth and may have relevance to contemporary policy and, as a consequence, may contribute to the general wellbeing.

C. S. Gray

In strategic studies the ability to argue logically and to follow a piece of strategic reasoning is very important, but even more important is the elusive, almost indefinable quality of political judgement which enables a man to evaluate a piece of analysis and locate it in a wider political framework.

J. C. Garnett

In general, strategists recognize the dangers of developing too cosy a relationship with officials when they advise governments on a paid basis. Like many other experts (e.g. economists), however, they see no necessary inconsistency between scholarship and advice. Because it is a practical subject, there are some benefits from analysing strategic issues at close hand, providing that a detached approach is adopted. Policy advocacy, however, is a different matter. Some strategists do drift into the realm of advocating specific policies, but when they do so they slowly but surely lose their credibility. People who make a career out of arguing for the adoption of specific policies or weapons systems gain a reputation for knowing the 'answer' regardless of the question that is posed.

Another forceful criticism of strategic studies is that it is part of the problem, not the solution. What opponents mean by this is that the Clausewitzian perspective of strategists, which sees military power as a legitimate instrument of policy, helps to perpetuate a particular mindset among national leaders and the public that encourages the use of force. It is this realist thinking, critics argue, which lies behind the development of theories of deterrence, limited war, and crisis management that were especially dangerous during the cold war. Anatol Rapoport is one writer who charges strategists with a direct responsibility for promoting a framework of thinking about security which is largely hostile to what he regards as the proper solution to global conflict, namely disarmament. In a stinging attack he argues that:

> the most formidable obstacles to disarmament are created by the strategists who place their strategic considerations above the needs of humanity as a whole, and who create or help maintain an intellectual climate in which disarmament appears to be unrealistic.
>
> Rapoport (1965)

Instead of spending their time thinking about how better to justify and conduct mass murder, critics suggest that strategists should be devising disarmament strategies, cooperative security arrangements, and global campaigns to denounce violence.

Linked to this criticism is the view that because strategists are so pessimistic about human nature and the chances of significant improvements in the conduct of international politics, they *ignore the opportunities that exist for peaceful change*. It is suggested that to see the past as a history of constant conflict and to suggest that the future will be the same is to help create a fatalistic impression that plans for human progress will always fail. By emphasizing mistrust, self-help, and the importance of military power in an anarchic international system, their advice becomes self-fulfilling. In other words, if policymakers take strategists' advice to heart, deterrent threats and defence preparations would lead to a spiral of hostility and mistrust as leaders respond to the defence policies of their competitors. Given this 'socially constructed' view of the world, it is not surprising that states will constantly find themselves in conflict with each other.

Once again, strategists vigorously contest these criticisms. They argue that their ideas reflect (rather than create) the 'reality' of world politics. The fact that most policymakers and elected officials tend to share their realist assumptions is not due to an intellectual climate 'socially constructed' by academic strategists, but by the challenges and threats presented to them by international relations. The notion that strategic studies as a subject is 'a monstrous crime committed by self-interested strategists against the general public' is seen as absurd. Of course, throughout history, various observers have championed war as a preferred instrument of statecraft. Often they depict war in romantic or heroic terms; today's romantic image of war found in movies and video games is simply a technologically embellished version of this traditional imagery. Enthusiasts see war as a relatively bloodless contest in which technically adept professionals use their superior skills and equipment to paralyse the opponent's military command, leading to quick and humane victories. Strategic studies, however, stands as a major impediment to those who claim to have found a quick and easy path to guaranteed victory. Because they recognize the true nature of war, most strategists consider armed conflict to be a tragedy, an activity unfit for human beings that must be limited to the greatest extent possible.

On the question of peaceful change, strategists do not dismiss the fact that there are opportunities for periods of peaceful coexistence. They are, however, very sceptical about the prospects for 'perpetual peace' based on a radical transformation of world politics. They believe that conflict can be mitigated through effective strategy, but it is highly unlikely that it can be transcended completely. In such a context, it is impossible to abolish the need for strategic studies.

The fact that strategists focus on the task of creating effective national strategies or international initiatives creates the basis for another criticism of the enterprise. Strategic studies incorporates a state-centric approach to world politics. According to this critique, strategists are so preoccupied by threats to the interests of states that they ignore security issues within the state or new phenomena such as transnational terrorist networks. Many observers argue that the state is not the most appropriate referent for studying security. Rather, attention should be focused on the individual, whose security is often threatened, rather than protected by the state. Other writers, who perceive the growing erosion of the state, prefer to focus on 'societal security' or even 'global security' issues.

Strategists would argue that while they have stressed the role of the state, they have not neglected intra-state conflict. Clausewitz himself dealt with people's war, and a considerable part of the strategic studies literature addresses revolutionary and irregular warfare. As wars

of national disintegration (Bosnia, Kosovo, Chechnya) and even creation (the Islamic State in Iraq and Syria) have become more prevalent, more attention has been given in the literature to the problem of ethnic and identity conflict. The emergence of al-Qaeda has led to an explosion of research and writing on the origins, objectives, strategies, and tactics of violent non-state actors, with an eye towards destroying international terrorist networks and other criminal organizations. Despite the prevalence of intra-state violence or the rise of important non-state actors, strategists continue to argue that, even with all the contemporary challenges to the modern state, it continues to be the major actor in world politics. In fact the importance of the state, with its access to a myriad of resources and instruments of control and surveillance, has only been highlighted by the emergence of 'super-empowered individuals' and transnational terrorism. Strategists offer no apologies for their continuing interest in issues of state security.

Another criticism often levelled against strategic studies is that the traditional dominant realist approach is theoretically too narrow, closing off insights that can be gained from other theories of peace and security. In the study of *Strategic Studies and World Order*, written in 1994, Bradley S. Klein argued that it 'was important to take seriously the realist tradition's emphasis upon power in world affairs, and there can be no escaping a sustained engagement with the primary texts that demarcate that tradition'. Nevertheless, he argues that it was important 'to see that tradition not as some fixed map of the yellow brick road to modern realism or its "neo" variants for contemporary articulations of the genre have tended to sever the tradition from its roots in political theory'. In their *Evolution of International Security Studies*, Buzan and Hansen highlight the limitations of realist thinking which gave rise to a range of new theoretical approaches to the study of security in the 1990s, including constructivism, critical security studies, feminism, and poststructuralism (Buzan and Hansen 2009).

These are criticisms that have some merit. Bradley S. Klein's own study and Peter J. Katzenstein's study, *The Culture of National Security*, to name but two, have attempted to broaden the theoretical basis of strategic studies. We have also included three chapters in this book (Chapters 6, 19, and 20), which reflect alternative perspectives on strategic studies. This said, realism remains the dominant approach to the subject, which is one factor that distinguishes the study of strategy from the broader field of security studies (see Chapter 21).

What is the Relationship between Strategic Studies and Security Studies?

One of the main challenges to strategic studies since the end of the cold war has come from those who argue that attention should be shifted away from the study of strategy to the study of security. According to this view, security, defined in terms of 'freedom from threats to core values', is a more appropriate concept for analysis. The problem with strategy, it is argued, is that it is too narrow and increasingly less relevant at a time when major wars are declining and threats to political, economic, social, and environmental security interests are increasing. This is often referred to as 'the widening and deepening' debate (see Buzan and Hansen 2009: 187–211). Because it is defined more broadly, security is depicted as more valuable than strategy as an organizing framework for understanding the complex, multidimensional risks of today.

However, as Richard Betts noted in his 1997 article 'Should Strategic Studies Survive?', those who champion new definitions of security run two risks. First, Betts noted that even though it is appropriate to distinguish between 'strategy' and 'security' studies, security policy requires careful attention to war and strategy. In other words, military power remains a crucial part of security and those who ignore war to concentrate on non-military threats to security do so at their peril. Second, he argued that 'expansive definitions of security quickly become synonymous with "interest" and "wellbeing", do not exclude anything in international relations or foreign policy, and this becomes indistinguishable from those fields or other subfields'. In other words, by including potentially everything that might negatively affect human affairs, security studies runs the risk of being too broad to be of any practical value.

The contributors to this book recognize the importance of security studies and at the same time share these concerns about the coherence of the field. Strategy remains a distinctive and valuable area of academic study. Strategy is part of security studies, just as security studies is part of international relations, which itself is part of political science. This relationship is expressed in Figure 1.1 (see also Chapter 21).

Despite all of the changes that have occurred in world politics since the late 1980s, there is in many respects an underlying continuity with earlier eras. The euphoria produced by the hope that a fundamental transformation of international relations was under way has proved to be ill-founded. As we have seen from the Gulf Wars I and II, the Iraqi insurgency, Bosnia, Kosovo, Chechnya, Libya, Syria, terrorist attacks launched by al-Qaeda and ISIS, and the forceful annexation of the Crimea, force and military power continue to be an important currency in the contemporary international system. Particularly worrying is the emergence of what has been called 'hybrid warfare' or 'gray zone' activity in Eastern Ukraine and the South China Sea. These terms refer to a wide range of short-of-war actions, which are part of a flexible strategy to alter facts on the ground without provoking significant hostilities (Wirtz 2017). Certainly important geopolitical changes are taking place in contemporary world politics, associated with the twin forces of globalization and fragmentation. Wars between the great powers may have slipped into the background, but 'great power' competition between the United States, Russia, and China is no longer merely a remote possibility. The sad fact remains that the utilization of military power as an instrument of political purpose, and therefore strategic studies, remains just as relevant today as it has been in the past.

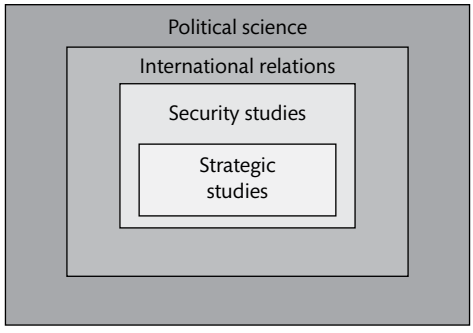


Figure 1.1 The relationship between strategy, security studies, international relations, and political science

Our exploration of strategy in the contemporary world is divided into three sections. In Part I, our contributors describe the enduring issues that animate the study of strategy and provide a historical and theoretical overview of the topic for our readers. Our study opens with an essay on the history of strategic thinking from Antiquity to the First World War, providing context for what follows. Next are chapters focusing on the evolution of warfare since the Napoleonic Age and key strategic thinkers. After this is a chapter on the causes of war, a complex issue that ultimately shapes approaches to mitigate inter-state violence. The issues of culture, morality, and war are also addressed in the first section, reflecting some of the changes in methodology that have taken place in strategic studies. Despite popular imagery of military armaments, cultural, legal, and moral considerations play a role in shaping both the recourse to and the conduct of war. These chapters are important because they illustrate the normative basis for strategy: to help mitigate both the occurrence and the death and destruction produced by war. Three further chapters focus on the so-called 'revolution in military affairs', which continues to shape the evolution of warfare; the critical issue of intelligence in modern conflicts; and the relationship between strategy and defence planning.

In Part II, our contributors explore issues that appear in today's headlines and that animate strategic debates. The section opens with a chapter on terrorism and irregular warfare, threats highlighted by the emergence of Islamic State. The next chapter examines the role of nuclear weapons in the contemporary world which, after a period of marginalization, regrettably once again preoccupy strategic thinkers. Attention is also given to arms control issues and fears about North Korean and Iranian nuclear programmes, together with the possibility that terrorists might acquire and use weapons of mass destruction. All this suggests that it is time for a reappraisal of the threat posed by nuclear, radiological, chemical, and biological weapons. This section also explores emerging issues that are likely to animate debate not only about weapons of mass destruction but also about conventional military power, including the various geographies of land, sea, air, and space warfare. This is followed by a chapter focusing on peacekeeping and humanitarian intervention, which continues to pose unique problems for military forces—especially when treated by policymakers as an afterthought in conventional operations or intended to encourage greater democracy in areas like the Middle East. Part II concludes with an examination of emerging issues related to cyberwarfare, an increasingly dangerous feature of the contemporary world, and geopolitics involving the changing nature of power relationships, especially those among the great powers.

Part III offers a conclusion to our overview of contemporary strategy not by summarizing the findings of each of our contributors, but by considering critical and non-Western approaches to the study of strategy and security that have emerged in recent years, drawbacks that emerge when commons issues are treated as a military problem, and by charting a new way forward for strategic studies.

Further Reading

A. Beaufre, *An Introduction to Strategy* (London: Faber & Faber, 1965) and *Deterrence and Strategy* (London: Faber & Faber, 1965) both provide an alternative and distinctly French approach to strategic studies during the cold war.

B. Brodie, *War and Politics* (London: Cassell, 1973) is a key text by one of the leading American strategic thinkers during the 'golden age' of strategic studies.

L. Freedman, *Strategy: A History* (Oxford: Oxford University Press, 2013) is one of the best histories of strategy.

J. C. Garnett, 'Strategic Studies and its Assumptions' in J. Baylis, K. Booth, J. Garnett, and P. Williams, *Contemporary Strategy: Theories and Policies*, 2nd edn (London: Croom Helm, 1987) is a very good analysis of the philosophy behind classical realism and the early strategic studies texts.

Colin S. Gray, *The Future of Strategy* (Cambridge: Polity, 2015) is an excellent contemporary analysis of the enduring principles of strategy.

B. Heuser, *The Evolution of Strategy* (Cambridge: Cambridge University Press, 2010) is also an excellent history of strategy.

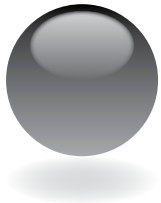
M. Howard, *War in European History* (Oxford: Oxford University Press, 1976) provides an important historical analysis of war in modern European history by a leading British historian and strategic analyst.

H. Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960) was written by one of the most important and controversial American strategic theorists of his day and provides a cold and unemotional view of how a nuclear war might be fought.

P. J. Katzenstein (ed.), *The Culture of National Security: Norms and Identity in World Politics* (New York: Columbia University Press, 1996) challenges realist and neo-realist approaches to strategic studies and argues for an alternative 'social constructivist' approach.

W. Murray, M. Knox, and A. Bernstein (eds), *The Making of Strategy: Rulers, States, and War* (Cambridge: Cambridge University Press, 1994) is a very good analysis of the strategic and operational side of nuclear strategy.

R. Niebuhr, *Moral Man and Immoral Society* (London: Charles Scribner's Sons, 1932) deals with the ethical issues of strategic studies, written from a sophisticated realist thinker's viewpoint.



Part I

Enduring Issues of Strategy

2 **The History of the Practice of Strategy from Antiquity to Napoleon** 19
Beatrice Heuser

3 **The Evolution of Modern Warfare** 36
Michael Sheehan

4 **Strategic Theory** 56
Thomas G. Mahnken

5 **The Causes of War and the Conditions of Peace** 72
John Garnett and John Baylis

6 **Strategic Culture** 89
Jeffrey S. Lantis and Darryl Howlett

7 **Law, Politics, and the Use of Force** 108
Justin Morris

8 **Technology and Warfare** 127
Eliot A. Cohen

9 **Intelligence and Strategy** 144
Roger Z. George

10 **Strategy and Defence Planning** 165
Colin S. Gray

The History of the Practice of Strategy from Antiquity to Napoleon

BEATRICE HEUSER

Chapter Contents

Introduction: Definitions of Strategy 19
Antiquity 20
The West European Middle Ages 24
Early Modern Europe 26
From the American War of Independence to the Napoleonic Wars 30
Conclusion 32

Reader's Guide

This chapter outlines the history of the *practice* of strategy, predating the introduction of the actual word 'strategy' into modern European languages. It homes in on episodes of European history since Antiquity for which historians claim to have found evidence of the practice of strategy, defined by Kimberly Kagan as 'the setting of a state's objectives and of priorities among those objectives' in order to allocate resources and choose the best means (Kagan 2006: 333–5). While focusing only on Europe, this chapter covers case studies over nearly 2,500 years, ranging from the wars of Ancient Greece and of the Romans to medieval warfare (here with a focus on English history), the warfare of Philip II of Spain, Louis XIV of France, Frederick II of Prussia, the French Revolutionaries, and Napoleon.

Introduction: Definitions of Strategy

The word 'strategy' is derived from the Ancient Greek '*strategía*' or '*strategike*'. It was used inconsistently, sometimes meaning ruse, sometimes 'the art of generalship', especially in the definition of the East Romans (Byzantines). West European languages owe the term 'strategy' to late eighteenth-century translations of a work attributed to East Roman Emperor Leo VI, which explores the skills a general has to master in planning and executing a military campaign, including: 'tactics'; constructing fortifications; siegecraft; and the knowledge of geography, climate, and the human body (medicine), but also politics (Leo VI [*c.*900] 2010).

Since then, many authors have tried to better Leo's idea of 'strategy'. The summary of their views might be taken to be that '[s]trategy is a comprehensive way to try to pursue political ends, including the threat or actual use of force, in a dialectic of wills' (Heuser 2010a: 27f.). The term has since been applied to many other spheres of life, most notably the business world (Freedman 2013). Kimberly Kagan's definition can serve as a useful tool to explore the question as to whether strategy was practised before we had a word for it in the West: at the highest level, where it overlaps with political aims in the grandest sense (sometimes referred to as 'grand strategy'), strategy 'involves the setting of a state's objectives and of priorities among those objectives'—assuming resources are not unlimited—in order to allocate 'resources among them', and choose the best instruments, military and non-military, to pursue them (Kagan 2006: 348). According to this definition, we can say that where we can find evidence, or infer, that state leaders have defined large-scale objectives (such as the construction of defences to guard one frontier against invasion while seeking to defeat an aggressive incursion on another front in battle) and allocated resources (such as raising new taxes to pay more soldiers or build ships), we are dealing with strategy.

The term 'grand strategy', which came into wide use at the beginning of the early twentieth century, was influentially defined by the British strategist Basil Liddell Hart as follows: 'The role of grand strategy—higher strategy—is to coordinate and direct all the resources of a nation, or band of nations, towards the attainment of the political object of the war—the goal defined by fundamental policy' (Liddell Hart 1929: 150f.). We will also examine where and when this term could be applied.

Key Points

- Strategy can be defined as 'the setting of a state's objectives' and 'defining priorities among those objectives' (Kagan 2006).
- If resources are limited, strategy involves decisions about their allocation in the pursuit of its objectives.
- Where multiple means exist, strategy involves the choice of the best means in pursuit of its objectives.

Antiquity

The sources of Antiquity speak much of warfare, and some of these are so well written up by classical historians that they have greatly shaped later generations' understanding of warfare and its underlying strategies. The Persian Wars (499–449 BCE) initially presented a simple scenario, as the expansionist Persian Empire sought to absorb Greek states. Persia, however, had Greek allies, so this was not entirely a clash of civilizations, but also a conflict within the Hellenic world. Athens took the lead in opposing Persia, and after a prolonged struggle (in which the Persians got as far as burning the Acropolis) forced the Persians to withdraw back into Asia. Persian expansionism would periodically renew such wars for the next thousand years.

Ancient Greece

The Peloponnesian War (431–404 BCE) that followed the fifth-century Persian Wars, essentially between Sparta (and its associates) and Athens (and its associates), presented an even more complex picture, with the Persians hovering in the background as potential allies for either side, and other Greek states changing sides, sometimes more than once. One of the most frequently quoted lines from Thucydides' history suggests that Sparta resorted to war against Athens, alarmed by Athens' growth of power as the outcome of the previous war against Persia, which the Spartans perceived as a threat (Thucydides I.1.23).

The ensuing war between Sparta and Athens has been called a war between dog and fish: Sparta was a land power relying almost exclusively on its army, while Athens' strength lay in its navy. This strategic asymmetry contributed to the long duration of the war, as both sides could elude the confrontation with the other on the latter's terms. Thus both sides resorted to a strategy of attrition: unsuccessfully, Sparta tried to devastate Attica to starve Athens into submission, while Athens continued to get supplies from the sea through the port of Piraeus, now linked with Athens by long land walls. Athenian naval expeditions raided the Peloponnese, but could not reach enough of Sparta's main agricultural land to strangle Sparta. Eventually Sparta decided on an indirect approach (see Box 2.1), still aiming for attrition: to cut off Athens from its grain supplies from areas beyond the Black Sea, through the Bosporus and Dardanelles, but launching an attack, commanded by Brasidas, on Athens' allied lands along the littoral of Thrace. This finally persuaded Athens to accept a compromise peace in 421 BCE, ending the 'Archidamian' phase of the war (Brunt 1965a). However, the peace broke down and was followed by another long period of attritional conflict in which Athens sought to defend a Sicilian ally against the Sicilian city state of Syracuse and to establish itself on the island (421 or 415–412 BCE), an expedition which ended in disaster for Athens. Finally, there was the Decelian or Ionian war (412–404 BCE), eventually won by Sparta and its allies at great cost.

In the following century, Sparta stood aside when an outsider, Macedonia, assumed the leadership of the Hellenic world under young Alexander III ('the Great'). To avenge its previous attacks on Greek states and to free the Greek city states under its dominance, he went to war against the Achaemenid Persian Empire. But with success came ever greater appetite. Alexander thought of himself as a second Achilles, and presenting himself as the adopted

BOX 2.1 Key Concepts

Binary Options in Strategy

On the most basic level, strategy offers the choice of defensive vs offensive, yet one might be strategically defensive while launching a tactical offensive. But there are more options, again, often both on a strategic and a tactical level. In the Punic Wars, Hannibal surprised the Romans by attacking their allies in Saguntum, on the east coast of the Iberian peninsula, only to invade the Italian peninsula by crossing the Alps. Moreover, at the battle of Cannae, he used tactical envelopment, coming at the Roman forces from a surprising side. Ever since, surprise, envelopment, and other forms of indirect approaches have formed part of tactics and strategy. Hans Delbrück (1848–1929) contrasted strategies of attrition with strategies seeking to crush the enemy in a shorter campaign. Basil Henry Liddell Hart (1895–1970) perceived a similar pair of opposites in the form of the 'direct' and the 'indirect approach'.

son of Zeus (or the Egyptian version, Ammon), he wanted to surpass Zeus' most famous offspring, superhero Hercules, by conquering all the places where Hercules had been. Thus taking over the Persian Empire was not enough: Alexander pushed on to India, and would in all likelihood have set out to conquer the Mediterranean littoral had early death not struck him down (Brunt 1965b). In pursuit of these strategic aims, Alexander rallied first the youths of Macedonia and surrounding populations, then most of the Hellenic city states to the cause of moving against Persia. After military victories against Persian armies, and subsequent massacres and enslavement of defeated populations, in a third strategic phase Alexander aimed at consolidating his conquest by trying to integrate Greeks and Persians through marriages and attempts to fuse the cultures in his new-won realm. The miracle of his stunning conquests, made when he was between 22 and 31 years old, is generally attributed to the appeal of his two earliest proclaimed war aims above; to his personal charisma, especially his appeal to other young men and loyalty to his companions or *hetairoi* (a circle he widened to admit new allies); and to his tactics and consequent battlefield victories.

Ancient Rome

Meanwhile, in the West, another city state was beginning to dominate the Mediterranean: Rome. It conquered its neighbours one by one, having been attacked and threatened by several of them, so that Roman conquests could largely be portrayed as defensive countermeasures, aimed to eliminate perpetual sources of danger and the more remote places of refuge for defeated enemy leaders. Polities ever further afield were thus conquered by Rome, lest aid would come from them to Rome's more immediate adversaries. Rome did suffer at the hands of invaders, especially the Celts or Gauls (providing the reason for the conquest and pacification of lands inhabited by them in northern Italy and today's France and Britain).

Rome also clashed repeatedly in the third and second centuries BCE with the Punics (Phoenicians), whose network of cities extended around the Mediterranean, with its main centre in Carthage. In particular, their leader, Hannibal Barca, would present the Romans with a great strategic challenge. At the time of the second Punic War (218–201 BCE), the southern part of the Iberian peninsula was under Punic domination, bordering on Roman domains, both now contested by each side. The most famous campaign of Hannibal would give posterity the great model for a 'strategy of indirect approach' and for strategic surprise. In 219 BCE, Hannibal first launched an attack against the Roman ally Saguntum (near modern Valencia on the Iberian peninsula's eastern coast), drawing Roman armies away from the Italian peninsula for its defence, while Hannibal and his main army, coming up from the Iberian peninsula and moving across coastal Gaul crossed the Alps in 218 BCE to invade Italy from the north, his forces famously including war elephants. With the bulk of the Roman army dispatched to the south and to Iberia, Hannibal defeated remaining Roman contingents in three successive battles in northern Italy.

In turn it was a Roman general, Quintus Fabius Maximus, who would give his name to the 'Fabian' counterstrategy: avoiding a pitched battle while pinning down enemy forces. Fabius' procrastinating approach (he was nicknamed the *cunctator* or hesitator) did not drive the Punics out of Italy, however. Eventually Rome gave battle at Cannae in south-eastern Italy (216 BCE), the third brilliant victory for Hannibal, who once again through an indirect approach and tactical surprise outmanoeuvred the Roman army, with the Punic cavalry enveloping the Roman army to

attack from its opposite flank. Cannae would resonate as a model throughout history and become the inspiration for the German operations against France in the early stages of both the First and the Second World Wars.

As Hannibal established himself and turned clients of Rome into allies, his war aims seem to have stopped short of the conquest of Rome itself. The Romans were horrified at having him 'at their doors'. Nor were they going to accept this massive reduction of their sphere of influence. The conflict spread across the Mediterranean, with several polities changing sides more than once. Despite Hannibal's brilliant strategic successes, he was ultimately driven out of Italy. A Third Punic War in the following century would persuade the Romans to adopt a true strategy of annihilation: after decisively defeating the Punics, they utterly destroyed Carthage and carried its remaining population away into slavery (Goldsworthy 2001). The killing of all men and the enslavement of women and children was a staple, genocidal tool of strategy in Antiquity.

It has been debated for decades now whether the Romans, who famously did not have a word for 'strategy', developed strategies and applied them. Edward Luttwak (1976) and Giusto Traina (2014) claim they did. Traina argues that Caesar had embarked on the conquest of the known world not only with his subjection of the Celts and his union with Egypt, but also with planning for wars against the Parthians and Persian Empire, which were cut short by his assassination. Mark Antony and Octavian/Augustus tried to follow through with his plans, both unsuccessfully, until in later life Augustus adopted a strategy of consolidation. Further to this period of expansion (which for Luttwak ended only with Augustus' immediate successors up to Nero, who died in 68 CE), Luttwak identified a strategy of consolidation and liminal defence (including the construction of *castra* and other static fortifications) marking the period up to the death of Emperor Septimius Severus (68–211). In the subsequent strategy of the third century, the Roman Empire switched to defence in depth, with a reduced force guarding Rome's borders and a mobile army that could be deployed to any border area.

Critics argue over Augustus' overall strategy (was it continuity or did it contain a rupture?), over his interpretation of border fortifications, and over his interpretation of the Third Century Crisis. Either way, applying Kagan's definition, there is plentiful evidence that Roman emperors took strategic decisions—withdrawing legions in one province to deploy them against a perceived greater threat elsewhere, dealing with steady small incursions of nomadic horsemen by recruiting them into the Roman army, and pacifying conquered peoples by granting their leaders citizenship and sharing with them the benefits of Roman civilization. The organization of the transport of grain from one end of the empire to the other to feed Rome's legions, the recruitment and rotation of forces throughout the empire, and the building and maintenance of Rome's two navies cannot be seen as ad hoc measures but presuppose strategic planning of sorts—even if, in the absence of evidence that underpinning concepts for these measures were articulated, some experts would rather call them 'small strategy' than 'grand strategy' (Le Bohec 2014).

The Second Rome: Constantinople

It is again Luttwak (2009) who has drawn attention to the sophisticated handling of all tools of statecraft in what can only be called 'strategy' by Rome's Constantinopolitan (Byzantine) successors. Justinian I (emperor 527–65) and Heraclius (emperor 610–45) clearly had a great strategic aim: the liberation of the former possessions of the Roman Empire in the West, now

in the hands of Germanic tribes. Both had amazing, but not lasting, success, while almost incessantly fighting on two fronts: in the West and also in the East with the ever-expansionist Persian Sassanids.

No sooner were the Persians finally and definitively defeated by Heraclius' host than a new threat arose: the explosion of Islamic fervour in the great Arab conquest of the Middle East and the southern and western shores of the Mediterranean under the green banner of their prophet. Four centuries later, the Arabs in turn were vanquished by nomadic Turkish tribes, who, once converted to Islam, also embarked on conquest, pouring in waves from Central Asia into the Middle East. Within a century, they seized most of Asia Minor, Persia, and the Middle East, then savagely hacked chunk after chunk out of what remained of the (East) Roman Empire, until its fall in 1453.

Until then, Rome had lived on in the East for an astonishing further millennium after the fall of the eternal city on the Tiber. With a shrinking land mass and population, the East Roman Empire's forces were soon outnumbered by its assailants, and had to devise new ways of fending them off. Given the imperial overstretch of Constantinople's armies, one was the constitution of small raiding parties to intercept Turkish incursions when the invaders were on their way back to their own territories with their booty (Nikephoros Phokas *c.*950), but this was a tactic rather than a strategy. The Byzantines used the lure of their own culture in the form of soft diplomacy, bought off enemies (who unfortunately developed a taste for these bribes and kept coming back for more), and spread Christianity to acculturate barbarian neighbours, thus complementing their military strategy with non-military tools (Luttwak 2009).

Key Points

- The writings of Herodotus and Thucydides furnish evidence of complex reasoning in warfare that satisfies Kagan's definition of strategy.
- The Hellenes fighting the Persians and among the Hellenes, the Spartans fighting the Athenians, clashed in a variety of asymmetric ways.
- Roman expansion and then defence constituted different phases that can be seen as strategies.
- The East Romans/Byzantines defined the term 'strategy' as making use of all tools of statecraft in addition to military means.

The West European Middle Ages

In the West there are parallels to such chequebook diplomacy in the form of the '*Danegeld*', which the English paid Danish invaders in the late tenth and eleventh centuries. Beyond that, with little literacy among political leaders (let alone treatises on anything resembling strategy), we hardly find strategy in Kagan's sense. Great migrations which swept over Europe from the third century onwards, mainly from east to west or from north-east to west and south (ending with the Norman conquest of England in 1066), reduced warfare to a matter of invasion/attack and defence. Defensive barriers were constructed, such as Offa's Dyke and the Danevirke or the Götavirke, for which labour force had to be marshalled and fed, but this degree of organization within the community can be traced back far into prehistory and

hardly requires any strategic concept. Moreover, subsistence levels were so low and economies so basic that we have hardly any stone castles before 1000 CE, a large step down in sophistication from the Roman Empire.

Things changed from about 1000 to the end of the Middle Ages, when dynastic entities emerged laying claim to scattered territories which had to be defended, sometimes against several adversaries. This meant that armies had to be moved around to meet contingencies in several places and arrangements had to be made to recruit them (as local militias for local defence were not sufficient for such tasks), to feed, equip, and ultimately pay them, if they were required beyond the month or so of military service which vassals owed their lords in the seigneurial system. The dynasty ruling England, moreover, had to make arrangements to transport their soldiers across the English Channel, and in that process, protect them against naval attacks. In short, they needed a navy. Given the number of principalities in Europe, each had several neighbours with whom potentially to quarrel over territory; alliance politics of a form unknown to imperial Rome—which at best had had client states—but well known to Ancient Greece, came to the fore again, and with it, a diplomatic game of counterbalancing an adversary's power and influence. A new element was that of dynastic marriages to complement warfare or tribute payments. It was an instrument developed by the Byzantines but it really came into its own in the Occident, where it determined many an alliance and caused many wars over inheritance claims. The delineation of state boundaries became progressively more fixed or else fought over; the lords over marches—disputed border area or areas difficult to control because of their geographic features—often grew in power to pose threats to their royal overlords, perhaps throwing in their lot with neighbouring powers, or claiming kingship for themselves. At the very least they wanted to be consulted on military measures taken by their liege as the construction and upkeep of castles in such border areas usually fell to them, leading to wrangling about who was to furnish, feed, and pay the garrisons. This resulted in contests for power both within countries and beyond their borders. It also led to the struggle over resources, their allocation, and the taxation required to meet the costs of defensive measures and other warfare, which took place between the monarch and his or her main retainers, and soon also in formal 'parliaments'. These would force monarchs and their advisors to articulate reasons for why they wanted, say, to invest scarce resources into building or repairing castles in one place instead of building ships or hiring mercenaries.

An example of medieval strategy making is arguably that of Edward III, king of England and contender for the French crown which he claimed through his mother, who also sought to gain overlordship of Scotland. By the fourteenth century, the kings of Scotland and France appreciated that they had better chances of holding their own against bellicose Edward by coordinating their military operations against his lands. Edward in turn learned from the devastating border raids by the Scots on his territories and in turn successfully applied the same practice to France (Rogers 2000). These basic patterns of counterbalancing alliances, often with a dynastic element, and of internal disputes about the financing of wars survived into modern times.

Arguably, medieval princes' strategies differed from later strategies on account of the different mindset and culture dominating their times. They were generally reluctant to give battle, as opposed to denying it by adopting a purely defensive stance, or besieging an enemy's cities or fortifications, or employing the *chevauchée* (a destructive raid of the enemy's lands). Philippe Contamine argued that medieval strategy was dominated by two principles:

the avoidance of pitched battles and the 'obsidional reflex', the tendency to seek refuge in fortifications (Contamine 1986: 365). Battles were indeed rare in the high and late Middle Ages. One explanation, underscored by Jan Willem Honig (2012), is that they were seen in large part as divine ordeal, and that specific cultural norms prevailed over patterns of warfare that are found across the centuries. By contrast, John Gillingham (1992) is more inclined to identify non-cultural circumstantial factors that made battle more unlikely to bring about the desired end, leading medieval leaders to be reluctant to give battle. Clifford Rogers (2000, 2002) argues, however, that victories in battle were needed by princes whose claim to the throne was contested; but as the other side had more to lose, the coincidence of both sides' wish to give battle was lower than in later times. Edward III's strategy in the Hundred Years' War was to use the *chevauchée* time and again to try to force the French monarch to give battle. Economic and social parameters taken into account, Francisco García Fitz (1998) shows convincingly that medieval monarchs did seek to impose their will on their adversaries (to use Clausewitz's definition of the aims of any war), drawing on a selection of tools, military as well as political and economic; he concludes that medieval man was no less 'strategic' than his forebears or descendants.

Key Points

- Evidence for complex decision-making involving multiple tools—strategy—increased as the Middle Ages went by.
- Some historians argue that medieval warfare was conditioned by different cultural premises.
- Others argue that it was the function of more primitive reasoning than in previous or later periods, framed by the more primitive means available.

Early Modern Europe

Two sets of incremental changes ultimately led to the transformation of warfare and of strategy. One was the growth, centralization, and diversification of the structure of states in Europe, partially caused by wars—and in turn partly the cause of them, as Charles Tilly (1975) argued. A state apparatus with a growing number of professional civil servants—not merely clerics or local magistrates doubling in that role—meant more efficient records of populations, more efficient collection of taxes, more money to make war, and a move from armies of peasants (obliged to perform military service for a certain number of days per year for their lord) to standing armies of professional soldiers (who could be drilled to use new arms requiring training and discipline). The other was technological innovation, which had begun in the thirteenth century with a range of inventions but came to revolve increasingly around gunpowder, and how to defend against it. The result after two to three centuries of experiments was the use of cannon—first in sieges, then aboard ships and in battles, and finally miniaturized into handheld firearms—resulting both in a gradual transformation of the battlefield and of the architecture of fortifications, which became several times larger (to allow for defence in depth, avoiding right angles of impact of cannon balls), more complex, and consequently more expensive (Roberts 1956; Parker 1988).

The Anglo-Spanish War

Meanwhile, the invention of the compass and other strident advances in navigation and improvements in shipping heralded ventures onto the high seas and global navigation. As fleets became capable of missions beyond carrying troops and protecting short-range commerce, and with a mindset increasingly open to new ideas and discovery, more complex strategic thinking emerged. By the late sixteenth century we find what could be called the first comprehensive strategic concept covering more or less the ground of modern national security strategies, and articulating strategic options for England's security that were actually implemented (Sutcliffe 1593). Thinkers and practitioners explicitly weighed different strategic options—should England defend against Spain by continuing to send soldiers in support of the Dutch rebels fighting against Spain on the other side of the Channel? Or was it preferable to concentrate resources on ships to blockade the Spanish navy in its home ports? Or to attempt to intercept the flow of silver from the Caribbean to Spain, the main source of Spain's wealth and ability to fund her wars (Heuser 2012)? In late Elizabethan England, we have all necessary evidence of 'grand strategy' existing in theory and applied practice.

Strategies were made not only on the basis of calculations of likely success or failure, resources available and resources required, geography, alliances, and dynastic links. They were also, as before in the Middle Ages, influenced by the ideological driver of religion. While dissent among Christians had already troubled the late Roman Principate, and while quarrels over Christian dogma played into the hands of Islamic conquerors, leading to the loss of Constantinople's North African and Middle Eastern provinces, religious wars in early modern Western Europe cut across state boundaries, creating two opposing camps repeatedly locked into war with one another. While the two camps—the Catholic and the Protestant—were not without their own internal tensions, Nicholas Rodger has aptly called one the world-wide 'Catholic International', with the Roman Papacy as its dogma-formulating centre and its tentacles spreading around the globe from Portuguese and Spanish possessions in Latin America to the Philippines in the Far East. At least it was perceived as such by its Protestant adversaries. Consequently, strategy assumed global dimensions for the European great powers of the time.

Thus Geoffrey Parker (1998) could identify a 'grand strategy' in the ambitions of Philip II of Spain. The empire he inherited was the first in which the sun did not set. His grand strategy was to preserve his inheritance, threatened especially by the insurgence of the Protestant Dutch in quest of independence. Secondly, he tried to keep what he had acquired in his own lifetime: the English crown through his marriage with Mary Tudor, lost again when she predeceased him without issue, and the crown of Portugal. Thirdly, he was encouraged to be the champion of Catholicism globally with the ultimate aspiration of re-establishing a universal monarchy. While his resources—local taxation in his united kingdoms covering the Iberian peninsula and also revenue from his overseas empire—were several times larger than those of Elizabethan England, there were still limits, not merely financial but also technological, on what he could do. Despite the ambitious ideas about how to use sea power entertained by some Englishmen, ships in the age of sail were still helpless in adverse winds. Two further fleets launched by Philip against England after the famous Armada of 1588 were both driven back by gales, a weather-dependency that would not disappear until the age of steam. Ultimately, Philip was so busy pursuing his two conservative goals that he could not act much on the third. Parker concluded that, like governments until this day, Philip was unable to follow all his ambitions

or to apply a grand strategy coherently, as he was exceedingly preoccupied with the minutiae of running his vast empire, making him predominantly reactive in his decision-making.

Seventeenth- and Eighteenth-Century Wars

The greatest conflagration of the following period was the Thirty Years' War, again waged in part over the implicit bid for a universal monarchy, in part over the vertical distribution of power (here mainly within the Holy Roman Empire), and in part over religious allegiance. It was contemporaneous with the Wars of the Three Kingdoms in the British Isles, which also shared the latter two issues. While the British wars are seen mainly as civil wars, the great war that engulfed continental Europe from France to Poland and from Sweden to the shores of the Mediterranean dragged on because its fragile alliances as an element of *state* interest, *raison d'Etat*, began to counterbalance religious allegiances, and because a multitude of strategic experiments often cancelled out previous ones. While this was a period of great intellectual productivity in other areas (to mention only Hobbes and Grotius), oddly enough there was little originality in writing about war in the seventeenth century.

In subsequent wars, Louis XIV's France and Frederick II's Prussia developed state apparatuses to match their strategic aims (Cénat 2010). Louis XIV of France was able to espouse a clear overall strategy: in a first phase (1661–75) he sought glory, and attempted to secure any lands that could be claimed by inheritance. In a second phase (1676–97), designed to consolidate his victories, he sought to straighten French borders through further small acts of aggression (such as the seizure of Strasbourg and Luxembourg), devastating contested areas with scorched earth tactics that complemented the direct battles with his adversaries (chief among them Habsburg Spain and, as ever, the Empire). Meanwhile, with the help of his architect and minister Vauban, Louis fortified the frontier regions. At the heart of the third and last phase of Louis' wars (1697–1714) was the War of the Spanish Succession, which secured the Spanish crown for his grandson and his descendants. Designed to be defensive, the latter two phases of Louis' wars greatly frightened his neighbours and deepened Habsburg and Dutch suspicions about France's hegemonic ambitions, increasing the cost of these wars in terms of blood and treasure (Lynn 1999: 17–46). Louis' wars brought great suffering to their theatres, especially Flanders (the Spanish Netherlands, which he coveted) and the Palatinate and what today is Southern Hesse, where villages and cities were burned and scorched earth tactics led to mass starvation. It was fairly clear, however, that his territorial ambitions were limited to areas that he could claim for dynastic reasons or that had long been disputed between France and the Empire.

From 1754/1756 until 1763, the Seven Years' War (known in the United States as the French and Indian War) involved complex alliance strategies among multiple powers in theatres of war around the globe. The main players were Britain, France, Prussia, and the Holy Roman Empire, with various allies and colonies thrown into the bargain. It involved global logistic planning, with soldiers recruited by the United Kingdom, for example, from small German states against payment and shipped to North America to fight. While the coordination of the war efforts of the parties involved was at times suboptimal, this was clearly 'grand strategy' (in Liddell Hart's definition) put into practice. Frederick II, in his successive testaments, presented his very sophisticated and complex views of inter-state relations in his times, prescribing for his heir how to handle different countries, and what factors—from geopolitics to economics, finance, and demography—to take into account in his strategy making. While we find here little abstraction

made (Frederick was not interested in speculations about powers A and B and C, but was in concrete terms preoccupied with the Empire, France, and other specific European states), he spelled out what he regarded as the underlying strategic imperative: 'The first preoccupation of a prince must be to protect what he has (*de se soutenir*), the second his aggrandisement' (quoted in Heuser 2010a: 63). And indeed, especially the latter strategic aim characterizes his aim in the wars in which he tried to enlarge his own realm at the expense of neighbouring states.

How did Louis XIV and Frederick II manage to prevail, even though they had all of Europe against them at times, when after them, Napoleon ultimately did not? One answer is that they did not seek 'regime change'. They were upsetting the balance of power in Europe and beyond, and this made the other states gang up on them. But in turn, their adversaries' war aims were limited. For even if both Louis and Frederick did all in their power to enlarge their respective dynasties' possessions at the expense of all their neighbouring powers, they never sought to change the social structure of the conquered areas (except for imposing Catholicism, on the part of Louis, or granting religious freedom, on the part of Frederick). They did not introduce revolutionary reform agendas that could prove contagious and incite populations in countries further afield to rise up and overthrow their governments, to replace them with regimes in the image of Louis' or Frederick's. Neither monarch challenged the order of society or the worldview on which societies were constructed. In that sense, despite the terrible woes that especially Louis inflicted on Flanders and the Palatinate, their war aims were limited.

The wars of Frederick II of Prussia in particular were to provide data and arguments for the growing output of literature on the art or science of war. The most influential writer on war and the state in the Age of Reason was French Count Guibert, whose ideas presaged the *levée en masse* and the citizen-soldier of the French Revolution. While previously treatments of the subject had mostly been couched in terms of Christian values and divine retribution in case of malpractice, Guibert provided a new, secular rationale for just war in self-defence, a moral imperative that had been omnipresent in European writings about war in previous centuries, even though in practice many princes merely paid lip service to it (Guibert 1772). Guibert contributed to the creation of the myth that the wars of the Anciens Régimes—the monarchies of France, Prussia, and Austria—were limited, which they were in so far as they had more 'limited' effects on the subjects of the monarchs who waged them than wars of earlier and later periods. In absolute terms, however, these wars also had devastating effects on the civilian populations in the theatres of war, and not just on the non-combatants. But in the absence of universal conscription, of a devastation of the homelands of the monarchs, and of revolutionary or territorially unlimited war aims, and compared with the subsequent wars of Napoleon, they could be seen as 'limited' in scope (see Box 2.2).

Key Points

- Complex strategy making was still handicapped by the limitations of the state apparatus well into the seventeenth century.
- Thereafter, Louis XIV's France and Frederick II's Prussia had state apparatuses that matched their strategic ambitions.
- The wars of the Anciens Régimes were seen as limited in aims and in effects on the citizens of their own countries, even if populations in foreign theatres of war suffered greatly. From this arose the partial myth of the limited scope of the eighteenth-century wars.

BOX 2.2 Key Concepts

'Absolute War' is NOT 'Total War'

Clausewitz differentiated in ideal terms between wars limited by political and other factors, as opposed to wars that might in theory consist of unconstrained violence, violence *absolved* from all bounds. This latter ideal concept was later referred to as 'absolute war', as opposed to *limited* wars. For Clausewitz, absolute war was an abstract, but the wars of Napoleon had come close to this abstract: 'one could doubt that our idea of the absolute nature [of war] has any reality', he wrote in *On War*, 'had we not precisely in our own time seen real war appear in its absolute perfection. After a short introduction by the French Revolution, the reckless Bonaparte has brought it to that point [of perfection]' (*On War* VIIIB).

'Total war' is not at all the same thing as 'absolute war'. The term 'total war' was coined only in the twentieth century. In 1918 French politician Léon Daudet defined it as the total mobilization of one's own population, economy, banking, and propaganda while in 1935 German general Erich Ludendorff added to that the genocidal dimension of treating every member of the enemy nation as a target to be killed. The latter definition matched the German National Socialist idea that Slavs and Jews had to be killed or at least turned into enslaved workers to be exploited by the Aryan 'master race'. This connotation was absent before the development of racist ideas in the nineteenth century, especially in Clausewitz's idea of 'absolute war'. Admittedly, cruel strategies of annihilation and enslavement that could be termed 'total war' *in practice* can be traced back to Antiquity. However, they took place on a smaller scale than the genocides of the twentieth century, not least because overall populations were smaller then.

From the American War of Independence to the Napoleonic Wars

Rebels and Insurgents

The humanistic conceptual framework was thus in place for the French Revolutionary Wars, which were initially fought mainly in reaction to the assaults on France by the Empire and other monarchs who were horrified by the Revolution's implications for their world. The American War of Independence or American Revolutionary War (1775–83) presented the crucial precedent in several ways. On the American side it was, to paraphrase, a war of the people, for the people, waged by the people. Alongside the clash of regular (professional) armies, it saw, on the American side, the extensive use of militia and irregular fighting.

This asymmetry heralded the configuration of the French Revolutionary Wars. Julius von Voß wrote in 1809 that the French Revolutionary Wars were like small wars fought on a large scale (quoted in Rink 1999: 197); this was a reflection of the revolutionary change in tactics. And the issues over which the American War of Independence and the French Revolutionary Wars were fought were, of course, almost the same: people's self-determination vs monarchy. Both were largely defensive: they were not wars of conquest, and even the French Revolutionaries' steps to liberate oppressed peoples beyond France's borders were sparked off by the campaign against Revolutionary France by the monarchs of Europe who intended to restore the French monarchy (Belissa and Leclerq 2001).

That there was also resistance against change must not be denied. The anti-revolutionary uprising in the Vendée, which burst into full flame in 1793 and was not entirely extinguished even ten years later, had much in common with previous religious wars in France and elsewhere, and indeed with the Spanish resistance to Napoleon that would become known as 'La Guerrilla', the small war. The Vendéeans and the Spaniards after them were just as motivated as the French Revolutionaries; passions were aroused on both sides. This also applied to other areas of Europe that would be occupied by Napoleon's *Grande Armée* or those of his allies, which, living off the land, by and by made themselves thoroughly hated. Henceforth the term 'small war', which had previously referred to the special operations of special units or detachments, would acquire the connotation of 'people's war', insurgency, a war of opposition fought by the aroused masses against a regime or occupying power. Defined in this way, paradoxically, the French Revolutionaries could be said to have fought just such a people's war against their regime, while provoking others to fight a people's war against them.

The French Revolutionary and Napoleonic Wars

The French Revolutionary and then the Napoleonic Wars unleashed French passions in a way predicted by Guibert. It was not technological innovations but a change in society and war aims that underlay the revolutionary nature of the wars of the 1790s, with an appeal to the French masses (and indeed to the populations of neighbouring areas) unknown since the wars of religion well beyond living memory. Napoleon, in turn, the captain-turned-emperor, with his charismatic appeal to the French soldiers, constituted a quintessential case of Caesarism, creating for himself armies that would blindly follow him to Moscow and the Nile.

The contrast between the French Revolutionary Wars and the wars of Napoleon could hardly have been greater where strategic aims are concerned. Again, appetite came with eating, and as Charles Esdaile has argued, Napoleon's grew with every success (Esdaile 2008). While in his tactics he built on the innovations of the Revolutionary Wars, both the scope and aims of his campaigns, and his strategic ambitions, were dramatically different. From securing France's territory and thus the Revolutionary *acquis*, he turned to the conquest of all neighbouring countries (only the invasion of Britain did he not follow through with), and indeed took his forces beyond the traditional borders of Europe. The strategy he pursued was to deal with the states of Europe one at a time, and to sign bilateral peace agreements which he would ignore when the situation allowed, while turning on the next victim of his aggression. The admixture of benevolent measures to secure the support of liberal elements in the population—the imposition of liberal legislation including, for example, the emancipation of Jews—for several years undermined resistance against his invasions, until the experience of long-term occupation by large armies living off the land sapped initial liberal enthusiasm that had existed throughout Europe. The coalitions that formed against Napoleon were thus of his own making, as the other states of Europe began to realize that neutrality was not an option, and that Napoleon could not be stopped unless all of Europe allied against him. The Battle of Leipzig of 1813, hailed as the 'battle of nations', was thus above all a counterbalancing act by powers joining together to put a stop to Napoleon's otherwise unstoppable expansionism. Waterloo was only an encore.

BOX 2.3 Definitions

The Napoleonic Paradigm

The Napoleonic Paradigm of warfare is based on the interpretation of the Napoleonic Wars by Henri Baron de Jomini and Carl von Clausewitz. Ignoring entirely the fact that Napoleon ultimately failed to secure his conquests and to establish a lasting empire, they focused narrowly on his short-term military victories. Until the First World War and beyond, this short-sighted preoccupation with military victory, eclipsing the question of how to achieve a lasting peace after the end of hostilities, dominated writing on and the practice of strategy. Both before and after the period dominated by the Napoleonic Paradigm (from his wars until the two world wars), there was and has been greater awareness that military victory cannot be the ultimate aim in warfare, but it must be a lasting, bearable peace.

Curiously, Napoleon's ultimate strategic failure, his inability to turn his conquests into a lasting empire, barely impressed the two strategists to whom we owe chiefly the interpretation of Napoleon's way of war and its transmission to posterity: Antoine Baron de Jomini and Carl von Clausewitz. Focusing excessively on Napoleon's victories, both failed to comment on his singular lack of success in bringing about what had previously been seen in Europe as the only acceptable aim of warfare, a lasting peace. Their writing ushered in the era dominated by the Napoleonic Paradigm (see Box 2.3), where strategy making was dominated, not by the quest for a lasting (and thus peaceful) settlement of the issues over which a war had been fought, but by the quest for military victory (Heuser 2010a).

Key Points

- As Guibert had predicted, with the American War of Independence and the French Revolution, war became the business of the people and was greatly transformed.
- Napoleon's '*système*' (grand strategy) was one of ruthless opportunism, breaking all the rules of peaceful cohabitation, with the result that all of Europe united against him. His strategy ultimately foundered on the opposition he had created with his unlimited expansionism.
- With the French Revolutionary and Napoleonic Wars, the term '*guerrilla*' (small war) acquired the meaning of people's war or insurgency.

Conclusion

The history of strategy did not start with Napoleon, even though he transformed Europe, mainly in unintended ways (see Critical Thinking). Over time the practice of strategy took many forms, and there were many variables that influenced it. Apart from obvious ones like size and geographic position, the technology available, and the resources (human and physical) of the entity (city state, kingdom, state) waging war, these variables also included the worldviews, ambitions, and thus strategic aims of the political leaders, the degree of engagement of the populations, and the capacity of the former to harness the latter to their project.

The practice of strategy was for long stretches of European history bounded by rules such as not killing non-combatants, or not destroying church property. Such limitations were not always observed, and indeed were generally discarded when the adversaries were seen as illegitimate (that is, as rebels or heretics and infidels) or themselves did not observe these limitations (this applies, for example, to the Huns or the Ottoman Turks). There was an assumption from Roman times until Napoleon came along that a legitimate excuse for expansionist ambitions must be found. This assumption gave way to the Napoleonic Paradigm which still haunts many cultures: the assumption that might is right, and that 'national interest', what had previously been called *raison d'Etat*, could justify anything. And yet the period dominated by the Napoleonic Paradigm is the exception in the history of Europe, not the norm. The need for a just cause to warrant any military action and determine the aims of strategy has gained new prominence since 1918, and especially since the end of the Cold War, at least in Europe. Curiously, insistence on limiting one's conduct in warfare (and thus again, on what strategy one can espouse) by rules had not disappeared entirely even in the nineteenth century, but led to the adoption of various conventions agreed multilaterally. During the period dealt with in this chapter, in the absence of such multilateral treaties, Europeans saw themselves as bound by rules of conduct dictated by Christianity, and adopted self-denying ordinances when encountering enemies they saw as legitimate. Again, in this respect Western powers are closer today to pre-Napoleonic practice than to the excesses of the total wars of the early twentieth century. The practice of strategy by all ages and cultures, not just the practice of the most recent past, yields many lessons for the present.

Critical Thinking Strategy existed without the existence of the concept

For

- ***Most wars have required strategic decisions***. Throughout history, choices have been made by key decision-makers conducting war about allocating resources for its conduct.
- ***War planners have always had to link means to ends***. They made choices between different tools (means) available, e.g. between spending more money on building ships, or raising more troops; employing mercenaries, or introducing conscriptions; raising more taxes; forming alliances with outside powers.
- ***Historically 'strategy' has been a reality, if not an articulated concept***. While few decision-makers articulated abstract reasons before the sixteenth century, decisions about ends, means, and ways can be documented since Antiquity.
- ***'Strategic' thinking has a long history***. There are a good number of authors before Clausewitz, from Christine de Pizan and Machiavelli to Matthew Sutcliffe, Santa Cruz de Marcenado, and Count Guibert, who analysed war and strategies. Clausewitz borrowed ideas from several of them.

Against

- ***Recent use of the term***. The word 'strategy' in a modern sense only came into usage in Western Europe in the late eighteenth century. It was then first introduced into Western languages from the Byzantine Greek text of Emperor Leo VI, written around 900.

(*continued*. . .)

Critical Thinking *(continued)*

- ***No 'strategy' in Roman times***. There is no Latin word for strategy, so the Romans could not have thought in those terms and categories.
- ***The modern state and the link between strategy and resources***. Prior to the creation of the modern state with its tax system and central revenues, European powers could not afford a standing army. Thus the means needed to underpin strategy did not exist.
- ***Clausewitz as a key strategic thinker***. Before Clausewitz there was little writing amounting to general reflection on war detached from prescriptions on how to wage it.

Questions:

1. Can one consciously make 'strategic decisions' if there is no concept of strategy?
2. Is there evidence that strategy was practised before the late eighteenth century, or did monarchs and leaders just decide on the basis of common sense?
3. Did the Napoleonic concept of 'système de guerre' and the German notion of 'Wehrsystem' (both including also the military economy, procurement, what troops to recruit, how to supply them . . .) cover what we now call 'strategy'?

Questions

1. By what criteria can one tell that a 'strategy' was being practised?
2. Can contemporary strategists learn lessons from the wars of former times?
3. Was it Ancient Greece, Ancient Rome, or the East Roman Empire (Byzantium) that made a greater contribution to our understanding of strategy?
4. Is it useful to reduce strategy to binary options?
5. Can one argue that strategy was practised in the Middle Ages?
6. How did the practice of strategy in Early Modern Europe differ from that of Ancient Greece?
7. How did recruitment patterns of armies influence strategy making through the ages?
8. Which was a greater driver of wars: religion or nationalism?
9. Is all strategy either strategy of attrition or strategy of indirect approach?
10. Compare and contrast the strategic aims of Louis XIV of France, Frederick II of Prussia, and Napoleon.

Further Reading

L. Freedman, *Strategy: A History* (Oxford: Oxford University Press, 2013) discusses strategy in all areas from military to business.

A. Hartmann and B. Heuser (eds), *War, Peace and World Orders from Antiquity until the 20th Century* (London: Routledge, 2001) has expert chapters covering different periods.

B. Heuser, *The Evolution of Strategy: Thinking War from Antiquity to the Present* (Cambridge: Cambridge University Press, 2010) discusses the history of strategic thought (as opposed to practice).

B. Heuser, *The Strategy-Makers: Thoughts on War and Society from Machiavelli to Clausewitz* (Santa Barbara, CA: ABC-Clio, 2010) contains excerpts in English translation or modernization of texts dating from the sixteenth to the early nineteenth centuries.

B. Heuser, *Strategy before Clausewitz: Linking Warfare and Statecraft, 1400-1830* (Abingdon: Routledge, 2018) contains case studies of early theory and practice of strategy before the word was used in the modern sense.

***Small Wars and Insurgencies* (2014) Special issue: *The Origins and Diversity of Small Wars* 25(4)** explains what was originally meant by 'small wars' when the term became generally used in the seventeenth century and how this developed into ideologically motivated insurgency.

Web Links

War in History **http://wih.sagepub.com** is the most important journal dealing with strategic studies that also carries a historical dimension.

Journal of Strategic Studies **http://www.tandfonline.com/toc/fjss20/current** is a valuable reference in strategic studies.

Small Wars and Insurgencies **http://www.tandfonline.com/toc/fswi20/current** concentrates especially on insurgencies and counterinsurgency; the main debates are covered here.

RUSI Journal **https://www.rusi.org/publications/journal** is published by the Royal United Services Institute, and gives current debates on the theory and practice of strategy. For the US Army see the *Military Review* **https://www.armyupress.army.mil/Military-Review** and for the US interservice debate, see *Joint Force Quarterly* **http://ndupress.ndu.edu/JFQ/** published by the US National Defense University.

British Journal for Military History **http://bjmh.org.uk/index.php/bjmh** is a fairly new and ambitious journal which devotes a section to the practice of strategy.

NATO's Forum Paper 26 *Military Exercises: Political Messaging and Strategic Impact* is now online. It can be downloaded from the NDC website at **http://www.ndc.nato.int/news/news.php?icode=1157**

The Evolution of Modern Warfare

MICHAEL SHEEHAN

Chapter Contents

Introduction 36
The Napoleonic Legacy 37
The Industrialization of War 40
Naval Warfare 43
Total War 45
Nuclear Weapons and Revolutionary Warfare 50
Conclusion: Postmodern War 52

Reader's Guide

This chapter looks at the way that the theory and practice of war has changed over the past two hundred years. It examines how the development of modern states has changed the way that wars are fought, and it looks at the impact of the Industrial Revolution on the planning for and conduct of war. It also examines the influence of some of the key thinkers on war during the past two centuries. War is a social practice, and the conduct of war is influenced by changes in military theory, in the development of new technologies, and, crucially, by the evolution of society itself.

Introduction

War has been a perennial feature of human history. It is condemned as an evil activity in which human beings show the darker side of their nature by using violence and killing to achieve their ends. Yet at the same time war is a peculiarly *social* activity, demanding high levels of organization and depending on bonds of loyalty, obedience, and solidarity for its effective prosecution.

In the modern period, war between developed states assumed a particular form, characterized by a symbiotic relationship between increasingly well-organized states, the industrialization of warfare, and a growing totality in the manner in which it was conducted. By the end of the twentieth century, however, there was some evidence that this era of 'modern' industrial warfare might be ending and a new one beginning.

Modern Warfare

'Modern warfare' consists of the forms of warfare shaped by and reflecting the 'modern' era of human history; however, modernity and modern war mean much more than simply technological progress and wars fought with increasingly sophisticated and mass-produced weaponry. The nineteenth-century military theorist Carl von Clausewitz argued that the prevailing form of war always reflects the era in which it occurs, and this is certainly the case with modern warfare. However, it should be noted that in any era there is more than just one characteristic *form* of war.

Modern warfare developed in terms of a number of broad themes that were increasingly characteristic of society as a whole, such as the growth in power of the state through processes of centralization, bureaucratization, and, to some extent, democratization. It was influenced by the rise of powerful ideologies, such as nationalism. Other important developments were rapid technological progress and industrialization driven by the scientific method, an associated swift rise in national populations, and a growing insistence that the citizen owed a duty to defend the state.

These forces took form during the course of the nineteenth and early twentieth centuries in a military revolution focused on mass conscript armies of ideologically motivated citizens, armed with mass-produced, long-range weapons of incredible killing power, and logistically sustained by industrialized economies that could maintain armies on distant fronts almost indefinitely. This produced a form of war where the absolute defeat of the enemy was the objective, and the entire population of the opposing state became potential targets.

The Napoleonic Legacy

The second half of the eighteenth century in Europe was characterized by comparatively 'limited' warfare. The spread of the rationalist values of the Enlightenment, and the lingering memory of the horrors of the religious wars of the seventeenth century were influential in moderating the conduct of warfare. Socio-economic factors were also important. All states faced major difficulties both in recruiting and retaining soldiers. Military service was not popular, and most armies relied on a combination of long-serving professionals and foreign mercenaries. Such professionals were expensive to recruit and train, and governments encouraged their generals not to risk such expensive assets in pitched battles.

Military factors also tended towards limited war. The linear warfare of the age required soldiers to have great training and discipline, and such trained troops were too valuable to be lightly thrown away. Fighting in line or square meant that infantry could only move very slowly, making it difficult to take opposing armies by surprise or to pursue them to the point of destruction. The ferocious discipline of armies encouraged desertion, making generals reluctant to order their troops to an unrelenting pursuit that might turn a limited battlefield success into absolute victory.

The horrors of the wars of the previous century also meant that commanders were reluctant to allow their soldiers to pillage. This meant that armies had to carry all their supplies with them, or else amass huge stockpiles of supplies at depots in advance, to which they were

subsequently tied. Supply limitations and poorly developed road networks also restricted the size of the armies that states could put into the field.

The Decline of Limited Warfare

The basis for change occurred in 1792, with the creation of the French Republic. To defend itself against its many enemies, the revolutionary regime embraced a radical new approach to the conduct of war, including the creation of a citizen army raised by conscription, the beginnings of economic regimentation and large-scale war production, as well as ideological warfare and indoctrination.

Unlike the limited war of the eighteenth century, the purpose of ideological war became the complete overthrow of the enemy. Rather than minor territorial gains, the objective of war became massive gains or even outright annexation. In the Revolutionary and Napoleonic period the French army deliberately sought out battle, and the army's ability to manoeuvre quickly compelled the enemy either to fight or retreat.

The French Revolution allowed France to raise mass armies, and these proved decisive in the early years of Napoleon's empire. Only the difficulties of supplying such huge numbers in the age before railways and mass production had previously limited army size. But by 1812, Napoleon was able to invade Russia with an army of nearly 600,000.

These massive armies raised new issues for generals and strategists. They were too large to be easily moved along a single road, but to spread them along several parallel roads left them vulnerable to being defeated in detail. The creation of the corps system overcame this danger, since each corps was essentially a small army of up to 50,000 men, with its own infantry, cavalry, and artillery—powerful enough to defend against the enemy army until the rest of the French army could be concentrated, yet small enough to advance rapidly.

The bigger armies posed another problem: they were difficult to feed and supply. The traditional supply depots used by eighteenth-century armies were soon left behind by the rapidly moving corps, yet the supplies required were so great that they would dramatically slow the army if it had to transport them. The solution was a reversion to pre-eighteenth-century practice. This was for the army to 'live off the land', to forage ruthlessly in the territories through which it marched.

This in turn meant that war necessarily had to be offensive war. Such foraging could not be practised in one's own country, so it must be carried out abroad where the war could be made to pay for itself. However, this encouraged an attitude of callous indifference towards the sufferings of those in the lands that were pillaged, and as a result triggered guerrilla war against the French.

With such large numbers of soldiers at their disposal, generals such as Napoleon Bonaparte felt able to squander their lives on a lavish scale in pursuit of military and political ambition. The French successes with huge armies in the Napoleonic period encouraged the erroneous assumption that numbers were the *only* decisive factor (see Box 3.1).

Unlike his eighteenth-century predecessors, Napoleon commanded armies that could move rapidly enough to *force* their opponents to give battle—deliberately seeking battle in order to defeat the enemy's army—and then destroy them with an unrelenting pursuit. Destroying a country's army in this way would then allow him to occupy and control the

BOX 3.1 Key Concepts

Napoleonic Warfare

> At its apogee, the Napoleonic way of war threw armies of unprecedented size on country-smashing campaigns of conquest through decisive manoeuvre and, usually, battle. The forces employed to accomplish such heroic tasks were an assemblage of professional soldiers, fairly patriotic French conscripts, and sundry (but increasingly reluctant) foreign mercenaries. The soldiery was articulated into autonomous *corps d'armée* and led with variable operational artistry by the Zeus of modern war, the Corsican 'mastermind' himself, variously aided and frequently abetted by his Imperial Headquarters (*very* approximate general staff) and—after 1804—his Marshalate. In its prime, which is to say in 1805–07, the Napoleonic style at least appeared to restore the power of swift decision to war as an instrument of foreign policy.
>
> Gray (2002: 140)

enemy's resources and leave them helpless to resist any political demands that France chose to make (Jones 1987: 350). A classic example of such warfare was the 1806 campaign against Prussia. The Prussian army was shattered at the twin battles of Jena-Auerstädt and then destroyed by a vigorous and continuous pursuit.

Clausewitz

Carl von Clausewitz (1780–1831) was a Prussian career soldier, with extensive experience in the conduct of war at all levels. His thought was influenced by the German nationalism of Schiller and Goethe and by numerous military writers, such as Berenhorst, who had argued that 'war is a natural social phenomenon, susceptible to analysis' (Nofi 1982: 16).

Clausewitz saw war as a political instrument, guided by rational decision-making; he stressed that it depended on the willingness to inflict violence and to suffer casualties. The purpose of war was to seek battle and to impose one's will on the opponent through violence.

Clausewitz emphasized that victory would come when the opponent's centre of gravity, or the focal point of power, was captured or destroyed. The destruction of the adversary's armed forces was the key to political victory, but this destruction was moral, not *necessarily* physical. It was the destruction of the opponent's capacity to resist, though for Clausewitz decisive battle was the surest way to achieve this outcome, and the heart of the enemy army was normally the decisive centre of gravity. Though tactics and strategies could be pursued that were designed to create a decisive advantage on the battlefield, for Clausewitz, numbers were ultimately decisive if all other things were equal.

In time Clausewitz's ideas would become decisively influential, though many of his disciples failed to note the caveats in some of his arguments, and they underplayed his emphasis on the power of the defensive in war. Although reflecting the lessons of Napoleonic warfare, Clausewitz's thinking was subtle and imaginative enough to remain of relevance throughout the period of industrialized mass warfare, and into the age of nuclear weapons and limited war (see Box 3.2).

BOX 3.2 Key Perspectives

Clausewitz's Key Ideas

- War is a normal part of politics, differing only in its means.
- War is an act of violence designed to achieve otherwise unattainable goals.
- Each age creates its own form of war.
- Since war involves people, it is inherently unpredictable.
- Victory is of no value unless it is a means to achieve a political objective.
- Other things being equal, numbers are ultimately decisive.

Key Points

- The Napoleonic period saw the emergence of mass armies produced by conscription.
- Napoleonic warfare focused on seeking decisive battle in order to destroy the opponent's army and capacity to resist.
- Ideology and nationalism helped to produce a more ruthless form of warfare and generated resistance through guerrilla war in many countries.

The Industrialization of War

During the nineteenth century, warfare became industrialized in two important senses. Modern technology was applied to the production of more sophisticated weaponry, but in addition a wide variety of developments in essentially civilian technologies proved immensely important for the future conduct of war. Weaponry, ammunition, and all the other material of war could now be mass produced. Armies of much greater size could therefore be sustained on campaign. Small developments such as the ability to store tinned food made it easier to provide food supplies for campaigning, even in the harsher winter months. Supplies could be moved quickly to the front in great quantities using the new railways. The first rail journey was made in 1825; by 1846 Prussia was able to move an army corps, with all its equipment, 250 miles in two days, rather than the two weeks a march would have required (Preston and Wise 1970: 244).

The use of railways meant not only that soldiers could be moved quickly, but that they remained relatively fit and unexhausted at the end of their journey, an important consideration with armies largely composed of reservists. Railways could be used to move wounded troops to rear-area hospitals, thereby improving their chances of survival. They could also bring replacements and reinforcements on a more regular basis. In 1870, Prussia invaded France with an army twice the size of the historically massive one Napoleon had led into Russia 60 years earlier. The much smaller French army, which had not been able to mobilize quickly enough, was simply overwhelmed. By 1914, the forces employed had doubled again.

The strategic value of railways was quickly realized. France moved 120,000 men to Italy during its 1859 war with Austria. Two years later the utility of railways for strategic advantage was clearly demonstrated in the opening campaign of the American Civil War. In July 1861, the movement of Johnston's Valley Army to Manassas enabled the Confederacy to achieve numerical parity and to win the First Battle of Manassas. The United States subsequently organized a Military Railway Department, which played an important role in the Union victory in the war. However, this was not before the Confederacy had used the railway system to achieve important strategic advantages in the Kentucky campaign of 1862 and Chickamauga campaign of 1863. The Union countered the Chickamauga setback with a massive rail movement of reinforcements to relieve besieged Chattanooga. During the Franco-Prussian War of 1870, the superior Prussian use of railways enabled it to heavily outnumber the opposing French armies and overwhelm them.

Another civilian technology of immediate military importance was the telegraph, which allowed political leaderships and theatre commanders to maintain communications with army leaders over distances that would previously have meant delays of days or weeks in communicating orders.

Development of Weapons Technology

During the course of the nineteenth century, a series of crucial developments in weapons technology transformed both strategy and tactics. Infantry weapons were revolutionized by the introduction of rifled gun barrels, smokeless cartridges, breech-loading, and eventually magazine weapons. Rifled weapons were far more accurate, and infantry could now hit their targets at ranges of several hundred yards. Rifled weapons rapidly proved their superiority in the early stages of the American Civil War, and breech-loaders became standard in European armies after the Prussian success with using them in the 1866 Austro-Prussian War. By 1884, however, the development of the Maxim machine gun produced an effective weapon which would revolutionize tactics.

During the 1860s rifled artillery also became the norm, and even muzzle-loading examples had ranges of 2 miles. By 1870, Prussia had produced efficient breech-loading rifled artillery, which outranged those of their French opponents, giving them a huge tactical advantage. In the 1890s, quick-firing technology increased the effectiveness of artillery still further.

The experience of the American Civil War (1861–5) and Franco-Prussian War (1870–1) demonstrated that these new weapons made it extremely difficult for infantry to close successfully with their enemy and that they suffered very heavy casualties if circumstances forced them to carry out such attacks. Battles such as Malvern Hill, Fredericksburg, and Gettysburg in the American Civil War, and Gravelotte in the Franco-Prussian War, were characterized by infantry suffering very heavy casualties against prepared defenders. When manoeuvrability was lost and the enemy entrenched, the difficulties for the attacker became even greater, as the final months of the Civil War in the east demonstrated. The search for decisive victory encouraged a greater willingness to target civilians (see Box 3.3).

On the evidence of the Prussian wars of 1866 and 1870, European strategists became convinced that mass armies, rapidly transported to the military theatre by train, and manoeuvring swiftly thereafter, would guarantee quick victory to the side prepared to take the offensive. Overlooked was the danger posed if the defender also mobilized rapidly and used railways

BOX 3.3 Key Concepts

Colonial Warfare

Although histories of war tend to focus on the collisions between the major powers in the nineteenth century, for many states—notably Britain, France, and Spain—colonial and imperial campaigns against non-European enemies absorbed much of their military energies and attention. Such conflicts were often characterized by extreme brutality. Decisive victories for the European powers were rare and were invariably followed by years of indecisive guerrilla warfare. Colonial commanders frequently resorted to massacres and the deliberate destruction of the local population's homes and food supplies in order to undermine their opponents' guerrilla campaigns. The contemporary military writer C. E. Callwell argued that 'in small wars, one is sometimes forced into committing havoc that the laws of regular warfare do not sanction' (Porch [2000] 2001: 104–5). It was a form of war from which European generals derived few lessons for European war, yet it was a precursor of the total war of the first half of the twentieth century, and a style of war that in some ways would be echoed in the so-called 'new wars' that followed the end of the cold war.

just as efficiently to mass defenders in the attacking army's path (Quester 1977: 80). The wars of the mid-nineteenth century had provided mixed lessons. The Crimean War and Franco-Austrian War had seen the early use of rifled weapons and railways, but in many ways had been characteristically Napoleonic conflicts. The Austro-Prussian War of 1866 had seen the use of mass armies and shown the importance of technological superiority, but had otherwise demonstrated none of the elements of total war. This was not the case with the Franco-Prussian War, which saw not only the effective use of staff work, railways, and the telegraph, but also heavy casualties produced by new long-range rifled weaponry. Ominously, the French defeat had also triggered political revolution and regime change in France, guerrilla warfare against the Prussians, and often savage reprisals by the occupying German forces.

War Outside Europe

European observers also failed to pay regard to the warnings from outside Europe. Colonial warfare was often notably savage but indecisive. In addition, a number of the large-scale wars fought outside Europe in the second half of the nineteenth century demonstrated many of the features of twentieth-century total war. The American Civil War was an ideological struggle to the death between two incompatible nationalisms, involving the use of mass conscription and a wide range of novel technologies, including rifled weapons, steamships, landmines, barbed wire, and observation balloons. Over 20 per cent of the Southern population fought in the war, and the Confederacy enlisted nearly 90 per cent of its available military manpower. Casualties were extremely heavy on both sides and Union forces deliberately targeted the southern civilian population in the Atlanta and Shenandoah campaigns of 1864, with General Sherman declaring: 'we are not only fighting hostile armies, but a hostile people and must make old and young, rich and poor, feel the hard hand of war' (Janda 1995: 15). Even more savage was the Great Paraguayan War between Brazil, Argentina, and Paraguay, which resulted in the death of over half of Paraguay's male population. These lessons were repeated in the Russo-Japanese War, characterized by massive armies,

horrendous casualties, battlefronts of enormous length, and battles that went on day and night, for weeks on end.

Key Points

- In the nineteenth century, the Industrial Revolution dramatically altered the conduct of war.
- Civilian technologies such as railways, steamships, the telegraph, and mass production made it possible to raise, equip, and control huge armies.
- New weapons such as rifled and breech-loading weapons, machine guns, armoured warships, mines, and submarines appeared.
- Governments sought to mobilize their populations to support the war effort.
- Because tactics were slow to change, heavy casualties were typical.

Naval Warfare

Naval warfare went through an equally dramatic revolution during the nineteenth century. During the Napoleonic Wars, warships were made of wood and powered by the wind. As the century progressed, they were increasingly armoured in metal, equipped with long-range rifled weapons, and, most importantly, given engines that enabled them to operate independently of the wind. In 1822, General Paixhans published *Nouvelle force maritime*, in which he argued that ships armed with explosive shells and protected with armour plate would be able to annihilate the existing wooden, cannon-armed warships (McNeil 1982: 226). The European navies began adopting such naval artillery in the 1830s and steam engines were introduced in the 1840s. The application of armour plate soon followed.

It was France that led the way in naval design in the mid-nineteenth century, with Britain being reluctant to encourage developments that might challenge her supremacy at sea. For decades warships had combined sail and steam propulsion, but as guns became more powerful, they needed to be based in revolving turrets, for which masts and sails were an obstacle. Britain launched the first battleship without any sails in 1873.

Emergence of Sea Power Theory

Although warship design was undergoing rapid evolution, strategic thinking about naval warfare was slow to evolve. Only towards the end of the century did significant developments take place. In 1890, Alfred Mahan published *The Influence of Seapower on History, 1660–1783*. Mahan argued that naval power had always been crucial in history, that the purpose of a great power's navy was to attain command of the sea, and that the way to achieve this was to concentrate naval capabilities in a powerful battle fleet and to seek out and destroy the major battle fleet or fleets of the enemy.

New schools of naval thought were emerging, which were unsettling to traditional naval commanders. For example the *Jeune École* in France argued that new systems such as torpedo boats would make commerce raiding the primary form of naval warfare in the future.

Proponents of the new technologies argued that the massive battle fleets of countries like Britain would be made obsolete.

These ideas alarmed proponents of traditional naval power in Britain, Germany, and Japan. Navalists, such as Colomb in Britain, Von Maltzen in Germany, and Saneyuki in Japan, argued that sea power would continue to dominate the world, because of its inherent advantages of mobility and flexibility. Admiral Colomb's *Naval Warfare: Its Ruling Principles and Practice Historically Treated* appeared at the same time as Mahan's book and argued that naval supremacy was critical for effective power projection, like Mahan insisting that battle fleets would dominate the sea and thereby the world.

Mahan's ideas contrasted with those contained in the geopolitics of Sir Halford Mackinder, who argued that world domination would go to the land power that controlled the Eurasian land mass in the era of railways. His theory downplayed the importance of naval power in the contemporary world. The proponents of naval power envisaged war at sea in terms strongly reminiscent of key features of Napoleonic land warfare. Once the main enemy battle fleet had been located and destroyed, command of the sea could then be exploited by the protection of trade, the destruction of the enemy's trade, and the projection of military power ashore.

A different view was offered by the British naval theorist, Sir Julian Corbett. Corbett argued that sea power was no more than a means to a political end. It was therefore important for a state to have a maritime strategy that was in tune with its political aspirations. However, Corbett was well aware that sea power on its own could not overwhelm a strong and resolute land power. Sea power had its limits, and a major naval power like Britain had historically always needed continental allies with land power at their disposal. He also argued that there was far more to maritime strategy than simply the pursuit of decisive battles, emphasizing the crucial importance of trade protection, commerce raiding, amphibious warfare, and transport of armies by sea.

In practice, armoured fleet action did not prove historically decisive. Only in the 1905 Japanese victory over Russia at Tsushima did such a victory occur. During the First World War, most of the new technologies failed to be decisive and simply made the fleet commanders more cautious. Britain imposed a naval blockade on Germany, which ultimately made a major contribution to the Allied victory. Britain also sought to bring the main German fleet to battle, but the encounters at Dogger Bank in 1915 and Jutland in 1916 were not immediately decisive. Jutland was a tactical victory for the German fleet, but ultimately a strategic victory for the British, since the German fleet never again challenged the British and was therefore unable to counter the Allied blockade.

Germany turned instead to submarine warfare, and submarine campaigns would prove vital in both world wars. By late 1917, British merchant shipping losses were becoming almost unsustainable, but, as would happen in the Second World War, the introduction of the convoy system, along with better tactics and equipment, allowed the allies to defeat the German submarine challenge. Nevertheless sea power, understood in Corbett's terms, was important to the outcome of the First World War. Allied naval superiority allowed them to seize Germany's overseas colonies, and to impose the ultimately devastating blockade. It also allowed the Allies to transport enormous quantities of men and material from outside Europe to the war zone, including a million French soldiers and 2 million American troops.

Key Points

- Naval technology was revolutionized during the nineteenth century.
- Steam power gave navies even greater flexibility and manoeuvrability.
- Heavy guns in revolving turrets, plus armoured warships, produced a new generation of all-gun ironclad battleships.
- Mahan argued that fleets of such warships would dominate the seas, while the *Jeune École* insisted that submarines and torpedo boats would be decisive.

Total War

By the beginning of the twentieth century, the major powers had come to accept the Clausewitzian idea that the threat and use of war were appropriate instruments of political purpose in the industrial era. The experience of the European wars of 1864, 1866, and 1870 encouraged the great powers to believe that any future war between the major powers would be both short and decisive.

By 1914, the political, economic, social, technological, and doctrinal trends of the nineteenth century had coalesced into a recipe for catastrophe. Doctrinally, armies were convinced of the virtues of Napoleonic warfare—mass armies, seeking out the army of the adversary, enveloping it, destroying it, and then pursuing the remnants of enemy forces until ability to resist any political demands had been crushed. Conscription and nationalism would provide the mass armies, which would be transported and supplied using the railway networks and the industrialized economies of mass production. Rapid movement, combined with the killing power of advanced weaponry, would deliver swift victory to the army that could mobilize and manoeuvre most efficiently.

The First World War

The reality was that by 1914 the battlefield had grown in size enormously in comparison to the Napoleonic era, and so had the armies that occupied it. By the winter of 1914, the trench line on the western front stretched from Switzerland to the English Channel. There were no flanks to go round, and no way of 'enveloping' the enemy army, which by this period consisted of over 3 million men on each side. Nor could the armies move as rapidly as the era of railways and aeroplanes might suggest. In 1914, warfare was still not fully mechanized. The German army advanced into Belgium and France in 1914 with fewer than 7,000 motor vehicles, but with 726,000 horses and 150,000 wagons (Addington 1994: 104).

Armed with powerful defensive weapons such as machine guns and long-range artillery, protected by trenches and barbed wire, and supplied with all the resources that the railways could deliver from a mobilized industrial economy, defending armies could not be swiftly shattered and dispersed in the Napoleonic fashion. The defending forces enjoyed an unprecedented ratio of force to space, making the stalemate which followed virtually inevitable. Once this stalemate had been created, it became a war not of rapid military offensives, but of 'economic and human endurance' (Quester 1977: 114). The enemy had to be worn down by

brutal frontal assaults that produced enormous casualty figures, while technological advances were sought which might break the battlefield stalemate. Germany attacked with poison gas at Ypres in 1915, while the British used the first tanks in the closing stage of the Battle of the Somme in 1916.

The conflict also saw war moving into a new dimension as air power became increasingly important. Aircraft were used for reconnaissance from the beginning of the war, and fighters evolved to destroy the reconnaissance aircraft. As the war continued, aircraft were increasingly used for tactical fire and bombing support to ground forces, and eventually for long-range strategic bombing. In their reconnaissance and raiding roles, the aircraft of the First World War essentially took on the role played by light cavalry in the Napoleonic period, just as tanks took on the role previously played by heavy cavalry.

Warfare was also becoming more total in its scope and application. Because it was so difficult to break through in the main theatre of war, the territorial scale of war expanded, as the combatants sought to place additional pressure on the opponent by opening new theatres of operations, such as Italy, the Balkans, and the Middle East.

The expansion of the geographical scope of war was accompanied by a greater willingness to deliberately target non-combatants. In the First World War this was seen in the use of unrestricted submarine warfare, as Germany attempted to prevent France and Britain from being supplied by sea. It was seen also in the blockade of Germany, which made a critical contribution to Germany's military collapse in the autumn of 1918 but also caused enormous civilian suffering and death. Both Germany and Britain inaugurated the long-range bombing of cities by aircraft.

Major war now involved an overwhelming proportion of the manpower, and material and moral resources of the state. Any object whose destruction promised to weaken the war effort of the enemy came to be seen as a legitimate target. Warfare was now coming to be directed as much against the civilians and industries that produced the weapons of war, as against the soldiers who actually used them. The idea of illegitimate objectives or targets, of criteria for justness and proportionality, increasingly came to be seen as irrelevant to the conduct of modern war, moving the major powers closer to total war.

Totality in warfare can be assessed by a number of elements, including: the type of weaponry employed; the strategy and tactics used; the proportion of a state's resources that are committed; the degree to which every human and material resource of the opponent is seen as a legitimate target; and the extent to which social and cultural pressures towards unrestricted warfare exist.

The Second World War

The elements of totality in warfare came into full flower in the Second World War. Once again the combatants mobilized their military, economic, and human resources to the maximum extent possible. Conscription was now extended beyond the men called up in the First World War, to embrace also the female population. Women took the place of men in agriculture and industry, and they also served in huge numbers in the armed forces in non-combatant roles. In some cases, such as the Soviet Air Force, they also served as combatants. Industry and the merchant navies were taken under government control and subordinated to the war effort, and rationing was introduced. Germany not only drew on its own population

BOX 3.4 Key Concepts

Total War

In the long history of warfare, it is natural that some wars will be less limited than others. The causes, the objectives of the belligerents, their cultures and the history of their previous interactions, the beliefs and values of the era, the prospects for victory, the possibility of outside intervention—these and many other factors influence the manner and means of waging war.

Totality in war is a relative rather than an absolute concept. Total war in the absolute sense would mean fighting without any restrictions. After the experience of Germany's defeat in the First World War, Erich Ludendorff, former Chief of Staff of the German armies on the western front, remained unconvinced by those in the interwar period who argued that a particular technology such as tanks, aircraft, or poison gas would bring swift victory in a future war. Nor did he believe that a tactical or strategic doctrine such as blitzkrieg would be able to do so.

For Ludendorff, the key to victory in war between industrialized nations was to follow to its brutally logical conclusion. War should therefore be characterized by total mobilization of all the military, economic, and human resources of the state. The enemy's civilian population should be deliberately targeted, and one's own civilians would suffer similar assault. Mobilization of the population should therefore embrace ideological features to sustain the war effort, and a political dictatorship to focus all the state's energy on winning the war.

In total war, governments are as demanding of their own citizens as they are ruthless towards their enemies. States draw on every natural resource that they can successfully mobilize, and treat virtually every element of the adversaries' society as a legitimate target, using all the weapons that are available to them. The citizens of the state are obliged to serve in the armed forces or participate in the production of war material; civil and political rights are constrained; the economy is subordinated to the war effort; every weapon, no matter how indiscriminate or terrible, is utilized; and the armed forces, industrial capacity, and the unarmed citizens of the opponent are deemed legitimate targets, because they all contribute to the enemy war effort in either tangible or psychological ways. This logic reached its height with the systematic area bombing of civilians in the Second World War, and in the cold war plans to inflict genocidal 'assured destruction' in a retaliatory nuclear strike.

In practice, wars invariably fall short of totality in one or more dimensions, such as: geographical scope; weaponry employed; mobilization of national resources and population; attitude towards neutrals; targeting strategies, and so on.

but, by the use of conscript and slave labour, on that of its enemies as well. The social totality of war increased still further with the systematic use of censorship and propaganda and the restriction or imprisonment of groups deemed to have suspect loyalties, such as conscientious objectors or citizens of foreign descent (see Box 3.4).

At the strategic and tactical level, the Second World War saw the implementation of military doctrines designed to restore the manoeuvring and offensive capacity that had been so conspicuously absent for most of the First. Germany scored dramatic successes with its blitzkrieg tactics from 1939–41, in which combined arms tactics involving tanks, infantry, and dive-bombers sought to bypass and disrupt enemy resistance, rather than to destroy it through frontal battles of attrition (see Box 3.5).

The effectiveness of blitzkrieg owed much to the inferior doctrine of the opposing British and French armies. The allies outnumbered the Germans in tanks in the campaign of 1940 and their tanks were superior in quality. However, the French viewed the tank as an infantry support weapon, as they had in 1918, while the Germans concentrated them in armoured

BOX 3.5 Definitions

Blitzkrieg

Blitzkrieg, or 'lightning war', was the term used to describe the successful German tactics for armoured offensives in the opening phase of the Second World War. It was an attempt to overcome the defensive dominance and static warfare characteristic of most of the First World War. Like Napoleonic warfare, it was a triumph based on superior doctrine rather than technological advantage. The theory was propounded by Basil Liddell Hart, Charles de Gaulle, and Heinz Guderian during the interwar years.

Available tanks were concentrated in a limited number of Panzer (armour) divisions, along with antitank and anti-aircraft guns, armoured cars for reconnaissance, and infantry support. The emphasis was on rapid advances designed to dislocate the enemy by breaking into the rear and throwing them off balance. The objective was deep penetration on a narrow front. Certain supporting technologies were important, for example radios in tanks for communication and coordination. Because the speed of the advance made it difficult for heavy artillery support to keep up, tactical air power was used as a form of artillery to help the breakthrough. The Ju 87 Stuka dive-bomber attacked defenders' positions as well as rear-area command and supply positions, reinforcements, and even refugee columns in order to create confusion and panic ahead of the advancing Panzer divisions. A crucial requirement for successful blitzkrieg is that the attacker must achieve air superiority over the battlefield.

divisions, with a view to rapid mechanized offensives. Germany also integrated its air power to support its ground offensives. The Luftwaffe was designed for tactical support of the army, a feature that would disadvantage it in the strategic bombing campaign against Britain in 1940–1, but which made it highly effective in the blitzkrieg land campaigns of 1939–41.

As with the First World War, technological advances prior to and during the war were crucial in a way that had not been typical in earlier wars. Radar helped the RAF win the Battle of Britain in 1940, while the use of the Anti-Submarine Detection technology ASDIC (sonar) and aircraft carriers were crucial in the anti-submarine detection war in the Battle of the Atlantic. Nuclear weapons played a key role in bringing about the unconditional surrender of Japan. However, German technological breakthroughs such as the ME262 jet fighter, V-1 cruise missile, and V-2 ballistic missile became operational too late in the war to affect its outcome. In the European war it was once again mass and industrial power that proved ultimately decisive, along with Germany's strategic problem of fighting a two-front war against the American and Soviet superpowers.

Whereas in the First World War the bombing of civilians had been a secondary tactic in support of the conventional ground war, in the Second, it became one of the primary war-fighting strategies. The opponent's cities and populations were deliberately targeted in an attempt to break the will to resist. By destroying the enemy's productive capacity, such attacks sought to undermine the ability of its armed forces to operate effectively. This logic reached its peak with the nuclear attacks on Japan in August 1945, when civilian targets were deliberately annihilated to compel the Japanese government to surrender.

For much of the war, strategic bombing failed to produce the dramatic results that pre-war advocates such as Douhet had predicted. Losses among the attacking aircrew were extremely heavy, forcing both the Germans and British to carry out their attacks at night, which made precision bombing virtually impossible. In the closing months of the European war, as German air defences became increasingly suppressed, the allies shifted their attacks

to key production 'bottlenecks', such as oil refineries. Such attacks proved far more effective in undermining Germany's war-fighting capacity than the earlier assaults on its overall economic capability had been.

Naval Power in the Second World War

The Second World War was global in scope, and naval power was more crucial to the outcome than it had been in the First World War. In the Battle of the Atlantic, Germany sought to strangle the Anglo-American war effort by destroying the merchant shipping bringing supplies, weapons, and soldiers across the Atlantic to Britain and into the Mediterranean. Although ultimately unsuccessful, the German U-boat campaign came close to success. In the Pacific, a similar American submarine campaign had brought the Japanese war effort to its knees by the summer of 1945.

Germany succeeded in the early part of the war because land-based air power compensated for its naval weakness. British naval losses to German air attack in the Crete campaign were equivalent to a major fleet action. However, once Allied fleets had acquired effective anti-aircraft weapons and carrier-based fighter protection, navies were able to resume their offensive role once more. The early phases of the Second World War demonstrated that, both on land and at sea, obtaining air superiority had become an essential prerequisite to successful military operations. Air power on its own could not guarantee victory, but its absence guaranteed defeat. By the end of the war, all major states had come to recognize that 'combined arms' or 'joint' warfare was the key to success in modern industrial war.

Amphibious operations were only a minor feature of the First World War, and the largest such operation, the landings at Gallipoli in 1915, was a tactical and strategic failure. In the Second World War, in contrast, amphibious operations were crucial to the final outcome in both the European and Pacific theatres. The invasions of North Africa, Sicily, Italy, and France saw major amphibious landings allow the Allies to seize the strategic initiative, while the American 'island-hopping' campaign in the Pacific outflanked and overcame Japanese power in the region, while ultimately moving American forces close enough to Japan to launch devastating conventional and nuclear attacks on the Japanese home islands.

In both the anti-submarine and amphibious offensive campaigns, the role of the aircraft carrier was of decisive importance. The aircraft carrier had replaced the battleship as the primary naval weapons platform, and the Second World War saw five major aircraft carrier battles in the Pacific war, as well as 22 other major naval engagements. In the European war, sea power was a crucial, but not a sufficient cause of the Allied victory, the Soviet land offensives being decisive. In the Pacific, however, sea power was decisive in the ultimate Allied victory.

The Second World War also saw large-scale parachute offensives. These operations were crucial in the German capture of Crete in 1941 and the Allied invasion of Normandy in 1944, as well as the Rhine crossings in 1945. The failure of the Arnhem operation in 1944, however, was a demonstration of the limitations of such forces. Unless reached quickly by substantial heavy reinforcements, parachute forces were too lightly armed to hold out against armoured forces, and large-scale parachute operations did not become a feature of the post-1945 environment, though they were employed in the 1956 Anglo-French Suez war against Egypt.

Key Points

- The First World War was a conflict between mass armies, which technology made difficult to defeat decisively.
- New technologies such as chemical weapons and tanks were used in an attempt to regain manoeuvre and decision.
- All of a state's economic and human resources increasingly came to be seen as legitimate targets.
- By the Second World War, air power had become crucial in support of forces on the battlefield and as the means to launch strategic attacks against the opposing homeland. Aircraft carriers emerged as the decisive naval weapon.
- Technology, amphibious landings, and parachute operations sought to avoid the deadlock characteristic of the First World War.

Nuclear Weapons and Revolutionary Warfare

Total war reached a peak with the Second World War. The ultimate example was the destruction of the Japanese cities of Hiroshima and Nagasaki in 1945. Yet, paradoxically, the unleashing of the nuclear weapon ushered in an era of limited warfare. During the 1950s, as the United States and Soviet Union acquired larger and larger stockpiles of increasingly accurate and destructive nuclear weapons, it became clear that a full-scale war between the two countries would be mutually suicidal (see Critical Thinking).

As a result, both states saw it as essential to avoid a full-scale war at all costs. Therefore, they sought to exercise restraint in their relations with each other and to avoid taking military actions that risked escalating to a full-scale conflict which might go nuclear. For the same reason, they sought to restrain the policies and war strategies of their allies and other states over which they had influence, in order to avoid being dragged into conflicts originating elsewhere.

A full-scale nuclear war would involve mutual assured destruction—a simultaneous genocide that bore no relation to the idea of war as a political act in the terms in which Clausewitz and his successors understood it.

However, while it was understood that strategic nuclear weapons could not perform a meaningful war-fighting role, their possession in large numbers was seen as necessary to deny a unilateral military and political advantage to the other side. They became central to the strategic doctrine of deterrence.

Tactical, and to some extent theatre nuclear weapons, however, were seen as retaining a function in war. With more limited nuclear yields, and assuming they were not employed in overwhelming numbers, it was believed that they could play a role in great power war, as long as a final escalation to a full-scale strategic nuclear exchange could be avoided. The dangers involved in such an ambiguous strategy were obvious.

Limited War During the Cold War

Conflicts during the cold war were therefore characterized by restraint shown by the nuclear superpowers in terms of the kinds of wars they fought. In Korea and Vietnam, for example,

the United States limited its war effort in terms of the weaponry used, the geographical scope of the war, and the objectives pursued—all restraints characteristic of limited rather than total war. During the 1973 Arab–Israeli War, the United States and Soviet Union both pressured their allies to end the fighting, because they were concerned that it might escalate and draw them into the conflict on opposing sides.

The reluctance of the most powerful states to employ the techniques of total war created an opportunity for their opponents to employ asymmetric tactics and strategies against them. In the Korean War, comparative American restraint meant that the vastly less well-equipped Chinese forces were able to achieve a military stalemate and preserve the independence of North Korea. In the Vietnam War, despite an even more dramatic disparity in military resources between North Vietnam and the United States, the North was able to deny the US victory. And once it had forced the US to withdraw from South Vietnam, it achieved its objective of the unification of Vietnam. The Soviet Union encountered similar problems in its war in Afghanistan.

The cold war period was therefore characterized by smaller-scale conventional wars and by campaigns of insurgency and counterinsurgency. Conventional wars tended to be limited in their outcomes and duration, and profoundly influenced by the geopolitical context of the cold war environment. The wars between Israel and its neighbours, as well as those between India and Pakistan, and Ethiopia and Somalia were typical of this pattern. However, these wars were unusual in one respect—they were inter-state conflicts. More typical was the prevalence of civil, rather than international war. Most wars in the second half of the twentieth century were civil wars and insurgencies, most notably in Africa and South East Asia.

Key Points

- Nuclear weapons ended the era of total war.
- Major powers subsequently engaged only in limited war.
- Insurgency and counterinsurgency were more typical forms of war during the second half of the twentieth century.

Critical Thinking War between the major powers has become obsolete

For

- ***Costs of war***. The costs of war have risen dramatically and the potential gains have fallen. Weapons of mass destruction mean that the potential casualties and destruction a state would suffer outweigh any conceivable policy goal.
- ***Other mechanisms available***. States have a variety of other diplomatic tools available to influence rivals, including sanctions and the UN.
- ***Absence of decisive victory***. In recent decades great powers have found it increasingly difficult to achieve decisive military victories. In Vietnam, Afghanistan, and Iraq victory against far weaker opponents proved elusive.

(continued . . .)

Critical Thinking *(continued)*

Against

- ***War-creating issues still exist***. War between great powers may be less likely, but it is still possible. Such wars tend to be struggles for dominance of the international order. Great powers cannot opt out of such conflicts. Nuclear weapons certainly induce greater caution, but this would shape the form the war took, rather than its likelihood.
- ***Irrational decisions***. War is not always a result of rational policy decision. War decisions are influenced by emotion and irrational factors. War has a metaphysical not just an instrumental dimension.
- ***Historical precedent***. This is not the first time in history that the end of war has been predicted. For example, early twentieth-century writers argued that technology and democracy had changed the situation. They were proved wrong.

Questions:

1. Has war between the major powers become obsolete?
2. Do wars since 1990 involving the great powers suggest that decisive victory is becoming harder to achieve?
3. Can nuclear weapons be used to conduct war in the classic 'Clausewitzian' sense?

Conclusion: Postmodern War

The end of the cold war was followed by a number of wars in Eastern Europe and Africa characterized by the employment of relatively low-tech weaponry, but with very heavy death tolls. Some of these conflicts were also marked by great savagery, leading some commentators to suggest that they were a novel form of war and that such wars would be characteristic of the post-cold war, postmodern world: that the era of industrialized great power war had passed.

It can be argued that global society is in the midst of a transition from modernity to postmodernity. The architecture of world order is changing as part of a long-term process and with it will change the associated institution of war, as happened in the earlier transition to modernity in the seventeenth century. The distinctively 'modern' state is evolving in the face of globalization, and shedding many of its responsibilities, including military responsibilities, to private actors.

This transition to postmodernity can be expected to influence war as a politico-cultural institution. The postmodern era has seen a dispersal of control over organized violence to many forms of non-state actors. Modern wars were fought by formally organized, hierarchically structured, specialized armed forces of the state. Postmodern wars are fought by a disparate array of fighting forces, many of which are informal or private (i.e. non-state). These include guerrilla armies, criminal gangs, foreign mercenaries, kin/clan-based irregular forces, paramilitary groups raised by local warlords, international peacekeepers, national armies, and de-territorialized terrorist networks. Some of these groups do not seek decisive battle in

BOX 3.6 Key Perspectives

Revolution in Military Affairs

The nature and frequency of such revolutions is a matter of dispute. Earl Tilford (1995: 1) defines them in relation to technology, doctrine, and force structure, declaring that a revolution in military affairs (RMA), is a major change in the nature of warfare brought about by the innovative application of new technologies which, combined with dramatic changes in military doctrine and operational and organizational concepts, fundamentally alters the character and conduct of military operations (Robertson 2000: 64).

Kapil Kak sees the second and third elements as the key, arguing that the 'historical record appears to suggest that technological change represents a relatively small part of the equation, the crucial element in most RMAs being conceptual in nature' (Kak 2008: 5).

Broader in concept than an RMA is the idea of a *military revolution*. Whereas many RMAs can be identified in history, true military revolutions are rare. Military revolutions are dynamically interactive social processes which, according to Williamson Murray, 'recast the nature of society and the state as well as of military organizations' (Murray 1997: 71).

the Clausewitzian sense; in contrast, they avoid it in favour of protracted asymmetric conflict. The war objectives of such groups are usually as political as are those of states themselves, so war has not lost its 'Clausewitzian' character (see Box 3.6).

At the same time as the shift downwards towards more low-tech wars, the so-called 'revolution in military affairs' has seen the United States at the leading edge of a technology-based enhancement of conventional military capability (see Box 3.6). This is not simply in relation to weapons technology such as drones or stealth warships; the next phase of military evolution being exploited by advanced militaries such as those of the United States is seeing a decline in the industrial age emphasis on individual weapons (platform-centric warfare) and increasing exploitation of complex integrated information systems (network-centric warfare), and is likely to be characterized by future evolution towards information- and knowledge-centric warfare.

The purposes and objectives of armed conflict are also changing. Modern wars originated in the pursuit of perceived national interests. Postmodern wars are often focused on 'identity politics'. These wars may break out in an effort to pursue ethnic cleansing, or religiously inspired holy war. Such conflicts are often particularly ferocious, and may not have clearly defined beginnings and endings, but they are no less political. They are conducted with strategic objectives, such as the acquisition of control over valuable resources or over the determination of state policy.

The political economy of war-making is also being transformed. During the modern era, military forces were maintained by state-based production and financing systems, preferably organized on a national basis. Postmodern non-state institutions of violence tend to draw material sustenance not from such formal and centralized national economies and defence industries, but from private production and finance networks organized either locally or on a global scale. Such sources may include: plunder and theft; hostage-taking for ransom; extortion; drug trafficking; arms trafficking; money laundering; remittances and material support from relevant diaspora communities; foreign assistance; and the diversion of humanitarian aid.

Postmodernity is perhaps continuing to loosen the grip that 'modern' war has had for the past two centuries. Just as feudalism and modernity each produced their own distinctive forms of war, so the transition to postmodernity is producing its own unique politico-cultural form of organized violence, even while the *nature* of war remains constant. War remains a purposeful instrument of political violence in many parts of the world, although decisive victory has become more elusive. In all ages, older forms of war and violence do not entirely disappear even as new forms gradually supplant them.

Questions

1. How valid is it to argue that the French Revolution unleashed an era of unlimited warfare?
2. Evaluate the thesis that Clausewitz still has something worthwhile to teach students of war in the contemporary world.
3. In what ways was warfare in the nineteenth century significantly affected by advances in technology?
4. Is war a catalyst for significant social and political change, or a reflection of it?
5. What do you understand by the phrase 'total war'? Does modern history provide examples of such conflict?
6. How would you define 'limited war'? Is limited nuclear war a contradiction in terms?
7. What do you understand by the concept of *either* 'sea power' or 'air power'?
8. To what extent have the objectives of war changed in the post-cold war world?
9. Will robotic weapons and cyberwarfare revolutionize the conduct of war?
10. In what ways do the so-called 'new wars' of the post-cold war period differ from earlier forms of war?

Further Reading

G. Best, *War and Society in Revolutionary Europe, 1770–1870* (London: Fontana, 1982) effectively captures the interrelationships between politics, technology, and warfare during this turbulent and formative period.

L. Freedman, *Strategy: A History* (Oxford: Oxford University Press, 2013) offers an impressive survey of the history and contemporary practice of strategy. Freedman adopts a broad definition of the subject.

A. Gat, *Clausewitz and the Enlightenment: The Origins of Modern Military Thought* (Oxford: Oxford University Press, 1993) explores the intellectual origins of the revolutionary military thinking of the nineteenth century.

A. Jones, *The Art of War in the Western World (Chicago, IL: University of Illinois Press, 1987)* is an impressive and very readable single volume treatment of the development and evolution of the military art over the centuries.

C. Messenger, *The Art of Blitzkrieg* (London: Ian Allan Ltd, 1976) presents a lively analysis of the effectiveness of superior doctrine over numbers and technology, and a useful case study of the impact of military evolution.

H. Munkler, *The New Wars* (Cambridge: Polity Press, 2005) provides an insightful and thought-provoking analysis of postmodern warfare, with a historical depth lacking in most studies of this subject.

M. O'Hanlon, *The Future of Land Warfare* (Washington, DC: Brookings Institution Press, 2015) cautions against the assumption that the advent of satellite-supported militaries with access to remotely operated weapon systems and other advanced technologies means that ground combat has become irrelevant or obsolete.

D. Porch, *Wars of Empire* (London: Cassell, 2001) is a very accessible and readable study of the 'little wars' of the nineteenth century, written by an acknowledged expert on colonial warfare and the French military experience in particular.

M. Walzer, *Just and Unjust Wars* (London: Allen Lane, 1978) is a study in ethics, but is extremely useful in understanding traditional and contemporary approaches to the question of morality and warfare.

G. Wright, *The Ordeal of Total War 1939–1945* (New York: Harper & Row, 1968) brings out the scope and totality of the Second World War and the impact that it had on civilians as well as the military.

Web Links

The Clausewitz Homepage **http://www.clausewitz.com/index.htm** is a comprehensive site for Clausewitz studies.

The US Army Center of Military History **http://www.history.army.mil** is a very good source on American military history.

US Army War College Quarterly: Parameters **https://ssi.armywarcollege.edu/pubs/parameters/** offers online access to the US army's strategic studies journal.

Naval Warfare Blog **http://navalwarfare.blogspot.co.uk** has excellent links to a wide range of naval warfare sources.

Strategic Theory

THOMAS G. MAHNKEN

Chapter Contents

Introduction 56
The Logic of Strategy 57
Clausewitz's *On War* 61
Sun Tzu and Mao 66
Conclusion 69

Reader's Guide

This chapter discusses strategic theory, which provides a conceptual understanding of the nature of war. It argues that the logic of war is universal. Although strategy is an art, it is one that can be studied systematically. The chapter begins by exploring the logic of strategy. It then discusses some of the most valuable concepts in strategic theory as contained in Carl von Clausewitz's *On War*. It briefly compares and contrasts these with the concepts contained in Sun Tzu's *Art of War* and the military writings of Mao Zedong and jihadist writers, before considering and rebutting the main arguments about the obsolescence of classical strategic theory.

Introduction

The logic of war and strategy is universal; it is valid at all times and in all places. This is primarily because war is a human activity, and human nature has remained unchanged in the face of material progress. The same passions that motivated those who lived millennia ago continue to drive us today. Although such strategic theorists as the nineteenth-century Prussian officer and philosopher Carl von Clausewitz and the ancient Chinese author Sun Tzu wrote from very different historical and cultural experiences and thus viewed strategy from unique perspectives, the phenomenon they described—war—is the same. It is the character and conduct of war—how it is waged, by whom, and for what ends—that has changed over time.

Strategic theory provides the conceptual foundation of an understanding of war. It offers a toolkit that can be used to analyse problems of war and peace. An understanding of theory equips the student with a set of concepts and questions to guide further study. As Clausewitz wrote, the purpose of theory is not to uncover fixed laws or principles, but rather to educate the mind:

> [Theory] is an analytical investigation leading to a close *acquaintance* with the subject; applied to experience—in our case, to military history—it leads to a thorough *familiarity* with

> it . . . Theory will have fulfilled its main task when it is used to analyse the constituent elements of war, to distinguish precisely what at first sight seems fused, to explain in full the properties of the means employed and to show their probable effects, to define clearly the nature of the ends in view, and to illuminate all phases of warfare in a thorough critical inquiry. Theory then becomes a guide to anyone who wants to learn about war from books; it will light his way, ease his progress, train his judgment, and help him to avoid pitfalls . . . It is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education, not to accompany him to the battlefield; just as a wise teacher guides and stimulates a young man's intellectual development, but is careful not to lead him by the hand for the rest of his life.
>
> Clausewitz (1989: 141)

In other words, Clausewitz suggests, we study strategic theory in order to learn how to think strategically. Because the stakes in war are so high, strategy is a supremely practical endeavour. The most elegant theory is useless if it is inapplicable to real problems. Strategic theory succeeds or fails in direct proportion to its ability to help decision-makers understand problems of war and peace and formulate sound strategy. As the twentieth-century American strategist Bernard Brodie put it, 'Strategy is a field where truth is sought in the pursuit of viable solutions' (1973: 452–3).

The Logic of Strategy

Strategy is ultimately about how to win wars. Any discussion of strategy must therefore begin with an understanding of war. As Clausewitz famously defined it, 'War is thus an act of force to compel our enemy to do our will' (1989: 75). Two aspects of this definition are notable. First, the fact that war involves force separates it from other types of political, economic, and military competition. Second, the fact that war is not senseless slaughter, but rather an instrument that is used to achieve a political purpose, differentiates it from other types of violence, such as criminality. Distinguishing war from non-war is important because it determines whether strategic theory can provide insight into the problem at hand.

It is the political context of war, and not the identity of those who wage it, that is its key characteristic (see Box 4.1). Empires, city states, subnational groups, and transnational movements have all used force to preserve or aggrandize themselves. The fact that United Nations forces in Somalia in 1993 fought Mohammed Farah Aideed's Habr Gidr clan rather than a recognized state matters less than the fact that both sides were strategic actors possessing political objectives and that each sought to use force to compel the other. Similarly, the struggle against violent Islamic extremist groups such as al-Qaeda and its affiliates as well as the Islamic State of Iraq and Syria (ISIS) fits the classical definition of a war, in that both sides have political aims and are using military means to achieve them. It is, to be sure, a strange war, one waged by irregular forces with unconventional means. However, the fact that it is a violent clash of wills means that it is amenable to strategic analysis. Conversely, the use of force to curb criminal behaviour such as piracy is not war, because pirates seek material gains rather than political aims.

Strategy is about making force usable for political purposes. If tactics is about employing troops in battle and operational art is concerned with conducting campaigns, then strategy

BOX 4.1 Key Perspectives

War as a Political Instrument

War is a matter of vital importance to the State.

Sun Tzu (1963: 63)

It is clear, consequently, that war is not a mere act of policy, but a true political instrument, a continuation of political activity by other means.

Clausewitz (1989: 87)

War is only a branch of political activity; it is in no sense autonomous.

Clausewitz (1989: 606)

No major proposal required for war can be worked out of ignorance of political factors; and when people talk, as they often do, about harmful political influence on the management of war, they are not really saying what they mean. Their quarrel should be with policy itself not with its influence.

Clausewitz (1989: 608)

The object of war is a better state of peace.

Liddell Hart ([1941] 1967: 351)

[Irregular warfare is] a violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s).

Department of Defense Directive 3000.07 (2008: 1)

deals with using military means to fulfil the ends of policy. It is the essential link between political objectives and military force, between ends and means. As Germany demonstrated in two world wars, mastery of tactics and operations counts for little without a coherent or feasible strategy.

The logic of strategy applies not only in wartime, but also in peace. Edward Mead Earle, writing during the Second World War, argued that strategy was 'an inherent element of statecraft at all times' (Earle 1943: viii). Throughout history, states have formulated and implemented strategies for competing with their rivals in peacetime, including: Athens and Sparta in the third century BC; France and Great Britain from the eighteenth to the nineteenth centuries; Germany and Great Britain in the nineteenth and twentieth centuries; the United States and Great Britain in the nineteenth and early twentieth centuries; the United States and Japan during the first half of the twentieth century; and the United States and the Soviet Union during the second half of the twentieth century. Some, such as the Anglo-American rivalry, ended peacefully and amicably. Others, such as the Anglo-German competition, led to war. Still others, such as the US–Soviet competition, yielded conflicts on the periphery and an armed and sometimes uneasy peace between the central actors.

Strategy is, or rather should be, a rational process. As Clausewitz wrote, 'No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it' (1989: 579). In

other words, successful strategy is based on clearly identifying political goals, assessing one's comparative advantage relative to the enemy, calculating costs and benefits carefully, and examining the risks and rewards of alternative strategies.

Clausewitz's formulation acknowledges, however, that states sometimes go to war without clear or feasible aims or a strategy to achieve them. Statesmen have embarked on war for ill-defined aims. At other times, statesmen and soldiers have failed to develop a strategy that will readily translate into achieving political aims. In the absence of a coherent policy, strategy can become ineffective because it lacks direction.

Sound strategy is formulated by individuals, but all strategies are implemented by bureaucracies. As a result, even a rational strategy can fail in execution. It is often difficult to determine, even in retrospect, whether failure was the result of the poor execution of a sound strategy or a strategy that was fundamentally unsound. Historians will, for example, long debate whether the decisions to disband the Iraqi army and ban the Ba'ath Party after the 2003 invasion of Iraq were mistakes in implementing an otherwise sound strategy, or whether the insurgency that followed the overthrow of Saddam Hussein was inevitable.

Strategy is more an art than a science. It is the realm of the probable rather than the certain. Sound strategy improves the chances of strategic success; it does not guarantee victory. Moreover, material and political reality inevitably constrain the range of strategic choice. The reciprocal action of the belligerents introduces further complexity. In addition, war is rife with passion, inaccurate information, misperception, and chance:

> Efforts were . . . made to equip the conduct of war with principles, rules, or even systems. This did present a positive goal, but people failed to take adequate account of the endless complexities involved. As we have seen, the conduct of war branches out in almost all directions and has no definite limits; while any system, any model, has the finite nature of a synthesis. An irreconcilable conflict exists between this type of theory and actual practice.
>
> Clausewitz (1989: 134)

Or, as Sun Tzu put it more succinctly, 'In the art of war there are no fixed rules' (Sun Tzu 1963: 93). As a result, a military problem may have many—or no—potentially correct solutions rather than one optimal one.

The fact that strategy is more an art than a science doesn't mean that it cannot be studied systematically. Rather, the theory of strategy consists of concepts and considerations instead of fixed laws.

Military success by itself is insufficient to achieve victory. History contains numerous examples of armies that won all the battles and yet lost the war due to a flawed strategy. In the Vietnam War, for example, the US military defeated the Vietcong and North Vietnamese Army in every major engagement they fought. The United States nonetheless lost the war because civilian and military leaders never understood the complex nature of the war they were waging. Conversely, the United States achieved its independence from Britain despite the fact that the Continental Army won only a handful of battles.

It is axiomatic that policy drives strategy. Policymakers and senior officers nonetheless frequently misunderstand this relationship. During the 1999 Kosovo War, for example, US Secretary of State Madeleine Albright was wrong in arguing that '[u]p until the start

of the conflict, the military served to back up our diplomacy. Now, our diplomacy serves to back up our military' (Isaacson 1999: 27). Similarly, Lieutenant General Charles A. Horner, the commander of US Air Force units in the 1991 Gulf War, was wrong when he said that war 'should not be dragged out in an effort to achieve some political objective' (Gordon 1990: 1).

It is worth emphasizing that the primacy of politics applies not only to states, but also to other strategic actors. As Ayman al-Zawahiri, al-Qaeda's chief theoretician, wrote in his book *Knights Under the Prophet's Banner*:

> If the successful operations against Islam's enemies and the severe damage inflicted on them do not serve the ultimate goal of establishing the Muslim nation in the heart of the Islamic world, they will be nothing more than disturbing acts, regardless of their magnitude, that could be absorbed and endured, even if after some time and with some losses.
>
> (Zawahiri 2008)

Clausewitz would doubtless approve of Zawahiri's understanding of strategy, if not his goals.

The political context of warfare can in some cases extend to tactical actions, particularly when they hold the potential to change the character of a war. During the North Atlantic Treaty Organization (NATO) war over Kosovo in 1999, for example, a US B-2 bomber accidentally dropped three precision-guided munitions on the Chinese embassy in Belgrade, killing four people. The incident was a mistake that the Chinese government interpreted as a deliberate act. Moreover, it was a tactical error with strategic consequences, triggering a diplomatic crisis between Washington and Beijing, disrupting moves to negotiate an end to the war, and prompting a halt to the bombing of targets in Belgrade for the next two weeks. Similarly, the abuse of Iraqi prisoners by a group of poorly trained and led guards at the Abu Ghraib prison in Iraq represented a strategic setback to American efforts to build legitimacy among the Iraqi population.

Although policy drives strategy, the capabilities and limitations of the military instrument also shape policy. As Clausewitz wrote, the political aim 'must adapt itself to its chosen means, a process which can radically change it' (1989: 87). To choose a ridiculous example to illustrate the point, it was one thing for Russia to invade Georgia in 2008; it would have been quite another for Georgia's tiny army to try to occupy Russia.

Just as it would be wrong to view war as nothing more than slaughter, it would be misleading to believe that force can be used in highly calibrated increments to achieve finely tuned effects. War has its own dynamics that make it an unwieldy instrument, more a bludgeon than a rapier. The pages of history are full of wars in which soldiers and statesmen sought quick, decisive victories over their foes; militaries have actually achieved such results only rarely, however.

Interaction with the adversary can make it difficult to achieve even the simplest objective. As Clausewitz reminds us, 'War is not the act of a living force upon a lifeless mass but always the collision of two living forces' (1989: 4). In other words, just as we seek to use force to compel our adversary to do our will, so too will he attempt to use force to coerce us. Effectiveness in war thus depends not only on what we do, but also on what an opponent does. This interaction limits significantly the ability to control the use of military force.

Key Points

- War is an act of force to compel your enemy to do your will.
- Strategy is about how to win wars. It is the essential link between political objectives and military force, between ends and means.
- Strategy is—or should be—a rational process.
- Strategy is more an art than a science.
- Interaction with the adversary makes it difficult to achieve even the simplest objective.

Clausewitz's *On War*

Carl von Clausewitz's unfinished masterpiece, *On War*, should form the cornerstone of any understanding of strategic theory. Unfortunately, the book is all too often misunderstood. *On War* was left incomplete due to the author's death from cholera in 1831. Book 1, Chapter 1 was the only part of the volume that Clausewitz considered complete. Like the Bible, *On War* is more frequently quoted than read, and more frequently perused than understood. It is not a book that can be comprehended fully after a single reading, but rather demands careful study and reflection, raising as many questions as it answers and forcing serious readers to grapple with the author's concepts.

Clausewitz's methodology, which distinguishes between 'war in theory' or 'absolute war' and war in reality, has led many mistakenly to identify him as an apostle of total war. In fact, he uses the approach of defining war in its ideal or pure form as a way of identifying the many considerations that shape war in reality. It is akin to a physicist examining mechanics in a frictionless environment or an economist describing an ideal market. In each case the observer is portraying the theoretical, not the real. In fact, Clausewitz argues that war can be fought for limited or unlimited aims with partial or total means.

As Hugh Smith has written, Clausewitz views war in four different contexts (Smith 2005: chapters 7–10). First and foremost, in his view war is ultimately about killing and dying. He is dismissive of the notion that war can be waged without bloodshed:

> Kind-hearted people might of course think that there was some ingenious way to disarm or defeat an enemy without too much bloodshed, and might imagine that this is the true goal of the art of war. Pleasant as it sounds, it is a fallacy that must be exposed: war is such a dangerous business that the mistakes which come from kindness are the very worst.
>
> Clausewitz (1989: 75)

Second, war is a contest between armies, generals, and states. Clausewitz invokes the metaphor of wrestling to describe war as a physical and mental competition, with each side trying to pin the other while simultaneously trying to avoid being pinned.

Third, war is an instrument of policy. It is not to be pursued for its own sake, but rather to serve the ends of the state.

Finally, he argues that war is a social activity. As someone who had lived through the French Revolution and fought in the Napoleonic Wars, he was acutely aware of the fact that social conditions mould the character and conduct of war.

A number of the concepts that Clausewitz introduces in *On War* are central to the study of strategy. These include the trinity, the need to understand the nature of a war, the difference between limited and unlimited wars, the rational calculus of war, and friction.

The Trinity

Clausewitz's description of war is one of his most enduring legacies. He views war as a 'paradoxical trinity—composed of violence, hatred, and enmity . . . the play of chance and probability . . . and of its element of subordination'. He wrote that each of these three tendencies generally (but not always) corresponds to one of three groups in society: the people, the military, and the government (1989: 89). Passion is most often associated with the people, whose animosities move states to fight. Probability and chance are the realm of the military. Indeed, soldiers most constantly deal with uncertainty and friction. Reason is generally a characteristic of the government, which determines the aims of war and the means for waging it.

Clausewitz argued that the relative intensity of and relationships among these tendencies change according to the circumstances of the war:

> Three different codes of law, deep-rooted in their subject and yet variable in their relationship to one another. A theory that ignores any one of them or seeks to fix an arbitrary relationship between them would conflict with reality to such an extent that for this reason alone it would be totally useless. Our task therefore is to develop a theory that maintains a balance between these three tendencies, like an object suspended between three magnets.
>
> Clausewitz (1989: 89)

The interaction of these three tendencies thus determines the character of a war.

Understanding the Nature of a War

Clausewitz argues that understanding the nature of a war is a necessary precondition to developing an effective strategy:

> The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish by that test the kind of war on which they are embarking, neither mistaking it for, nor trying to turn it into, something that is alien to its nature. This is the first of all strategic questions and the most comprehensive.
>
> Clausewitz (1989: 88–9)

In Clausewitz's view, the nature of a war is the result of the interaction of the objectives of the two sides; the people, government, and militaries of the belligerents; and the attitudes of allies and neutrals. He goes on to write:

> To assess these things in all their ramifications and diversity is plainly a colossal task. Rapid and correct appraisal of them clearly calls for the intuition of a genius; to master all this complex mass by sheer methodological examination is obviously impossible.
>
> Clausewitz (1989: 585–6)

This is yet another example of the fact that strategy is more an art than a science.

Because the nature of a war is the product of the interaction of the belligerents, every war is unique. The nature of a war is also dynamic because a change in any of its elements can alter the nature of the conflict. A shift in the aims of one or more of the participants, for example, can transform the nature of a war. So too can the entry of new participants. China's entry into the Korean War, for example, markedly changed its complexion.

Understanding the nature of a war is both necessary and difficult. Both participants at the time and historians subsequently debated whether the Vietnam War was an international communist war against South Vietnam, a civil war between North and South Vietnam, an insurgency in the south supported by the north, or a combination of these. Similarly, American statesmen and soldiers largely failed to comprehend that the swift defeat of Saddam Hussein's regime in the Iraq War would lead to a sustained insurgency. Even as the insurgency began to grow, it proved difficult for leaders at all levels to recognize it. As Linda Robinson notes:

> One of the enduring mysteries of the war, and a testament to its shape-shifting complexity, was that so many intelligent officers of all ranks made superhuman efforts to grapple with the task of analysis and prescription to relatively little effect. The long hours and press of battle and the proximity to the daily minutiae made it hard for many to see the forest for the trees.
>
> Robinson (2008: 13)

Inherent in understanding the nature of a war is gaining an appreciation of one's comparative advantage. This, in turn, forms the basis of sound strategy. The key to doing so, in Clausewitz's view, is understanding the enemy's centre of gravity:

> One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed.
>
> Clausewitz (1989: 595–6)

In Clausewitz's view, a state achieves victory by seeking out and attacking the enemy's centre of gravity. He wrote that the centre of gravity was most likely the enemy's army, capital city, principal ally, leader, and public opinion, in descending order. In practice, however, it can often be difficult to determine the adversary's centre of gravity. In the 1991 Gulf War, for example, US decision-makers viewed Iraq's military—particularly its Republican Guard—as the centre of gravity, when in fact the 'hub of all power' was Saddam Hussein's government.

Limited versus Unlimited Wars

Wars can be fought for a wide range of objectives, from a quest for land and resources to the utter destruction of the enemy. In a note for the revision of *On War*, however, Clausewitz drew a distinction between wars fought for limited aims and those fought for unlimited aims:

> War can be of two kinds, in the sense that either the objective is to *overthrow the enemy*—to render him politically helpless or militarily impotent, thus forcing him to sign whatever peace we please; or *merely to occupy some of his frontier districts* so that we can annex them or use them for bargaining at the peace negotiations. Transitions from one type to the other will of course recur in my treatment; but the fact that the aims of the two types are quite different must be clear at all times, and their points of irreconcilability brought out.
>
> Clausewitz (1989: 69)

This distinction affects the way that wars are fought and how they end. In wars for limited aims, soldiers and statesmen must translate battlefield success into political leverage over the adversary. As a result, they must continually reassess how far to go militarily and what to demand politically. Such wars end through formal or tacit negotiation and agreement between the warring parties. Wars for unlimited aims are fought to overthrow the adversary's regime or achieve unconditional surrender. They end in a peace settlement that is imposed rather than negotiated.

The 1991 Gulf War and 2003 Iraq War illustrate the difference between the two types of war. In 1991, the US-led coalition fought to liberate Kuwait from Iraqi occupation, restore Kuwait's government to power, ensure the safety of US citizens in the region, and ensure the security and stability of the Gulf region. In 2003, the United States and its allies fought to overthrow Saddam Hussein's Ba'athist regime.

The end of limited wars can lead to dissatisfaction on the part of one or more of the parties as well as a prolonged military commitment. A strong case can be made, for example, that the US-led coalition ended the 1991 Gulf War prematurely, before Saddam Hussein had been forced to concede. As a result, the United States acquired a prolonged commitment to the Gulf region, one that led to the stationing of US forces in Saudi Arabia and fostered resentment among Muslims in the region and across the globe. The aftermath of a war for unlimited aims leads to a protracted commitment of another sort, as the victors must install or support a new government. In the wake of the overthrow of Saddam Hussein's regime in 2003, the United States and its partners faced the daunting task of nation-building under fire: creating new political, economic, and military institutions in order to build political legitimacy and provide security for the Iraqi people while combating a widespread insurgency.

The Rational Calculus of War

Another concept that flows from Clausewitz's work is the notion that there should be a correlation between the value a state attaches to its ends and the means it uses to achieve them:

> Since war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices to be made for it in *magnitude* and also in *duration*. Once the expenditure of effort exceeds the value of the political object, the object must be renounced and peace must follow.
>
> Clausewitz (1989: 92)

States should thus be willing to fight longer and harder to secure or defend vital interests than peripheral ones. It helps explain, for example, why the US government chose to withdraw from Somalia after the death of 18 soldiers but remained in Korea despite suffering 33,000 deaths.

The notion of a rational calculus of war would appear to be one area in which strategy most resembles a science. However, although the notion makes sense in theory, it is far more problematic to apply in practice. It is often difficult, for example, for decision-makers to determine the costs and benefits of military action beforehand. Furthermore, estimates of the political, social, and economic costs change as war unfolds. As Clausewitz notes, 'The original political objects can change greatly later during the

course of the war and may finally change entirely since they are influenced by events and their probable consequence' (1989: 92). States may continue fighting beyond the 'rational' point of surrender when their leaders' prestige becomes invested in the war or the passions of the people become aroused. Alternatively, heavy losses may lead to escalation of a conflict, changing its character. During the 1990s, for example, al-Qaeda's attacks on Western targets led to a series of limited responses, such as the 1998 cruise missile strikes on Sudan and Afghanistan in retaliation against the bombings of the US embassies in Nairobi and Dar es Salaam. However, its attack on the United States on 11 September 2001, which killed nearly three thousand innocents, raised the stakes of the conflict considerably, triggering the invasion of Afghanistan, the overthrow of al-Qaeda's Taliban hosts, and a protracted series of campaigns to counter the terrorist movement world-wide.

Friction

Another concept with enduring value is that of friction, which Clausewitz defined as 'the only concept that more or less corresponds to the factors that distinguish real war from war on paper' (1989: 119). Clausewitz derived the name and the concept from physics. As he wrote in *The Principles of War*, 'The conduct of war resembles the workings of an intricate machine with enormous friction, so that combinations which are easily planned on paper can be executed only with great effort' (quoted in Smith 2005: 77). The sources of friction include the danger posed by the enemy, the effort required of one's own forces, the difficulties presented by the physical environment, and the problem of knowing what is occurring.

Examples of friction abound in recent wars. For example, the largest Iraqi counterattack of the 2003 Iraq War, which occurred early on 3 April near a key bridge over the Euphrates south-west of Baghdad, surprised US forces. US sensors failed to detect the approach of three Iraqi brigades composed of 8,000 soldiers backed by 70 tanks and armoured personnel carriers.

Key Points

- Clausewitz viewed war as a paradoxical trinity composed of passion, probability, and reason. These tendencies generally correspond to the people, the military, and the government.
- Understanding the nature of a war is a necessary but difficult precondition to developing an effective strategy.
- In war it is important to identify and attack the enemy's centre of gravity. In Clausewitz's view, this was most likely the enemy's army, capital, ally, leader, or public opinion.
- Clausewitz distinguished between wars fought for limited and unlimited aims. The former are fought over territory; the latter are fought to overthrow the enemy's regime or achieve unconditional surrender.
- Clausewitz argued that there should be a correlation between the value a state attaches to its ends and the means it uses to achieve them. In practice, however, this is often difficult to determine.

Sun Tzu and Mao

There is seemingly a wide gulf between Clausewitz and Sun Tzu. The former wrote from the perspective of early nineteenth-century Europe, the latter from the perspective of ancient China. The books they wrote are also strikingly different. Whereas *On War* is often a thicket of prose, much of *The Art of War* is made up of deceptively simple aphorisms. *On War* is close to 600 pages, *The Art of War* totals fewer than 40 pages in English and 6,600 characters in Chinese. Yet, as the British strategist Basil Liddell Hart observed, Clausewitz's *On War* does not differ as much from Sun Tzu's *Art of War* as it would appear on the surface (Handel 2001: 20).

Sun Tzu does, however, provide contrasting perspectives on several aspects of strategy. For example, the two authors exhibit different strategic preferences and offer contrasting views of intelligence and deception. Sun Tzu's approach has inspired subsequent generations of strategic theorists as diverse as Mao Zedong and a number of contemporary Islamist theoreticians.

Strategic Preferences

Sun Tzu's strategic preferences are significantly different from those of Clausewitz. Sun Tzu extols victory without bloodshed as the ideal, writing that 'to subdue the enemy without fighting is the acme of skill' (Sun Tzu 1963: 77). Clausewitz, by contrast, is sceptical of such an approach to combat, arguing that a reluctance to shed blood may play into an opponent's hands.

Sun Tzu sees war as a search for comparative advantage. He believes that success in war is less a matter of destroying the adversary's army than shattering his will to fight. In his view, the most successful strategies are those that emphasize psychology and deception.

To Sun Tzu, information represents a key to success in war. As he puts it, 'Know the enemy and know yourself; in a hundred battles you will never be in peril' (Sun Tzu 1963: 84). Typically, however, such pithy injunctions conceal the many challenges that make it difficult to understand oneself and one's adversary, including imperfect information, ethnocentrism, and mirror-imaging.

Whereas Clausewitz writes that destroying the enemy's army is most often the key to victory in war, Sun Tzu recommends that the best alternative is to attack the enemy's strategy. The next best alternative is to attack the opponent's alliances. Destroying the enemy's army ranks third on his list of preferred strategies.

Intelligence

Another contrast involves the two authors' views of intelligence. Sun Tzu is an intelligence optimist, claiming that the outcome of a war can be known in advance if the leader makes a complete estimate of the situation:

> To gauge the outcome of war we must compare the two sides by assessing their relative strengths. This is to ask the following questions: Which ruler has the way? Which commander

> has the greater ability? Which side has the advantage of climate and terrain? Which army follows regulations and obeys orders more strictly? Which army has superior strength? Which officers and men are better trained? Which side is more strict and impartial in meting out rewards and punishments? On the basis of this comparison I know who will win and who will lose.
>
> Sun Tzu (1993: 103–4)

Two aspects of this passage are noteworthy. First, he emphasizes 'relative strengths', not absolute capabilities. In other words, one's capabilities only matter when considered in relation to those of the adversary. Second, most of the factors that he identifies as being important are qualitative, not quantitative.

Clausewitz, by contrast, is an intelligence sceptic:

> Many intelligence reports in war are contradictory; even more are false, and most are uncertain . . . One report tallies with another, confirms it, magnifies it, lends it color, till he has to make a quick decision—which is soon recognized to be mistaken, just as the reports turn out to be lies, exaggerations, and so on. In short, most intelligence is false, and the effect of fear is to multiply lies and inaccuracies.
>
> Clausewitz (1989: 117)

The failure of the US intelligence community—indeed, of all major intelligence services—to determine that Iraq did not possess nuclear, biological, or chemical weapons prior to the 2003 Iraq War is evidence of the fact that despite the development of highly sophisticated means of collecting information, intelligence continues to be an uncertain business.

Sun Tzu is also a proponent of deception. He repeatedly discusses how the successful general can surprise and deceive an opponent and how he should gather good intelligence and weaken the morale of the enemy. Yet he seldom alludes to the fact that an enemy may be able to do the same.

Sun Tzu's imprint can be seen in the writings of Mao Zedong. Mao never summarized his theory of warfare in a single work. Rather, his theoretical contributions are scattered throughout several different writings. Taken as a whole, they offer a blueprint for the defeat of a stronger power by a much weaker force through a sophisticated politico-military strategy involving the incremental establishment of political control over the countryside, near total mobilization of the peasantry, and deliberate protraction of a conflict. He emphasizes that social, political, and economic developments have a decisive impact on the outcome of such a conflict. The concrete manifestation of his philosophy is a three-phase approach to war that begins with the revolutionary movement on the strategic defensive, builds to a strategic stalemate characterized by intensified guerrilla warfare, and culminates in a strategic counteroffensive that witnesses the defeat of the adversary in a decisive conventional battle (Mao Tse-Tung 1967).

Although Chinese in origin, Mao's writings have served as the template for revolutionary movements throughout the developing world. They have, in turn, influenced jihadist strategic thinkers who see in Mao's writings a model for how to overthrow a local government through a protracted insurgency (see Critical Thinking).

Key Points

- Sun Tzu argues that success in war comes from shattering the adversary's will to fight rather than destroying his army.
- Sun Tzu recommends that the best alternative is to attack the enemy's strategy.
- Sun Tzu claims that the outcome of a war can be known in advance if the leader makes a complete estimate of the situation.
- Mao Zedong offers a blueprint for insurgents to defeat a strong power through a protracted revolutionary war.

Critical Thinking Classical strategic theory is obsolete

For

- ***Information age warfare.*** The advent of the information age has invalidated traditional theories of warfare. Technology either has or will soon overcome much of the friction that has historically characterized combat. Some even argue that it demands a new body of strategic theory, one drawing its inspiration from business theory, economics, or the so-called new physical sciences.
- ***Non-state actors.*** The utility of classical strategic theory is limited to wars between armies and states, whereas war today more often involves trans- or subnational groups. In John Keegan's characterization, Clausewitzian thought makes 'no allowances for . . . war without beginning or end, the endemic warfare of non-state, even pre-state peoples' (Keegan 1993: 5). Implicit in this critique is the assumption that such conflicts obey logic distinct from those involving states.
- ***Strategy is an illusion.*** In this view, strategic concepts are misleading, even harmful. As the military historian Russell Weigley put it:

> War . . . is no longer the extension of politics by other means. It is doubtful whether the aphorism affirming that war is such an extension of politics was ever true enough to warrant the frequency with which it has been repeated.
>
> Weigley (1988: 341)

Against

- ***The enduring nature of war.*** First, although the growth and spread of stealth, precision, and information technology has had a dramatic influence on recent conflicts and portends even greater changes, there is as yet no evidence that it has altered the fundamental nature of war. The increasing complexity of modern wars in Kosovo, Afghanistan, and Iraq has demonstrated both the multiplying sources and enduring value of such concepts as friction. In fact, strategic theory and concepts such as war for limited and unlimited aims and the rational calculus of war enable assessment of new methods of war such as cyberwarfare.
- ***Non-state actors are strategic actors.*** It is unclear that war involving non-state actors is any different from that between states. The strategic questions most relevant to the struggle against Islamic terrorist networks differ little from those in previous inter-state wars. Although al-Qaeda looks and operates very differently than a conventional state adversary, it is nonetheless a strategic actor. Islamist authors such as Hasan al-Banna, Abu Bakr Naji, Abu' Ubayd al-Quarashi, and Abu Musab

Critical Thinking: (*continued*)

al-Suri have all penned works on strategy, including some that invoke the ideas of Clausewitz, Sun Tzu, and Mao (Stout et al. 2008: 123–32).

- ***Strategy is difficult, but vital.*** Those who argue that strategy is an illusion confuse the difficulty of executing strategy with the existence of an underlying strategic logic. Some strategic concepts may indeed be of limited utility in practice. For example, leaders may be unable to estimate the value of an objective before the fact. However, ignoring these concepts and guidelines will only diminish the prospects of success.

Questions:

1. Is classical strategic theory obsolete?
2. Has the development of new methods of war such as nuclear weapons and cyber tools changed war's nature?
3. Is it possible for modern states to formulate and implement coherent strategy?

Conclusion

Strategic theory reminds us that despite significant changes to the character and conduct of war brought by the development of new technology, the nature of war is constant. War remains the use of force to achieve political aims, regardless of whether the group seeking those aims is a state or terrorist network. Similarly, interaction with the adversary remains one of the key dynamics that prevents strategy from becoming a science.

Concepts found in Clausewitz's *On War* and Sun Tzu's *The Art of War* have similarly enduring value. Clausewitz's discussion of the remarkable trinity, the need to understand the nature of a war, the differences between limited and unlimited wars, the rational calculus of war, and friction are all useful precepts. Sun Tzu, for his part, reminds us that victory does not always require the physical destruction of an adversary. He also highlights the importance of intelligence. Together, these concepts can help us better understand contemporary conflicts.

Questions

1. Why is it important to study strategic theory?
2. In what ways is strategy an art? A science?
3. What are the main differences between Clausewitz's and Sun Tzu's views of strategy?
4. What considerations should decision-makers keep in mind as they contemplate using force?
5. What limits the utility of strategic theory as a guide to action?
6. What differentiates war from other forms of violence?
7. What are the main contributions of Clausewitz to strategic theory?

8. What are the main contributions of Sun Tzu to strategic theory?
9. Does Clausewitz or Sun Tzu have a more realistic view of intelligence?
10. Which elements of strategic theory are most relevant to the world of the early twenty-first century? Which are least relevant?

Further Reading

C. von Clausewitz, *On War*, edited and translated by M. Howard and P. Paret (Princeton, NJ: Princeton University Press, 1989) deserves to be read in its entirety.

C. S. Gray, *Modern Strategy* (Oxford: Oxford University Press, 1999) similarly argues for the unity of all strategic experience because nothing vital to the nature of warfare changes. He also makes a persuasive case that Clausewitz stands head and shoulders above other strategic theorists.

M. I. Handel, *Masters of War*, 3rd edn (London: Frank Cass, 2001) convincingly argues that Clausewitz, Sun Tzu, Mao Zedong, and other theorists employ a common strategic logic. What at first glance appear to be divergences and contradictions are often, on closer examination, differences of methodology, definition, or perspective.

B. H. Liddell Hart, *Strategy* (New York: Praeger, 1967) argues that decisive victories usually involve prior psychological dislocation of an adversary. Rather than concentrating one's troops, the commander should force his enemy to disperse his forces. Despite the author's overly narrow interpretation of Clausewitz and selective use of history, this is nonetheless an important work.

E. Luttwak, *Strategy: The Logic of War and Peace*, revised and enlarged edition (Cambridge, MA: Belknap Press, 2001) explores the paradoxical nature of strategy. It is a classic treatment of paradox in strategy.

T. G. Mahnken, *Competitive Strategies for the 21st Century: Theory, History and Practice* (Palo Alto, CA: Stanford University Press, 2012) discusses the theory and practice of developing and implementing strategy in peacetime.

T. G. Mahnken and J. A. Maiolo, *Strategic Studies: A Reader*, 2nd edn (Abingdon: Routledge, 2014) provides a useful compilation of many of the most valuable readings in strategic studies.

P. Paret (ed.), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986) offers an intellectual history of strategic thought from Machiavelli to modern times. It includes chapters on Machiavelli, Clausewitz, Jomini, and Mahan, and essays on the practice of strategy.

Sun Tzu, *The Art of War*. The serious student should read several translations. The best are the translations by **Samuel B. Griffith (Oxford: Oxford University Press, 1963)** and **Roger Ames (New York: Ballantine Books, 1993)**.

J. C. Wylie, *Military Strategy: A General Theory of Power Control* (Annapolis, MD: Naval Institute Press, 1989) is also a valuable work on strategy.

Web Links

The Clausewitz home page at **http://www.clausewitz.com/index.htm** contains a variety of useful research resources, including indices and bibliographies.

The Sun Tzu Art of War site **http://www.sonshi.com** contains a translation of *The Art of War*, reviews of the other major translations, and other works of strategy online.

The US Military Academy's Combating Terrorism Center **https://ctc.usma.edu/** contains the center's reports, which include some insightful analyses of jihadist strategic theory and practice.

Military History Online **http://www.militaryhistoryonline.com/** discusses many useful issues relevant to strategic theory along with a large number of case examples.

The Journal of Strategic Studies **http://www.tandfonline.com/loi/fjss20** is the premier journal of strategic studies and frequently publishes articles on strategic theory.

The Causes of War and the Conditions of Peace

JOHN GARNETT AND JOHN BAYLIS

Chapter Contents

Introduction 72
The Study of War 73
Human Nature Explanations of War 76
Wars 'Within' and 'Beyond' States 83
Conclusion 86

Reader's Guide

Scholarship dealing with the causes of war is voluminous and multidisciplinary. This chapter describes and explains theories that have been advanced by biologists, philosophers, political scientists, and sociologists about why wars occur. It groups their ideas into categories and shows how different explanations of war give rise to different requirements or conditions for peace. The chapter pays particular attention to explanations of war based on human nature and instinct, but it also considers psychological theories that emphasize misperception and frustration as causes of aggression. The ideas of those who find the causes of war in human collectives—states, tribes, and ethnic groups—and those who favour 'systemic' rather than 'unit' explanations are also described. The chapter also looks at the debate between 'greed' and 'grievance' as a cause of civil wars.

Introduction

Though 'strategy' these days is as much concerned with the promotion of peace as with the conduct of war, the phenomenon of war remains a central concern. Previous generations might have seen virtues in war, for example as an instrument of change or as a vehicle for encouraging heroic virtues, but these ideas have been rendered obsolete by the destructiveness of modern warfare. In the twentieth century, abolishing war became a top priority. The first step in ending war, however, is to identify its causes.

Historians sometimes argue that since each war is a unique event, the causes of war are as numerous as the number of wars and nothing general can be said about them. This chapter takes a different view. It identifies similarities and patterns between the causes of wars so that we can group causes under such headings as human nature, misperception, the nature of

states, and the structure of the international system. Its aim is twofold. First, to relate contemporary scholarship across a range of disciplines—biology, political science, philosophy, and history—to the problem of war causation, and second, to elaborate a number of distinctions which help us to identify different kinds of 'causes' (e.g. underlying and immediate causes). Throughout the chapter these distinctions are used to identify the various causes of war and to discriminate between them.

Since there is little scholarly agreement on what causes war, this chapter is directed towards explaining the debate rather than answering the question in a decisive way. The arguments are more than academic because, if the cure for war is related to its causes, then different causes will lead to different policy recommendations. If, on the one hand, wars are caused by arms races, then policies of disarmament and arms control are appropriate solutions to the problem of war. On the other hand, if wars are instigated by despotic or authoritarian states, then the way to peace lies in the spread of democracy. If the basic cause of war is deemed to be the 'international anarchy' which characterizes the current system of states, then attempts to rid the world of war will be geared towards promoting system change—perhaps in the direction of strengthened international law or a system of collective security or world government. Some explanations for war offer less hope than others for finding a way to end armed conflict. For example, those that locate war in a fundamentally flawed human nature suggest a bleaker future for the human race than those that locate the causes of war in learned behaviour. If war is learned rather than instinctive, then there is a possibility that it can be eliminated through social engineering.

Three conclusions emerge from this analysis. First, the search for a single cause appropriate to all wars is futile. Second, because war comes in a variety of forms and has a multiplicity of causes, its elimination will almost certainly require simultaneous domestic and international political action. Third, a world-wide 'just' peace is unattainable.

The Study of War

In the field of international relations, no question has attracted more attention than 'Why war?' The reason for this interest is that war is almost universally regarded as a human disaster, a source of misery on a catastrophic scale, and, in the nuclear age, a threat to the entire human race. But war has not always been viewed so negatively. In the nineteenth century, for example, numerous writers identified virtues in war (see the Introduction). The philosopher G. W. F. Hegel believed that war preserved the ethical health of nations, and in a similar vein H. von Treitschke regarded war as 'the only remedy for ailing nations' (Gowans 1914: 23). For Treitschke, war was one of the conditions for progress, the cut of the whip that prevents a country from going to sleep, forcing satisfied mediocrity to leave its apathy. This kind of thinking alerts us to the idea that war can be thought of as a purposive, functional thing. E. H. Carr regarded it as 'the midwife of change' (1942: 3): 'Wars . . . break up and sweep away the half-rotted structures of an old social and political order.' These authors suggested that wars herald rapid technological progress, territorial change, strengthened group consciousness, and economic development. The idea of war as a purposive, functional thing, however, sits uneasily in an age that typically interprets war as an abnormal, pathological condition that threatens us all.

Idle curiosity or an aimless spirit of enquiry has not been the motivation behind most investigations into the causes of war. Theorists have studied war to abolish it. They have believed that the first step towards eliminating war is to identify its causes because, in much the same way that the cures for disease are related to the causes of disease, so the cures for war are to be found in its causes. As long as students of war do not allow their enthusiasm for prescription to affect their diagnostic skills, no harm is done. However, there is a danger that researchers may be tempted to gloss over the more intractable causes of war in favour of those which suggest the possibility that solutions to human conflict can be readily found.

Many social scientists recoil from the idea that though particular wars may be avoided, war is endemic in the human condition. The idea that war is inevitable is pretty difficult to swallow, psychologically speaking, and that may explain why pessimistic interpretations of the causes of war meet with resistance. Take, for example, the view that the root cause of war is to be found in human nature, i.e. that aggression and violence are genetically built into humans and that we do what we do because of what we are. Despite some scientific evidence in support of this idea, there is enormous resistance to it. Why? Because, if human nature is fixed in our genes, we are helpless in the face of ourselves. For many observers, the conclusion that war is built into us is an intolerable counsel of despair, even though it is a useful reminder that just because the elimination of war is desirable does not mean that it is therefore possible.

A gloomy interpretation of human nature and an admission of its intractability, however, do not automatically lead to despair of ever being able to rid the world of war. Some would argue that wars are not caused by human *nature*; they are caused by human *behaviour*. And while it may not be possible to change human nature, it is certainly possible to modify human behaviour—by offering rewards, by making threats, through education programmes, or using propaganda.

Civilized societies spend a great deal of energy on making people behave themselves despite their natures. The law, the police, schools, and churches all play a part in modifying human behaviour in the domestic environment. The possibility of modifying state behaviour is also widely recognized. Diplomacy, force, trade, aid, and propaganda are all instruments used by leaders to affect the behaviour of the states they are dealing with. Deterrent strategists, for example, argue that even if human nature is fatally flawed (and most of them think it is), states can still be deterred from aggression by the threat of unacceptable punishment in much the same way that many potential criminals can be deterred from robbing banks by the threat of imprisonment (see Chapter 12).

Difficulties in Studying War

No clear authoritative answer has emerged, and perhaps one never will, to the question 'Why war?' One of the reasons for this is that the word 'war' is a blanket term used to describe diverse activities. There are total wars and limited wars, regional wars and world wars, conventional wars and nuclear wars, high-technology wars and low-technology wars, inter-state wars and civil wars, insurgency wars and ethnic wars. In recent years, wars have also been fought by coalitions on behalf of the international community. It would be very surprising if these widely different activities—linked only by the fact that they involve organized military violence—could be explained in the same way.

Another reason for the absence of an authoritative answer is that the question 'What are the causes of war?' is a complicated, 'cluster' question. Under its umbrella, as Hidemi

Suganami has pointed out, we may be asking a number of different questions. We may, for example, be asking 'What are the conditions that must be present for wars to occur?' or we may be asking 'Under what circumstances have wars occurred most frequently?' or we may be asking about how a particular war came about (Suganami 1996: 4). Lumping these questions together inevitably leads to complicated and unsatisfactory answers.

An additional reason for complex answers to the question of war causation is that the concept of causation itself is fraught with philosophical difficulties. One may note that X is often a prelude to Y, but that is not at all the same as proving that X caused Y. Various writers, for example, noting that wars are often preceded by arms races between the belligerents, have claimed that arms races *cause* wars. Arms races sometimes cause war, but an *automatic* connection has not been conclusively demonstrated. Arguably, human beings do not fight because they have weapons; they acquire weapons because they already wish to fight. Further, it is worth pointing out that not all arms races have led to war. Anglo-French naval competition in the nineteenth century led to the *entente cordiale*, while the cold war arms race between the United States and the Soviet Union led to a deterrent stalemate and one of the most prolonged periods of peace in European history.

Given the difficulties inherent in the problem of causation, some writers (particularly historians) have preferred to talk about the 'origins' of wars rather than 'causes'. They believe that the best way of explaining why wars occur is to describe how they come about in terms of the social context and events from which they spring. Thus, if we are investigating the causes of the Second World War, we need to look at the Treaty of Versailles, the world depression, the rise of Hitler, German rearmament, the foreign policies of Britain and France, etc. When we have done this, we are well on the way to understanding the circumstances that led to the Second World War. Those who emphasize the origins of wars hold the view that telling the story of how they come about is as close as we can get to understanding why.

Historians who favour this very specific 'case study' approach to the identification of the causes of war tend to believe that since every war is a unique event with unique causes, the causes of war are as numerous as the number of wars. Hence, providing an authoritative answer to the question 'What are the causes of war?' would involve a detailed examination of every war that has ever occurred: the uniqueness of every war means that there is nothing general to be said about them. For investigations concerned with the causes of individual wars this is a fair point. Nevertheless, while acknowledging the uniqueness of individual wars, most political scientists see merit in shifting the level of analysis from the particular to the general so that we can see patterns and similarities between the causes of one war and another. At this more general level of analysis we may identify some causes which are common to many, if not all, wars.

Key Points

- The idea that war is endemic in the human condition is psychologically unpalatable, but it may nevertheless be true. Even if human nature cannot be changed, it may be possible to modify human behaviour so that wars are less frequent.
- Since there are many different kinds of war, it is not surprising that no single cause of war can be identified.

Human Nature Explanations of War

There is widespread agreement that one of the things that distinguishes human beings from animals is that most of their behaviour is learned rather than instinctive. No one knows what the relative percentages are and there is an ongoing debate about the relative importance of 'nature' versus 'nurture' (heredity versus environment) as a determinant of human behaviour. Inevitably, this debate has raised the question of whether war is an example of innate or learned behaviour. If it is *innate* then we must accept it, since in any reasonable timescale biological evolution is too slow to modify it. If it is *learned*, however, then it can be unlearned and there is hope for us all. Liberal thinkers prefer to emphasize the importance of nurture and are naturally attracted to the idea that aggression and war can be tamed. Conservative thinkers tend to throw their weight behind nature and are therefore sceptical about the possibilities of ridding the world of war.

Though they are disposed to minimize its significance, even committed liberals admit that there is a genetic, instinctive element in human behaviour. We do not start with clean slates on which life's experiences are written to make us what we are. We come with genetic baggage, biologically programmed, with built-in drives and instincts, one of which, it is argued, is a predilection for aggression and violence. In a celebrated exchange of letters in 1932, both Albert Einstein and Sigmund Freud agreed that the roots of war were to be found in an elemental instinct for aggression and destruction. Einstein thought that 'man has in him an active instinct for hatred and destruction', and Freud believed he had identified a 'death instinct' which manifested itself in homicide and suicide (Freud 1932). In the 1960s, ethological and socio-biological research brought new life to 'instinct' theories of aggression. Konrad Lorenz argued, largely on the basis of his observations of the behaviour of birds and fish, that an aggressive instinct is embedded in the genetic make-up of all animals (including man), and that this instinct has been a prerequisite for survival (Lorenz 1976). Robert Ardrey, in *The Territorial Imperative*, reached a similar conclusion and suggested a 'territorial' instinct to run alongside Lorenz's four instincts—hunger, fear, sex, and aggression (Ardrey 1966). Edward O. Wilson in *On Human Nature* noted that human beings are disposed to react with unreasoning hatred to perceived threats to their safety and possessions, and he argued that 'we tend to fear deeply the actions of strangers and to solve conflict by aggression' (Wilson 1978: 119).

Although Richard Dawkins in his book *The Selfish Gene* has shifted the level of analysis from the individual to the genes that help make him what he is, he too is under no illusions about human nature. His argument is that

> a predominant quality to be expected in a successful gene is ruthless selfishness. This gene selfishness will usually give rise to selfishness in individual behaviour . . . Much as we might wish to believe otherwise, universal love and welfare of the species as a whole are concepts which simply do not make evolutionary sense.
>
> Dawkins (1976: 2–3)

This analysis leads Dawkins to the bleak conclusion that 'if you wish . . . to build a society in which individuals cooperate generously and unselfishly towards a common good, you can expect little help from biological nature' (1976: 3) (see Box 5.1).

BOX 5.1 Key Perspectives

The Causes of War

One may seek in political philosophy answers to the question: 'Where are the major causes of war to be found?' The answers are bewildering in their variety and in their contradictory qualities. To make this variety manageable, the answers can be ordered under the following three headings: within man, within the structure of separate states, within the state system.

> There is deceit and cunning and from these wars arise.
>
> Waltz, *Man, the State, and War*

> Whatever can be said in favour of a balance of power can be said only because we are wicked.
>
> Confucius

> It is quite true that it would be much better for all men to remain always at peace. But so long as there is no security for this, everyone having no guarantee that he can avoid war, is anxious to begin it at the moment which suits his own interest and so forestall a neighbour, who would not fail to forestall the attack in his turn at any moment favourable to himself.
>
> Woodrow Wilson

> Force is a means of achieving the external ends of states because there exists no consistent, reliable process of reconciling the conflicts of interest that inevitably arise among similar units in a condition of anarchy.
>
> Rousseau

The human nature explanation of war is a persuasive one, but at least two qualifications need to be made about it. First, we need to ask whether the evidence produced by the study of animals is really relevant to the behaviour of human beings. The animal behaviourists say it is, because man is simply a higher animal, connected to the rest of the animal kingdom by evolution. To deny that human beings have instincts in the same way that animals do is to deny the almost universally accepted principle of evolution, which links all life on the planet. Even so, we cannot help wondering whether the kind of cross-species generalization engaged in by biologists is valid. After all, human beings are very different from animals. They are more intelligent. They have a moral sense. They reflect about what they do; they plan ahead. Some would claim that these differences are so important that for all intents and purposes they lift man out of the animal world and reduce his instincts to no more than vestigial significance. Waltz notes in his book *Man, the State, and War* that arguing that human nature causes war is not very helpful since if human nature causes war then, logically, it also causes everything else that human beings do. In his words, 'human nature may in some sense have been the cause of war in 1914, but by the same token it was the cause of peace in 1910' (Waltz 1959: 28). In other words, human nature is a constant and cannot explain the wide variety of activities that humans exhibit.

Frustration Explanations of War

Social psychologists, while still locating war in 'man', offer explanations for its occurrence that rely less on instinct and more on socially programmed human behaviour. Typically, they

argue that aggression is a result of frustration. When individuals find themselves thwarted in the achievement of their desires, goals, and objectives, they experience frustration which causes pent-up resentment that needs to find an outlet. This frequently takes the form of aggressive behaviour which, in turn, has a cathartic effect of releasing tension and making those who engage in it feel better. Usually aggression is levelled at those who cause the frustration, but sometimes it is vented against innocents who become scapegoats. This psychological process of transferring aggression to a secondary group is called 'displacement'. Sometimes individuals project their frustrated desires and ambitions onto the group or collective, be it tribe or state, to which they belong. In the words of Reinhold Niebuhr, 'the man in the street, with his lust for power and prestige thwarted by his own limitations and the necessities of social life, projects his ego upon his nation and indulges his anarchic lusts vicariously' (1932: 93).

There is a sense in which the 'frustration/aggression' hypothesis, which emphasizes the connection between violence and the failure of human beings to achieve their objectives, is somewhat more optimistic than instinct theories of aggression. Although frustration in life is unavoidable, it may be possible either to channel aggression into harmless activities like sport (psychologists call this sublimation), or to organize society in ways that minimize frustrations (sociologists call this social engineering).

Misperception Explanations of War

Accepting that wars cannot occur unless statesmen decide to wage them, many believe that decisions to go to war are often the result of misperception, misunderstanding, miscalculation, and errors of judgement. Essentially, those who think in this way regard wars as *mistakes*, the tragic consequences of failing to appreciate things as they are. This being the case, they are caused more by human frailty or fallibility than malice. Robert Jervis (1976), building on the ideas of Kenneth Boulding (1956), has contributed enormously to our understanding of these psychological causes of war. He makes the point that in order to make sense of the world around us, all of us develop images of reality through which we filter the welter of information that bombards our senses. These 'images' of reality are more important than reality itself when it comes to determining our behaviour; they act as a distorting lens which inhibits our ability to see reality as it is and predisposes us to judge the world in ways that confirm our preexisting concepts.

Critically important misperceptions likely to lead to war include mistaken estimates of both enemy intentions and capabilities, inaccurate assessments of the military balance between adversaries, and failures to judge the risks and consequences of war properly. Quite frequently these kinds of misperceptions are made by both sides involved in a conflict. For example, Greg Cashman has argued that in the Gulf War, Saddam Hussein may have perceived a threat from Kuwait's reluctance to allow Iraq to cancel its debts and its unwillingness to pump less oil. He may even have perceived a joint American–Israeli–British conspiracy to deny Iraq sophisticated weaponry. On the other hand, leaders in virtually all of the Middle East capitals underestimated the degree of threat posed by Iraq and were taken by surprise when Kuwait was invaded. Thus, while Iraqi leaders overestimated the degree of threat to their interests, their opponents underestimated the hostility of Iraq (Cashman 1993: 63). But perhaps the most critical misperception of all was Saddam Hussein's failure to anticipate

Western resolve and the creation of a powerful military coalition against him. There were at least as many misperceptions surrounding the 2003 Iraq War. Despite the unambiguous warnings he had received, Saddam was convinced that the United States and Britain would not invade. For their part, the Americans and the British believed that Saddam possessed weapons of mass destruction and was well on the way to acquiring nuclear capability. They also believed that invasion would be universally welcomed by Iraqis, that Iraq was a haven for terrorists, and that democracy could be created with relative ease. None of these beliefs were true, but for the participants they formed the psychological reality against which they made their decisions.

Before the Second World War, Hitler mistakenly believed that Britain would not fight and Chamberlain mistakenly believed that Germany could be appeased by concessions. Other delusions and misconceptions that contributed to the outbreak of war in 1939 have been identified by A. J. P. Taylor. Mussolini was deluded about the strength of Italy; the French believed that France was impregnable. Churchill believed that Britain could remain a great power despite the war, and Hitler 'supposed that Germany would contend with Soviet Russia and the United States for mastery of the world' (Nelson and Olin 1979: 153–4). In Britain hardly anyone expected that German blitzkrieg tactics would bring France down in a matter of weeks, and throughout Europe people grossly overestimated the power of strategic bombing. Given this plethora of misunderstandings, misjudgements, and misperceptions, it is easy to argue that statesmen stumbled into the Second World War because they were out of touch with reality.

Much the same point can be made about the Falklands War in 1981. Misperceptions abounded. Britain seriously misinterpreted Argentine intentions with respect to invasion, and Argentina badly misjudged Britain's determination to resist. For years the two governments had been involved in intermittent negotiations about a possible transfer of sovereignty, and, though little progress had been made, the Conservative government could not believe that the Argentine junta would seize South Georgia before the possibilities of negotiation had been exhausted. What the British government failed to appreciate was the significance of the Malvinas in the Argentine psyche and the domestic pressures to act that this put on President Galtieri and Dr Costa Mendez. For its part, the government of Argentina could not believe that at the end of the twentieth century a Eurocentric, postcolonial Britain was prepared to spill blood for the sake of a barren relic of empire 10,000 miles away.

There is a sense in which the misconceptions prevalent both in Germany before the Second World War and in Argentina before the Falklands War are understandable. The signals transmitted by the policy of appeasement may have suggested to Hitler that since he had got away with swallowing the Rhineland in 1936, and Austria and the Sudetenland in 1938, he could probably get away with aggression against Poland in 1939. In the case of the Falklands, the casual pace of British diplomacy and the absence of any serious military capability in the area may have suggested to the Argentines that Britain was not much interested in the fate of the Falkland Islands and was unlikely to defend them. Perhaps, in both of these cases, it was not so much that signals were *misread* but that *the wrong signals were sent*. Either way, Britain's enemies made serious miscalculations of her intentions, and war resulted.

If wars are caused by misperceptions and misunderstandings created by cognitive biases, then conditions for peace include more clear thinking, better communications among

countries, and education. This thought lies behind the United Nations Educational, Scientific, and Cultural Organization (UNESCO) motto 'Peace Through Understanding', various 'education for peace' proposals, and the attempts that are frequently made to get potential adversaries around the conference table so that they can better understand each other. The basic idea is that if enemies can be brought to appreciate each other's perspectives, then the disputes that divide them will dissolve because they will be seen to be either illusory or not sufficiently serious to justify war. Perhaps we can detect in this approach relics of the idea of a natural 'harmony of interests', which would prevail if only misunderstandings were cleared up.

Before we are persuaded by this idea that wars can be prevented by removing misperceptions and misunderstandings, a word of warning is appropriate. It may not be possible to eradicate misperception from human affairs given the inherent cognitive weaknesses of the human mind. The need to simplify, the inability to empathize, the tendency to ethnocentrism, the reluctance to relinquish or recognize prejudices—all familiar human weaknesses—may make some degree of misperception inevitable. Herbert Butterfield recognized this point when he identified an 'irreducible dilemma' lying in the very geometry of human conflict. Butterfield imagined a situation in which two potential enemies, both armed, face each other. Neither harbours any hostile intent but neither can be sure of the intentions of the other.

> You cannot enter into the other man's counterfear [and] it is never possible for you to realize or remember properly that since he cannot see the inside of your mind, he can never have the same assurance of your intentions that you have.
>
> Butterfield (1952: 21)

Butterfield makes the point that the greatest war in history could be caused by statesmen who desperately want peace but whose cognitive limitations lead them to misinterpret each other's intentions (Butterfield 1952: 19). (Discerning students will realize that Butterfield's 'ultimate predicament' has, in recent years, surfaced in the literature of strategic studies as 'the security dilemma'.)

Additionally, not all wars are caused by misperceptions and misunderstandings, even though they may be surrounded by them. Some wars—perhaps most—are rooted in genuine disagreement and conflicting interests, and in these cases discussions between enemies simply promote a better understanding of the disputes that divide them. Indeed, in some situations improved understanding may actually exacerbate the divisions between adversaries. When it was suggested to him that international hatred and suspicion could be reduced by getting nations to understand one another better, Sir Evelyn Baring, British governor in Egypt between 1883 and 1907, replied that 'the more they understand one another the more they will hate one another' (Waltz 1959: 50). Perhaps it can be argued that for most of the 1930s Britain was at peace with Germany precisely because the British did not understand Hitler. When, in September 1939, the penny finally dropped, Britain declared war on Germany.

Group Explanations of War

Though embarked on by individual human beings, war, by definition, is a group activity. It is waged by human collectives—factions, tribes, nations, states, and even perhaps by

'civilizations'. This has led some to shift the responsibility for war from human beings to the group within which they live and to which they owe varying degrees of allegiance. Those who argue in this way believe that there is nothing much wrong with human beings per se, but that they are corrupted by the social structures in which they live. In the words of Friedrich Nietzsche, 'Madness is the exception in individuals but the rule in groups' (Nietzsche 1966: 15). Essentially, the argument is that there is something about human collectives that encourages violence.

Perhaps the trouble starts with the sense of difference that we all feel between 'us' and 'them'. Whenever people can make a distinction between those who belong to their own collective grouping—be it tribe, state, or nation—and other groups with which they cannot identify easily, they have laid the foundation for conflict. It is all too easy for a group to slide from recognizing that it is different from other groups to believing that it is superior to them. Hence, this sense of differentiation readily leads to group selfishness, inter-group conflict, and ultimately war. As Niebuhr once observed, 'altruistic passion is sluiced into the reservoirs of nationalism with great ease, and made to flow beyond them with great difficulty' (Niebuhr 1932: 91).

G. Le Bon was one of the earliest social psychologists to notice that the behaviour of social groups is different from—and usually worse than—the behaviour of the individuals that comprise them. He developed the idea of crowd psychology: that in a crowd a new entity or collective mind comes into being. He believed that while in groups, individuals lose their normal restraints, become more suggestible, more emotional, and less rational. What is more, groups have reduced feelings of responsibility, because the more responsibility is diffused in crowds, the less heavily it weighs on each individual. Since responsibility is everywhere (and therefore nowhere), blame cannot be allocated specifically, and this frees human collectives from normal moral restraints (Le Bon 1897: 41). This thought was neatly captured in the title of Niebuhr's classic *Moral Man and Immoral Society*. Eric Hoffer, in discussing the appeal of mass movements, makes the same point very graphically: 'When we lose our individual independence in the corporateness of a mass movement, we find a new freedom—freedom to hate, bully, lie, torture, murder and betray without shame or remorse' (Hoffer 1952: 118).

Human beings have always lived in differentiated groups and it is unlikely that this will change in the foreseeable future. The interesting question is whether some groups are more war prone than others. In the context of inter-state wars, for example, are capitalist states more warlike than socialist states or vice versa? There is no clear answer to that question. Can we argue that democratic states are more peace-loving than authoritarian states? Again there is no clear answer. Although some evidence suggests that democracies do not fight *each other* very often, other historical evidence suggests that democracies fight just as often as other types of states. As the wars in Iraq and Afghanistan (as well as the struggle against ISIS) have shown, democratic states have also demonstrated some enthusiasm for wars of intervention in support of human rights. This current fashion for waging wars in support of liberal values does not augur well for a peaceful world.

Various observers have noted, however, that democracies seldom, if ever, *fight each other*. Michael Doyle, for example, has argued that liberal states are more peacefully inclined towards each other because their governments are more constrained by democratic institutions, and

because they share the same democratic values. Commercial interdependence between liberal states also gives them a vested interest in peace (Doyle 1983, 1986). If Doyle and those who share his views are right, one of the conditions for peace is the spread of democracy—a trend that has gathered pace particularly since the end of the cold war. For the first time ever, almost half of the world's governments are now democratic. The thesis that the spread of democracy will promote peace is no more than plausible, however, and it would be unwise to accept it uncritically.

The Bargaining Model and the Causes of War

In contrast to social and psychological-based theories which argue that war is caused by social factors, miscalculation, or perceptual biases, the bargaining model of war sees war as a deliberate political act. Following the Clausewitzian tradition that war is a means of achieving political objectives and is not an end in itself, bargaining theorists argue that conflicts arise as a result of disagreements over scarce resources or policy choices. They argue that because war is costly, potential belligerents would prefer to reach a settlement rather than fight. However, according to the bargaining model: 'Fighting breaks out when two sides cannot reach a bargain that both prefer to war. Each side fights to improve its chances of getting a desirable settlement of the disputed issue. The war ends when the two sides strike a bargain that both prefer to continuing the war . . . the duration of peace following the war reflects the willingness of both sides not to break the war-ending bargain' (Reiter 2003: 29).

One bargaining theorist, James Fearon, argues that the failure to reach a bargain, resulting in the outbreak of a violent conflict, may be the result of three things: uncertainty, commitment issues, or indivisibility problems. Uncertainty arises when one side either overestimates its own capabilities or underestimates the strength or resolve of its opponent. One example would be Hitler's attack on Russia in the summer of 1941. A second reason why wars break out is the inability of potentially hostile actors to commit that they will not use their military strength in the future. If one side sees an advantage in striking first it may engage in a pre-emptive attack before its advantage disappears. The lack of commitment to a first strike may prevent a bargain being reached which would have prevented the conflict. Fearon's third explanation for the outbreak of war focuses on the indivisibility of some issues which are in dispute. This is sometimes the case in ethnic disputes within states. Conflicts can break out if a particular ethnic group seeks to achieve autonomy or independence by violent means. This is often seen as setting a precedent which results in a violent response by the state.

One contemporary illustration of the bargaining model is the conflict between the United States under Donald Trump and North Korea. Both sides have been engaged in brinkmanship, threatening pre-emptive strikes to achieve their respective political objectives: the US to stop the North Korean nuclear programme and North Korea for deterrence reasons and to promote its status. The strategy of brinkmanship is, in essence, part of the bargaining process. The threats of pre-emption are the result of the failure of previous attempts to arrive at a mutually acceptable solution. Such threats could also result in conflict, with wider regional repercussions. As is often the case between hostile actors, arriving at a bargain which will suit both sides remains extremely difficult. It remains to be seen whether a bargain can be struck between the US and Kim Jong-un.

Key Points

- Some believe that human beings are genetically programmed towards violence, but there is an ongoing debate about whether war is an example of innate or learned behaviour.
- Social psychologists have argued that aggression is the result of frustration. Some believe feelings of aggression can be channelled into harmless activities like sport.
- Wars that result from misperceptions, misunderstandings, and miscalculations by statesmen might be prevented by better communications and more accurate information.
- Some believe that there is something about human collectives that encourages violence.
- There is some evidence, however, that though democratic states fight as frequently as other states, they do not fight each other.
- Bargaining theorists of war focus on political causes such as uncertainty, commitment issues, and the indivisibility of some issues in dispute.

Wars 'Within' and 'Beyond' States

Perhaps because of the spread of democracy, it is often argued that *inter-state* violence is now less of a problem than it was just a few years ago. Indeed, it has been calculated that since 1970 fewer than 10 per cent of armed conflicts have been inter-state wars fought for traditional objectives. Sometimes, of course, wars straddle both the 'internal' and 'inter-state' categories. The Indo-China war is a case in point. What started as a colonial war developed into a civil war and became an inter-state war with the intervention of the United States and its allies in Vietnam. In Libya in 2011 resistance to Colonel Gaddafi, triggered by 'the Arab Spring', also led to Western intervention in support of the rebels. The subsequent overthrow of Gaddafi meant that the distinction between civil conflict and inter-state conflict was blurred.

One reason why it is argued that inter-state wars may be going out of fashion is that in a globalized world the expected value of conquest has diminished and its costs, both economic and political, have escalated. States bent on improving their standards of living are better advised to spend their money on education, research, and technology than on conquering other countries and trying to hold down hostile populations. The contemporary moral climate makes aggressive wars difficult to justify, and the media revolution makes it difficult to avoid the opprobrium attached to waging them.

General Sir Rupert Smith is one of the most recent in a long line of commentators who echo this fashionable perception that old-fashioned wars are old hat. Violence exists, he says, but 'wars in the future will not be waged between states. Instead we will fight among the people' (Smith 2006: 1). The general may be right, but a little reflection suggests that both he and those who think like him may be premature in their judgement. The conflicts between Israel and Hizbullah in Lebanon in 2006, Russia and Georgia in 2008, Israel and Hamas in Gaza in 2008 and 2014, and Russia and Ukraine over the Crimea in 2014, all took place across neighbouring borders. Levy and Thompson have argued that inter-state wars are normally much more significant in their consequences than intra-state conflicts (Levy and Thompson 2010). It is also possible to envisage a scenario, perhaps not far into the future, when there is

a desperate scramble for scarce resources by capitalist countries that find it increasingly difficult to sustain their profligate lifestyles as vital minerals, particularly fossil fuels, start to run out.

If that should happen, advanced industrial countries might face the stark choice between going under or waging inter-state war to secure supplies of essential materials. Take oil for example. To deny a modern industrial state oil is to deny it the means of survival. Since no state has ever committed suicide, who can doubt that, faced with the destruction of their way of life, states will do whatever is necessary to secure adequate supplies of oil—including waging inter-state war. In short, inter-state war is not yet off the agenda, even for civilized states that pride themselves on their peaceful intentions.

Even if it is accepted that there has been a decline in inter-state wars, this does not explain the rising incidence of internal war. There are a number of reasons why civil wars have become common, but perhaps the most basic is that in many parts of the world sovereign states—which are usually defined in terms of the monopoly of military power that they wield within their territory—have lost that monopoly to a variety of bodies, be they tribes, ethnic groups, terrorists, warlords, splinter groups, or armed gangs. As the conflict in Syria demonstrates, when governments lose their monopoly of military force they can no longer control their territory or their people. The domestic environment begins to resemble the ungoverned international system which, as we saw earlier in this chapter, is a structural, 'permissive' cause of war. In Hobbesian anarchy, ancient tensions and hatreds that were previously contained burst to the surface. We have also seen the consequences of this in Bosnia, Kosovo, Chechnya, Afghanistan, Sierra Leone, Somalia, East Timor, and Haiti.

What is particularly horrifying about ethnic wars is that people are brutalized and killed not because of anything they have done, not even because of their politics, but simply because of who they are. That is what is so terrible about the persecution of the Tutsis in Rwanda, the Tamils in Sri Lanka, the Kurds in Iraq, the Muslims in Bosnia, and the Albanians in Kosovo. Ethnic wars are quite different from Clausewitzian politically motivated conflicts where the belligerents disagree about something and seek to resolve their disagreement by inter-state war—an activity conducted according to moral and legal rules. It may be going too far to describe run-of-the-mill inter-state wars as rational and civilized, but there is a grain of sense in the thought. Ethnic wars are quite different. They are not about the pursuit of interests as normally understood. They are about malevolence and they are not restrained by any legal or moral rules. As the rise of Islamic State in Iraq and Syria (ISIS) in 2014 demonstrates, 'religious' or 'ethnic cleansing', like 'the final solution', is surely one of the most sinister phrases to enter the political vocabulary of the twentieth and twenty-first centuries.

It is ironic that authoritarian governments, so frequently blamed for inter-state wars, were instrumental in preventing civil wars in countries like Yugoslavia and the Soviet Union. Hobbes' *Leviathan* may have its attractions if the alternative is genocidal violence. If the thousands of ethnic groups that exist in the world can no longer be contained in nation states, then we face the break-up of international society into a myriad of micro-groups. The consequences of 'Balkanization' on this scale are unlikely to lead to a more peaceful world. But is it possible to generalize about the origins of civil conflicts?

There is a significant and interesting literature about the causes of civil wars. One of the liveliest areas of scholarship is the 'greed versus grievance debate'. Paul Collier and Anke Hoeffler wrote an important piece in 2000 which argued that 'greed' was much more important than

'grievance' in understanding why civil wars began and why they often lasted for considerable periods of time. Focusing on an economic explanation of causes, they argued that those involved in armed conflicts were largely motivated by a desire to improve their own financial situation (i.e. 'greed'), rather than by 'grievances' related to issues of identity, such as ethnicity, religion, or social class. Civil wars, they argued, were more likely to occur where there were lootable natural resources such as diamonds, drugs, or timber. The examples often cited to justify this theory include the role of diamonds in the conflicts in Sierra Leone, Angola, and the Democratic Republic of Congo, timber in Cambodia, and the poppy trade controlled by the insurgents in the conflict in Afghanistan. According to this view, rebels often have an incentive to keep civil wars going to improve their own or the group's financial position.

Those who reject the 'greed thesis' do so either because they believe that 'grievances' relating to such things as oppression, inequality, or discrimination are at the root of civil wars or because they believe that civil conflicts are much more complex than the 'greed versus grievance theory' suggests. 'Greed' and 'grievance' may be interrelated or other factors may be involved. David Keen, in his study of 'Complex Emergencies', argues that it is important to look at the 'specifics' of particular conflicts. Different types of conflicts have different causes and this requires a mix of multiple theories to understand their causes. (See Critical Thinking.)

Critical Thinking 'Greed' is more important than 'grievance' as a cause of civil wars

For

- ***The importance of economic forces.*** 'Ethnic tensions and ancient political feuds are not starting civil wars around the world—economic forces such as entrenched poverty and the trade in natural resources are the true culprits.' (Collier 2004: 4)
- ***The key role of lootable resources.*** 'Greed' in terms of lootable diamonds, timber, and drugs were the critical factors in the conflicts in Angola, Nigeria, Democratic Republic of Congo, Cambodia, Liberia, and Sierra Leone.
- ***The importance of the 'Resource Curse'.*** At the heart of civil conflicts is the 'Resource Curse'—i.e. the richer a country is in natural resources, the more likely it is to suffer civil violence.
- ***Greed is the key.*** 'Grievance discourse is merely window dressing.'

Against

- ***The roles of poverty and justice.*** While greed may be present, relative deprivation and the search for social justice are more often at the heart of civil wars.
- ***Libya as a case study.*** Libya, with the fall of Gaddafi, does not conform to the idea of a greed-based rebellion. Several grievances such as vertical inequalities, involving economic grievances and a lack of political rights, as well as horizontal inequalities, involving regional and tribal differences, were the main motivation for the conflict.
- ***The role of corruption and ethnicity.*** Ukraine provides a good example of the role that grievances relating to corruption and ethnicity play in civil conflicts.

(*continued . . .*)

Critical Thinking: (*continued*)

- R***eligion as a cause.*** Grievances associated with religion are often a fundamental cause of civil conflict. Iraq and Syria provide compelling evidence of this.

Questions:

1. Do you agree that 'greed' is the main cause of civil wars?
2. How important do you think the perception of relative deprivation is as a cause of civil violence?
3. What have been the main causes of civil violence in Syria?

Key Points

- As inter-state war has waned, intra-state conflict has become more frequent.
- Ethnic conflicts do not easily fit the Clausewitzian model. They are particularly violent and people are often killed because of who they are rather than because of their behaviour or politics.
- There is a major debate between those who believe that 'greed' or 'grievance' are the main causes of civil wars.

Conclusion

There is no shortage of 'cures' for the 'disease' of war. Some are bizarre. For example, Linus Pauling once suggested that wars are caused by a vitamin deficiency and that we could eat our way out of aggression by swallowing the appropriate tablets. Others—like calls to change human nature, to reconstruct the state system, to redistribute equitably the world's wealth, to abolish armaments, or to 're-educate' mankind—follow with faultless logic from the various causes of war which scholars have identified. But since there is no prospect of implementing them in the foreseeable future, in a sense they are not solutions at all. Henry IV's reputed comment on an equally impractical proposal for peace is still appropriate: 'It is perfect', the king said, 'Perfect. I see no single flaw in it save one, namely, that no earthly prince would ever agree to it.' Hedley Bull has rightly condemned such solutions as 'a corruption of thinking about international relations and a distraction from its proper concerns' (Bull 1961: 26–7).

We have to begin by recognizing the limits of what is possible. Maybe we can then edge our way forward by improving our techniques of diplomacy, communication, crisis avoidance, and crisis management; by developing a concept of enlightened self-interest which is sensitive to the interests of others; by extending the scope of international law and building on existing moral constraints; by learning how to manage military power through responsible civil–military relations and sophisticated measures of arms control; and by strengthening cooperation through international organizations and world trade. These are not spectacular, radical, or foolproof solutions to the problem of war. That is why practical foreign policymaking is more akin to weeding than landscape gardening. However, they are practical steps

that offer the possibility at least of reducing its frequency, and perhaps also of limiting its destructiveness. Even if war could be abolished, we need to remember that peace is not a panacea in which all human antagonisms are resolved. Peace is simply the absence of war, not the absence of conflict. As the cold war demonstrated, it is just as possible to wage peace as it is to wage war. Though 'peace' and 'war' are usually regarded as opposites, there is a sense in which both are aspects of the conflict that is endemic in all social life. War is simply a special kind of conflict that differs from peace only by its violent nature. The fact that peace is not a panacea explains why, when confronted with the stark choice of peace or war, leaders sometimes choose war. Some kinds of peace—under dictatorships, for example—may be worse than some kinds of war. In other words, although almost everyone wants peace, almost no one (apart from strict pacifists) wants only peace or peace at any price. If it were otherwise, the problem of war would disappear since as a last resort states can always avoid war by surrendering. Capitulation might bring peace, but it would almost certainly entail the loss of some of those other things that states want—like independence, justice, prosperity, and freedom. When it comes to the crunch, leaders may think that some fundamental values or goals are worth fighting for.

Ideally, of course, what people want is a world-wide just peace. Unfortunately, this is an unattainable dream. It would require agreement on whose justice is to prevail. It would require a redistribution of the world's wealth from the haves to the have-nots. Just peace would require all religious and political movements—Muslims, Christians, Jews, Hindus, communists, capitalists—to tolerate each other. It would also require an end to cultural imperialism and an agreement that differing cultural values are equally valid. It would probably require the disappearance of borders and differentiated societies with their 'them' and 'us' mentalities. In short, it would require human beings to behave in ways in which they have never behaved. Since justice and peace do not go together, statesmen will have to continue choosing between them. The pursuit of justice may require them to wage war, and the pursuit of peace may require them to put up with injustice. During the cold war years, Western politicians, by abandoning Eastern Europe to its fate under communism, thought, probably rightly, that peace was more important than justice. Since the end of the cold war, they have tended to put justice before peace—witness the upsurge of violence caused by wars of intervention in support of human rights and democratic values. The critical question now is whether, in juggling the priorities of peace and justice, we have got the balance right, or whether our current enthusiasm for Western values and human rights implies an ever so slightly casual attitude to the problem of war. Perhaps, in the interests of peace, there is something to be said for the realist policy of fighting necessary rather than just wars.

Questions

1. Are the causes of war unique in each case or is it possible to find similarities and patterns in the causes of war in general?
2. Do you think the spread of democracy will solve the problem of war?
3. To which would you allocate priority: the pursuit of peace or the pursuit of justice?
4. Is aggressive behaviour instinctive or learned?
5. How convincing is the argument that wars are a result of misjudgement and misperceptions?
6. Is war inevitable?

7. Is war an instrument of policy or an outburst of irrationality?
8. Are inter-state wars going out of fashion?
9. If international order rests on the principle of 'non-intervention', using Libya or Syria as an example, how can military intervention in the internal affairs of sovereign states be justified?
10. Can the problem of war be solved through education?

Further Reading

J. S. Levy and W. R. Thompson, *The Causes of War* (Chichester: Wiley-Blackwell, 2010) provides a comprehensive analysis of the leading theories on both inter-state and civil wars.

R. Niebuhr, *Moral Man and Immoral Society: A Study in Ethics and Politics* (New York and London: Charles Scribner's Sons, 1932) is one of the best studies of ethics and conflict.

E. Nietzsche, *The Philosophy of Nietzsche* (New York: New American Library, 1966) is a useful source for Nietzsche's views.

S. P. Rosen, *War and Human Nature* (Princeton, NJ: Princeton University Press, 2005) gives an analysis of the contribution that neuroscientific and biological research can make to the study of war.

S. Van Evera, *The Causes of War* (Ithaca, NY: Cornell University Press, 2009) provides an up-to-date analysis of the causes of war.

K. Waltz, *Man, the State, and War* (New York: Columbia University Press, 1959) is one of the best studies of the causes of war.

Web Links

See **http://documents.worldbank.org/curated/en/359271468739530199/pdf/multi-page.pdf** for Paul Collier and Anke Hoeffler's views on 'greed' versus 'grievance' as a cause of civil war.

David Keen also looks at the links between 'greed' and 'grievance' in civil war in **http://eprints.lse.ac.uk/44901/**

Robert A. Hinde, *The Psychological Bases of War* at **http://www.unc.edu/depts/diplomat/AD_Issues/amdipl_7/hinde.html** is another useful source on the psychological causes of war.

Strategic Culture

JEFFREY S. LANTIS AND DARRYL HOWLETT

Chapter Contents

Introduction 89
Thinking about Culture and Strategy 90
Sources of Strategic Culture 93
Constructivism and Strategic Culture 96
Continuing Issues: Change or Continuity? 98
Delineating Non-State, State, and Multistate Strategic Cultures 101
Strategic Culture and Weapons of Mass Destruction 103
Conclusion 105

Reader's Guide

This chapter considers ways that strategic culture can aid academic understanding as well as analysis of security policies of many actors in the international realm. This approach is especially salient because of the many conflicts around the world that seem to exhibit cultural dimensions. The chapter is divided into three sections. First, it presents an overview of approaches exploring the relationship between culture and nuclear strategy during the cold war. This section also includes a synopsis of the various sources of strategic culture identified in the literature. Second, the chapter discusses theoretical issues related to strategic culture, including: the contribution of constructivist approaches to security studies; the question of 'ownership' of strategic culture; and whether non-state, state, and multistate actors can possess distinctive strategic cultures. The final section of the chapter provides an overview of recent work that explores the relationship between strategic culture and the acquisition of, and threats to use, weapons of mass destruction.

Introduction

This chapter provides an overview of the scholarly and policymaking relevance of strategic culture in the contemporary world. Strategic culture may challenge and enrich prevailing neo-realist assumptions regarding strategy and security. It provides a bridge between material and ideational explanations of state behaviour, adding valuable perspectives to understand different countries' contemporary security policy choices.

Many consider that culture has a profound impact on strategic decision-making, and in recent years there has been renewed academic and policy interest in exploring its role in international security (Johnson, Kartchner, and Larsen 2009; Lantis 2014). Scholars and practitioners have begun to study issues like the United States' relations with countries such as China,

Russia, and Iran, European security cooperation, conflicts in the Middle East, counterterrorism policies, and weapons of mass destruction (WMD) proliferation through the lens of strategic culture. The challenges of terrorism and insurgencies in Iraq, Syria, and Afghanistan have also underscored the importance of cultural considerations at political and strategic levels.

Recognizing the impact of diverse strategic cultures seems especially pertinent in the twenty-first-century security arena. This requires accepting, and attempting to overcome, a measure of ethnocentrism in the enterprise (Booth 1981). Jeannie Johnson, Kerry Kartchner, and Jeffrey Larsen write:

> All cultures condition their members to think certain ways, while at the same time providing pre-set responses to given situations. Thus culture bounds our perceptions and the range of options we have for responding to events. However, when a society experiences a severe shock or major disaster, it forces that culture to become more open-minded, as it becomes momentarily susceptible to new explanations, new paradigms, new ways of thinking, all in search of understanding and mitigating the shock that has befallen them. The events of 9/11 did that to America.
>
> Johnson, Kartchner, and Larsen (2009: 5–6)

Thus, comprehensive understanding of security dilemmas requires stepping outside one's own cultural perspective in order to embrace the possibility that non-Western cultures may exhibit different ways of thinking and acting. Engagement in this enterprise could help reduce the criticism that strategic studies has traditionally been too Western-centric, and it could also aid contextual understanding of the study of postcolonial societies and the issues associated with nation-building. This deviates from interpretations of security policy behaviour purely as a function of material opportunities and constraints in the external environment, and offers instead a route to recognize ways that 'cultural, ideational, and normative influences' impact the motivations of states and leaders (Glenn 2009: 523).

Thinking about Culture and Strategy

There are three main approaches to the study of culture and strategy. The first views culture as a value-added explanation of strategic behaviour. Culture is used to fill in the gaps of explanation by supplementing theories centred on national interest and the distribution of power. Culture is considered a variable that may influence behaviour, but is characterized as secondary to international systemic pressures. The second approach views culture as a conceptual vehicle that can explain some, if not all, strategic behaviour. This approach draws on other areas of knowledge, such as political psychology, in order to create a theory of strategic culture that is falsifiable, and it also contributes to a cumulative research programme. Strategic culture in this sense is an independent variable that explains decision-making in international security as well, or better than, neorealism or neo-liberal institutionalism. The third scholarly approach argues that aspects of human conduct can be understood only by becoming immersed within a given strategic culture. Consequently, the search for falsifiable theories is unachievable. Some anthropologists and sociologists consider that the relationship between culture and strategy is inordinately complex because it consists of a combination of discursive (what is said) and non-discursive (what is unsaid) expressions. Hence, they argue, it is impossible to measure the influence of culture on strategy (see Box 6.1).

BOX 6.1 Key Perspectives

Differing Perspectives on Culture

> Culture is comprised of 'interpretive codes' including language, values, and even substantive beliefs like support for democracy or the futility of war.
>
> Parsons (1951)

> Culture is 'an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic form by means of which men communicate, perpetuate, and develop their knowledge about and attitudes towards life'.
>
> Geertz (1973)

> Political culture is 'that subset of beliefs and values of a society that relate to the political system'.
>
> Almond and Verba (1965)

Political Culture

The idea that culture could influence strategic outcomes was first captured in classic works, including the writings of Thucydides and Sun Tzu. In the nineteenth century, Prussian military strategist Carl von Clausewitz identified war and war-fighting strategy as 'a test of moral and physical forces' (Howard 1991c: A23). The goal of strategy, he argued, was more than defeat of the enemy on the battlefield—it was the elimination of the enemy's morale.

The Second World War prompted a new wave of research on the distinctive 'national character' of countries, which were rooted in language, religion, customs, and the interpretation of common memories. Scholars became curious about how a country's national character could lead them to fight wars differently. Some sought to understand how Japanese culture, for example, fomented a spirit of self-sacrifice, such as in the kamikaze attacks against US warships and battles to the death over remote South Pacific islands (Benedict 1946). While this work was criticized for reifying culture and promoting stereotypes, anthropologists including Margaret Mead and Claude Lévi-Strauss continued to refine these studies. In the 1980s, sociologist Ann Swidler defined culture quite broadly as consisting of 'symbolic vehicles of meaning, including beliefs, ritual practices, art forms, and ceremonies, as well as informal cultural practices such as language, gossip, stories, and rituals of daily life' (Swidler 1986: 273). Building on the arguments of Max Weber and Talcott Parsons, she contended that interest-driven, cultural 'strategies of action' were important mediating conditions on state behaviour.

Meanwhile, political scientists Gabriel Almond and Sidney Verba generated interest in the comparative study of political culture, which they defined as the 'subset of beliefs and values of a society that relate to the political system' (Almond and Verba 1965: 11). Political culture included a commitment to values like democratic principles and institutions, ideas about morality and the use of force, the rights of individuals or collectives, and predispositions toward the role of a country in the world. This political culture, Almond and Verba argued, was manifest on at least three levels: 'the cognitive, which includes empirical and causal beliefs; the evaluative, consisting of values, norms, and moral judgments; and the expressive or affective, which encompasses emotional attachments, patterns of identity and loyalty, and feelings of affinity, aversion, or indifference' (quoted in Duffield 1999: 23).

However, even though sociological models of culture became increasingly complex, subsequent studies of political culture yielded little theoretical refinement. Critics argued that the approach was subjective and that the explanatory power of political culture was more limited than its proponents claimed. This was also a period when the behavioural revolution was making an impact in the social sciences, contributing to a loss of interest in cultural interpretive analyses in mainstream international relations scholarship.

Strategic Culture and Nuclear Deterrence

In 1977, Jack Snyder introduced culture into modern security studies by developing a theory of strategic culture to interpret Soviet nuclear doctrine. The predominant approach to nuclear strategy up to this juncture had been shaped by econometric treatments of rational utility. The United States and the Soviet Union were characterized as rational actors responding to each other's moves in a calculated way in the strategic nuclear realm.

Snyder's alternative approach to analysing US–Soviet nuclear interaction focused on what he viewed as the distinctive strategic cultural differences between the two states. Snyder's work was influenced greatly by prior studies of military affairs that highlighted cultural distinctions, including Basil Liddell Hart's classic, *The British Way in Warfare* (1932), and Russell F. Weigley's *The American Way of War* (1960). Snyder suggested that elites articulate a unique strategic culture related to security–military affairs that is a wider manifestation of public opinion, socialized into a distinctive mode of strategic thinking. He contended: 'a set of general beliefs, attitudes, and behaviour patterns with regard to nuclear strategy has achieved a state of semi-permanence that places them on the level of "cultural" rather than mere policy' (Snyder 1977: 8). Snyder concluded that the Soviet military exhibited a preference for the preemptive, offensive use of force and that the origins for this could be found in Russia's history of insecurity and authoritarian control (see Box 6.2).

Subsequent studies of strategic culture continued to explore the ideational foundations of nuclear strategy and US–Soviet relations. Colin Gray suggested that distinctive national

BOX 6.2 Key Perspectives

Definitions of Strategic Culture

> Strategic culture is 'a set of general beliefs, attitudes, and behavior patterns with regard to nuclear strategy that has achieved a state of semi-permanence that places them on the level of "cultural" rather than mere policy'.
>
> Snyder (1977)

> Strategic culture is the 'ideational milieu that limits behavioral choices', from which 'one could derive specific predictions about strategic choice'.
>
> Johnston (1995)

> Strategic culture is 'a distinctive and lasting set of beliefs, values and habits regarding the threat and use of force, which have their roots in such fundamental influences as geopolitical setting, history and political culture'.
>
> Booth and Trood (1999)

styles, with 'deep roots within a particular stream of historical experience', characterized strategic development in great powers. Strategic culture thus 'provides the milieu within which strategy is debated' and serves as an independent determinant of strategic policy patterns. Like Snyder, Gray considered that strategic culture would be a semi-permanent influence on security policy (Gray 1981: 35–7). At the same time, Ken Booth was concerned about the impact that ethnocentrism could have as a source of errors in both the theory and practice of strategy. For Booth, ethnocentrism meant that strategists might be culture-bound, unable to escape 'one's own cultural attitudes and imaginatively recreate the world from the perspective of those belonging to a different group' (Booth 1981: 15).

While these path-breaking works represented a call for new attention to ideational factors, few strategic cultural theorists viewed this as an 'either–or' debate with rationalism. Nevertheless, sceptics perceived the growth of cultural theory as a challenge to traditional strategic thought and argued that the theory was too subjective, reliant on narrow contextual historiography. Based on questions regarding the difficulty of operationalizing culture in any meaningful sense, critics claimed that early proponents had overstated the analytic and policymaking relevance of strategic culture.

Key Points

- Early studies linking culture and strategic action focused on 'national character' as a product of language, religion, customs, socialization, and the interpretation of common historical experiences.
- Almond and Verba integrated cultural approaches into political science by identifying the features of what they called 'political culture', including values like democratic principles and institutions, ideas about morality and the use of force, and predispositions towards the role of a country in the world.
- Jack Snyder coined the phrase 'strategic culture' to focus on the relationship between culture and nuclear strategy. This led to significant applications of strategic culture to the study of deterrence.

Sources of Strategic Culture

Several sources of strategic culture, encompassing both material and ideational factors, are identified in the literature. First, geography, climate, and resources have been key elements in strategic thinking throughout the millennia and remain important sources of strategic culture today. Geographical circumstance may be one key to understanding why some countries adopt particular strategic policies rather than others. For example, proximity to great powers has been viewed as an important factor. In the cases of Norway and Finland, for example, both countries had to tread carefully and remain neutral on some matters because their immediate neighbour during the cold war was the Soviet Union (Graeger and Leira 2005; Heikka 2005). Relative isolation for countries like Australia enabled a focus on continental defence in the past. Additionally, while most territorial borders are settled by negotiation, others have been forged through conflict and remain contested. Some states have multiple borders and may be confronted by multiple security dilemmas. Such factors appear to have shaped the strategic orientations of countries like Israel and South Korea (the Republic of Korea). South Korea experiences insecurity as a function of its geographical proximity to its adversary, North Korea (the Democratic People's Republic of Korea), as well as its regional

rivals Japan and China. Ensuring access to vital resources is also deemed critical to strategy, and this and other factors seem especially significant in changing global territorial and resource landscapes today.

History and experience are important considerations in the evolution of strategic culture. International relations theory has identified several ways to categorize states, ranging from weak to strong, colonial to postcolonial, and premodern, modern, and postmodern. This raises the prospect that different kinds of states may confront different strategic problems, and with varying material and ideational resources, apply unique responses. For newly formed states, the difficulties of nation-building can compound insecurities and thereby help shape strategic cultural identities. Conversely, for states of ancient standing, the longevity of their existence may prompt consideration of factors that contribute to the rise and fall of great powers or civilizations and shape their policies to suit.

Some scholars argue that generational change and technology, particularly information and communications technology, can have important ramifications for issues of empowerment and strategic reach. While information technology has transformed societies, it has also allowed individuals or groups to communicate in novel ways and cause disruption at a distance. This and other technologies may empower individual and group identities in ways unlike ever before in history.

Another source of strategic culture is the nature of a country's political structure and defence organizations. Some countries adopt a broadly Western liberal democratic style of government, while others do not. Some are considered mature democracies, while others are undergoing democratic transformations. Where the latter are concerned there may be cultural variables such as tribal, religious, or ethnic allegiances that operate within and across territorial boundaries, which determine the pace and depth of consolidation. Similarly, many regard defence organizations as being critical to strategic cultures, but differ over the precise impact these organizations have (Scobell 2014; De Castro 2014). Military doctrines, civil–military relations, and procurement practices may also affect strategic culture (Adamsky 2010).

Myths and symbols are considered to be part of all cultural groupings and both can act as a stabilizing or destabilizing factor in the evolution of strategic cultural identities. The notion of myth can have meaning different from the traditional understanding 'as something unfounded or false'. John Calvert writes that this can refer to a 'body of beliefs that express the fundamental, largely unconscious or assumed political values of a society—in short, as a dramatic expression of ideology' (Calvert 2004: 31). At the same time, historical narratives also impact conceptions of state roles. According to Marijke Breuning, roles are an extension of cultural 'axiomatic beliefs' regarding the state's relation to the international environment (actor versus subject orientation); the nature of the international environment (universalistic versus particularistic worldview); and understandings of rules of behaviour (intent-based versus results-oriented) (Breuning 1997: 113). These roles then manifest themselves in different foreign and security policy behaviours.

Related studies of symbols also suggest that these act as 'socially recognized objects of more or less common understanding' and 'provide a cultural community with stable points of reference for strategic thought and action' (Elder and Cobb, quoted in Poore 2004: 63). Political unrest and cyberattacks in Estonia in the late 2000s show just how powerful symbols may be. This turmoil was sparked by Estonia's decision to move a Soviet war memorial from

the centre of the capital, Tallinn, to a military cemetery. For Russia and the ethnic Russian population in Estonia, the statue had symbolic value related to historic sacrifice in the Second World War; for Estonia, in contrast, it represented a symbol of past occupation. The resulting protests and cyberattacks launched from Russia drove a deep wedge between the populations of the country.

Traditional analyses of peace and conflict have long pointed to the influence of key texts as formative throughout history and in different cultural settings. These may follow an historical trajectory—from Sun Tzu's *Art of War*, considered to have been written during the time of the warring states in ancient China, through the writings of Kautilya in ancient India—and into Western understandings of peace and conflict as a result of Thucydides' commentary on the Peloponnesian War and Clausewitz's writings on the nature of war stemming from his observations of the Napoleonic period. At the same time, there may be competition between texts for influence on society. In a study of Greek strategic culture, for example, the oscillating influence of two distinct strategic traditions has been identified. 'Traditionalists' derive their intellectual sustenance from the exploits of Achilles, hero of the *Iliad*, and tend to view the world as an anarchic arena where power is the ultimate guarantee of security, while 'modernists', followers of Odysseus, the hero of the *Odyssey*, consider that Greece's best strategy is to adopt a multilateral cooperative approach to peace and security (Ladis 2003). This dualism in strategic culture reflects the influence of long-held myths and legends, which continue to find resonance in narratives of the modern era.

Finally, the relationship between transnational norms, generational change, and technology and strategic culture may be a two-way street. Norms are understood as 'intersubjective beliefs about the social and natural world that define actors, their situations, and the possibilities of action' (Wendt 1995: 73). Theo Farrell and Terry Terriff consider that norms can define 'the purpose and possibilities of military change' and 'provide guidance concerning the use of force' (2001: 7) (see Table 6.1). At the same time, Amitav Acharya (2004) contends the effects of international norms on state behaviour may be mediated through a cultural lens, suggesting a process of 'norm localization'. This and related research on culture and norm diffusion represents a rich, contemporary area of scholarly investigation.

Key Points

- Snyder brought the political cultural argument into the realm of modern security studies by developing a theory of strategic culture to interpret Soviet nuclear doctrine.
- Scholars have argued that national styles, with 'deep roots within a particular stream of historical experience', characterized nuclear strategy making in the United States and the Soviet Union during the cold war.
- The sources of strategic culture are considered to be: geography, climate and resources, history and experience, political structure, the nature of organizations involved in defence, myths and symbols, key texts that inform actors of appropriate strategic action, transnational norms, generational change, and the role of technology.
- Contemporary scholarship has begun to investigate the complex relationship between international norms and strategic culture.

Table 6.1 Potential Sources of Strategic Culture

Physical	Political	Social/Cultural
Geography	Historical experience	Myths and symbols
Climate	Political system	Defining texts
Natural resources	Elite beliefs	
Generational change	Military organizations	
Technology		
(Transnational forces/normative pressures)		

Constructivism and Strategic Culture

In the 1990s, the influence of constructivism prompted renewed interest in strategic culture. While constructivism encompasses many theoretical positions, some scholars became interested in how ideas, norms, and cultural factors might be as influential as material factors in international security. One of the early writers in this tradition, Alexander Wendt, consequently argued that state identities and interests were 'socially constructed by knowledgeable practice' (1992: 392). For Valerie Hudson, constructivism embraced the study of culture 'as an evolving system of shared meaning that governs perceptions, communications, and actions' (1997: 28–9).

Notable studies bridging constructivism and strategic culture soon emerged. Alastair Iain Johnston's *Cultural Realism: Strategic Culture and Grand Strategy in Chinese History* (1995) is a quintessential work on strategic culture influenced by constructivism. The study set out to investigate the existence and character of Chinese strategic culture, and its potential causal links to the use of military force against external threats. Johnston characterized strategic culture as an 'ideational milieu that limits behavioral choices', from which 'one could derive specific predictions about strategic choice'. Focusing on the Ming dynasty in China (1368–1644), he concluded China 'has exhibited a tendency for the controlled, politically driven defensive and minimalist use of force that is deeply rooted in the statecraft of ancient strategists and a worldview of relatively complacent superiority' which had a 'nontrivial effect on strategy' (Johnston 1995: 1). New theoretical attention to the concept of the strategic culture also helped foster broader comparative studies (see Box 6.3).

Another strand of this scholarship focuses on military and/or organizational cultures. Elizabeth Kier described the significance of organizational culture in the development of French military doctrine (1995). Steven Rosen provided an account of the ways that the military and organizational cultures in India have shaped strategy over time. Jeffrey Legro's work on military restraint during the Second World War, and Roland Ebel, Raymond Taras, and James Cochrane's (1991) work on the cultures of Latin America all concluded that culture makes a difference. Together, these studies suggest that organizational culture can be a powerful factor influencing strategic choice.

Box 6.3 Case Study

Case Studies of Strategic Culture

People's Republic of China

Culture plays a strong role in shaping strategic behaviour in China. Scholars have identified two dominant strands of Chinese strategic culture today—the *parabellum* focused on *realpolitik* and the *Confucian–Mencian* strand, a philosophical orientation used mainly for idealized discourse. Scobell contends that these two strands sometimes intertwine to shape a 'Chinese cult of defense'. Chinese civilian and military leaders repeatedly stress China's commitment to the Confucian saying 'peace is precious' (*he wei gui*), and they assert that China has never been an aggressive or expansionist state (Scobell 2014). A study by Huiyun Feng suggests that China displays a more defensive posture in relation to the use of force, and that the Confucian elements of its strategic culture have been 'underrepresented' (Feng 2009: 172). But not all are agreed on this, as Scobell concludes that Chinese leaders assume that any war they fight is just and any military action defensive, 'even when it is offensive in nature' (2002: 11). In 2013, China's President Xi Jinping underscored these themes, stating 'China will stick to the road of peaceful development but never give up our legitimate rights and never sacrifice our national core interests . . . No country should presume that we will engage in trade involving our core interests or that we will swallow the bitter fruit of harming our sovereignty, security or development interests' (quoted in Anderlini 2013).

United States of America

Scholars argue that several core principles have defined US strategic culture over time. Thomas Mahnken suggests: 'American strategic culture was shaped by free security and imbued with exceptionalism . . . American military culture, the so-called American way of war, emphasizes direct strategies, an industrial approach to war, and firepower—and technologically intensive approaches to combat' (Mahnken 2009: 69–70). Many writers also point to the impact of the 9/11 terrorist attacks on US strategic culture. This resulted in the George W. Bush administration's declaration of a war on terror and the initiation of new strategic cultural orientations. These included a positive reaffirmation of US dominance in international security affairs, with priority to homeland security, a new doctrine of pre-emption that includes a willingness to use military force to achieve security objectives, and a preference for unilateral actions internationally. At the same time, the new strategic cultural orientations were packaged rhetorically as a demonstration of continuity in US support for democracy and freedom (Lantis 2005; Harris 2014).

Japan

Throughout the cold war, Japan fostered an 'antimilitarist political–military culture' that was characterized by pacifism and dependence on its security alliance with the United States. The Yoshida Doctrine stressed that Japan focus on its own economic and technological development while establishing military security through its alliance with the United States. For Thomas Berger, Japan's antimilitarist sentiments became deeply institutionalized through a long historical process that included legitimated compromises. However, in wake of the 9/11 attacks and North Korean nuclear weapon tests, Japan has undertaken a fundamental reassessment of its security (Oros 2014). The government has provided logistical support to US and multinational coalition forces fighting in Afghanistan and Iraq, and it began pursuing significant defence modernization in 2013 under Prime Minister Shinzo Abe's leadership. Japanese leaders are also reconsidering restrictions on military activity embedded in Article 9 of the Peace Constitution, and the country has bolstered its contribution to United Nations peacekeeping operations around the world (Berger 1998; Hughes 2004).

(*continued . . .*)

Box 6.3 (*continued*)

The Nordic Region

The strategic cultures of Denmark, Finland, Norway, and Sweden have been shaped by their proximity to great powers during the cold war (and in previous eras). Analyses of Sweden and Denmark have revealed two forms of strategic culture. In the case of Sweden, the first form emphasizes professional and technologically advanced military forces, while the second revolves around notions of a people's army based on conscription and the democratic involvement of citizens. Where Denmark is concerned, the two forms have been labelled cosmopolitanism and defencism. Cosmopolitanism stresses neutrality, alternative non-military means of conflict resolution, and the importance of international institutions such as the former League of Nations and the United Nations. In contrast, defencism emphasizes the importance of military preparedness encapsulated in the dictum 'if you want peace, you must prepare for war' and the importance of regional military organizations, such as the North Atlantic Treaty Organization (NATO), in defence and deterrence (Graeger and Leira 2005; Heikka 2005).

Russia

Experts on Russia highlight the importance of strong leadership, geography, history, and ideology in the context of its strategic culture (Glenn, Howlett, and Poore 2004). Factors such as political stabilization within Russia's vast landmass, concerns about future military encirclement, and fears of attack on its territory stemming from past historical experience are deemed instrumental in the development of a distinct Russian strategic culture. The Russian takeover of Crimea in 2013, and support for separatists in eastern Ukraine, may be seen as an extension of historical and cultural interests. Fritz Ermarth (2009) considers that Russian strategic culture has also traditionally been among the most militarized of any state. In recent years, the world has witnessed a new assertiveness linked to the strong leadership of Vladimir Putin, and a strategic culture centring on nationalism as the ideological foundation and fuelled by Russia's oil and gas revenues (Ermarth 2009: 93).

Key Points

- The rise of constructivism in international relations theory helped fuel a revival of interest in strategic culture.
- Strategic cultural studies have proliferated in recent years, including works that compare strategic cultures of countries in key regions such as Europe, Latin America, and South East Asia.
- Another strand of this scholarship focuses on how military/organizational cultures can shape security policies.

Continuing Issues: Change or Continuity?

The focus of most studies of strategic culture is on continuity, or at least semi-permanence in state behaviour. Harry Eckstein (1998) suggested that the socialization of values and beliefs occurs over time. According to this view, past learning coalesces in the collective consciousness and is relatively resilient to change. Lessons of the past serve as a filter for any future learning that might occur. Consequently the process of

transformation is often slow and involves generational change. If historical memory, political institutions, and multilateral commitments shape strategic culture, then it would seem plausible to accept that strategic cultures around the world are undergoing 'enduring transformations'. Conversely, other scholars argue that strategic cultures can change more dramatically.

Research suggests that at least two conditions can cause strategic cultural dilemmas and produce changes in security policy. First, external shocks may fundamentally challenge existing beliefs and undermine past historical narratives. This appears to be illustrated in the case of Japan over the past decade, as elites revisit questions of security in a changing threat environment. For German leaders in the 1990s, the scale of the humanitarian tragedies in the Balkans served as a catalyst for consideration of policy options outside the traditional bounds of German strategic culture (Lantis 2002). When North Korea detonated its first atomic bomb in 2006, Japanese and other Asian strategic cultures were prompted to adapt; when China asserted its sovereign control of contested territory and resources in the South China Sea, its neighbours seemed to shift course in military-security policy.

Second, foreign policy behaviour may break the traditional bounds of strategic cultural orientations when primary tenets of strategic thought come into direct conflict with one another. Ann Swidler recognizes the potential for dynamism 'in unsettled cultural periods . . . when explicit ideologies govern action [and] structural opportunities for action determine which among competing ideologies survive in the long run' (1986: 274). For example, a country with interpretive codes of support for democracy and an aversion to the use of military force faces a strategic cultural dilemma when confronted by a challenge to democracy that necessitates a military response. Thus, strategic cultural dilemmas define new directions for foreign policy and demand the reconstruction of historical narratives. Changes, including abrupt and fairly dramatic reorientations of security policy, are possible, and strategic cultural analysis must be more reflective of the conditions that lead to such changes.

Who are the Keepers of Strategic Culture?

One theme of contemporary strategic cultural studies has been the effort to identify the 'keepers' of strategic culture. These studies also allude to the subtleties associated with determining whether individuals or elite and non-elite groupings have the most influence in strategic cultural outcomes.

While past work tended to describe political and strategic cultures as properties of states only, reflecting the ideas of 'collectives rather than simply of the individuals that constitute them' (Wilson 2000: 12), elites (high-level policymakers) may represent the primary keepers of strategic culture or purveyors of a common historical narrative. While strategic culture can have deep roots in society, newer works on policy discourse suggest that strategic culture is best characterized as a 'negotiated reality' among elites (Swidler 1986). For example, Jacques Hymans contends that identity is as much *subjective* as intersubjective, and that leaders often adopt their own specific conceptions of national identity from among a competitive marketplace of ideas (2006). Sociologist Consuelo Cruz contends that elites have more latitude than scholars generally allow. They may 'recast a particular agenda as most appropriate to a given collective reality' or 'redefine the limits of the possible, both descriptively and prescriptively' (2000: 278). Post-structural constructivists also look at how elites may be both keepers and

strategic users of culture, manipulating cultural frames as a way to take exception to intersubjective structural limits (Milliken 1999; Miskimmon 2004; Mattern 2005).

The organizational culture literature suggests that state behaviour is a function of specific institutional orientations or prevailing cultures. Studies of Japan's and Germany's foreign policy decisions in the 1990s, for example, identified enduring institutional manifestations of strategic culture, but the keepers of the culture are not necessarily *military* bureaucracies. In Germany, the Foreign Ministry has control over foreign and security policy. In Japan, political institutions from the Diet to the Liberal Democratic Party to the Japan Self-Defense Forces share commitments to a foreign policy of restraint (Eden 2004). Finally, there may be an important public dimension to strategic culture. Charles Kupchan has argued that the foundations of strategic culture are *societal*. 'Based on images and symbols', he says, strategic culture 'refers to images that shape how the nation as a collective entity defines its well-being and conceives of its security' (Kupchan 1994: 21). Broad support for a prevailing historical narrative may condition security policy responses as well as the potential for strategic cultural change.

Key Points

- Many studies of strategic culture have focused on continuity, but new scholarship suggests potential scope conditions of change including external shocks and internal cognitive dissonance.
- Strategic cultural dilemmas may define new directions for foreign policy and foster the reconstruction of historical narratives.
- While traditional studies suggest that strategic culture is the property of collectives, new work explores the potential for agency in cultural framing.
- Keepers of strategic culture may include elites, bureaucratic organizations, and society at large.

Critical Thinking States in regions like Europe and the Asia-Pacific will 'get over' cultural differences and create true regional security identities

For

- ***States do cooperate in regional organizations.*** States recognize that the benefits of cooperation outweigh the costs. The record shows that states have gradually overcome challenges to cooperation, including a reluctance to cede sovereignty, and coordinated their policies through common markets, fiscal and monetary policy, and justice issues. For example, the Asia-Pacific has seen the creation of the Asia-Pacific Economic Cooperation (APEC) forum and the emergence of a new Trans-Pacific Partnership.
- ***The European Union has established a strong regional defence identity.*** The European Union clearly illustrates that countries can cooperate in functional economic and political areas as well as military-security affairs. In December 2003, the common European Security Strategy (ESS) was formalized, marking the emergence of a common European strategic culture (Cornish and Edwards 2001; Meyer 2007). Europe has taken fairly cohesive stands on reconstruction and stabilization in Iraq and Afghanistan, responses to Russian aggression, and human rights issues. This suggests that efforts to align strategic cultures can help diffuse dangerous crises.

Critical Thinking: (*continued*)

- ***Regional cooperation is aided by the engagement of a hegemon.*** Countries may be better able to cooperate in military-security affairs with the support of a 'benevolent hegemon'. The United States after the Second World War helped promote functional integration in Europe, and its leadership of the North Atlantic Treaty Organization (NATO) aided the melding of European countries' strategic cultures and security policies. The United States was directly engaged in the transformation of Germany's strategic culture and the promotion of antimilitarism and pacifism in Japan's post-war Constitution. In 2013, President Obama announced a US 'pivot' to the Asia-Pacific region that was expressly designed to help boost cooperation.

Against

- ***States don't cooperate well in regional organizations.*** Despite the optimism of some policymakers and experts, strategic cultural differences often inhibit integration. The European Union has existed for decades, yet it has been slow to establish and implement a common European Security Strategy (ESS). It still has no European Constitution, after decades of efforts. Countries in the Asia-Pacific seem more hesitant to join any form of security policy cooperation.
- ***Governments are reluctant to coordinate security policies through regional organizations.*** Countries around the world must consider national interests first—and national interests are often a manifestation of strategic cultural identities forged out of historical experiences, geography, the views of multiple actors and institutions, and transnational forces. Governments are often hesitant to build beyond existing bilateral and regional relationships to construct a stronger alignment of military organizational cultures (Williams 2007).
- ***Hegemons interfere with regional cooperation.*** The presence of significant power imbalances, especially involving a hegemon, represents a serious challenge to regional cooperation. In Europe, Germany is seen as an economic engine for the region, but also as a powerful political actor with its own distinct interests that may undermine regional prosperity. In the Asia-Pacific, countries face an emerging hegemonic rivalry between the United States and China (Schweller and Pu 2011). Many ponder American commitments to the region and 'whether the United States intends to use its power to help or hurt China' (Nathan and Scobell 2012: 4).

Questions:

1. Will states in regions like Europe and the Asia-Pacific ever 'get over' cultural differences and create true regional security identities?
2. Do hegemons enhance or inhibit regional cooperation?
3. Has strategic culture been an important issue in preventing the European Union from effectively developing an effective common European Security Strategy?

Delineating Non-State, State, and Multistate Strategic Cultures

An exciting new area of research focuses on the degree to which non-state and multistate actors may be said to possess strategic cultures (see Critical Thinking). This approach has important implications for the study of a number of contemporary themes in international

politics, from counterinsurgency to European integration (see Box 6.4). In December 2003, the European Union (EU) formalized a common European Security Strategy (ESS) for the first time in its history. That document called for the development of a 'strategic culture, which fosters early, rapid, and when necessary, robust intervention' (European Union 2003: 11). This initiative suggested that European countries might be able to foster common European responses to regional and global challenges such as terrorism, humanitarian crises, and proliferation of weapons of mass destruction (Schmitt, Howlett, Simpson, Müller, and Tertrais 2005; Vasconcelos 2009). The 2009 Lisbon Treaty promised even greater cooperation on multilateral responses through a Common Defence and Security Policy architecture.

However, scholars continue to debate whether we are witnessing the emergence of a truly new EU strategic culture. Optimists such as Paul Cornish and Geoffrey Edwards believe 'there are signs that a European strategic culture is already developing through a socialization process'. They define EU strategic culture as 'the institutional confidence and processes to manage

BOX 6.4 Case Study

Culture and Counterinsurgency?

Can knowledge of cultural dynamics in countries like Iraq and Afghanistan bolster counterinsurgency and stability operations? This question has generated significant debate in the last decade. Some strategists have embraced the idea that cultural understanding matters for counterinsurgency operations. At the same time, social scientists have debated whether it is ever ethical to provide assistance for military operations.

In 2005, the US Army established an experimental counterinsurgency programme called the Human Terrain System (HTS). Human terrain was defined as the 'social, ethnographic, cultural, economic, and political elements among whom a force is operating . . . characterized by sociocultural, anthropologic, and ethnographic data' (Kipp et al. 2006: 9). Five-person human terrain teams made up of regional studies experts, linguists, and social scientists would be assigned to brigades or combat headquarters to provide 'cultural knowledge' for more effective military planning. These groups were deployed in Iraq and Afghanistan in daily civil operations, including engagement with populations in areas of insurgency, to promote more effective cooperation. By focusing on civil society as the 'centre of gravity' in counterinsurgency operations, the military hoped to make stronger links between occupation forces and local civilians.

The system was self-consciously 'designed to address cultural awareness shortcomings at the operational and tactical levels' (Kipp et al. 2006: 8). However, since the establishment of HTS, the military has provided few public statements regarding its effectiveness; the programme has been plagued by recruitment and operational problems; and other sectors of the government have raised questions about its value. Acting on these concerns, in 2010 the House Armed Services Committee limited funding for the programme until an independent assessment was completed.

The question of assistance for military operations also fostered a bitter debate within the social sciences. While optimists saw this as a modified version of ethnographic research—and a tacit endorsement of the importance of learning about foreign languages and cultures—critics charged that these teams were collecting intelligence on local tribes for more effective targeting by the military. In other words, the work of the teams was more directed to *controlling* populations, to 'combat support', rather than civil reconstruction. In 2007, the Executive Board of the American Anthropological Association formally denounced the programme and argued that the operations might have the effect of harming societies more than helping them (Weinberger 2008).

and deploy military force as part of the accepted range of legitimate and effective policy instruments' (Cornish and Edwards 2001: 587). For Christoph Meyer, establishment of the ESS in 2003 provided a necessary 'strategic concept' upon which to focus attention and resources (Meyer 2004). Conversely, Julian Lindley-French considered that Europe lacks both the capabilities and will to establish a common foreign and security policy in the foreseeable future. He characterized the Europe of today as 'not so much an architecture as a decaying arcade of stately structures of varying designs reflective of a bygone era' (2002: 789). Given the disagreements over threat perception and inconsistent policies in response to challenges such as the war on terrorism and the Arab Spring in the Middle East and North Africa, the EU may be unlikely 'to develop a coherent and strong strategic culture' any time soon (Rynning 2003: 479).

Another issue concerns whether the strategic culture frame applies to terrorist groups or groups operating across territorial boundaries where identities may be formed in the realms of both physical and cyberspace. Mark Long contends that al-Qaeda and other transnational terrorist organizations can have identifiable strategic cultures. He suggests that the study of strategic culture of some non-state actors, especially organized terrorist groups or liberation movements, may actually be *easier* than the study of state strategic cultures (Long 2009). The cyber revolution also deepens the complexity of the non-state actor threat assessment (Rattray 2002; Goldman 2003). Victor Cha argues: '[T]he most far-reaching security effect of globalization is its complication of the basic concept of "threat" in international relations' (2000: 392).

Additionally, while acknowledging that the technologies associated with globalization have enabled terrorist groups to conduct operations that 'are deadlier, more distributed, and more difficult to combat than those of their predecessors', James Kiras argues that these same technologies 'can be harnessed to defeat terrorism by those governments with the will and resources to combat it' (2005: 479). Cha concludes that technology enhances 'the salience of substate extremist groups or fundamentalist groups because their ability to organize transnationally, meet virtually, and utilize terrorist tactics has been substantially enhanced by the globalization of technology and information' (2000: 392).

Key Points

- One of the more complex questions that carries across generations relates to what types of actors are most likely to have defined strategic cultures: states, regional organizations, civilizations, and even non-state groups such as terrorist networks?
- The HTS programme represents a foray into bridging the gap between academic study and policymaking, but this counterterrorism initiative has generated significant controversy.
- Globalization and revolutions in information technology suggest that future threats will be more diffuse, more dispersed, and more multidimensional.

Strategic Culture and Weapons of Mass Destruction

What can strategic culture tell us about WMD proliferation and emerging deterrent situations? Recent studies have highlighted the role that strategic culture plays in decisions to acquire and potentially threaten to use WMD (Johnson, Kartchner, and Larsen 2009). In

some ways, this work hearkens back to the foundations of strategic cultural studies, but it also reflects a globalizing world characterized by more actors and rapid technological innovation.

Among the questions being revisited are: whether deterrence is an accepted universal norm that predetermines behaviour, or are attitudes toward nuclear strategy largely indigenous constructs that emerge from within the cultural context of particular actors? Early scholarship on this question is mixed. For example, Keith Payne considers that past 'deterrence concepts, buzzwords, and terms of art have essentially lost their meaning because the conditions of current power and political relationships have become so different from cold war conditions' (2007: 2). Jeffrey Knopf identifies a new fourth wave of deterrence literature as distinct given its asymmetric focus on deterrence relationships between the United States and rogue states or violent non-state actors (VNSAs), and the relaxation of traditional standards of deterrence (Knopf 2010). This has been particularly evident in the stand-off between the United States under President Trump and North Korea under Kim Jong-un in recent years.

In related work, Ian Kenyon and John Simpson contend there is significance in the 'ongoing debate between universal rationality and particular strategic cultures in relation to the mechanisms and effectiveness of deterrence' (Kenyon and Simpson 2006: 202). This has implications for threats of weapons of mass destruction attacks by non-state actors and perceived 'rogue states'. Contemporary scholarship also tends to recognize the importance of contextualizing relationships when it comes to specific settings, or scope conditions within which cultural factors may play a larger role in strategic decisions. For example, Sten Rynning posits that 'a strong strategic culture' may make a state more willing to use military force and better able to triumph in zero-sum conflicts, while states with a 'weak strategic culture' might seek more diplomatic means of conflict resolution (Rynning 2003: 484).

Kartchner has hypothesized that specific conditions can enable strategic culture to play a more dominant role in WMD policy. These include: when there is a strong sense of threat to a group's existence, identity, or resources, or when the group believes that it is at a critical disadvantage to other groups; when there is a pre-existing strong cultural basis for group identity; when the leadership frequently resorts to cultural symbols in support of its national group security aspirations and programmes; when there is a high degree of homogeneity within the group's strategic culture; and when historical experiences strongly predispose the group to perceive threats (Kartchner 2009).

New studies of 'tailored deterrence' stand squarely at the intersection of traditional and cultural approaches. Traditional deterrence theory is rife with discussions of *persuasion* of the adversary. For instance, Thomas Schelling defines deterrence as 'influencing the choices that another party will make, and doing it by influencing his expectations of how we will behave' (1963: 13). In other words, theorists of deterrence also implicitly recognize the significance of the target of their policies. Any thoughtful attempt to reflect on coercion dynamics and persuasion generates consideration of value hierarchies and vested national interests, which, in turn, can be the product of elite strategic calculations embedded within a larger cultural context.

Key Points

- Strategic culture has implications for state policies regarding weapons of mass destruction.
- Though not emphasized in early theoretical work on deterrence, cultural dynamics can impact perception of threats and opportunities and help mediate attempts at persuasion. They may augment understandings of bounded rationality, for example.
- Strategic cultural understanding is directly related to the concept of tailored deterrence, recognizing the importance of targeting and contextualizing deterrence messages carefully to potential adversaries.
- Identity and strategic choice may sometimes be a function of culture.

Conclusion

Recent events have renewed scholarly and policymaking interest in strategic culture. As Western leaders attempt to respond to Russian aggression in Ukraine, NATO leaders adapt their strategic concept for a changing world, the US grapples with the North Korean Crisis, and Asia-Pacific states reassess commitments to regional security, research on strategic culture can offer important insights to improve knowledge as well as enrich policy recommendations. Culturally interpretive models are gaining increased attention in academia and policymaking circles, and all signs point to further development of this worthwhile endeavour.

Comparative analysis represents one of the more fertile areas for advancement of cultural understandings in policymaking and academic research. Studies of strategic culture often apply the theory to a single case or make general comparisons with other like-minded countries. This tradition has produced rich and compelling works, such as Andrew Oros' study of the changing security identity of Japan (2014), Ade Adefuye's fascinating study of the culture and foreign policy of Nigeria (1992), Marcin Zaborowski's study of the evolution of Polish strategic culture (2004), and Eric Begue's interesting case study on Australian strategic culture (2017). Yet more rigorous cross-national comparison can promote cumulative knowledge in the field. Academics, strategists, and defence planners should more openly recognize variation in instruments and incentive structures associated with deterrence of specific threats, while at the same time searching for identifiable patterns among nations. As one senior State Department official, Kerry Kartchner, argued, '[s]trategic culture offers the promise of providing insight into motivations and intentions that are not readily explained by other frameworks, and that may help make sense of forces we might otherwise overlook, misunderstand, or misinterpret' (2009: 56). In this context, there appears to be an important convergence of interest in deterrence and strategic cultural studies around the theme of contextualizing strategic choice and identifying scope conditions for more reflective models of deterrence and dissuasion for the twenty-first century.

Finally, culturalists remind us of important caveats in these pursuits, including that, in seeking to identify causal relations, there is a risk of oversimplifying the social world and,

consequently, categories from one case may be applied inappropriately to others. An inadequate knowledge of a given strategic culture may lead to misinterpretation of attributes such as pride, honour, duty, and also security and stability. Even long-time proponents of cultural interpretations warn of the potential pitfalls that accompany an over-reliance by policymakers on the insights that this area of knowledge can give.

Questions

1. What are the different definitions of culture and what implications do these differences have for the study of security policy?
2. What are some specific examples of strategic cultures (or historical narratives) in countries around the world?
3. What are the sources of these strategic cultures? In your opinion, which are the most important and why?
4. What should be the historical starting point for research on strategic culture?
5. What conditions might cause strategic cultural change?
6. Identify the primary themes that define a country's strategic culture. Can you imagine scenarios in which these themes might come into conflict with one another?
7. Can a strategic cultural framework be applied to a non-state or multistate actor?
8. What are the implications of globalization for our understanding of strategic culture?
9. Why is it important to study the linkages between strategic culture and WMD proliferation?
10. What are the benefits and pitfalls of incorporating strategic culture from a policymaking perspective?

Further Reading

J. Glenn, D. A. Howlett, and S. Poore (eds), *Neorealism Versus Strategic Culture* (Aldershot, UK: Ashgate, 2004) is a recent classic that addresses head-on the theoretical debate over the explanatory power of cultural and ideational models versus more parsimonious neo-realism.

J. L. Johnson, K. M. Kartchner, and J. A. Larsen (eds), *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking* (London: Palgrave Macmillan, 2009) presents theoretical foundations for the study of strategic culture and a number of rich comparative case studies.

J. S. Lantis (ed.), Strategic Cultures and Security Policies in the Asia-Pacific: Special Issue of *Contemporary Security Policy* 35(2) (2014) is a collection of original essays by country specialists examining the value of strategic cultural models to explain rising tensions in Asia-Pacific security.

E. Lock, 'Refining Strategic Culture: Return of the Second Generation', *Review of International Studies* 36(1) (2010): 685–708 gives an interesting survey of the evolution of strategic culture scholarship, with particular emphasis on insights that were 'missed' from second-generation works.

C. O. Meyer, ***The Quest for a European Strategic Culture: Changing Norms on Security and Defence in the European Union* (London: Palgrave-Macmillan, 2007)** provides a rich and engaging exploration of debates about strategic culture and security norms in Europe.

P. Schmidt and B. Zyla (eds), *European Security Policy and Strategic Culture* (London: Routledge, 2013) critically examines European efforts to develop a common security policy identity using a strategic cultural lens; it also features a rich set of case essays.

Web Links

The Stockholm International Peace Research Institute (SIPRI) **http://www.sipri.org/** monitors trends in military expenditures and policies throughout the world.

European Union **http://europa.eu/pol/cfsp/index_en.htm** is the main website of the EU, which includes valuable archival materials as well as descriptions of contemporary EU foreign and security policy institutions and initiatives.

Washington Institute for Near East Policy **http://www.washingtoninstitute.org/uploads/Documents/pubs/PolicyFocus72.pdf** features a compelling work linking strategic culture and contemporary deterrence challenges, entitled *Deterring the Ayatollahs: Complications in Applying Cold War Strategies to Iran* (Patrick Clawson and Michael Eisenstadt (eds), July 2007).

Strategic Insights **https://calhoun.nps.edu/handle/10945/11071** contains the October 2005 special issue of the online journal, *Strategic Insights*, examining the theme of comparative strategic culture. The journal was sponsored by the Center for Contemporary Conflict at the Naval Postgraduate School in Monterey, California.

Acknowledgement

The authors gratefully acknowledge the research assistance of Rachel Wilson.

Law, Politics, and the Use of Force

JUSTIN MORRIS

Chapter Contents

Introduction: The Efficacy of International Law 108
Why States Obey the Law 110
International Law and the Use of Force 113
Jus ad Bellum 117
Jus in Bello 120
Conclusion 124

Reader's Guide

This chapter discusses the role of international law in international politics, focusing specifically on the efficacy of legal constraint on the use of force by states. It is not intended to provide a detailed examination of the substantive legal provisions relating to the use of force, though the basic proscriptions will be outlined and commented on. Rather, the intention is to focus on the manner in which legal regulation influences the behaviour of states and in particular the political and strategic decisions that they take. It will be argued that international law exerts a significant, though by no means always decisive, influence on such behaviour, and that this is the case even when states are dealing with issues which are perceived to be of great national interest and where the use of force is at issue.

Introduction: The Efficacy of International Law

There is a commonly held view that international law has little effect on the behaviour of states. According to this view, international law is simply a tool in the diplomatic kitbag that can be utilized to justify politically motivated actions. This assessment of international law is reflected in the dominant approach to international politics known as realism. Realists portray the world as being dominated by states that act only in pursuit of their national interests. These states interact in a world that is anarchic, in the sense that sovereign states recognize no higher authority. In such a world, interaction is regulated through the exercise of power (and ultimately through the use of military power). For realists there is little scope for effective international legal regulation.

This view of the world and international law's role within it is challenged by scholars such as Louis Henkin. Henkin observed that 'it is probably the case that almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time' (Henkin 1968: 47). So why does the common perception of international law not reflect this? The answer lies in what one might call a 'perception–reality gap' (see Table 7.1).

The Perception–Reality Gap

The perception–reality gap operates at a number of levels. The low regard in which international law is commonly held is partially a consequence of inappropriate parallels drawn between domestic and international law, often leading to the unwarranted conclusion that international law lacks the status of true 'law'. Even among those immersed in international law such doubts sometimes appear: as Sir Hersch Lauterpacht famously commented, 'international law is the vanishing point of law' (Lauterpacht 1952: 381). The common assumption is that at the international level the norm in response to legal edicts is breach, whereas domestically the norm is compliance. In reality the norm in both cases is compliance, though this may be less so at the international level than at the domestic.

The common failure to recognize this is the consequence of another misleading idea, namely that to operate effectively it is essential that a system of law possesses the 'legal trinity' of a legislature, an effective and centralized police force, and a judiciary. At the international level, this trinity is all but absent and the conclusion commonly drawn from this is that international law is unable to influence the behaviour of states effectively. However, the argument is misleading because it is predicated on the erroneous notion that domestic law is synonymous with criminal law, resulting in a misguided preoccupation with issues of apprehension and enforcement, and hence the legal trinity. As Hilaire McCoubrey noted, 'Enforcement—specifically processes of criminal enforcement—tends to be emphasised in external observation of the operation of law and legal systems . . . but it can be argued that this is a seriously misplaced emphasis' (McCoubrey 1998: 271).

It is, of course, true that domestic criminal law is obligatory, policed by the state, and enforced through the imposition of judicially passed sanctions—it possesses the legal trinity—yet this does not result in the effective control of *all* members of society. Conversely, other forms of legal regulation function effectively without such characteristics. Contract law, for example, impinges only upon the lives of those who choose to enter into contracts, its enforcement is dependent on the parties resorting to self-help, and in many systems it does

Table 7.1 Symptoms of the Perception–Reality Gap

Perception	Reality
International law is regularly flouted	International law is usually obeyed
Military conflict is the norm	Military conflict is the exception
International law regulates the use of force	International law regulates almost all aspects of inter-state activity
Law is prohibitive	Law is facilitative

not provide a punitive response to breaches. Despite these 'deficiencies', contract law effectively regulates an important aspect of domestic behaviour; in a similar vein the fact that international law does not conform to the familiar model of criminal law does not necessarily deprive it of its efficacy.

Another reason for the perception–reality gap is the manner in which international politics is portrayed, be it in academic or journalistic writing. The former tends to concentrate on conflict rather than cooperation, portraying a world in which international law, depicted as synonymous with the regulation of the use of force, is invariably disregarded by states. But inter-state military conflict is really the exception, and—the focus of this chapter notwithstanding—for the most part international law provides for orderly and predictable intercourse between states at a mundane, 'everyday' level that has nothing to do with military conflict. The media's coverage of world events shares academia's preoccupation with conflict, and while in the commercial world of journalism the need to generate attention-grabbing headlines and stories is readily understandable, the size of the audience makes its impact all the more deleterious.

Why States Obey the Law

The observation that states generally obey the law should come as no great surprise. International law, and indeed law more generally, is designed not to prohibit those actions which states (or individuals in the domestic setting) would normally choose to undertake, but rather to codify accepted modes of behaviour; good law is facilitative, not prohibitive. Law reflects and strengthens social order and values, it does not seek to impose them. Were this not the case it would be both ineffective and short-lived. The law should not be viewed as an end in itself, but rather as a means to an end. It is a mechanism through which societies seek to achieve political objectives, though once these objectives have become enshrined in law, the law in turn serves to define modes of acceptable political activity (Reus-Smit 2004).

This observation raises a further difficult question: *which* social values and objectives are to be legally codified? For realists, it will always be those that secure and perpetuate the privileged position of the satisfied powers, but this is an oversimplification of the complexities involved in the development of normative frameworks (Morris 2005). Not even the most powerful are free to dictate an order purely on their terms, but rather must establish one premised upon the codification of behavioural norms in which a sufficiently large proportion of states believe themselves to have an interest. As Henkin observes, 'even the rich and the mighty . . . cannot commonly obtain what they want by force and dictation and must be prepared to pay the price of reciprocal or compensating obligation' (Henkin 1968: 31). The exact nature of what such a compromise requires is likely to be a source of perpetual debate, but the basic point remains: for the international order to be stable, a sufficiently high proportion of states must perceive it to be just and conducive to their own interests (see Box 7.1).

Coercion, Self-Interest, and Legitimacy

The suggestion that states are more likely to obey the law because they deem it to be in their interests is not to reaffirm the realist position that law is simply a diplomatic tool to be

BOX 7.1 Definitions

Why Do States Obey International Law?

- Coercion: involves an asymmetric power relationship in which one actor is, through exercise of power, forced to comply with a rule.
- Self-interest: involves an ad hoc calculation of whether compliance with a rule will result in a beneficial or detrimental outcome.
- Legitimacy: compliance results from the belief that a rule is of value. Rule compliance is an integral part of an actor's identity.

employed to justify politically motivated actions. Ian Hurd's work provides a particularly lucid explanation of this point (Hurd 1999). Hurd explains how states are induced to accept rules through coercion, calculations of self-interest, and/or legitimization. Coercion involves an asymmetric power relationship in which one actor is, through the exercise of power, forced to comply with a rule. Where compliance results from calculations of self-interest, it is self-restraint motivated by the likelihood of a beneficial outcome that induces compliance. In both cases, compliance results from prudential calculation. In neither is the content of the rule or its associated institution(s) valued or relevant. What distinguishes the two scenarios is that in cases of coercion, states obey the law to avoid punishment but find themselves, in contrast to cases of self-interest, ultimately disadvantaged by doing so.

Systems that depend on coercion to ensure compliance are difficult to sustain because forcibly policing them is highly resource-intensive. Systems that depend on self-interest to ensure observance are less costly, but they tend to be unpredictable and unstable because of their reliance on ad hoc cost–benefit calculations. For these reasons, it can be concluded that legal systems that depend primarily on coercion and/or self-interest for their observance are likely to be ineffective and relatively short-lived. Sustainable and effective legal regulation depends, therefore, on a widespread shared perception of legitimacy. In such cases, compliance is motivated neither by fear of punitive sanction nor by self-interest (as we have defined it) but rather by the belief that the law is, in some sense, of intrinsic value. In such circumstances its observance and general standing form a constituent element of states' interests and identities. Interest is defined in relation to the law itself rather than by consideration of the beneficial or detrimental consequences of compliance. While states are 'interested' in the sense that they pursue goals, they do so within behavioural parameters that are internally driven and hence non-compliance is the exception to the rule.

Whether in any particular case it is fear of coercion, calculations of self-interest, or perceptions of legitimacy that lead to observance of the law is likely to be unclear and any claims on the matter non-falsifiable. In keeping with the generally low esteem in which international law is held, there tends to be an assumption that prudential calculations are the primary motivating factor. However, as Hurd notes:

> [It] is unreasonable to use the difficulty of proving any one motivation to justify the retreat to the default position that privileges another, without requiring similar proof . . . We have no better reason to assume coercion [or self-interest] than to assume legitimacy.
>
> Hurd (1999: 392)

In fact, given its nature, in the case of international law coercion is unlikely to be the most significant motivation. Considerations of self-interest and legitimacy provide more plausible explanations, though determining the relative importance of these motivational factors is a complex process. Consider, for example, the reputational benefits that states derive from observance of legal obligations. States seek to avoid the stigma of being branded a 'law-breaker'—or in more recent parlance a 'rogue state'. They expect that having a trustworthy reputation will be advantageous because others will reciprocate in future dealings with them, not simply with regard to the specific rule or agreement in question, but with regard to legal commitments more generally. This could, therefore, be said to be a prudential calculation, i.e. observation is motivated by self-interest. Against this, however, there is ample evidence that policy leaders, and particularly those who operate within systems long immersed in liberal-democratic traditions, do not want to be branded as law-breakers because they attach significant value to the notion of the rule of law. They consider rule observance to be of value in itself.

A second reason for abiding by the law is the perception that it is of substantive value: in other words, the modes of behaviour enshrined in particular rules warrant respect. Legal rules are a means by which societies pursue collective goals. The greater the extent to which states share these aspirations, and that a specific rule assists in their attainment, the more likely it is that the rule will be accepted and obeyed by states (Franck 1990). A third reason why state officials observe international legal obligations is that they perceive international law to be of functional value. While the importance of a particular law may be questioned, leaders recognize the contribution that legal regulation as a whole makes to the orderly functioning of international society. Since the authority of the law will be undermined if states pick and choose the rules by which they abide, all rules must be followed.

A final factor that gives rise to the general acceptance of legal regulation and conformity to the law is inertia: states become habituated into formulating and adopting policies that accord with legal rules. This may be because under monist constitutional arrangements international legal obligations become incorporated into the body of domestic law (Brownlie 1990: 32). Where this occurs, government policies that violate international legal obligations may give rise to action in the domestic courts. There is, however, a less tangible way in which states become habituated into following the law: individuals who comprise governing elites and bureaucracies become socialized into behaving in certain prescribed ways. Moreover, where democratically elected policymakers are subject to public, media, and legislative scrutiny, policies that violate legal obligations may be perceived as electorally non-viable.

Understanding Breaches of the Law

Although states generally act in accordance with the law, they do not of course *always* obey it. What do breaches of international law tell us about its role and status in international politics? While perhaps counterintuitive, law-breaking often serves to demonstrate the strength of the law, at least insofar as it remains the exception (see Box 7.2). Because states normally obey the law, any breach is likely to occur against a background of general conformity to both the body of international law in general and to the specific rule in question. Where the breaking of a rule attracts widespread international censure, this demonstrates the efficacy, rather than inefficacy, of the rule. Iraq's 1990 invasion of Kuwait was, for example, such a

BOX 7.2 Key Concepts

Understanding Breaches of the Law

- The fact that a state breaches a rule of international law does not in itself demonstrate the inefficacy of the rule or of international law more generally.
- Breaches of the law invariably occur against a background of general conformity to both the specific rule and the law in general.
- Widespread censure following a breach reinforces the rule.
- Breach is invariably accompanied by an explanation based on recourse to legal argument.

clear breach of international law and was so overwhelmingly criticized that its effect was to bolster, rather than undermine, the legal prohibition of the use of force in international relations. In less clear-cut cases where there exists legal ambiguity, 'breach' may result from a genuine disagreement over the legality of an act and may, therefore, in fact embody some element of conformity. The general prohibition of the use of force, for instance, is subject to numerous alternative interpretations regarding the extent of the prohibition and the permissibility of exceptions to it (e.g. pre-emptive strike and humanitarian intervention). Finally in this regard it should be noted that violations of the law are invariably accompanied by an assertion that, while the rule in question is perceived by the offending state to be ordinarily valid and applicable, exceptional circumstances or the existence of a competing principle necessitate breach. Particularly in the latter case, a degree of caution is necessary, for history is replete with disingenuous claims of this sort, but it is nevertheless clear and notable that, from invulnerable superpowers to the most delinquent of rogues, when states opt to break the law, they seek to justify their actions in terms of it.

Key Points

- States are motivated to obey the law by a complex combination of factors (fear of coercion, self-interest, and perceptions of legitimacy).
- Breaches of the law often serve to demonstrate its strength and not its weakness.
- Where states break the law they very rarely seek to repudiate the validity of international law completely, and invariably attempt to justify their actions in terms of the law.

International Law and the Use of Force

The two broad functions of the laws of armed conflict are performed respectively by the *jus ad bellum* and the *jus in bello* (see Box 7.3). The *jus ad bellum* (literally the law towards war) governs and seeks to avert or limit resort to armed force in the conduct of international relations. The *jus in bello* (literally the law in war) governs and seeks to moderate the actual conduct of hostilities. It should be made clear from the outset that these sectors are distinct in both purpose and implication. The applicability of the *jus in bello* is not affected by the legitimacy

BOX 7.3 Definitions

The Laws of Armed Conflict

Jus ad bellum (the law towards war)	*Jus in bello* (the law in war)
Governs and seeks to limit resort to armed force in the conduct of international relations.	Governs and seeks to moderate the actual conduct of hostilities.
Major source: Articles 2(4) and Chapter VII of the UN Charter.	Major source: the four Geneva Conventions of 1949 and the Hague Conventions of 1899 and 1907.

or otherwise of the initial resort to armed force by either of the belligerents; where armed conflict breaks out, the *jus in bello* becomes operative and equally applicable irrespective of which party initially transgressed the law.

The Apparent Paradox of Legal Constraint–Power Politics

The idea of legal constraint on the waging of war, though ancient in origin, seems profoundly paradoxical. Two distinct lines of argument underpin this apparent paradox, corresponding to the two areas into which the laws of armed conflict are divided. In striving to control the circumstances in which states use force in their international relations, the *jus ad bellum* seeks to operate when the logic of 'power politics' appears most intense and hence factors mitigating in favour of legal observance are likely to be most compromised. Hence, to quote him more fully, Lauterpacht asserted not only that 'international law is . . . the vanishing point of law' but also that 'the law of war is even more conspicuously the vanishing point of international law' (Lauterpacht 1952: 381) (see Critical Thinking). Evidence for such a claim might, at first sight, appear to lie in the German Chancellor Theobald von Bethmann-Hollweg's infamous Reichstag speech at the outset of the First World War, in which he declared:

> We are now in a state of necessity, and necessity knows no law . . . He who is menaced as we are, and is fighting for his highest possession, can only consider how he is to hack his way through.
>
> As quoted in Wilson (1928: 305)

Yet the Chancellor's statement actually suggests something quite different: while necessity might demand that the law be broken, nevertheless the decision to which he was referring (namely to invade two neutral states) was taken not in *disregard* of the law, but rather in *conscious* breach of it. The lawfulness of the action being contemplated was clearly a pertinent issue in the decision-making process.

This is not to suggest that legal questions are necessarily at the forefront of policymakers' minds when they contemplate the use of force. The uppermost questions will be ones relating to whether policy objectives can be achieved through the use of force at a reasonable cost and this, in turn, will depend on the perceived importance of the objective in question. In a fight for ultimate survival almost any cost may appear reasonable, whereas in one fought for

political aggrandizement or to secure the welfare of non-nationals, the threshold of acceptability may be much lower. We may conceive of the notion of 'cost' in several ways. There are the direct costs of conflict, of lives and assets, both military and civilian, lost in the fray. Given the destructive power of modern weaponry these may be almost without limit; in such situations legal niceties may seem at best a tangential consideration. There are political costs: what will be the response, both domestically and internationally, to a policy involving the use of force? Here much may depend on the outcome of the conflict, but even victory cannot guarantee acclaim. If the action is perceived to be in violation of the accepted norms of international behaviour enshrined in international law, even political allies may disapprove. Despite the improbability of effective direct sanction, legal considerations are paramount here, for international law provides the medium of diplomatic and political exchange on the basis of which states will formulate, articulate, and justify their responses.

Normative costs also must be considered. How might a breach of the cardinal rule prohibiting the use of force affect international order in the longer term? Repeated violations can only undermine an order in which both the powerful and the weak have a vested interest. For the former, the incentive in preserving the existing order and its rules is readily apparent, though the rules themselves may militate against great powers adopting policies that are blatantly self-interested. For the weaker members of international society, the legal framework's prohibition of the use of force is also beneficial. Many states are militarily incapable of defending themselves, and their survival is therefore dependent on the general observance of these rules. As Robert Jackson observes: 'Ramshackle states today are not open invitations for unsolicited external intervention . . . They cannot be deprived of sovereignty as a result of war, conquest, partition, or colonialism such as frequently happened in the past' (Jackson 1993: 23–4). This may have as much to do with the utility of territorial possession in contemporary international politics as with more enlightened post-1945 political outlooks, but nevertheless, for a significant number of the world's states, sovereign independence is primarily legally enshrined rather than militarily ensured.

The Apparent Paradox of Legal Constraint—An Impediment to Victory?

Whatever contribution international law pays to the preservation of international order, conflicts do still occur. What role can international law play *once hostilities have commenced*? Is war, as the ultimate collapse of 'normal' international relations, not a situation in which the most ruthless use of force must prevail and in which the acceptance of legal constraint can serve only as a potentially fatal self-inflicted impediment to effective action? In war is not the paradox of legal constraint thus most apparent? If it was indeed the purpose of legal norms to obstruct and diminish the combat efficacy of fighting forces, such strictures would be fully justified and norms so conceived could not long endure. That, however, is neither their purpose nor their effect. The real foundation of legal constraint on warfare can be found clearly stated in a much misrepresented passage in Carl von Clausewitz's classic work *On War*. The great Prussian strategist wrote:

> He who uses force unsparingly, without reference to the bloodshed involved, must obtain a superiority if his adversary uses less vigour in its application . . . From the social condition both of States in themselves and in their relations to each other . . . War arises, and by it War is . . . controlled and modified. But these things do not belong to War itself, they are only

> given conditions; and to introduce into the philosophy of War itself a principle of moderation would be an absurdity.
>
> Clausewitz (1982: 102)

If war is analysed as a phenomenon in isolation, a logic of illimitable force might indeed seem to be suggested. However, as Clausewitz indicates, wars and armed conflicts do not arise in isolation, but occur in the real context of international relations, which imports expectations that not only condition reactions to armed conflict but themselves have real political and military effect.

In the first place, needless barbarity renders both the conduct and the ultimate resolution of conflict more difficult than it otherwise might be. As Colonel Klaus Kuhn commented, 'the quickest way of achieving and maintaining a lasting peace is to conduct hostilities humanely . . . It is evident that humanitarian considerations cannot be dissociated from the strategic concept of military leaders' (Kuhn 1987: 1). The proscription of unnecessary barbarity is counselled not only by ethical and humanitarian considerations but also by reference to the response of other states to a belligerent power and the likelihood that conflict will be prolonged when fear of probable mistreatment renders a cornered enemy desperate. The idea is not new: it was asserted in the fifth century BC by the Chinese philosopher Sun Tzu in advising, 'do not press a desperate foe too hard'. There is ample historical evidence to support the contention. In 1945 the forces of the Third Reich sought to resist the advancing Soviet army, whose fury was at least in part occasioned by prior German conduct, long after it was clear that all hope of success was gone and even as vast numbers hastened to surrender to the Allies in the west. All wars must eventually end, if only through the economic exhaustion of the belligerents. Peaceful relations must be resumed. This process is, *ex hypothesi*, never easy and the more brutal the conflict the more difficult post-war reconstruction will be.

A second criticism levelled at the *jus in bello* is that, to the extent that it humanizes war, it also encourages it. This argument, however, has a major flaw: the inherent cruelty of war does not prevent its occurrence. If the argument were correct, it is difficult to imagine how war could have been contemplated after the carnage of Verdun, the Somme, and Passchendaele. That war continues to occur is a reflection of the fact that its instigators rarely have to fight or otherwise become its victims. To deny humanitarian mitigation to those who do find themselves engaged in combat would be the cruellest of logics.

There are powerful ethical and practical arguments for norms of constraint in armed conflict. However, norms governing the conduct of war, in distinction from those governing resort to armed force, are by their nature no more than mitigatory in effect. If it were to be pretended that either ethics or law could render war humane, the 'absurdity' to which Clausewitz referred would rapidly become all too evident.

Key Points

- Even in the most extreme of circumstances, such as those involving contemplation of the use of force, legal factors continue to influence decision-makers.
- War is a social phenomenon and hence the notion of legal regulation of warfare remains pertinent.
- Norms governing the conduct of war are no more than mitigatory in effect.

Jus ad Bellum

The *jus ad bellum* is now founded primarily upon Article 2(3)–(4) and Chapter VII (Articles 39–51) of the UN Charter. Article 2(3)–(4) of the UN Charter provides that:

3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.
4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations.

The basic proscription set out by Article 2(4) is recognized as having the character of *jus cogens* and as such is, under Article 53 of the Vienna Convention on the Law of Treaties 1969: 'a peremptory norm of general international law . . . accepted and recognised by the international community of States as a whole as a norm from which no derogation is permitted'.

The Article 2(4) prohibition is qualified by two essential exceptions: (1) the inherent right of individual and collective self-defence in the face of armed attack, preserved by Article 51; and (2) action for the maintenance or restoration of international peace and security authorized by the UN Security Council under Article 42. Article 51 of the UN Charter states:

> Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security.
>
> United Nations (1945)

Taken in conjunction with the wording of Article 2(4), Article 51 raises a number of issues. In the case of Article 2(4) what, for example, constitutes 'the threat or use of force' and is such a threat or use which is not 'against the territorial integrity or political independence' of a state permissible? What, under the terms of Article 51, constitutes the 'inherent right of individual or collective self-defence' and at what point can the Security Council be deemed to have 'taken the measures necessary to maintain international peace and security'?

Such questions are central to debates regarding the legality of practices such as anticipatory self-defence, military intervention to protect nationals abroad, and humanitarian intervention. The terrorist attacks of 11 September 2001 and the subsequent pursuit of the so-called 'war on terror' (WoT) in the early 2000s brought such matters into even sharper focus. Those who argued in favour of a relaxation of the rules prohibiting the use of force maintained that the presence of global terrorist networks which reject all aspects of international regulation, combined with their potential use of nuclear, chemical, and biological weapons, necessitated a reinterpretation of the law so that states could legally undertake *preventive* military action against such networks and the states which harbour or otherwise assist them. More radical than the assertion that the Charter allows for proportionate pre-emptive strike in certain narrowly prescribed circumstances (Arend and Beck 1993: 71–9), advocates of preventive strike sought to reformulate the rules on anticipatory self-defence by discarding the requirement that the threat of attack posed must be imminent (Gray 2008). Security strategies issued by both the United States (United States White House 2002: 15) and the European Union (2003: 7) alluded to such

a right and it was a key issue in the debates over the legality of the 2003 Iraq War. Yet many EU Member States, despite their 2003 declaration, remained deeply uneasy about the notion of preventive strike, as did the majority of other UN member states. Much of the debate over the legality of the 2003 Iraq conflict bore testament to the reluctance of states to countenance any loosening of the bonds of legal control which serve to limit conflict. Any such amendments run counter to the ultimate goals of international society. Accordingly, exceptions to the prohibition of the use of force should be interpreted in a highly restrictive manner.

Jus ad Bellum and Collective Security

One more issue regarding the *jus ad bellum* requires consideration, namely the relationship between the prohibition of the use of force enshrined in Article 2(4) and the collective security provisions of the United Nations (UN) Charter. The drafters of the UN Charter envisaged not only the establishment of a legal structure that would prohibit the use of force (other than in the case of self-defence) but also the creation of a collective security mechanism that would operate to ensure the security of states. In accordance with Article 39 of the Charter:

> The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.
>
> United Nations (1945)

Where necessary, the Security Council may impose non-military (primarily economic) sanctions under Article 41 or military measures under Article 42. These articles are not mandatorily sequential. It is entirely lawful in appropriate cases to proceed straight from Article 39 to Article 42, as is made clear by the provision of Article 42 that it may be applied if the Council considers that non-military sanctions 'would prove inadequate'. Moreover, the oft-cited rationale for arguing that non-military sanctions must be exhausted prior to the employment of military ones—namely the assumption that economic measures are more humane—is increasingly questionable given that economic sanctions fall disproportionately on innocent populations rather than culpable leaderships. To the extent that technology allows ever more precise military targeting, economic sanctions may come to be seen as the indiscriminate option, especially when leaders of target states are less interested in the welfare of their citizens than in the political capital which can be generated by images of suffering appearing in the world's media. The prospect of increasingly 'clean' military conflicts with minimal 'collateral damage' that modern technology appears to offer is to be welcomed, but to the extent that 'acceptable'—and ultimately legal—war comes to be equated with 'clean' war, it has very significant political implications. 'Smart' weaponry is currently the preserve of the powerful few and is likely to remain so for many years. If the use of force becomes the exclusive legal preserve of these states then the implications for the *jus ad bellum* are considerable.

The Chapter VII mechanism gives rise to a number of grey areas, not least of which is what constitutes a 'threat to the peace, breach of the peace, or act of aggression'. The Charter provides no guidance on this and it is clear from the *travaux préparatoires* that those responsible for the Charter intended that the Security Council should have wide discretion in reaching such a determination (Goodrich and Hambro 1949: 262–72). Proposals to include a definition

of aggression were rejected because states were reluctant to impede with legal definitions the deliberations or actions of a Council that was intended to act as a political rather than a judicial body. Nevertheless, some limitations were placed on the Council. It was initially limited to dealing with matters that were *international*, i.e. inter-state, but this restriction has been massively eroded over time (Bellamy 2009: 8–34). Another major—and prevailing—curtailment of the Chapter VII mechanism is that it cannot be applied to the activities of the Security Council's five permanent members (the 'P5'—China, France, UK, USA, and USSR/Russia) since these states are, as a result of the veto power granted to them under Article 27(3), exempt from UN sanction. The veto was intended to assist in the maintenance of P5 unanimity and was the price to be paid for ensuring crucial great power participation in the UN (Russell 1958). But it was also widely welcomed by the organization's broader membership; on balance the prospect of veto-induced stalemate seemed preferable to that of being dragged by treaty obligation into an intra-P5 dispute which might ultimately end in large-scale conflict (Claude 1962: 161).

The vulnerability of the UN's security mechanisms to veto-induced paralysis—a condition to which the organization largely succumbed for the first 45 years of its existence—raises one final question: should Article 2(4) be viewed as being *contingent* on the effective operation of Chapter VII? The logic of such a proposition is not without merit, but neither the provisions of the Charter nor state practice lend it much support. Despite the absence of an effective collective security mechanism, for almost 60 years no state directly refuted the validity of Article 2(4) on these grounds, but as the twenty-first century began this central facet of the UN system was subjected to two challenges. The first of these was grounded in the earlier discussed arguments in favour of a more expansive right of self-defence. The second came in the assertion that where the Security Council fails to authorize, through the passing of a resolution, action to maintain or restore international peace and security, states may themselves act in order to do so. In claiming that they were acting to enforce legally binding obligations previously imposed by the Security Council in 1991, the US and its allies made this argument the central legal point of their justification for action against Iraq in 2003 (Kritsiotis 2004). This represented a fundamental departure from previous state practice, but the largely critical international response to the initiation of the war suggests that few states were willing to endorse this challenge to the prohibitory norm.

With post-Iraq changes of government in the US and UK, the appetite for taking military action without a UN mandate appears to have dissipated, and domestic legislatures appear increasingly reluctant to allow their executives the scope to embark on military ventures of questionable international legality (Strong 2015; Vaughn and Dunne 2015). The US and UK, along with France, members of the Arab League, and other allies, were careful to secure Security Council authority before military action aimed at protecting civilians through the establishment of a no-fly zone was undertaken in Libya in March 2011. Conversely, failure to gain Security Council backing for measures against the Syrian government as a consequence of Russian and Chinese vetoes was a major impediment to international action. In the context of the debate about the legal use of force the import of the Syrian case should not be overstated since, dissuaded primarily by prudential geostrategic calculations, none of the resolutions tabled and subsequently vetoed involved proposals for military action. Nevertheless, in their tone and content, the Security Council debates over Syria—and, indeed, over Libya—serve to reinforce the proposition that the Council remains the primary source of international legitimacy (Morris 2013).

Key Points

- The *jus ad bellum* governs and seeks to limit resort to armed force in the conduct of international relations.
- Recourse to force is prohibited other than in cases of individual or collective self-defence or where action is taken to restore international peace and security as mandated by the UN Security Council.
- Exceptions to the prohibition of the use of force should be interpreted restrictively.
- The prohibition of the use of force is not viewed by most states as being contingent on the successful operation of the UN collective security mechanism. The 2003 Iraq conflict challenged this, but elicited little support.
- No state has openly repudiated the general prohibition of the use of force.

Jus in Bello

The *jus in bello* has two principal subdivisions, which have conventionally been categorized as 'Geneva' and 'Hague' law in recognition of the principal treaty series upon which each is founded. Modern 'Geneva' law is specifically concerned with the protection of the victims of armed conflict. 'Hague' law is concerned with methods and means of warfare, including controls on weapons type and usage, and on tactics and the general conduct of hostilities. It should be noted that the Geneva–Hague distinction is today artificial; both are premised upon a humanitarian concern for the moderation and mitigation of warfare, and for this reason there is a considerable degree of overlap between them. In modern usage the term 'international humanitarian law' (IHL)—historically used to refer specifically to Geneva law—is taken to comprise the whole *jus in bello* in both its Geneva and Hague dimensions.

Both sets of norms rest ultimately on a fundamental principle of proscription concerning the infliction of militarily 'unnecessary suffering'. This principle was stated expressly in the 1868 Declaration of St Petersburg:

> The only legitimate objective which States should endeavour to accomplish during war is to weaken the military forces of the enemy . . . this objective would be exceeded by the employment of arms which uselessly aggravate the suffering of disabled men . . . [and] the employment of such arms would therefore be contrary to the laws of humanity.
>
> McCoubrey (1998: 212)

The modern foundations of the 'Hague' sector are primarily to be found in the Hague Conventions of 1899 and 1907 and the 1977 Additional Protocol I to the Geneva Conventions, which makes provision for methods and means of warfare and discrimination in bombardment. Modern Geneva law is based on the four 1949 Geneva Conventions, dealing respectively with: (I) wounded and sick on land; (II) wounded, sick, and shipwrecked at sea; (III) prisoners of war; and (IV) civilians. On the basis of this treaty and customary provision the basic rules of IHL are well settled, but it must be conceded that all too often its application remains inconsistent and problematic (see Box 7.4).

BOX 7.4 Definitions

Jus in bello

'Geneva' law	'Hague' law
● Concerned with protection of victims of warfare.	● Concerned with methods and means of armed conflict.
● Based primarily on the four 1949 Geneva Conventions.	● Based primarily on the 1899 and 1907 Hague Conventions.

Theory versus Practice

The causes of this inconsistency are to be found in significant part in our apparently innate ability to inflict horrendous suffering on our fellow human beings, especially those deemed to be enemies or threats, and most particularly during times of great stress and conflict. However, to some—no doubt more limited—extent the failure to observe IHL stems from disputes about its applicability, and in particular the degree to which it is based on reciprocal obligation. As a starting point it is worth noting that IHL is closely related to the general law of human rights, and this creates a powerful argument that the obligations created by it are essentially unilateral and non-reciprocal in nature (McCoubrey 1998: 187). Such a view is certainly taken by the International Committee of the Red Cross (ICRC), which has commented that a state should not observe IHL simply in the hope that this will be reflected in the treatment by others of its own nationals; it should do so 'out of respect for the human person as such' (Meron 2006: 11). The Nuremberg Tribunals provide strong supporting evidence for this position (Meron 2006: 10), as do the Geneva Conventions, Common Article 1 of which provides that 'The High Contracting Parties undertake to respect and ensure respect for the present Convention *in all circumstances*' [emphasis added] (ICRC 1949).

At least with regard to armed conflicts between states, the applicability of IHL on a non-reciprocal basis has become increasingly embedded. There has also been significant progress towards regulating internal conflict which had, despite its tendency to involve the cruellest acts of violence, traditionally lain outside the ambit of IHL (Moir 2002). Yet despite these legal developments, in practice intra-state/inter-ethnic conflicts all too often continue to testify to the horrific barbarity that accompanies fighting between irregular combatants, who routinely fail to conform to the—perhaps idealized—traditional expectations of regular military forces. Another area with which the law is still struggling to get to grips is international terrorism (Sassòli 2004; Barnes 2005).

The manner in which the Bush administrations chose to prosecute the WoT illustrates the point in the starkest manner, most particularly in the claim that individuals detained pursuant to the WoT and held at the US' Cuban Guantanamo Bay military facility enjoyed neither protection under IHL nor the right of recourse to US domestic courts. Both of these arguments were ultimately rejected by the US Supreme Court, but this rectification of the

legal position came too late to repair the self-inflicted diplomatic and reputational damage which arose from the impression of American ambivalence to its obligations under IHL and, indeed, international law more generally (Forsythe 2008; Carvin 2008). Evidently conscious of the harm done, Bush's successor sought immediately to confirm the applicability of IHL to the Guantanamo detainees and to signal the closure of the camp, but President Obama's failure to deliver on the latter promise served only to prolong this inauspicious episode in US history (Yin 2011). More damagingly still, the White House's latest occupant, President Trump, shows little inclination to bow to the constraints of IHL, with a repopulating of Guantanamo and a return to highly questionable modes of interrogation both real possibilities, despite the reputational costs that such policies will inevitably attract (Marks 2017).

It will be apparent from the preceding discussion that IHL's applicability in theory and its application in practice are far from being the same, and to the extent that variation exists the victims of conflict suffer all the more. The 'theoretical' position does, however, remain highly significant, since the behaviour of those who violate IHL is increasingly viewed in the light of its legal demands and the ethical principles that underpin them. As such, the political implications of perceived violation are considerable, manifesting themselves in highly practical and strategically important ways. The willingness of others to become or remain allies and so to share the costs arising from conflict is among the most important of these consequences, since even the most powerful benefit from being able to socialize the costs of their actions (Reus-Smit 2007). Nor is this a purely international phenomenon. A growing public awareness resulting from 24-hour real-time TV coverage, advances in global communications, and the campaigning work of non-governmental organizations (NGOs) such as Amnesty International and Human Rights Watch is also important. The high profile now enjoyed by humanitarian issues can place considerable domestic political pressure on governments and can have significant electoral implications. Moreover, non-state actors, be they NGOs or less formalized grass-roots movements, can play a significant role in shaping the very legal framework against which the behaviour of states comes to be judged, as, for example, the adoption of the Convention on the Prohibition of Anti-Personnel Landmines shows.

Another major advance in IHL that may yet see a closing of the gap between theory and practice was the establishment in 2002 of the International Criminal Court (ICC). The Court is competent to prosecute cases of genocide, crimes against humanity, war crimes, and potentially at some future date the crime of aggression. Its jurisdiction extends over nationals of state parties and crimes committed on their territory where the states are either unable or unwilling to prosecute themselves (Schabas 2017). The Court is not without its detractors, not least amongst them the United States (Ralph 2007), one concern being that conflicts may be prolonged by the prospect that the parties to them, especially the vanquished, may face prosecution once hostilities cease. This has long been the crux of the argument in favour of granting immunity to belligerents, and though the establishment of the ICC does not provide a definitive resolution to the debate over whether we should prioritize 'peace' or 'justice' in such situations, it does appear to be a significant step in favour of the latter.

Of course the extent to which IHL is able to realize the objectives which it enshrines is contingent on the degree to which belligerents actually eschew proscribed modes of behaviour

in practice. As noted earlier, excessive concern with punishment, in this case of war crimes, misses the point that the primary function of IHL is not to punish those who violate its edicts but rather to protect the victims of armed conflict by preventing war crimes in the first place. Indeed, before any question of punishing war crimes or other enforcement action can arise, failure in this primary endeavour must be presupposed. In this sense, issues of enforcement must be viewed as secondary to the imperatives of effective dissemination and training. That in many states the latter is now a foundational element of military training bodes well, though such practice is far from ubiquitous and deficiencies in this regard are often exacerbated through shortcomings in discipline and command and control (Robinson, de Lee, and Carrick 2008).

Key Points

- The *jus in bello*, often split into the subdivisions of Geneva and Hague law, and commonly known now as IHL, governs and seeks to moderate the actual conduct of hostilities.
- 'Geneva' law is concerned with the protection of victims of armed conflict. 'Hague' law is concerned with methods and means of warfare.
- Much of Geneva and Hague law has the status of *jus cogens*.
- The primary function of IHL is to protect the victims of armed conflict by preventing war crimes. Such objectives are best pursued primarily through education and training rather than through post-violation prosecution.

Critical Thinking 'If international law is . . . the vanishing point of law, the law of war is even more conspicuously the vanishing point of international law' (Sir Hersch Lauterpacht 1952)

For

- ***International law is a mere cloak for power***. In the anarchic international environment, international law is little more than a diplomatic tool, developed by the powerful to maintain an order from which they have the most to gain.
- ***Necessity will always trump the* jus ad bellum**. When circumstances are dire, national interests are at stake, and the use of force offers a possible solution, the obligation to abide by the strictures of a largely unenforced law will inevitably be outweighed by the fear and uncertainty which characterizes inter-state relations and the political and strategic demands of *realpolitik*.
- ***In battle legal regulation is ineffective and self-defeating.*** When engaged in combat, the logic of 'kill or be killed' must prevail and legal considerations can only serve to reduce operational effectiveness and hence increase the likelihood of defeat and possible death.
- ***Acts committed in battle cannot reasonably be subjected to subsequent legal adjudication.*** Split-second decisions based on limited and uncertain knowledge and while experiencing immense stress and fear cannot reasonably and fairly be reviewed in the detached safety and calm of a courtroom by people who have not experienced such circumstances and cannot, therefore, realistically place themselves in the shoes of those they seek to judge.

(*continued . . .*)

Critical Thinking (*continued*)

Against

- ***Preoccupation with enforcement distorts our view of the law***. Coercion is only one means by which legal compliance can be secured, and its role is often significantly overstated. Self-interest, and, even more significantly, perceptions of legitimacy are crucial to ensuring legal observance.
- ***International law acts as a benchmark***. International law may not be able to stop states, especially powerful ones, resorting to force in breach of its edicts, but it is the basis against which such actions are judged and this has significant consequences when it comes to socializing the costs of action.
- ***State practice increasingly demonstrates the efficacy of the laws of war***. Particularly following the Iraq conflict of 2003, national legislatures are increasingly inclined to try to ensure that their executives act in accordance with the *jus ad bellum*. Where this occurs leaders have no option but to factor in the legalities of the situations with which they are dealing.
- ***Failure to (at least) attempt to limit the excesses of war is morally indefensible***. The aim of the *jus in bello* is to reduce the infliction of militarily *unnecessary* suffering. Its application and observation may be imperfect, but the very statement of the parameters of acceptable behaviour is in itself valuable, and it serves as the foundation upon which education and training can be based.

Questions:

1. Is it naive and unrealistic to expect the laws of war to influence the behaviour of either states or combatants when conflicts arise?
2. What are the principal costs faced by actors who violate the laws of war?
3. Does compliance with the laws of war make defeat more likely?

Conclusion

The low regard in which international law is customarily held is the consequence of several factors. It is a result of our perception of the world of international politics and the extent to which we tend to see this as an environment characterized by conflict rather than cooperation and thus ill-suited to legal regulation. But this perception is profoundly misleading. Rather than wringing our hands over the frequency of military conflict in the world we might, without forgetting the devastation and suffering inherent in conflicts when they do arise, marvel at the degree to which an increasing number of states manage to coexist in a cooperative and often mutually beneficial manner. It would be folly to suggest that this is the consequence of some great legalistic enterprise, but equally it would be foolhardy to suggest that international law has no role to play in influencing the manner in which states behave. To borrow a phrase from Robert Keohane, international law 'prescribes behavioural roles, constrains activity, and shapes expectations' (Keohane 1989: 3).

At times, of course, international law, like all law, is broken. This, however, is the exception rather than the rule. Moreover, in cases where international law is broken one would be hard pressed to find a transgressor who does not at least attempt to provide a legally couched justification for their behaviour, and the more prominent and significant the breach,

the greater these efforts become. Nowhere are breaches of international law more significant or prominent than with regard to the laws of armed conflict. Nowhere are the stakes higher or the pressures greater. It is, therefore, all the more noteworthy that even here, for the most part, the law prevails.

Questions

1. Why is international law held in such low regard? Is this a deserved reputation?
2. Does international law really influence the behaviour of states? If so, how and why?
3. How does the relative power of states affect the ability of international law to influence their behaviour?
4. Can you cite examples involving the use of force in which states have breached international law and not attempted to justify their actions in terms of the law?
5. Are exceptions to the prohibition of the use of force—such as anticipatory self-defence, action to protect nationals abroad, action to punish state-sponsored terrorism, and humanitarian intervention—justifiable?
6. Should the prohibition of the use of force be contingent on the existence of an effective mechanism by means of which the security of states can be assured?
7. Are limitations on the means by which war is waged practicable?
8. Should international humanitarian law only be applied on a reciprocal basis?
9. Is the establishment of the International Criminal Court more likely to lead to more just post-conflict settlements or to prolonged conflicts?
10. What effect did the 'war on terror' have on international humanitarian law?

Further Reading

I. Brownlie, ***International Law and the Use of Force by States*** **(Oxford: Clarendon Press, 1963)** gives a detailed discussion of key issues in the development of the *jus ad bellum*.

H. Bull, ***The Anarchical Society: A Study of Order in World Politics*** **(London: Macmillan, 1977)** provides the seminal discussion of the idea that states form an international society.

M. Byers (ed.), ***The Role of Law in International Politics: Essays in International Relations and International Law*** **(Oxford: Oxford University Press, 2000)** comprises a collection of essays that consider the role which international law plays in international politics.

H. Duffy, ***The 'War on Terror' and the Framework of International Law*** **(Cambridge: Cambridge University Press, 2005)** offers an analysis of international humanitarian law in the context of the 'war on terror'.

D. Fleck (ed.), ***The Handbook of International Humanitarian Law 3rd edn*** **(Oxford: Oxford University Press, 2013)** provides a comprehensive discussion of the *jus in bello*.

W. A. Schabas, ***An Introduction to the International Criminal Court***, **5th edn (Cambridge: Cambridge University Press, 2017)** presents discussions on the history and operation of the International Criminal Court.

M. Weller, ***Iraq and the Use of Force in International Law*** **(Oxford: Oxford University Press, 2010)** analyses key legal questions raised by the 2003 Iraq conflict.

Web Links

United Nations **http://www.un.org** provides a huge array of UN-related resources, including UN resolutions and minutes of meetings.

International Court of Justice **http://www.icj-cij.org** gives details of how the Court is structured, how it works, and details and materials relating to past and present cases.

International Criminal Court **http://www.icc-cpi.int/** provides details of how the Court is structured, how it works, and details and materials relating to past and present cases.

Technology and Warfare

ELIOT A. COHEN

Chapter Contents

Introduction: Technophiles and Technophobes 127
Some Ways of Thinking about Military Technology 128
Mapping Military Technology 131
The Revolution in Military Affairs Debate 133
Asymmetric Challenges 137
Challenges of the New Technology 138
Conclusion: The Future of Military Technology 140

Reader's Guide

Debate exists about the relative importance of technology when compared to other factors, such as training or morale, in achieving victory in battle. Scholars also offer competing explanations about how and why certain technologies are integrated into military organizations while others are ignored. The pace of technological change is not uniform: some technology and procedures become fixtures in militaries while others become obsolete quickly and are discarded. To complicate matters further, some observers today believe that the world is witnessing a revolution in military affairs, a relatively rare event when technologies are combined to produce a fundamental transformation in the way war is fought. This chapter explores these issues and offers some observations about the emerging technological trends that are likely to transform future warfare.

Introduction: Technophiles and Technophobes

Military historians—and sometimes soldiers themselves—cannot make up their minds about how to view military technology. Much contemporary policy debate centres on technical decisions—how many aircraft to buy, what type, over what period of time, and so on. The general public tends to ascribe remarkable—sometimes even magical—properties to modern military technology.

By contrast, many military historians and soldiers deprecate the importance of technology. They believe that skill and organizational effectiveness, not pieces of hardware, determine the outcome of battle. Although technical enthusiasts and sceptics sometimes clash in their assessment of a particular contest, rarely does the debate occur at a conceptual level. Only one major figure in the last century—Major General J. F. C. Fuller, a British war planner, pioneer of armoured warfare, and prolific military historian—attempted to write theoretically about the role of technology in strategic studies (Fuller 1926, 1932, 1942, 1945). This chapter

therefore introduces some concepts about military technology, and then discusses the key technological issues and trends of our time.

Some Ways of Thinking about Military Technology

Consider as a point of departure the question: 'Where does military technology come from?' We often think of technology as something predetermined, the product of technologies from the civilian sector that are readily available to military organizations. Most historians of technology and engineering reject this view, believing that the final forms of technology are far from being predetermined (MacKenzie 1990). Some contend that 'form follows function': military technology evolves to meet particular military needs. There are, however, other possibilities. One author, Henry Petroski, talks about 'form following failure', a concept first applied to his study of the history of bridge building, but applicable to military technology as well (Petroski 1982). In this view, new technology emerges as a response to some perceived failure or fault in existing technology. Other theories of technological invention include the suggestion that technologies emerge from aesthetic or other non-rational considerations, such as custom or organizational convenience (Creveld 1989). These different theories offer varying explanations of how innovation occurs or fails to occur. Why, for example, did it take more than 30 years for the United States, which successfully deployed unmanned aerial vehicles (UAVs) in the Vietnam War, to introduce them into the armed forces? The technology may have been immature (the fruits of civilian industry theory); there may have been no mission crying out for UAVs (form follows function); there may have been no visible failure in the existing technology (form follows failure); or, finally, the technology may have been thwarted by pilots hostile to the notion of aircraft without pilots (non-rational explanations).

No one of these theories is completely satisfying. Their very range, however, should prompt us to look more closely at how and why military technologies come into existence. There are distinctive national styles, for example, in military technology: the Israeli Merkava tank differs subtly from American M1 Abrams (M1A2). These changes reflect differences in design philosophy stemming from where the two countries believe they will fight (the slow Israeli tank is designed for the rocky Golan Heights; the much faster Abrams tank can best exploit its high speed in desert warfare). The Israelis have given exceptionally high value to crew safety. They accepted mechanical inefficiency by placing the engine in front of the crew space rather than (as is normal) behind it. In armoured warfare, most hits occur on the frontal armour of the tank, and the engine can thus absorb the impact of a hit. The Americans, by employing a fuel-hungry high-powered turbine engine, assumed that they could readily resupply their tanks with fuel in vast quantities on the battlefield (see Box 8.1).

National styles in technology may reflect political assumptions about war at the time that a design is frozen. By 2012, for example, the United States was poised to buy large numbers of the F-35 Joint Strike Fighter (JSF), a short-ranged fighter bomber. This decision reflected a political assumption—namely, that the United States would fight its wars within a few hundred miles of its opponents, and, presumably, with extensive access to secure fixed bases.[1] This assumption may well prove incorrect.

[1] The conventional version of the JSF is expected to have a combat radius of less than 600 miles—a figure which requires some scrutiny, since real combat radii have been known to be less than those of stated number. Lockheed Martin Corp., 'F-35 Lightning II: The Future is Flying'. n.d.

BOX 8.1 Case Study

The American M1A2 vs the Israeli Merkava

	M1A2	Merkava (Mk3)
Weight (fully armed) (tons)	69.54	62.9
Length (gun forward) (metres)	9.8	8.8
Height (metres)	2.9	2.8
Width	3.7	3.7
Range (miles)	265	311
Crew	4	4
Road speed (km/hour)	90	55
Main armament	120mm	120mm
Engine	Gas turbine	Diesel

Although similar in some respects, the Merkava is very different from the M1 in others. It is much slower (perhaps half as fast): the Israelis value absolute speed much less than the ability to manoeuvre under fire, particularly over the lava-strewn Golan Heights. They also lack the super-fast infantry fighting vehicles to keep up with the tanks. There is a rear hatch on the Merkava that allows the evacuation of wounded or resupply of ammunition without exposing the crew—again, requirements derived from the peculiar problems of keeping a firing line on the Golan Heights. Finally, the Israeli engine is at the front of the tank, where it can absorb an incoming round—a sacrifice of mechanical efficiency for crew protection. The M1 gets a similar effect by unusually good (and expensive) armour.

Sources: http://www.army-technology.com/projects/merkava/
http://www.army-technology.com/projects/abrams/

Note: The stated speed for the M1A2 is considerably slower than its actual speed.

One way to penetrate the essence of national design style is to ask what kind of trade-offs designers accepted. A tank, for example, has three fundamental characteristics: protection, firepower, and mobility. Increase the amount of armour and one sacrifices the tank's ability to move quickly; put a small-bore, low-recoil cannon on it and one gains a great deal of mobility for a penalty in firepower; increase horsepower and pay a penalty in terms of the size of the tank (and hence protection) or how far it can go (and hence mobility).

Military technology also reflects processes of interaction. Tanks did not grow to be today's 60-ton monsters because of the growth of their power plants or guns. Developments in armour were to blame, as tank hulls have come to consist of materials as exotic as depleted uranium. These changes reflect the development of ever more powerful antitank weapons—depleted uranium rods and so-called shaped charges (explosives configured to create a jet of hot metal that burns its way through armour). Even in peacetime, measure and counter-measure rule the choices designers make. These interactions create a kind of evolutionary process, by which a weapon system settles into its own 'ecological' niche. Birds and lizards evolve an amazing variety of counters to their predators, who in turn come up with a range of adaptations that enable them to find and devour their prey. So too with weapon systems. As in nature, interaction may yield odd outcomes, where one kind of highly sophisticated adaptation to a particular environment makes a platform utterly unsuited to a different battlefield. The first two generations of stealth aircraft, for example, evolved to avoid detection through

the use of adroitly shaped surfaces that would disperse or absorb radar energy: they were difficult (not impossible) to detect using the radar technology of the time. Their odd shaping, however, made them slower and less manoeuvrable than other aircraft; they therefore became night-time-only systems that were vulnerable to optical detection during the day.

In assessing military technology one should look at invisible technology as well. What gave the German tanks an edge over their French counterparts in the Second World War, for example, was not superior armour, guns, or engines, so much as a piece of technology barely noticed by outside observers—the radio (Stolfi 1970). Often, the most important elements of a military system are not the ones most evident to the casual observer, yet mastery of such technologies may weigh most in battle. American forces in the south-west Pacific in the Second World War struggled not only with the Japanese, but also with disease. The insecticide DDT, as much as any bomber or battleship, won the fight for New Guinea.

One should consider the role of systems technology and not just its parts. A novelist described a Second World War warship this way:

> One way of thinking of the ship was as of some huge marine animal. Here on the bridge was the animal's brain, and radiating from it ran the nerves—the telephones and voice tubes—which carried the brain's decisions to the parts which were to execute them. The engine-room formed the muscles which actuated the tail—the propellers; and the guns were the teeth and claws of the animal. Up in the crow's nest above, and all round the bridge where the lookouts sat raking sea and sky with their binoculars, were the animal's eyes, seeking everywhere for enemies or prey, while the signal flags and wireless transmitter were the animal's voice, with which it could cry a warning to its fellows or scream for help.
>
> Forester (1943: 22–3)

As the war progressed, the brain of the ship vanished into its bowels, so to speak—becoming the combat information centre of modern vessels. But Forester's point was that the effectiveness of the ship rested not simply on the working of all the different technologies individually, but rather on their effectiveness as a whole. The very use of the term weapon *system* implies that the art of putting technologies together is more important than their individual excellence. In war, more than in most other activities, the whole can be far greater than the sum of its parts.

Our last concept is that of the technological edge. It is not always decisive, but it is almost always important. J. F. C. Fuller once suggested that Napoleon himself would have succumbed to the semi-competent British general in the Crimea, Lord Raglan, simply because the latter's army had rifles, while the former had smoothbore muskets (Fuller 1945: 18). It is only recently that the advanced powers have assumed that they would go to war with a decided technological edge over their opponents, and that this advantage would prove decisive. Technological superiority does not necessarily extend across the board. In the Persian Gulf War of 1991, for example, some Iraqi artillery pieces (e.g. their South African-made G-5 howitzers) outranged Western counterparts such as the American Paladin system, by 6 kilometres or more (30 vs 24 kilometres, to be precise)—much as Russian-made 130mm guns outranged their American 155mm counterparts in the Vietnam War.[2] The poorer, smaller, or weaker side may have some

[2] This problem became more difficult as the South Vietnamese—lacking American mass, fire control, and air power—took over the war (see Ott 1975: 226). The Soviet M1954(M-46) 130 mm gun has a range of 27.5 km; the M-114 155 m howitzer a range of 14.6 km. Of course, many different artillery pieces were used by both sides. See http://en.wikipedia.org/wiki/130_mm_towed_field_gun_M1954_(M-46) and http://en.wikipedia.org/wiki/M114_155_mm_howitzer

niche competencies that will surprise a richer and more powerful opponent. The technological edge may be dramatic (the quintessential case being the Dervish armies of the Khalifa crumpling under the fire of Lord Kitchener's Anglo-Egyptian infantry using the Henry-Martini rifle), or quite subtle—a matter of a few seconds' difference in the flight time of an air-to-air missile, or a few hundred yards in the effective range of a tank gun. The technological edge may have a psychological dimension that vanishes over time, as with Second World War era German dive bombers with their unearthly wailing sirens, or American heliborne infantry in Vietnam appearing from the skies in remote jungles; or it may reflect fleeting disparities in commercial technology (e.g. commercial global positioning system navigation receivers purchased by Americans, but not Iraqis, in the Gulf War).

Key Points

- There are a range of divergent and contradictory theories about how military technology develops.
- Military technologies often reflect different national styles.
- Different national styles are determined by a variety of considerations, such as political assumptions, trade-offs between various features of hardware, processes of interaction, invisible technologies, systems technology, and the search for technological edge.

Mapping Military Technology

Since the middle of the nineteenth century, change in military technology has become a constant, through what Martin van Creveld has called 'the invention of invention'. The traditional picture of soldiers suspiciously rejecting new technology in favour of old standbys was always overdone: before the First World War, for example, the armies of Europe embraced the machine gun and the aeroplane. Their difficulty lay, and lies today, in recognizing what broader changes new technology may entail. For powerful institutional reasons, military organizations tend to fit new technologies into old intellectual and operational frameworks.

One question to ask in assessing technological change is whether what one is witnessing is a change in *quantity* or a change in *quality*. It is a more complicated question than it might appear. Marginal increases in speed, protection, mobility, or payload, to take just a few design parameters, are quantitative: they may have cumulative effects, but in and of themselves should not bring about radical changes in war. Sometimes, however, a seemingly incremental improvement augurs, in fact, qualitative change. Early firearms, for example, delivered rather less effective lethality than a good longbow; oil-fired ship engines offered moderate increases in speed over their coal-powered counterparts; and the first generation air-to-air missiles provided only marginal improvements over a well-aimed burst of cannon fire. All of these changes, however, foreshadowed tremendous upheavals in the conduct of war. Mastery of the longbow could take a lifetime. Mastery of the musket took a few months of drill, and its incidental qualities—the noise, smoke, and flash, none of which had direct effects on the enemy—made it a more fearful, that is, psychologically effective, weapon. Oil propulsion reduced the size of crews, increased the speed of ships, and, perhaps most importantly, made the world's oilfields prime strategic real estate. Air-to-air missiles improved far beyond the capability of mature aircraft cannon, to the point of engaging targets well beyond visual range.

Contemporary observers will often get it wrong. Military organizations (the US navy in particular) had experimented with satellite-based navigation systems since the early 1960s (Friedman 2000). It took the experience of the Gulf War in 1991, however, to make average sailors, pilots, and soldiers realize that the global positioning system could transform all aspects of navigation from art to science, or rather to mere technique. By contrast, the advent of nuclear weapons in the late 1940s and 1950s convinced some professionals that all military organizations would have to be radically restructured to accommodate the new weapons. As it turned out, however, only selected military organizations needed to adapt their tactics and structures to the new devices (Bacevich 1986). Military organizations and platforms do not change at a uniform rate. Some aspects of military technology change very little over the decades. Visit an aircraft carrier's deck, and one is struck by how little many procedures have changed in well over half a century. Steam catapults—themselves solid pieces of mid-twentieth-century engineering—loft jet aircraft off angled decks devised shortly after the Second World War. The crews, in multicoloured jerseys, each of which identifies their function, work pretty much as their grandfathers did during the Korean War. Inside, the Air Boss and his (or her) staff track the movement of aircraft using model aeroplanes on a large flat table; below decks illuminated glass grids show the status of all aircraft. There are important changes—more accurate and powerful bombs, far better intelligence flowing in, better aircraft—but the overall structure is remarkably durable.

Some military processes change to a considerably greater extent. A large desert armoured battle, for example, bears some resemblance to the clashes of the Second World War: masses of ponderous armoured beasts manoeuvring over open ground, generating vast clouds of smoke and dust, swirling in a mêlée where the advantage goes to the quicker shot and calmer head. But much has changed, too. Today's armoured battle might take place at night, using thermal imaging devices that are in many ways better than optical sights even on a clear day. A well-calibrated gun, with even a moderately competent crew (aided by laser range finders and ballistic computers) can score a first-round hit at a distance of several kilometres—which, combined with the rise of night vision, yields a significant change in the way tank battles are fought.

Some changes are larger. The first night of an air operation, for example, is now completely different from what occurred during the Second World War, Korean War, and Vietnam War. In one or two nights a competent air force can shut down an enemy's air defence system. It is not the case that air power can do more efficiently that which it did in the past—it can do things that it never could have done before. Thus, for example, with adequate intelligence and planning, a well-conducted air strike can cripple a nation's telecommunications system, in part by attacking targets (relay towers or switching centres) that previously were not susceptible to mass attack, or target particular individuals.

Key Points

- One of the problems of understanding the role of military technologies is the constant process of change that takes place.
- One difficult issue concerns the relationship between qualitative and quantitative change.
- Another difficulty is that some technology is slow to have an effect, while some is much more immediate and radical in its impact.

The Revolution in Military Affairs Debate

When a set of changes comes together, the result (some soldiers and historians would argue) is a revolution. Normally, military technology merely evolves, at greater or lesser speeds, and unevenly. Occasionally, however, several developments will come together and yield a broader transformation.

Since the late 1970s, a number of observers have suggested that a revolution in military affairs is under way. Senior Soviet military officers, including the then Chief of the Soviet General Staff, Nikolai Ogarkov, suggested that modern conventional weapons would soon have the effectiveness of tactical nuclear weapons. Long-range sensors, including powerful radars mounted on aircraft, combined with precision weapons, would allow the detection and destruction of armoured units long before they ever approached the battlefield. Soviet military leaders believed that the United States, with its superior technological base, would drive these developments, and that their consequence would fall very much to the disadvantage of the Soviet Union, reliant as it was on waves of armoured forces that could move into Europe from their mobilization areas in the western USSR.

In the West, a number of technologists had similar, if less well-articulated, aspirations for weapons systems that would combine accuracy, range, and above all 'intelligence'—the ability to home in on, or even select, their own targets. It took the 1991 Gulf War to convince a broad spectrum of officers that very large changes in the conduct of war had occurred. The lopsidedness of that war, the undeniable effectiveness of precision weapons, and the emergence of a host of supporting military technologies (stealth, for example, which is actually a cluster of technologies) convinced many observers that warfare had changed fundamentally. The developments first noted in the Gulf War continued in a decade of smaller-scale military engagements thereafter, including repeated American and British strikes against Iraqi targets, and North Atlantic Treaty Organization (NATO) operations against Yugoslavia as a result of the wars in Bosnia in 1995 (Operation Deliberate Force) and in Kosovo in 1999 (Operation Allied Force). Similarly, the combination of special operations forces, UAVs, and aircraft delivering precision weapons (and unguided ones for that matter) had a devastating effect on admittedly ragtag Taliban troops in Afghanistan in 2001. These and American regular ground and air forces occupied Iraq and crushed the regime of Saddam Hussein, and its admittedly fragile and obsolescent military, in less than three weeks in 2003.

An adequate conceptual description of these changes, however, remained elusive. The Vice-Chairman of the American Joint Chiefs of Staff, Admiral William Owens, described what he termed 'the system of systems' as the ultimate potential of the new technologies, if not their actual achievement (Owens and Offley 2000). By integrating long-range, precision weapons with extensive intelligence, surveillance, and reconnaissance, and vastly improved capabilities for processing information and distributing it, he believed the United States could hope to detect and destroy any enemy target over swathes of the Earth's surface as large as 200 by 200 miles. Some in the military scoffed at this as a technologist's fantasy, pointing to the persistence of what Carl von Clausewitz termed 'the fog of war' even in seemingly immaculate military operations against feeble opponents—the limited success of NATO aircraft in knocking out Serb tanks in 1999 being a case in point. Owens himself declared that enormous bureaucratic impediments—the persistence of individual service cultures, in particular—stood in the way of his dream being achieved.

In truth, the revolution in military affairs debate remains unsatisfying. The military tests that have occurred thus far involved the wildly disproportionate forces of the United States and its allies against far smaller opponents. In 1999, for example, Yugoslavia's gross national product was barely a fifteenth the size of the American defence budget. The outcome of such ill-matched encounters could serve as indicators, perhaps, but not proof of a large change. More important was a series of wars in the Middle East—in 2006, 2008, 2011, and 2014—between Israel and quasi-regular opponents that seemed to augur a shift in war, incorporating as it did new technologies of precision (both missiles and antimissiles); updated old technologies (sophisticated tunnelling); information management (the synthesis of surveillance and databases); and new means of communication (social media, in particular). At the same time, the rise of China and its heavy investment in advanced technologies, to include long-range highly accurate missiles and torpedoes, as well as cyberwarfare, seemed to suggest that a fundamental change in war was indeed under way. To begin sorting this out, one can examine at least three broad features of the new technological era in warfare: the rise of quality over quantity, the speciation of military hardware, and the centrality of commercial military technology.

The Rise of Quality Over Quantity

Historians will describe the period extending from the French Revolution to at least the middle of the twentieth century as the era of mass warfare (e.g. Howard 1976a: 75ff). During this time, those countries that could mobilize men and military production most effectively could generate the most military power—and this was true of the largest powers (like the Soviet Union) and the smallest (like Israel). Broadly speaking, the bigger the force the better—a far cry from the days of the eighteenth century when military authorities believed that armies could not operate beyond a certain optimal size, and when the way of war and contemporary economics dictated the protection of civil society from widespread compulsory military service.

The age of the mass army is over (see Moskos, Williams, and Segal 2000). The near annihilation in 1991 of the Iraqi army, the world's fourth largest, marked the emergence of a world in which modestly obsolescent technology had become merely targets for more sophisticated weapons. Around the world, states abandoned compulsory military service and shrank the size of their armed forces, even in those countries (China and Turkey, for example) where they actually increased their defence expenditures substantially. Several converging developments produced these changes: the growing incompatibility between civil and military culture, the increased expense of military training and technology, and the vulnerabilities created by large forces. But nothing mattered more than the emerging importance of the technological edge in combat (see Critical Thinking).

To a degree far greater than, say, during the Second World War, quality now trumps quantity. That quality, moreover, lies in the combination of manpower and technology. Superbly trained troops in mediocre tanks and aircraft might do well against mediocre troops in correspondingly magnificent weapon systems, but in the real world such match-ups rarely occur. The old systems of estimating military power no longer apply, be they the crude tabular comparisons of forces that appear in newspapers or weekly news magazines, or the seemingly scientific calculations of attrition-driven Pentagon models.

The Speciation of Weapons

In the nineteenth century, and for most of the twentieth, the armed forces of the world shared similar weaponry. There have always been minor differences: even an early twentieth-century Mauser differed from a Lee Enfield or Lebel rifle. More important differences began to emerge in the First World War when, for example, the Allied states invested heavily in tanks, where the Germans did not; and certainly by the Second World War, when the United States and Great Britain developed heavy bombers that were imitated by neither their enemies nor their chief ally, the Soviet Union. The British concentrated on aircraft optimized for night bombing, with heavy payloads and sophisticated night navigation, but little defensive ability, where the Americans concentrated on daylight bombing of industrial targets. Still, during the Second World War, and even during much of the cold war, basic weapons systems were similar. By the end of the twentieth century, however, weapons had evolved much like a sophisticated ecological system.

An example of the first development is the 1980s British runway-attack munition JP233. This system was capable of discharging 30 penetrating rockets and over 200 scattered mines from a low-flying Tornado fighter bomber. The RAF developed tactics and practised skills suited to its capabilities; however, when put to the test in the Gulf War, it proved nearly useless and indeed dangerous for pilots who had to fly low and straight over Iraqi runways. JP233, an extremely expensive munition, was, in truth, designed for a single scenario—that is, conventional conflict in Europe. Designed for a single flyover of cramped East European airfields, it turned out to be both ineffective and dangerous for the pilots using it in Iraq.

Some weapons are now out of reach of any but the wealthiest and most developed economies. Only one country, the United States, can afford a large, stealthy, long-range bomber like the B2. Relatively few countries can afford large sophisticated surface warships. By contrast, most countries can afford highly accurate surface-to-surface ballistic and cruise missiles, UAVs, and the latest (and most lethal) antitank missiles. This does not guarantee success to one side or the other, but it means that to the extent they still occur, arms races are more likely to be asymmetric. Thus Syria, which once hoped to achieve conventional parity with Israel in the late 1970s and early 1980s, during the 1990s stopped trying to match the Israeli Air Force in the air. It built, instead, a sophisticated Russian-made air defence and created an arsenal of thousands of surface-to-surface missiles and rockets of varying types and quality.

A third form of military evolution has to do with the development not of weapons systems per se, but of meta-systems of extraordinary complexity. Networked sensors and command and control, such as the air operations centres that managed Allied air forces in the Gulf and Yugoslav Wars, are one example; even more sophisticated communication systems that control UAVs at intercontinental ranges are another. The US Navy's Cooperative Engagement Capability, which allows all the ships in a task force to share a common picture based on the sum of all data in the system, was an early example of technologies that are now commonplace in the civilian sector. Increasingly, these systems reflect less a traditional system of military command and control—in which information flows up and decisions down—than a far less hierarchical sharing of information, and with it a certain dilution of authority. Engineers use the term 'systems integration' to describe the art of putting together a complex of technologies to achieve a purpose, and not all countries excel at it. Conventional military power rests, increasingly, on the ability of states to put together combinations of sensors and weapons and to make them function together in a fluid environment. Other forms of military power (terror or low-intensity warfare at one level, weapons of mass destruction at the other) do not demand these qualities.

The Rise of Commercial Technology

Some percentage of military technology has always derived from the civilian sector. The famous Higgins boat of the Second World War, for example, which landed hundreds of thousands of Allied soldiers on beaches around the world, was a modification of a small craft originally designed for work in the Everglades swamps of Florida. Following the Second World War, however, to an unprecedented degree the armed forces of the developed world created vast research establishments operating on the cutting-edge of technology; military inventions tended to spill over into the civilian realm more than the other way around. The transistor and modern jet engines, to take two radically different-sized technologies, emerged from military research and development.

The information age is fundamentally different in this respect. Civilian technology, particularly in the area of software, leads military applications. Civilian encryption systems, and the fibre optic cables that carry secret information, have put secure communications within the reach even of non-state actors. Even when civilian technology does not yet lead military technology (in space-based sensing, for example) it is not very far behind: civilian satellites today can achieve resolutions (one metre or less) barely imaginable for their military counterparts only a decade or two ago.

These three trends—the rise of quality, the speciation of weapons, and the increased role of commercial technology—generally work to the benefit of developed open societies. They require a sophisticated industrial base for their manufacture, a skilled workforce for their maintenance, and, above all, flexible organizations for their intelligent use. These are qualities most likely to be found in democracies. As recently as a few decades ago, many thoughtful observers believed that democratic states stood at a near-ineradicable disadvantage vis-à-vis authoritarian or totalitarian counterparts, and indeed many of those weaknesses persist: the potential for indecision and volatility, indiscipline, and more recently, a pervasive sensitivity to casualties. Outweighing these and other weaknesses, however, are liberal democracies' strengths: their wealth (which makes military hardware affordable), their citizens' relative comfort with technological change, and fluid, egalitarian social relationships that breed a willingness to share rather than hoard information. However, not all technologies play to liberal democracies' strength—the proliferation of both information technologies and unmanned vehicles useful for the targeting of individuals in open societies most notably. It also is likely that ethical and legal considerations will limit the ability of democracies to deploy fully autonomous weapons systems made possible by narrow artificial intelligence and the ever increasing speed of microprocessors.

Key Points

- There are three main features of the new era in warfare: the importance of quality over quantity; the speciation of military hardware; and the increased role of the commercial technologies.
- On occasions in history several developments have come together to create a revolution in military affairs (RMA).
- Following the Gulf War in 1991, changes in accuracy, range, and intelligence led many to believe a new RMA was taking place.
- Recent conflicts between unequal adversaries make it difficult to discern if a real RMA has occurred.

Asymmetric Challenges

There is an apparent strategic paradox in the increasing technological edge of advanced, conventional powers who find themselves baffled or even defeated by irregular opponents. Israel's unsuccessful decade-long war with Hizbullah guerrillas in southern Lebanon (from 1991 to 2000, although preceded by skirmishes beforehand), is a dismaying example of how a vastly superior force, armed with high-tech weapons, can find itself defeated by an adroit opponent who knows how to play on the sensitivity of a democracy to its own casualties, and on world concern for civilians caught in a crossfire. American forces in Iraq following the overthrow of the Saddam Hussein regime in 2003 were bedevilled by a robust insurgency that, through the use of improvised explosive devices (IEDs), suffered far heavier casualties than during the swift, violent, and overwhelming march to Baghdad. These experiences, like those of Russia in Chechnya in the preceding decade, have caused some to suggest that guerrilla or irregular warfare can reduce or eliminate the importance of technological advantage on the modern battlefield.

This is not quite true. Modern guerrillas and terrorists make use of cell phones, electronic triggering devices, and extremely sophisticated explosives for their bombs; those countering them use even more sophisticated forms of electronic sweeping and neutralization, UAVs looking for those who plant IEDs, and precision-guided missiles to destroy specific vehicles or rooms in a building. In the hard urban fight for Falluja in November 2004, US Army and Marine forces took casualties in the scores, not the hundreds that would have been characteristic of city fighting even during the Vietnam War. The Israelis experienced similarly low losses in their operations in the urban environment of the West Bank and Gaza in the years preceding. Technology remains critical even in low-intensity conflict, and technological competitions—between bomb-maker and bomb-seeker, between guerrilla in ambush and convoy ready to fight its way through, between those protecting voting places and those seeking to prevent elections—persist. And technology in the form of commercial encryption and social media is vital for the communications and propaganda of insurgent groups.

The same might be said of another asymmetric strategy for technologically inferior powers—the resort to missile forces equipped with weapons of mass destruction, which offer non-democratic states the possibility of counterbalancing some, if not all, of the conventional predominance of their richer and more sophisticated opponents. Even the best missile defences cannot guarantee a state's safety against such threats. Yet on the other hand, in the competition between advanced and less developed states, a real nuclear edge, if such a thing exists, will go to the more developed state. In the ensuing stand-off, low-intensity conflict will flourish.

Thus far it turns out that advanced liberal states can use modern technology—from biometrics to robotics—to fight irregular opponents, and succeed. Israel's success in containing the second Palestinian intifada, reducing its own casualties, and inflicting crippling losses on the middle and senior levels of leadership of extremist organizations, speaks to the effectiveness of high technology, and the concerted will that can be evoked in the face of what society agrees is a serious threat. Similarly, the United States public displayed remarkable persistence in a counterinsurgency operation in Iraq that has inflicted substantial casualties (some 4,500 deaths as of 2012, and nearly seven times as many wounded), and that was, arguably, badly mismanaged in its early phases. In both cases, high technology played a role in limiting losses and achieving some successes.

Key Points

- Superior conventional technology can be counterbalanced, to some extent, by asymmetric responses, such as irregular warfare and the threat of weapons of mass destruction.
- High technology, however, continues to play a role in conflicts fought out in this sphere.
- A critical question, in both cases, concerns societal willingness to persist in such conflicts.

Challenges of the New Technology

Industrial age militaries could compete fairly easily with private enterprise because, at some level, they resembled it. A caste system resting on soldiers, non-commissioned officers, and officers mirrored a civilian stratification of workers, foremen, and managers. Compensation and deference structures were similar, although room could be made in the military, as in the civilian world, for more highly paid technical experts.

In the information age, the similarities between military and civilian organizations have broken down. Military organizations remain more hierarchical than many of their civilian counterparts, but more importantly, they find it difficult to obtain the human resources they need. A software engineer in the civilian sector is a highly paid, fairly autonomous employee, working with relatively little supervision. It has become acutely difficult for armed forces to recruit (and more importantly, retain) skilled men and women in these fields. Similarly, talented young officers are far more aware than ever before of the possibilities open to them outside the military. Retaining their services in an age of economic opportunity is difficult not merely because of compensation inequities—those have always existed—but because the civilian sector can often offer far more opportunity for change, autonomy, and unfettered responsibility.

The information technologies have other, perhaps more subtle effects on the conduct of war. As a general rule, the greater the flow of information, the more possibility for centralized control. During the Second World War, for example, the Royal Navy and then the United States centralized anti-submarine warfare in shore-based organizations that exploited reliable long-range radio communications and critically important advances in intelligence gathering. Such a development was very much the exception, however. Today, videoconferencing and the electronic transmission of data mean that generals in national capitals can exercise close supervision over their subordinates. The challenge for mid-level and senior leaders has become one of controlling the instinctive desire to take charge of a junior officer's problems. That impulse has become all the greater the more politically visible military action has become: when the result of a botched operation shows up immediately on CNN and a hundred websites, the inclination of higher authority to exercise the control that technology makes possible becomes all the greater.

Warfare often now occurs under the watchful eyes of the video camera and satellite uplink. Today insurgents put pictures of their attacks online within hours, and sometimes minutes, of their taking place. There are exceptions: the Russians excluded the press from much of the second Chechen war, and the Rwanda massacres occurred before journalists could cover them adequately. The Arab–Israeli conflict, however, may prove to be more the norm: rock throwing and shooting watched by (indeed, often staged for) journalists. Propaganda, always

an adjunct of war, became a central element in the Arab–Israeli struggle, and both sides have found themselves structuring military action with reference not only to the traditional considerations of geography and tactics, but also to publicity. Adults manoeuvred Palestinian stone-throwing children into positions for optimal camera shots of 14-year-olds with rocks up against 19-year-olds with rifles. Meanwhile, after some abysmal failures, the Israelis reverted to sniper work and night-time kidnappings and assassinations precisely to avoid teams of journalists. Both sides created their own websites, and wrecked their opponents', as the conflict extended into cyberspace. The real and virtual battlefields have become a complex and inextricable whole. This development persisted in the Iraq War, which took a much grislier turn. Insurgent strategy included kidnappings and gruesome beheadings, which were the stuff not only of broadcasts on Arab-language television, but of film clips on jihadi websites, seeking to intimidate opponents, discourage foreign development aid, and enlist new supporters. To some extent it worked.

Key Points

- The civilian sector poses a major challenge to retaining military expertise.
- Information technology may lead to greater centralization of military control.
- Media coverage of conflicts poses challenges for military and political leaders.

Critical Thinking Advanced military technology disrupts the military balance

For

- ***Successful organizations cannot move away from old technologies.*** In war, as in business, old technologies have such strong constituencies that turning one's back on them is nearly impossible. For example, a navy like that of the United States will find it almost impossible to forgo aircraft carriers even if they become increasingly vulnerable to the kinds of long-range precision strike that the Chinese military seems to be developing.
- ***Weakness is the mother of innovation.*** Hizbullah and Hamas could not hope to match the Israel Defense Forces tank for tank, battalion for battalion, brigade for brigade. Instead, they chose to create hybrid forces of guerrillas and commandos, armed with the latest antitank weapons, linked with fibre optic cables, and hidden in elaborate and well-concealed tunnel systems. For all the sophistication of Israel's Iron Dome anti-missile system, the Israelis could not prevent rockets from hitting its major cities during the several conflicts it has had with both enemies since 2006.
- ***Modern technology intrinsically benefits the weaker side.*** Hundreds of thousands of unmanned aerial vehicles or UAVs are commercially available. One even landed on the White House lawn in January 2015, much to the chagrin of the Secret Service. The electronics that enable such systems to fly and be remotely controlled far exceed anything in the superpower arsenals only 30 years ago. As cheap, unmanned commercial vehicles—drones, robotic vehicles, and even watercraft—proliferate, the balance of power will change. Far more numerous and, of course, without fear because they have no human beings inside, the drone swarm will put at risk not only large, clunky military technologies, but the vulnerable civilian infrastructure on which it depends.

(continued . . .)

Critical Thinking *(continued)*

Against

- ***Technological advantages are not magical.*** They arise from the societies and organizations in which they are embedded. Moreover, if there is one constant in military history it is that for every measure there is a countermeasure, and for every countermeasure a counter-countermeasure, and so on without end. If swarms of drones become a threat, one can anticipate that there will evolve a variety of systems—weaponized lasers, in particular—to knock them out. Similarly, if groups or countries attempt to develop tunnel warfare, technologies that can see through rock or successfully attack underground forces will also emerge.
- ***Successful militaries emerge from technologically advanced societies.*** Israel is again the most interesting example, as it is the modern democratic state most often engaged in war. There is a connection between the inventiveness of a software industry that has created Waze, the iPhone app that allows one to navigate through databases and crowdsourcing, and the development of a system that can do something once thought impossible—detect short-range rockets, calculate whether they are going to hit inhabited space, and shoot them down with one or at most two shots.
- ***Systems integration is the key.*** Even if weak states or non-state actors can use advanced technology—such as drones or precision guided antitank missiles—a great deal of modern military power stems from the ability to put it all together. The ability to build organizations that can tap multiple sources of intelligence, communicate large amounts of information quickly, and bring many different types of weaponry to bear rests with developed societies and economies. Therefore, countries like the United States will keep the decisive edge.

Questions:

1. Does advanced military technology disrupt the military balance?
2. Are drones more useful to stronger or weaker states?
3. What role do you think artificial intelligence (AI) will play in future warfare?

Conclusion: The Future of Military Technology

Military technology has contributed to a far more complicated environment for war than that of previous centuries. To the extent one can generalize about its effects, one would have to say that where the dominant forms of war in the past were few, today they are many. The challenges for armed forces are correspondingly immense.

Nor have the changes wrought by the new technologies come to an end. The increasingly easy access by countries to space, and their reliance on space for routine communications, navigation, and information gathering, seems almost certain to propel war into the heavens. For the moment, no country seems to have placed, or at least used, weapons in space that can disable or destroy either other satellites or targets on Earth, but that is changing. Similarly, countries have experimented with, but not yet used, technologies on Earth capable of affecting space-based systems. However, technology clearly permits this, in the form of lasers that can blind satellites, or mere lumps of metal that can hurtle from space to Earth delivering enormous amounts of kinetic energy against their targets hundreds of miles below. The

opening of space to full-fledged warfare would be as large a change as the opening of the air was during the First World War. New organizations, new operational conditions, new incentives to strike first, and new ways of war will blossom overnight.

Warfare also appears to be moving to cyberspace. Thus far, despite persistent stories about mischievous teenagers, clever criminals, or nefarious agents creating havoc with computer systems, there is little evidence of large-scale, lethal damage done by cyberattack. It remains a theoretical possibility, however, and the unleashing of a potent virus (Stuxnet) on the Iranian nuclear programme in 2009 is reported to have had considerable success in retarding, though not stopping, that enterprise. (See Chapter 17 for a strong case that cyberpower may transform conflict.)

A third sort of change already under way consists of advances in manufacturing, particularly in what are known as the nanotechnologies, robotics, and artificial intelligence. While it is highly unlikely that human beings will ever leave the battlefield (if only because the battlefield will surely come to them), more of the dangerous work may devolve upon small autonomous, intelligent machines that creep or fly, or merely sit and wait, classifying and attacking opponents. More importantly, the creation of such machines will mean that humans have gradually begun to cede much of their decision-making ability to silicon chips. It is a process already well under way in some areas. For example, modern aircraft are so intrinsically unstable that an automatic system, rather than a human being, must adjust their trim.

In all these cases, the most interesting and important consequences of technological change will probably flow from its effect on how human beings think about and conduct war, specifically: how they conceive of military action, how they assign responsibility, how they calculate military effects, and how they attempt to harmonize means and ends. But a fourth set of changes, perhaps the most profound of all, looms larger still. The biological sciences increasingly make it possible to change the nature of human beings themselves (Fukuyama 1999). The intriguing theoretical pondering of Greek philosophers has become, in our age, the challenge of scientific researchers. One can scarcely doubt that an Adolf Hitler would have availed himself of the resources of biotechnology to breed new kinds of human beings—such as super-soldiers, insensitive to fear and truly loyal to the death—who could serve his purposes. Our common understanding of war rests on some of its deeply human features, which have not changed since the days of Homer or Thucydides. This is so, however, only because the same species, *homo sapiens*, has continued to wage it. If—when?—humans are replaced by a variety of creatures, some subhuman, and others, in some respects, superhuman, war itself will have become an activity as different from traditional human conflict as the murderous struggles between competing anthills or the stalking of deer by packs of wolves.

Questions

1. Take a representative military technology such as the tank. Using several examples, how would you characterize the national style embedded in its design?
2. What is stealth technology? Does the concept of interaction apply to it?
3. In what cases does military technology require high levels of technical expertise and education, and in what cases does it actually reduce or even eliminate such a requirement?
4. What are some of the military technologies that only the United States has available to it? Other great powers? Smaller states? Non-state actors?

5. What are some examples of 'the technological edge'? How fragile are such leads by one state or another?
6. Is cyberwarfare really 'warfare'?
7. What implications are there if warfare extends to space? Will it impact more on commercial or military technology?
8. What are some of the technologies most useful to the conduct of irregular warfare, including guerrilla and terror operations?
9. Are democracies or authoritarian/totalitarian regimes better placed to adapt to the changing nature and problems of technological warfare?
10. What would be the strategic and moral implications of advances in biological science that would allow governments to enhance soldier performance far beyond current norms?

Further Reading

J. D. Bergen, *Military Communications: A Test for Technology* (Washington, DC: Center of Military History, 1986), chapters 16–17, pp. 367–408 describes a competition in communication technology and electronic warfare between an extremely sophisticated state (the US) and a more backward one (North Vietnam), in which the more developed society did not necessarily do well.

A. Beyerchen, 'From Radio to Radar: Interwar Military Adaptation to Technological Change in Germany, the United Kingdom, and the United States'. In W. Murray and A. R. Millett (eds), *Military Innovation in the Interwar Period* (Cambridge: Cambridge University Press, 1996) is a good example of how national style appears even in the electronic realm.

W. Churchill, *The World Crisis, 1911–1914* (New York: Charles Scribner's Sons, 1926), chapter 6, 'The Romance of Design', pp. 125–149 brilliantly describes military design challenges from a decision-maker's point of view.

A. C. Clarke, 'Superiority'. In A. C. Clarke, *Expedition to Earth* (New York: Harcourt, Brace and World, 1970) is a science fiction story with a whimsical but wise warning on the dangers of becoming too sophisticated.

M. van Creveld, *Technology and War from 2000 B.C. to the Present* (New York: Free Press, 1989) is considerably more up to date than Fuller 1945.

J. F. C. Fuller, *Armament and History; A Study of the Influence of Armament on History from the Dawn of Classical Warfare to the Second World War* (New York: Charles Scribner's Sons, 1945) remains an excellent short treatment of the relationship between technology, tactics, organization, and strategy.

W. Hughes, *Fleet Tactics: Theory and Practice* (Annapolis, MD: Naval Institute Press, 1986) gives a thoughtful treatment of the role of technology in warfare.

H. Petroski, *To Engineer is Human: The Role of Failure in Successful Design* (New York: Random House, 1982) argues that 'form follows failure', that is, engineering advances occur only as a result of the failure of current materials or designs.

G. Raudzens, 'War-Winning Weapons: The Measurement of Technological Determinism in Military History', *Journal of Military History* 54 (October 1990): 403–33 is a sceptical view of technology's importance and the impact of technology on war.

P. W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century* (New York: Penguin, 2009) gives a first comprehensive look at the impact of unmanned technologies on the conduct of war—surely an augur of things to come.

Web Links

Jane's 360 **http://www.janes.com** has many reputable articles on the links between technology and warfare.

Aviation Week **http://www.aviationweek.com/aw** is another reputable website.

Global Security **http://www.globalsecurity.org/military/systems/index.html** also hosts articles on a range of technology issues, including valuable primers on the subject.

Military Technology **http://www.monch.com/mpg/publications/military-technology.html** has regular updates on recent developments in military technology.

Wired Danger Room **http://www.wired.com/dangerroom** has excellent reporting, particularly on cyber-related issues.

Intelligence and Strategy

ROGER Z. GEORGE

Chapter Contents

Introduction 144
What is Intelligence? 145
Intelligence as Enabler of US Strategy 150
Strategic Surprise: Causes and Correctives 153
Intelligence Performance Since Major 9/11 Reforms 157
Managing the Information Domain 160
Conclusion 162

Reader's Guide

This chapter examines how intelligence enables but does not guarantee successful strategy. It opens by discussing what intelligence is and how strategists have talked about its utility. It then traces the development of US intelligence in its early efforts to support cold war strategies of containment and deterrence and in its more recent support to US strategies for counterterrorism and counterinsurgency. The chapter briefly examines the challenges and causes of 'strategic surprise', bringing to bear several key historical cases: Pearl Harbor in 1941, the 1962 Cuban Missile Crisis, the 1973 Yom Kippur War, and the 11 September 2001 attacks. While suggesting some possible correctives, it concludes that there are no complete solutions to inevitable intelligence failures. It also provides an assessment of the intelligence community's performance since 9/11 and its focus on new threats posed by cyberattacks and proliferation.

Introduction

Good strategy is dependent on understanding the nature of war, key aspects of the international system, and an adversary's intentions and capabilities.[1] Inherently, then, strategy must be based on good intelligence. Yet, while strategic theorists have acknowledged the importance of intelligence, many also express their discomfort with its quality and reliability. Theorists can be categorized as either optimists or pessimists regarding the role of intelligence. Sun Tzu, the optimist, advised the warrior to 'know the enemy and know yourself and in a hundred battles you will never be in peril'. Carl von Clausewitz, the pessimist, barely acknowledges the

[1] All statements of facts or opinion are those of the author and do not reflect the official positions or views of the US government or any US government agency.

value of intelligence in his writing, concluding that 'many intelligence reports are contradictory, even more are false, and most are uncertain'. Nevertheless, both recognize that no strategy can be formulated or implemented without assessing the challenges and opportunities that it might encounter. Today, decision-makers are no different. As one senior US official described policymakers from several past administrations: 'The ones that were skeptical when they came in [to government] became increasingly dependent or, at least reliant on it' (Center for the Study of Intelligence 2004).

Throughout history, intelligence has played a role in the development and execution of national strategies. Moses sent his spies into Canaan. In Napoleon's time, diplomats often assumed the roles of spies while serving as representatives of their monarchs and prime ministers. Some would say Paul Revere provided the first 'warning' of war to the American colonists that the British were coming. General George Washington was, in effect, the first head of American intelligence, as he doled out funds for agents who worked against the British. In 1941, decoding of Japanese military communications provided American negotiators with a tip-off that Tokyo was breaking off negotiations and contemplating war. Although this warning was not understood well enough to avert the Pearl Harbor attack, this code-breaking ultimately helped to destroy the Japanese fleet at the 1942 Battle of Midway. In 1944, General Dwight Eisenhower constructed one of the most daring strategic deception campaigns to mislead Hitler's Germany regarding the Normandy invasion; a deception campaign that was based on an accurate reading of Nazi preconceptions of Allied intentions. Indeed, Eisenhower and British Prime Minister Winston Churchill stand out as decision-makers with a keen sense of how to use Allied intelligence for wartime purposes.

Intelligence was a major element of strategies aimed at supporting America's containment and deterrence policies during the cold war. Today, the landscape has shifted dramatically. The rising incidence of cyberattacks has become an intelligence issue. In the latest world-wide threat briefing provided by the Director of National Intelligence (DNI), cyberattacks topped the list of threats facing the United States, along with terrorism and proliferation. Alongside those were of course a resurgent Russia, a rising China, and North Korea's and Iran's nuclear ambitions (Coats 2017). As intelligence activities have grown and become more complicated, there is increasing concern that they need to be effectively guided to support national security strategies. Far from becoming irrelevant with the collapse of the Soviet Union, as some thought in the 1990s, intelligence is a central player in fashioning effective countermeasures to these threats. The 2014 National Intelligence Strategy singles out cyberthreats, counterterrorism, and counterproliferation as key missions, as well as conducting broad strategic intelligence analysis of enduring security issues and anticipating emerging threats (Office of the Director of National Intelligence 2014).

What is Intelligence?

The term intelligence is commonly used to describe only that information provided to policy officials by government organizations, in order to distinguish it from a much broader body of information available to those inside and outside the US government. Intelligence is often secret information, which is collected through clandestine means or technical systems (e.g. satellites in Earth-orbit, monitoring communications or electronic signatures). The

sources and methods used to collect this information are risky, expensive, and often fragile, so their unauthorized exposure to adversaries would weaken US national security. Part of the intelligence mission, then, is to protect this information (called counterintelligence) as well as to penetrate the intelligence services of adversaries (counterespionage). Intelligence information is also 'tailored' to respond specifically to the requirements and needs of government officials. Generally speaking, intelligence is focused on the policies, intentions, and capabilities of foreign governments, and increasingly on the plans and activities of non-state actors that threaten the United States and its allies. Intelligence can also be understood as the programmes and processes used by the 16 separate agencies currently comprising the US intelligence community to collect, analyse, and disseminate secret information throughout the US government. The production of finished intelligence reflects this 'intelligence cycle': decision-makers' needs are translated into information requirements for collection, which lead to analysis and the writing of finished intelligence reports, which are then disseminated back to the original requestors of that information.

These intelligence programmes and processes require the coordination of hundreds of separate programmes and thousands of individuals across the US government. In 2013, such activities involved as many as 100,000 people and as much as US $60 billion per year (Gellman and Miller 2013). On a daily basis, individuals and organizations must collect huge volumes of raw (unevaluated) information; sift through it to separate fact from rumour, propaganda, and fiction; search for the most valuable insights; interpret facts to form important analytic judgements about their meaning and significance to US policy interest; and communicate it to senior civilian and military policymakers in the United States or to allied and friendly governments.

Intelligence Collection

The collection of raw intelligence information takes the lion's share of American intelligence resources (roughly two-thirds). Most collection efforts are located inside in the Department of Defense. Its National Security Agency (NSA) operates major signals intelligence (SIGINT) programmes, while the National Reconnaissance Office builds and operates major satellite reconnaissance programmes and the National Geospatial-Intelligence Agency exploits and analyses the imagery produced by the satellite collection systems. These agencies are considered so vital to the conduct of US military operations that they are designated 'combat support' elements of the US intelligence community, and the Secretary of Defense takes special care to ensure that they are properly funded, staffed, and managed. The Central Intelligence Agency (CIA) runs the other major intelligence programme focused on collecting clandestine 'HUMINT' or human intelligence. The classic job of recruiting secret agents who can penetrate the internal workings of foreign adversaries and terrorist groups falls to the CIA's Directorate of Operations. Its case officers are deployed all over the world to identify important intelligence targets and learn the plans and intentions of America's enemies, which cannot be so easily gleaned from overhead satellites or intercepted electronic messages.

Although not new, global collection of so-called 'open source' information has taken on greater prominence. There has always been an interest in reading foreign publications or listening to and watching radio and TV broadcasts. The advent of the Internet, however, has caused a dramatic explosion in the volume and scope of foreign open source information,

BOX 9.1 Key Concepts

Intelligence Collection: Sources and Methods

Finished all-source intelligence rests on the collection and careful weighing and evaluation of multiple pieces of clandestinely or openly gathered information. This information comes from a variety of sources.

- *Human intelligence (HUMINT)* is gained overtly by diplomats and military attachés or secretly from foreign agents who have access to the plans, intentions, and capabilities of foreign adversaries.
- *Signals intelligence (SIGINT)* is the technical interception and exploitation of an adversary's communication and other electronic systems.
- *Imagery intelligence (IMINT)* is collected from ground, overhead, and space-based imaging systems (often satellites) using visual photography, electro-optics, radar, or infrared sensors.
- *Open source (OPINT)* intelligence is the collection, translation, and analysis of foreign broadcasts, news media, and increasingly Internet websites.

leading to the development of the intelligence community's Open Source Center. The Center monitors thousands of publications, broadcasts, and websites, and it produces media reports for intelligence analysts and decision-makers alike. Moreover, in the battle against violent extremism, information warfare now involves monitoring and disrupting jihadist websites often used for recruitment and communications (see Box 9.1).

Intelligence Analysis

The least expensive part of the intelligence enterprise is analysis. Country and functional analysts must make sense out of the millions of clandestine reports, electronic intercepts, or digital images that are gathered by their collection partners. These analysts are to be found in the Central Intelligence Agency, the Defense Intelligence Agency, the Department of State's Bureau of Intelligence and Research, as well as in sizeable units in the Federal Bureau of Investigation (FBI), the Department of Homeland Security (DHS), and other national security agencies. They have the responsibility of giving US policymakers the knowledge needed to fashion and implement effective national security strategies. They provide this analysis to a wide array of government officials throughout the Executive Branch and Congress in written, oral, and electronic formats. From the most sensitive and limited production of the President's Daily Brief (PDB) to lengthy National Intelligence Estimates provided to the National Security Council (NSC) decision-makers, or the posting of numerous intelligence assessments on the intelligence community's classified website, these assessments are tailored to suit a variety of decision-makers, from the President down to diplomats and field commanders (see Box 9.2). The purpose of these reports is both to inform as well as to enable decision-makers to construct and implement policies that advance US strategies, identify threats, and evaluate the actions and intentions of foreign adversaries. Seldom, however, do intelligence analysts provide sufficient factual details or highly confident forecasts that completely satisfy policymakers.

The task for intelligence analysts, then, is to distinguish carefully between what they know and do not know and then to present what they believe might happen and explain why it is

BOX 9.2 Case Study

The National Intelligence Estimate and the President's Daily Brief

National Intelligence Estimates (NIEs) are prepared for the President, his Cabinet, the National Security Council, and other senior civilian and military decision-makers. NIEs focus on strategic issues of mid- or long-term importance to US national security policies. They represent the combined views of all 16 intelligence agencies that comprise the US intelligence community. As practised today, they are produced by the National Intelligence Council, reviewed by all heads of the US intelligence community, and approved by the Director of National Intelligence. These estimates are provided not only to the Executive Branch officials but also to members of congressional intelligence oversight committees. NIEs are often a source of major controversy with the President, Congress, and the US public. The most infamous of the post-9/11 era was the 2002 Iraq WMD estimate, which asserted that Saddam Hussein retained substantial weapons of mass destruction and might be on the verge of having a nuclear weapons capability. The 2007 Iran NIE on its nuclear programme also became controversial after the released Key Judgments seemed to suggest Iran might be halting aspects of its nuclear weapons programme, a judgement that was viewed by some as undermining the Bush administration's efforts to keep up pressure on Iran.

The President's Daily Brief (PDB) has also become a better known and highly prized daily intelligence report. Written explicitly for the President and his principal White House and Cabinet-level advisors, it constitutes what the intelligence community (IC) believes are the most important current intelligence developments and most sensitive information. PDBs are largely prepared by the CIA; however, analysts in the Defense Intelligence Agency and State Department's Bureau of Intelligence and Research (INR) also submit items for inclusion on occasion. The Director of National Intelligence now manages the PDB process, ensuring that all analytic agencies' views are reflected in the product, not just the CIA. Unlike NIEs, PDBs are not shared with the US Congress, and they are highly tailored to each president's policy agenda and personal style.

significant. It is up to the decision-maker to decide how to fashion strategies and policies that take note of these intelligence judgements. Intelligence analysis, however, faces increasing competition from other sources of information. Decision-makers often consider themselves analysts, who are also utilizing the Internet, have their own networks of experts, and have more direct contact with foreign government officials than analysts working at the CIA or other intelligence agencies. Hence, analysts must work hard to develop special insight and expertise based on their access to a wider range of sources of intelligence. In some cases, analysts' credibility can rest as much on their academic credentials, foreign area travels, and language skills as on their access to highly classified information. Such experts also have the advantage of focusing their entire workday on a single issue or country, and the ability to task intelligence collectors to provide new information of use to decision-makers. By quickly preparing new assessments directed at the specific interests or needs of a decision-maker, they can provide actionable (useful in taking decisions) information.

Special Intelligence Missions

While collection and analysis form the core of the intelligence mission, these missions rest on effective counterintelligence and counterespionage. Information provided to key decision-makers must be protected from falling into the hands of enemies. Strategic deception

can occur—a situation when an adversary understands how an opponent perceives a threat and succeeds in undermining or distorting accurate threat perceptions. The 'Wikileaks' disclosures and the ongoing 'Snowden' controversies—that is, the unauthorized disclosure of hundreds of thousands of classified US diplomatic and military reports in the former, and the massive exposure of sensitive NSA technical collection programmes—continues to complicate US foreign relations with many close allies and partners. Key allies, including Germany, have strongly criticized alleged NSA operations against its citizens and leaders and allegedly punished US intelligence by expelling senior US intelligence officials operating in Germany (Miller 2014). Such disclosures by 'cleared' employees and contractors have also generated calls for better 'vetting' of the nearly 2 million people who handle sensitive information.

To ensure that intelligence agencies are not penetrated, it is necessary to conduct counterespionage operations; these activities are aimed at recruiting agents inside hostile intelligence services, in order to determine if they have recruited agents inside one's own government or intelligence services. This competition often prompts Hollywood to develop fantastic versions of what is often called the 'spy-versus-spy' game. In real life, counterespionage is far less romantic but no less vital to protecting information that intelligence provides to the most senior decision-makers in a government.

Another distinct and apparently expanding mission for intelligence is conducting covert action. While most intelligence merely enables the use of military, economic, informational, and diplomatic power, covert action is in fact the *covert* use of these instruments. Sometimes known as 'special activities', covert action is run in the United States by the CIA at the specific request of the President. These actions are kept secret in order to achieve important strategic objectives, without directly associating them with the US government. First established by the National Security Council in the late 1940s, special activities have become a tool of US foreign policy, used by virtually every president in some fashion. Both the Bush and Obama administrations authorized such special activities in order to disrupt terrorist plans and proliferation networks. However, these activities can have a 'blowback' effect if they become known and complicate relations with other governments, or if they become so large and overt as to negate the benefits of using these tools covertly. So, a strategist will need to weigh the risks and benefits of covert actions knowing that sooner or later they will become known to an adversary, the US public, or the international community.

The intelligence community's role in covert activities grew steadily during the decade of wars in Afghanistan and Iraq. US strategists have increasingly relied on non-conventional approaches to combating terrorism and overcoming internal conflicts in Iraq and Afghanistan. Presidential Findings have been issued for the CIA to conduct extensive covert activities to disrupt, defeat, and destroy terrorist cells around the world. The most significant aspect of these special operations was the location and elimination of Osama bin Laden in Pakistan in 2011. This event highlighted both the utility but also the controversial nature of using combined intelligence and military assets to eliminate a major terrorist figure operating in a safe haven. In addition, the US military and intelligence agencies have operated unmanned airborne vehicles (UAVs or 'drones') to identify and kill key al-Qaeda leaders. The extent to which the US will be able to rely on such methods in the future remains to be seen, as although highly effective, they are also fiercely criticized by countries where reportedly the US has used them without their explicit approval. The debate over the pros and cons of drone warfare is addressed later in this chapter.

Key Points

- Strategy rests on accurate perceptions of an adversary's plans, intentions, and capabilities, and intelligence enables decision-makers to develop and implement good strategy.
- Intelligence is more than just information. It is focused on the special needs of decision-makers and usually requires secret collection methods to uncover the true plans and intentions of a foreign actor.
- Producing actionable (useful in decision-making) intelligence requires careful collection, exploitation, analysis, and dissemination of intelligence. This is called the 'intelligence cycle'.
- Good intelligence requires good counterintelligence aimed at understanding an adversary's efforts to penetrate one's own intelligence apparatus.
- US intelligence also carries out special activities designed to hide the US role in using military, political, or economic measures against an adversary. This is commonly known as covert action.
- Covert activities have grown significantly as the US counterterrorism and counterinsurgency strategies have relied on more sensitive, small-scale paramilitary operations.

Intelligence as Enabler of US Strategy

When the cold war began, the United States was in search of a national security strategy as well as a concept of intelligence. Neither was well defined until important seminal thinking had occurred within the US government and in the major research centres of the time. George Kennan coined the containment strategy in 1946–7 and further developed the concept while at the State Department's Policy Planning Staff. A deterrence strategy also emerged from the strategic thought of Bernard Brodie and Herman Kahn among others, who were working at the Rand Corporation in the early 1950s. In the meantime, Sherman Kent—a Yale historian and colleague of both Kennan and Brodie at the National War College—developed the concept of strategic intelligence. In his groundbreaking 1949 book, *Strategic Intelligence for an American World Policy*, Kent laid out the basic principles that should drive intelligence. In its simplest sense, intelligence should 'raise the level of discussion' around the policy-making tables. In Kent's view, intelligence should not advocate a specific policy position; instead, it should inform policy. Intelligence analysts should be cognizant of, but detached from, any specific policy agenda. Kent knew that lively debates among strong-willed policymakers would make intelligence prone to manipulation and that intelligence analysts had to maintain their objectivity and integrity in presenting unbiased intelligence. Stating this objective, however, was not to say it would be easy to achieve in practice. Nor were intelligence assessments uncontroversial when matters of war or peace were to be based partly on their findings. Throughout the cold war, time and again US intelligence was faulted for being wrong, biased, or both. It also became embroiled in debates over strategy and was sometimes accused, rightly or wrongly, of becoming 'politicized' (distorted by political agendas).

Evolution of the Intelligence Community

Over the past half century, the profession of American intelligence has continued to evolve. With each decade, there were problems to be addressed, organizational changes to be made,

and new substantive issues to be followed. By the end of the cold war, the intelligence community amounted to over a dozen large and small agencies, most of which were contained within the Departments of Defense, State, Justice, and now Homeland Security. This growing 'intelligence community' drove the need for better organization of intelligence activities, highlighting the need for a far stronger role than the Director of Central Intelligence (DCI) could provide. The DCI, who also had to lead the CIA, could not effectively coordinate the far-flung activities of a dozen or more intelligence agencies.

The intelligence community's failure to prevent the 9/11 attacks and its flawed 2002 NIE on Iraq's WMD programmes has led to major organizational changes to enable better information sharing and better coordination of the 16 major foreign and domestic intelligence agencies (including the creation of a Department of Homeland Security). Reforms included the establishment of a new position of Director of National Intelligence, separate from the Director of the CIA, as head of the US intelligence community. The new philosophy appears to be that the Director of National Intelligence will be the leading presidential advisor on and organizer of all intelligence activities, while the CIA Director will oversee the collection of HUMINT, production of all-source intelligence analysis, and planning of presidentially approved covert action. This new organizational division of labour has been in place for more a decade now and seems likely to continue, although further adjustments could occur as intelligence needs and international conditions change, or new intelligence failures occur. More importantly, each president will shape the intelligence community's leadership, missions, and operations to suit his or her preferences. Not surprisingly, this factor—including a president's comfort level and familiarity with national security problems—is likely to shape the intelligence–policy relationship even more than any changing international conditions. As of this writing, President Trump is not yet comfortable with the intelligence community's performance, particularly regarding Russian hacking, and seems less inclined to heed the IC's warnings or assessments.

The Soviet Legacy and Russian Resurgence

When the cold war emerged in the 1940s, the principal function of American intelligence became to penetrate the veil of secrecy that surrounded the Soviet Union. The highest collection priorities were aimed at understanding Moscow's communist ideology and internal policy processes as well as its strategic objectives and military–industrial complex, which presented the key military threat to US and allied security interests. Early intelligence failures drove changes in the operation of US intelligence. New procedures to produce National Intelligence Estimates became a centrepiece of intelligence support to presidents and the National Security Council in shaping national security policies vis-à-vis the Soviet Union, the Warsaw Pact, and its communist allies in Asia and the Third World. An elaborate schedule of national estimates was designed to monitor and forecast the growth of Soviet strategic and conventional forces, so that Washington's defence planners could build and size US forces appropriately. Other estimates were aimed at comprehending Moscow's global political strategy to spread its influence beyond its East European sphere of influence and into the developing world; still others were produced to assess how resilient were parts of the free world and the so-called non-aligned countries, where the East–West contest was fought through proxies and wars of liberation.

Whenever debates over US cold war strategies began to arise, there was a good possibility that US intelligence estimates would be dragged into these disputes as well. The Vietnam War also

occasioned major intelligence arguments. Senior US military and civilian leaders challenged and sometimes overruled pessimistic CIA estimates, so they did not undermine the conduct of the war itself. The 1970s American détente and arms control policies designed by President Nixon and Henry Kissinger were periodically bedevilled by intelligence debates over the nature of the Soviet military threat, Moscow's willingness to fight a nuclear war, and the adequacy of the US–Soviet strategic balance. At the heart of those debates were the strategic intelligence assessments made by the CIA and the Defense Intelligence Agency. During the 1980–8 tenure of President Ronald Reagan, US intelligence was often viewed as having taken too benign a view of the Soviet military threat and having allowed itself to become 'politicized' by adopting the 'détentist' tendencies that would support Henry Kissinger's arms control agenda.

Post-Cold War Intelligence Challenges

With the fall of the Berlin Wall, the Warsaw Pact, and the Soviet Union, the CIA's intelligence was faulted for not having predicted the end of the cold war. Intelligence professionals and outside scholars have since defended the CIA's record, noting that even the Russians had not anticipated the end of the Soviet Union, so how could the CIA have predicted it. Along with this criticism, there were calls to dismantle the CIA as being no longer needed once the Soviet threat had disappeared. Needless to say, the rise of Russian belligerence towards the West has quieted those calls. President Putin's decision to seize the Crimea in Ukraine in 2012 heightened the need for intelligence on Moscow's intentions and capabilities. President Putin's use of Russia's oil revenues to modernize the Russian military and his active intervention in the Syrian conflict have reinforced the need for traditional military intelligence on Russia. The intelligence community has also identified Russia as perhaps the most potent cyberthreat of all US adversaries. The most recent intelligence community findings that Moscow masterminded the hacking of the 2016 US election processes has led to an urgent need to concentrate more resources on Russia and the cyber problem more generally. Finally, in the rising Russian–American tensions, the 2016 and 2017 reciprocal expulsions of Russian and American diplomats is also partly designed to restrict each other's intelligence-gathering capability.

Key Points

- The CIA was joined by more than a dozen other intelligence agencies during the cold war to form what is now commonly called the 'intelligence community'.
- The intelligence community provides both long-term estimative analysis (such as NIEs) and current intelligence products (e.g. PDBs).
- Intelligence must adjust to a president's personal priorities and style as well as address intelligence needs driven by different strategic approaches and international conditions.
- US intelligence was created initially to deal with the Soviet threat, but continues to evolve in order to assess new global and transnational threats.
- Nonetheless, US intelligence is likely to increase its focus on the Russia problem, as it now encompasses not only traditional military threats but also cyberthreats.

Strategic Surprise: Causes and Correctives

The US intelligence community was created after the 1941 Pearl Harbor attack in an effort to prevent another strategic surprise. The notion of strategic surprise, highlighted in Roberta Wohlstetter's seminal work on Pearl Harbor, continues to drive the development of US intelligence capabilities and the standard by which the CIA and other intelligence agencies are often judged. A working definition of strategic surprise is generally thought to involve an event that has significant negative impact on national interests, in which timely information was lacking or not transmitted or not correctly understood so that alternative courses of action were not taken to avert the surprise. This definition makes a distinction between a strategic surprise and an intelligence failure; the former is often the result of ineffective interaction between strategists and intelligence professionals in identifying and responding to major threats. An intelligence 'failure' generally places the blame for some disaster on the intelligence community and constitutes only one element of the broader notion of strategic surprise. In fact, some intelligence failures may not jeopardize overall US strategy, because their consequences are not so grave or because the strategy itself is not so dependent on specific intelligence judgements.

Causes of Surprise

There are many causes of strategic surprise and intelligence failures. A strategic surprise can occur when decision-makers fail to absorb and use information and analysis provided by intelligence professionals. Cases of this include not only Pearl Harbor, where information was available, but also the Soviet placement of nuclear-armed missiles into Cuba in 1962, the 1973 Yom Kippur War, and most recently the 9/11 attacks on New York City and the Pentagon. In each case, there was some warning of a possible threat, but the information was scanty or not properly interpreted. Moreover, policymakers as well as most intelligence analysts dismissed the possibility that such bold actions could be plausible and therefore took no steps to avert those actions or mitigate their effects. In virtually all these cases, both decision-makers and intelligence professionals share some of the blame. In the Pearl Harbor case, there was information indicating that Japan planned attacks against US interests in the Pacific; however, it was not disseminated quickly to senior commanders, nor did commanders imagine the attack might be as far forward as Pearl Harbor, so they took minimal and mostly ineffective preventive or defensive actions. In the Cuban Missile Crisis, US intelligence was observing Soviet military transfers to Cuba, but analysts as well as President Kennedy's advisors dismissed the possibility that Moscow would place nuclear weapons on an island 90 miles from American shores. In the 1973 Yom Kippur War, both US and Israeli intelligence had good information that Arab states were planning an attack, but they misinterpreted the available information as evidence of military exercises rather than preparation for war. Ironically, US and Israeli decision-makers discounted such moves, believing that Egypt and Syria would not contemplate attacking Israel after their decisive defeat in the 1967 Middle East War (often called the Six-Day War because of the rapidity with which Israel dispatched both combatants).

Surprise Attack of 11 September

The September 2001 attacks by al-Qaeda are a classic case of an intelligence failure that led to decision-makers' inattention to a strategic warning that then contributed to a major strategic surprise. The 9/11 Commission Report documents the fact that terrorism analysts at the CIA's Counterterrorism Center were well aware of the growing danger that al-Qaeda posed to American interests. Counterterrorism analysts believed an attack was likely to occur in the autumn of 2001 but they could not provide details of how, when, or where such an attack might occur. As summer 2001 ended, senior intelligence officials provided 'strategic warning' by telling the George W. Bush administration that something big was planned and that counterterrorism analysts were monitoring a huge increase in activity ('chatter'). On 6 August 2001, the President was briefed on terrorist plots against the American homeland, but American intelligence had no specific, tactical intelligence on when or where attacks might occur. Sadly, as the Commission recounts, there was information held by the FBI and other agencies, which was not effectively combined with what the CIA knew about al-Qaeda in time to realize that the plotters were already in the United States and making their final preparations for the attacks. Moreover, the 6 August briefing did not lead decision-makers in other parts of the government to highlight the threat or take any actions that might have tightened airport or airline security. Unheeded strategic warning and the lack of more specific tactical intelligence reporting, according to some intelligence practitioners, encouraged policy inaction, setting up the conditions necessary for a major strategic surprise (Pillar 2011).

Key Factors: Seven Deadly Sins

No single factor is the cause of a major surprise or intelligence failure. Indeed, seven factors are often present in some combination. First, there is usually a collection failure. As Clausewitz warned, information is often lacking or contradictory, or both. Second, analysts can often misinterpret the available information because of an outmoded or inadequate understanding of an adversary's objectives, plans, or capabilities; this is often termed the 'mindset' problem. Even the best experts can develop a benign or 'stylized' view of the adversary that clouds their ability to see how an enemy might take great risks or attempt an unconventional attack. Third, deception employed by an adversary can often feed analysts' inaccurate mindsets and cause them to misread telltale signs of danger. Fourth, an adversary can deny—through excellent operational security—to intelligence analysts sufficient information to form an accurate picture of the threat. Fifth, information available to intelligence collectors or analysts might not be rapidly or effectively shared among themselves. Compartmentation (security rules limiting the sharing of information through a 'need to know' principle) can inhibit intelligence organizations from passing what they know to other agencies that could compare it with their own information. Sixth, there can be a failure to communicate threat information effectively to decision-makers, so leaders do not appreciate the dangers in time to take appropriate action. And finally, decision-makers may suffer from their own outmoded mindsets regarding the adversary's intentions and capabilities, and therefore dismiss intelligence warnings or take no countermeasures.

At the core of the problem of strategic surprise and intelligence failures is the presumption that decision-makers and intelligence analysts correctly and completely understand the

intentions and capabilities of an adversary. In fact, most strategic surprises result from an inaccurate assessment of how an enemy sees his own situation and how that opponent assesses the benefits and risks of war. Stalin dismissed intelligence that Germany would launch an eastern offensive in the spring of 1941. Hitler suffered the same fate of believing he correctly understood how an Allied invasion would begin in 1944, which Eisenhower reinforced with the Allied deception plans. Israelis underestimated the risk-taking of Arabs in 1973 after their drubbing in 1967, which Egyptian President Anwar Sadat exploited by launching a surprise attack under the cover of military exercises. US analysts and decision-makers likewise underestimated the risk-taking calculations of Soviet leaders in the 1962 Cuba case and again in the 1979 Soviet invasion of Afghanistan. All of these examples highlight the role of human perceptual frailties, to which all analysts as well as strategists are prone. Such cognitive biases, as many psychologists would recognize, are hard to identify and even harder to eliminate.

Correctives, Not Cures

Correctives to future strategic surprises or intelligence failures are difficult if not impossible to guarantee. As intelligence scholar Richard Betts has put it, 'intelligence failures are almost inevitable', because there is almost no way to guarantee sufficient information and correct analysis of all threats in order for policymakers to pre-empt them (Betts 2007). Nonetheless, there are three correctives that can be employed to reduce the chances of strategic surprise and intelligence failures. First, improved collection, of course, is always to be hoped for; however, few analysts can depend on perfect intelligence information to guide their analysis. Analysts can assess the gaps in their information and accordingly qualify their judgements to alert decision-makers to the 'unknowns' present in any decisions they make. Second, analysts can assess an adversary's motives and capabilities for conducting major deception and denial campaigns. Typically, the weaker the adversary, the more it might rely on surprise—using deception and denial—to compensate for an opponent's stronger military forces. Third, analysts can develop a greater awareness of their own mindsets and other cognitive biases, which can distort their interpretation of available information. There is a growing social science literature on structured analytic techniques, which analysts can use to make their work more rigorous. These techniques—such as devil's advocacy, team A/team B, analysis of competing hypotheses, or scenario analysis—can help analysts to challenge analytical assumptions, make analytic arguments more transparent to peers as well as decision-makers, guide intelligence collectors to filling significant information gaps, and ultimately caution intelligence users on the limitations of available information to their decision-making processes (see Box 9.3).[2]

Strategists must appreciate that all intelligence is imperfect and not likely to be sufficient to make all decisions with high confidence. Whether it is the case of the 1962 Cuban Missile Crisis or the more recent example of the 2002 Iraq WMD National Intelligence Estimate, intelligence is not entirely right or wrong but rather has both strengths and weaknesses. In 1962, Sherman Kent's estimators misread the Soviet Union's intentions and its risk calculations when they judged that the Russians were unlikely to place nuclear-armed missiles in Cuba.

[2] The work of Richards Heuer (1999) has significantly advanced analysts' understanding of their cognitive limitations; the development of structured analytic techniques has continued both in intelligence training courses and in other research institutions.

BOX 9.3 Key Perspectives

Warning Problems: The Inevitability of Intelligence Failures

Major insights into intelligence failure have emerged from strategic surprises, such as Pearl Harbor and the German invasion of the USSR in 1941, the North Korean attack and Chinese intervention of 1950, the Middle East wars of 1967 and 1973, the Tet offensive and the Soviet invasion of Czechoslovakia in 1968, the Soviet invasion of Afghanistan in 1979, the Argentinean invasion of the Falkland/Malvinas islands in 1982, the Iraqi attack on Kuwait in 1990 and other cases. All involve two common problems. First, evidence of impending attack was available but did not flow efficiently up the chain of command. Second, fragmentary alarms that did reach decision-makers were dismissed because they contradicted strategic estimates or assumptions.

Richard Betts (2007: 22)

Despite this flawed estimate, it was intelligence—via U-2 flights over Cuba—along with SIGINT and some HUMINT that gave the Kennedy administration sufficient insight into subsequent Soviet moves to then face down Moscow and eventually negotiate the missiles' removal. For those 12 days in October 1962, the Kennedy administration had good enough intelligence supporting the secret EXCOM meetings (Kennedy's high-level policy team), where options were debated and actions were planned and executed.

In like fashion, the 2002–3 Iraq intelligence story is not entirely negative. To be sure, the October 2002 National Intelligence Estimate on Iraq's WMD capabilities was deeply flawed. The intelligence community misinterpreted outdated, limited, and in some cases fabricated information, thereby basing its judgements too heavily on outmoded mindsets and on Saddam Hussein's earlier success at deception and denial (Iraqi WMD Commission 2005). However, while these assessments of Saddam's WMD capabilities were wildly off the mark, two other important estimates were largely correct regarding how Saddam would conduct the war and what conditions the United States would face in a post-conflict Iraq (Kerr et al. 2005). As is often the case, some intelligence judgements are always closer to the truth, while others are not. In the Iraq case, what is most remarkable is how little attention was actually paid to intelligence, regardless of whether it was right or wrong (Pillar 2006).

Key Points

- Strategic surprise can result when decision-makers fail to act on intelligence warnings, or when those warnings are ineffectual or not provided at all.
- Intelligence failures result from inadequate collection, effective deception and denial operations, flawed analysis, poor information sharing, and poor communication of warning.
- Analysts can suffer from cognitive biases that create inaccurate perceptions of an adversary's intentions and capabilities, often termed a 'mindset'.
- Decision-makers also run the risk of dismissing intelligence warnings if they harbour strong mindsets of an adversary's intentions and capabilities that do not conform to reality.
- Strategic surprises and intelligence failures are impossible to eliminate, but taking steps to improve collection and analysis can reduce the odds of them occurring.

Intelligence Performance Since Major 9/11 Reforms

The 9/11 attacks dramatically altered how US strategists think about the role of intelligence. Not only has the threat changed but also the strategic paradigm—both the ends and means of strategy—has shifted. The George W. Bush administration developed explicit strategies for counterterrorism and counterproliferation. Part of this review of US strategy necessarily involved rethinking intelligence priorities and programmes. The 2004 Intelligence Reform and Terrorism Prevention Act (IRTPA) is the most dramatic reorganization and revitalization of the US intelligence community in nearly six decades. It expanded the scope and missions of the intelligence community to make it a far more powerful set of institutions and agencies. First, the legislation created a Director of National Intelligence, aimed at giving him more authority to force cooperation and information sharing among the intelligence agencies. Next, it created new institutions like the National Counterterrorism Center and the National Counter-proliferation Center aimed at better integrating the different activities and skills of the 16 agencies. Finally, it took note of the creation of a new Department of Homeland Security, one element of which had new intelligence functions (including cyber) and would, in conjunction with the FBI, constitute a more prominent domestic intelligence arm of the US government. These new missions have been prominently on display, as the DHS and FBI, along with the CIA and NSA, have been central to uncovering Russian hacking of the US election systems and in helping states to protect those electoral processes from future penetrations.

Over the past decade and a half, American intelligence has improved its performance against a range of threats, but it is by no means perfect. There have been no major terror attacks against significant national symbols like the Pentagon or World Trade Towers, although smaller 'lone wolf' attacks continue to occur. While all terrorist attacks cannot be prevented, the IC's ability to monitor large organizations and networks seems to have reduced the risks of spectacular events like 9/11. However, the breaking up of organizations like al-Qaeda and ISIS (Islamic State) may well lead to more sporadic, small-scale terrorist events, conducted by individuals or small groups inspired by those movements.

Lessons from Iraq and Afghanistan

The Iraq and Afghan wars have also highlighted some weaknesses in the US intelligence community's ability to adapt to new counterinsurgency conflicts. To be sure, the IC has deployed large numbers of intelligence collectors and analysts into theatres of operations, developing new surveillance and reconnaissance capabilities, and focusing much more on subnational or tribal-based targets. This has been a huge challenge in terms of resources and expertise. Numerous studies have suggested that the US went to war in Iraq and Afghanistan with little understanding of the sociocultural environments, the key actors and their motivations and capabilities, or the consequences of US actions on a whole range of issues. At the heart of these critiques is a question of whether US intelligence was adequately prepared or agile enough to adjust to the realities of war in the Middle East and South Asia.

A major cause of this surprise was the inadequacy of intelligence. Information gathered for a counterinsurgency differs fundamentally from the way intelligence is collected for conventional war. Instead of information flowing from national systems such as satellites and other

technical collectors down through higher headquarters to the tactical level, counterinsurgency intelligence must flow from the soldier and analyst in the field up to higher headquarters. This was not being done effectively at the beginning of the wars in Afghanistan and Iraq (Flynn, Pottinger, and Batchelor 2010).

The balance sheet of intelligence performance is very mixed. Among the reputed successes were the discovery of a secret Syrian nuclear reactor (subsequently destroyed by Israel), the alleged development with Israel of the Stuxnet computer virus that slowed the Iranian nuclear enrichment programme, and the dispatch of numerous ISIS and al-Qaeda commanders in Iraq, Syria, and Afghanistan. The steady and reliable monitoring of North Korean nuclear and missile developments has also been critical to assessing the nature of the emerging threat to the US homeland. On the failure side, critics blame US intelligence for missing the Arab Spring's destabilizing effects across North Africa and the Levant as well as the ineffective covert actions programmes designed to bolster Syrian opposition forces facing Syrian President Assad.

Ethics and Intelligence

Some of the intelligence community's efforts to quell these conflicts and uncover terrorist plots have also generated controversy and debate. Four of the most prominent controversies have been the use of UAVs or drones, the expansive presidential authorities provided to the intelligence community to conduct counterterrorism operations, the practice of detaining and interrogating terrorists captured in overseas operations, and the use of highly intrusive technical collection methods impacting both US citizens and allied populations. This has thrust the US intelligence community into the middle of vigorous debates over the ethics and legality of such methods, which have been challenged in Congress and the courts. Moreover, the use of drones and harsh interrogation methods have also had major domestic and foreign policy consequences that some believe undermine the overall strategy for defeating terrorism. First, the use of armed drones has been widely debated, and many critics have called for more explanations and transparency of US policies (see Critical Thinking regarding debate on this issue). The Obama administration increased the use of armed drones and consequently reviewed US policy, and established more transparent rules for armed drones. However, President Trump has given the Pentagon more leeway in the use of lethal force on the battlefield and suggested he would not be micro-managing the field commanders' decisions on how to prosecute the war in Afghanistan and now Syria (Cooper 2017).

Critical Thinking The United States should use unmanned aerial vehicles (UAVs)

For

- ***Has military utility***. Using armed drones provides precise targeting of high-value counterterrorism targets at the least risk to the civilian population and US military forces. They are far less intrusive and pose less risk to US personnel. Being able to observe counterterrorism targets in a stealthy fashion also makes them more effective than other forms of reconnaissance.
- ***Produces minimal casualties***. Non-combatant casualties using armed UAVs have been minimal. There are some think-tank studies that estimate the numbers to be between 100 and 500 since 2010; however, there are no reliable figures.

Critical Thinking *(continued)*

- ***Is politically acceptable***. These military operations are less intrusive and objectionable than all the others. Putting US boots on the ground in Pakistan, Yemen, or other terrorist safe havens would be too risky and politically explosive. Privately, governments mostly support these measures.

Against

- ***Produces high casualties***. The US government is playing down the actual non-combatant numbers and there are many eyewitnesses who claim there have been large numbers of women and children killed or maimed by US drone attacks.
- ***Encourages more use***. The fact that UAVs pose almost no risk to US personnel, in fact, encourages a more cavalier American use of drones. The US has long ago abandoned a more selective use against so-called high-value targets and is using UAVs more indiscriminately.
- ***Has blowback effects***. Heavy use of drones actually produces more jihadists than it kills. When the US unleashes a drone attack on terrorists in a village, it will turn the entire village against the US and the host government. Such indiscriminate attacks will reduce a government's willingness to cooperate with the US.
- ***Sets a harmful precedent***. The US should be wary of setting the precedent for using armed drones for targeted killings. Drone technology is entering the military arsenals of many other governments, including those hostile to the US and its allies.

Questions:

1. Should the US reduce reliance on armed drones?
2. Is targeted killing a legitimate intelligence function?
3. What are the prospects for armed drones being used against the United States?

Second, many constitutional experts question whether the 2001 Authorization for Use of Military Force (AUMF) can still be used to justify counterterrorism operations against a wide range of terrorist organizations and individuals who may have only tenuous ties to the al-Qaeda network, which the AUMF was designed to combat. Legal authorities continue to debate whether the Obama administration expanded its counterterrorism operations beyond the scope of this congressional authorization, and many believe a new AUMF is now in order. Some experts also criticized the Obama administration for using this statute to conduct attacks on US citizens, based on secret legal opinions and without any judicial review.

Third, US detention and interrogation methods also brought criticism upon the US military and the CIA for alleged violations of anti-torture statutes and basic civil liberties. Senior CIA officials have been accused of authorizing torture and destroying evidence that would implicate them. While the Justice Department has ruled that the techniques were legal at the time, then CIA Director Hayden eliminated those infamous methods such as 'waterboarding' to prevent further damage to CIA and US reputation abroad. President Trump has implied he might reconsider using harsh interrogation methods, but would rely on his Secretary of Defense and CIA director to determine what methods should be used. Both Secretary of

Defense Mattis and Director Pompeo have publicly said those measures would not be tolerated (Wong 2017; Williams 2017).

Finally, the publicized collection of 'metadata' of international Internet and phone calls by the United States has produced public, congressional, and international criticism of the excessive collection methods used by the National Security Agency in the pursuit of legitimate terrorism targets. President Obama accepted the recommendations of a Presidential Commission that reviewed the NSA programmes and terminated major parts of the collection programme (President's Review Group on Intelligence and Communications Technologies 2013). Meanwhile, further revelations of the NSA's world-wide collection efforts continue to roil the waters with allies and friends (Waldman 2014). Further leaks have made public 'malware' tools that the NSA designed to exploit computer software vulnerabilities, without notifying the US companies of those flaws. Some of these tools have now been used by hackers to break into computer networks, further raising questions about the ethics and legality of NSA cyber operations (Perlroth and Sanger 2017).

Key Points

- US intelligence must now deal with a wider range of threats of WMD proliferation, terrorism, and cyberthreats, which require far different types of intelligence.
- Intelligence has been far from perfect in supporting wars in Iraq and Afghanistan because of the nature of the conflicts and the difficulty of analysing their underlying tribal and ethnic factors.
- Intelligence has relied on new modes of collection and covert action—including more intrusive surveillance and targeted killing via armed drones—which raise significant ethical questions.

Managing the Information Domain

The twenty-first-century intelligence world is not solely the result of the 11 September attacks. Indeed, many new challenges would have existed regardless of the emergence of al-Qaeda, ISIS, or the global spread of Islamic extremism. Along with rising terrorism and proliferation threats, global developments in cyberspace require different strategies for coping with the world. As in the past, different national security strategies will often redefine national intelligence strategies and policies.

Information technology is changing the world and the intelligence workplace. As it does, it puts more information in the hands of decision-makers and makes it available at increasingly faster rates. Nanotechnology and miniaturization of communications and computing systems makes information flow around the world virtually instantaneously. Not only is time for analysis and action reduced, but also the amount of information that must be absorbed to reach judgements and decisions is far greater. The advent of the computer era has also magnified the targets of intelligence value, for example the 2007 exploitation of captured Iraqi 'Sinjar' records. The take-down of Osama bin Laden also resulted in the capture of valuable computer

disks and other media that yielded invaluable information on al-Qaeda's future plans and organization (Busmiller 2011). But this data often requires detailed scrutiny, translation, and interpretation. Technology can partly solve the problem it has created, but the point has been reached where no single analyst or policymaker can possibly be an expert on all aspects of an international problem.

The information explosion has led to the promise as well as the problem of analysing 'big data'. The term has come to mean the massive and often unstructured data sets that are difficult to process using traditional software. The mere capture and storage of such data is challenging, even for the US intelligence community; however, the intelligence community is developing new 'search engines' or sorting techniques to exploit these sources. For example, the National Security Agency has taken the lead in developing an accessible and secure cloud computing environment, which is aimed at giving the IC the necessary analytic tools required to exploit such information (Seffers 2013). Furthermore, in 2015 the CIA made its first major organizational modernization in several decades, when it created a new Digital Directorate of Intelligence (DDI). The DDI's mission is to improve the IT tools available to all analysts working on traditional intelligence targets as well as developing more cyber capabilities. This new directorate also contains the CIA's main centre for analysing cyberthreats and conducting cyber operations (Lyngaas 2015).

While the benefits of having greater cyber intelligence-gathering capabilities is obvious, the dangers of other adversaries having dangerous information tools used for cyber espionage, crime, political action, or even warfare is also apparent. As the DNI's 2017 worldwide threat brief made clear, 'adversaries are becoming more adept at using cyberspace to threaten our interests and advance their own' (Coats 2017). The IC has assessed Russia as a 'full-scope cyber actor' that can threaten not only military and government systems but also commercial and critical infrastructure networks. China has also been actively targeting the US government websites, and successfully compromised the Office of Personnel Management's records of millions of federal employees. Other hostile actors like Iran and North Korea are also known to have launched cyberattacks against American official and commercial websites. Such cyber operations offer both potent and weaker adversaries an asymmetric attack option for responding to US actions they oppose.

As John Sheldon points out in Chapter 17 in this volume, the cyber domain is characterized by much lower entry costs, multiple state and non-state actors, near instantaneous effects, and very stealthy operations. All of these factors make it a challenging intelligence problem. It is almost impossible to warn of a possible cyberattack, and even difficult to establish attribution of the perpetrator with high confidence after the fact. Former SACEUR commander Admiral (ret.) James Stavridis recently warned of a 'Cyber Pearl Harbor', echoing what former NSC director for cyber Richard Clarke similarly identified back in 2010 as an almost predictable surprise for the US in the future (Stavridis 2017; Clarke and Knake 2010). In some ways, the 2017 findings of the intelligence community that Russia has penetrated US electoral systems as well as the Hillary Clinton campaign is a wake-up call. There are other reports that the Russians and Chinese have also penetrated some of America's power grid networks (Gorman 2009).

In sum, providing intelligence assessments has become a 24/7 operation, with events happening even faster than analysts can interpret the data and policymakers can make

decisions. The danger lies now in collecting intelligence faster than analysts can think or even verify the quality and reliability of the information being passed on to policymakers. Processing raw information is one thing, but making sense of information is still a human factor that cannot be accomplished without time to weigh evidence, identify key strategic dangers, and map their likely consequences. Information technology can assist the analyst in processing large volumes of information by providing analytic tools to help filter and find patterns in the data, but the human mind is still required to see the significance of such patterns to the policymaker. Both the producers and the users will have to work harder to preserve the quality of intelligence as it becomes more ubiquitous and timely.

Key Points

- The 11 September terrorist attacks have put new emphasis on strategies of prevention and pre-emption, which will demand even better intelligence than the strategies of containment and deterrence.
- Relying on preventive and pre-emptive strategies requires solid information to justify taking military action even before an enemy has acted.
- Globalization has been accompanied by a global information revolution, speeding up the rate and volume of information that the intelligence community must monitor and understand.
- The rise of 'big data' offers the intelligence community new ways to uncover threats but cyber capabilities also pose new challenges in terms of giving warning and identifying the perpetrators of such attacks.

Conclusion

Intelligence remains a vital ingredient in the development of effective national security strategies. It will have to adapt constantly to keep pace with changing conceptions of national security interests and the associated strategies that emerge. As in earlier times, no intelligence system will ever produce entirely perfect insight or prescient forecasts. The world is simply too complex and the decision-making styles of foreign adversaries too unpredictable to know how they will choose to challenge the interests of the United States and its friends and allies. What we can say, however, is that decision-makers will require intelligence to reduce the uncertainty surrounding the future actions of strategic rivals as much as possible.

As in the past, strategic surprises and intelligence failures cannot be ruled out. Steps have been taken, however, to improve collection, analysis, and the intelligence–policy relationship to reduce the likelihood, severity, and consequences of surprise and intelligence failure. Moreover, the need for decision-makers and intelligence professionals to work together makes it clearer than ever that strategy depends on a good understanding of what intelligence can and cannot do. Although centuries old, Sun Tzu's advice to 'know oneself' as well as the enemy is as relevant today as it was then.

Questions

1. Is intelligence a necessary ingredient for good strategy?
2. How does a strategist use intelligence to improve strategy?
3. What roles can intelligence play in improving strategy?
4. What are the key limitations of intelligence that a strategist should be aware of?
5. What lessons can be learned from past intelligence failures? What is a working definition of failure?
6. How successful have efforts been to reform intelligence activities to help inform decision-makers? What have been the problems?
7. What is the role of covert action in assisting the strategist?
8. How useful do you think the role of analytic bias or 'mindsets' are in explaining intelligence failures?
9. What can be done to improve intelligence analysis? Is failure inevitable as some writers suggest?
10. How does intelligence need to adjust to the post-11 September realities? In particular, what problem is posed by the challenge of cyber and IT technologies generally?

Further Reading

R. Betts, ***Enemies of Intelligence: Knowledge and Power in American National Security*** **(New York: Columbia University Press, 2007)** offers a recapitulation of the author's many excellent articles on intelligence that takes a balanced view between many critics and the few apologists for US intelligence.

T. Fingar, *Reducing Uncertainty: Intelligence and National Security* (Stanford, CA: Stanford University Press, 2011) gives an insider's view of the challenges of post-9/11 intelligence, with special attention to the intelligence–policy relationship and how intelligence weathered the controversies surrounding the 2002 Iraq WMD NIE.

R. George and J. Bruce (eds), *Analyzing Intelligence: National Security Practitioners' Perspectives*, 2nd edn (Washington, DC: Georgetown University Press, 2013) is a revised collection of articles focused on improving the profession of intelligence analysis written by leading practitioners and scholars.

R. Jervis, *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War* (Ithaca New York: Cornell University Press, 2010) is an excellent post-mortem by a recognized intelligence scholar on the sources of cognitive and bureaucratic bias in intelligence analysis.

L. Johnson and J. Wirtz, *Intelligence: The Secret World of Spies: An Anthology* (Oxford: Oxford University Press, 2014) is an excellent collection of articles that surveys key intelligence topics, including the analysis, collection, covert action, politicization, and the ethics of intelligence.

M. Lowenthal, *Intelligence: From Secrets to Policy*, 7th edn (Washington, DC: CQ Press, 2017) is the best and most well-known introduction to the role of US intelligence.

P. R. Pillar, *Intelligence and US Foreign Policy: Iraq, 9/11, and Misguided Reform* (New York: Columbia University Press, 2011) is the most well-argued, if provocative defence of the intelligence community's performance and scathing critique of 2004 intelligence reforms by a senior retired intelligence official.

Web Links

Federation of American Scientists **http://www.fas.org** contains a treasure trove of intelligence assessments and studies useful to students interested in seeing actual intelligence products.

CIA **http://www.cia.gov** includes the Center for the Study of Intelligence, where the CIA's official *Studies* journal is available, along with many other descriptions of the intelligence process and products.

The Office of the Director of National Intelligence **http://www.odni.gov** houses official press releases, statements, and directives; it also contains unclassified National Intelligence Estimates and other community products like the Global Trends series.

Central Intelligence Agency World Factbook **https://www.cia.gov/library/publications/the-world-factbook** houses the voluminous CIA World Factbook that catalogues the key facts regarding 267 world entities, including their demographics, economy, history, political structure, and other pertinent characteristics.

Strategy and Defence Planning

COLIN S. GRAY

Chapter Contents

Introduction 165
Strategy, Politics, and Defence Planning 166
Problems with the Future 168
Approaches to Defence Planning 172
Guidance for Defence Planning 175
Conclusion 178

Reader's Guide

All states have to conduct defence planning because of their official—indeed also their moral—duty, but because the future never happens, how can planning be done prudently? This chapter examines the implications of the defence planner's ignorance of the future, and looks critically, though empathetically, at ways in which understanding might be improved. It is argued here that science and social science cannot be of much assistance to the planner, given the enduring certain fact that we are unable to access data about the future from the future. There is found to be no alternative approach to defence planning superior to the careful use of historical understanding, controversial though that often is.

Introduction

Because security is non-negotiably a very high, if not the highest, human priority, defence planning is effectively both a universal and an eternal activity. All human communities necessarily must also be political communities for their common security. In order to provide security, humans need to organize for collective governance, and that requires a political process. Defence planning can sound like, and may even appear to be, a cool and deliberate function of government, one performed prudently by notably expert functionaries, both professional military and civilian. More often than not, however, defence planning gives a substantial appearance of being conducted in a hurry by officials who are not truly expert in matters that would appear to warrant most careful consideration of a strategic kind. In practice, regardless of the character of a polity's governance, defence planning is ruled by political, not technically expert military, choice. Defence planning bears upon the future and

therefore concerns crucially a temporal zone about which little of vital importance is reliably known. While defence planning must depend for its relevance and suitability on strategic guidance, what—one must ask—is the source of that guidance?

Strategy, Politics, and Defence Planning

Much of the subject matter of strategic studies is more or less technical, and is appropriately understandable by technical experts. For example, logistical questions, issues concerning the supply and movement of troops, their necessary equipment, and everything now deemed essential to their tolerably competent functioning typically lend themselves to calculable treatment. There are reliably discoverable right answers to logistical questions, even if in practice quite often a military system will settle knowingly for quantities and qualities believed, or hoped, to be good enough to serve the needs of the moment. The defence planner needs to know, or at least know how to discover, what is required in order for his polity's military forces to function both tactically and operationally. The acquisition of this knowledge is not a task for the amateur. However, the relatively happy condition of the generally calculable tasks of the tactician and the operational artist come rudely to an abrupt halt when the challenge to comprehension shifts on to, or across, the strategy bridge (Gray 2010a). It is not possible to determine the suitability and relevance of one's defence establishment, its character and size, unless first one has secured good enough understanding of its purposes, functions, and adversaries abroad. Appreciation of this abiding reality leads unavoidably to recognition of the critically important role of politics in defence planning.

Strategy is and has to be political. Strangely, perhaps, although all strategy is political in meaning, nonetheless it is not simply politics in disguise. Although strategy inexorably has political consequences, it is nonetheless distinctive from them. Much as the conduct of warfare may or may not serve to advance the political interests on behalf of which a war is waged, so defence planning may or may not provide support of high utility for a polity's policy objectives. For the purpose of this chapter, *defence planning is defined as referring to preparations for the defence of a polity in the future (near-, medium-, and far-term)* (Gray 2014: 4). Such planning is conducted both in peacetime and wartime, though the focus of this chapter is primarily on the former.

To understand the challenge of defence planning it is essential to follow the logical and authoritative audit trail both to and then across the strategy bridge (see Box 10.1). How should a polity decide on the quality and quantity of its national defence provision? How

BOX 10.1 Definitions

Strategy Bridge

The metaphorical concept of a strategy bridge is employed for the purpose of explaining the functions strategy performs. Strategy can be considered in functional terms as a bridge that should connect the distinctive realms of politics and their policymaking on the one side, with military operations and tactics on the other. Since strategy is defined as the use made by policy of its military servants' efforts as threat and in combat, the bridging concept is an appropriate view to take of strategy's function (see Gray 2010a).

much is, or ought to be, enough (and enough of what)? Because there is much visible and tangible evidence of computation and calculation about the products of defence planning, it is only too understandable why confidence that is by no means well merited may be felt in the results of the official activity. The apparent orderliness of administration and the veritable blizzard of statistics on many issues in defence not unusually serves to conceal what not infrequently truly are deep uncertainties that have to be managed in a process of defence planning characterized by the necessity for heroic choice.

The problem most central to the defence planner's efforts is that of an irreducible ignorance about the detail of the future (Gray 2014). Defence planning in all polities potentially can be intensely political for two abiding reasons. First, the function of national security is almost inevitably a relatively heavy burden on society, given that there will always be alternative possible uses for scarce resources. Second, the permanent fact that the future is neither reliably known nor knowable means that typically there is scope for political argument over what the country needs in order to be sufficiently secure. It is important that we backtrack to examine closely and critically just how the national defence planning function is supposed to work. This examination reveals that much of what may appear to be founded solidly and prudently, in point of fact is better described as guesswork. Close examination of the major working part of a national strategic function reveals that defence planning cannot help but be more art than science. With rigorous attention to the proper and consistent meaning needed for key concepts, it is no triumph of scholarship to discover that the requirements of strategy are far beyond the reach of science. Since science refers to reliable knowledge, acquired and testable by empirical method, it is obvious that the defence planner is fundamentally limited by an inability to know with certainty just what his polity will need to acquire and how it should behave, in order to be secure in the future.

In order to aid comprehension of the defence planning function and the scale of analytical challenge to the planner, it is helpful to appreciate the basic structure and nominal working of the relations among four key concepts: ends, ways, means, and assumptions (Yarger 2008). In theory, at least, policy ends provide essential purpose to guide the selection of strategic ways in which military means can be threatened or exercised in the national interest, and the whole process is informed (or misinformed) by the prevalent assumptions. These four basic ideas, understood as a process, admittedly constitute a greatly simplified model of the reality of defence planning, but not one that misrepresents what is usually untidy in practice. What looks logically robust when presented in PowerPoint form, however, is likely to mislead. It is no great achievement to recognize some basic difficulties in the bald structure of strategy making just outlined. Indeed, every element in the strategy-making model for defence planning is likely to prove challengeable.

The policy ends needed to animate all else are typically anything but stable. The reason is because policy is rarely regarded as being a final product of careful official consideration and analysis. Instead, policy is almost an organic product that will have a shifting shape and intensity, depending on the evolution of circumstance. Policymaking is usually somewhat open ended, providing some possibility for change if events do not occur as previously anticipated. In short, more often than not the defence planner will find that his policy directives and guidance have a discomforting quality of flexibility about them. Just as defence planning is a continuous activity, so also is policymaking. This fact is best appreciated by recognition that defence planning is thoroughly and continuously a political activity. Key political decisions

tend not to be made and subsequently regarded as definitively settled. Because they must function in the great stream of time, defence planners know that the requirement for policy is permanent and that its content always is made by and in a political process (Neustadt and May 1986). The content of policy demand for defence preparation inevitably varies with official and general public mood. How secure do we feel? How, if at all, has this necessarily subjective sentiment altered recently? Of particular moment is the question concerning anticipation of future menace.

Even if a particular government's preferred approach to defence planning can be summarized as a willingness to spend what is needed for national security, the substantial problem remains of knowing what that apparently prudent approach requires. In order to behave prudently over defence planning, first it is important to be able to know what it is that prudence requires (Aron 1966: 285).

Key Points

- The defence planner needs to know what the country will require in order to be sufficiently secure in the future.
- What the defence planner needs to know is not knowable, so what he has to do is to plan for what policymakers can guess about the future.
- Defence planning decisions regarding the future are the product of a political process of negotiation; this is inevitable and unavoidable.

Problems with the Future

Defence planning may choose to ignore the fact of irreducible ignorance about the future, but that unavoidable absence of reliable understanding is likely to prove of commanding relative importance. The most critical of questions that the defence planner needs answering include the following: what to buy (acquire), how much to buy, and by what date(s) to buy it. Because defence planning must involve decisions about the quality and quantity of human and mechanical (and electronic) military capability, it is not sufficiently enlightening to policymaking for prudent ideas to lurk simply as interesting and possibly valid speculative propositions. Defence planning requires some certainty over types of forces and their numbers.

The process of defence planning may well proceed more by apparent inertia for years, than in an agile manner responding to shifts discerned in a polity's security environment. There is no doubt that abrupt, or even substantial though cumulative, changes in defence posture will be profoundly disruptive. Mobilization for war and subsequent demobilization, even if the polity is victorious, are periods of especially deep uncertainty, as a relatively settled and stable quality and quantity of military capability changes radically. Several propositions that comprise the core of my argument will be, or at least appear to be, seriously controversial; they are summarized in Box 10.2. It might be tempting to reason that because the future is and must remain foreign to us, we are incapable of conducting purposeful defence planning prudently. After all, if we do not know and cannot discover what our security context will be in the future, how can we plan our nation's future defence? There is a responsible answer to

BOX 10.2 Key Perspectives

Controversial Propositions in Defence Planning

1. The future is both unknown and unknowable in detail.
2. Policy ends that should rule the whole process of defence planning concern matters for political choice.
3. All strategy requires the presence or at least the plausible prospect of an adversary (or two, or more).
4. The performance of a defence establishment in war is not akin to that of some programmable machine. Forces for defence have the potential to vary significantly in the strategic value of their military product.
5. All wars have much of great importance in common, but also each crisis and war assuredly will be quite individual in some detail.

this significant empirical objection, but first it is necessary to underline the temporal reality that the future never comes, together with the apparent paradox that, nonetheless, we are obliged to plan for, or rather against, our security needs of the future.

Politicians, and even some scholars who should know better, persist in keeping alive the substantially fallacious concept of a foreseeable future. It is possible, indeed it is necessary, to ignore our ignorance of the future in detail, and act as if we know well enough what the situation of our future security will require of our defence establishment. However, notable guesswork must be the hallmark of our decisions and behaviour. Notwithstanding substantial and sometimes methodologically ingenious efforts, endeavours to discover reliable major facts that will have important consequences for our defence planning inevitably disappoint. Surprise happens! Moreover it happens time after time in its capacity to deliver us into substantially unanticipated security terrain (Taleb 2010: xxii–xxiv). It is necessary to conclude, on the unmistakeable evidence of past failed efforts to foresee the strategic future, that defence planning should not be geared to predictions that are unavoidably vulnerable to potentially lethal error (US Joint Forces Command 2008: 7).

The unforeseeability of the future should command a quality and quantity in defence plans recognizing the necessity for some agility, even flexibility, in our policy. The mantra of 'ends, ways, and means', governed by prevailing assumptions, obliges us to examine critically both the reliability and the prospective longevity of contemporary policy. Probably above all else we need to be willing to locate and acknowledge the origins and nature of our policy ends. It is important to appreciate that all defence planning must be done at distinctive points in what has been characterized as a stream of time. Posing significant questions about the future of national defence will elicit different answers at different dates. Answers that seem to be right enough as of today, may well appear in retrospect tomorrow to have been more or less imprudent.

Although the force of inertia can in the main be authoritative, ultimately the local political process will rule as well as reign. International strategic relations are also political relations. Objectively right answers cannot be provided to the strategic questions that defence planners have to address, because there are too many variables in the relevant equations for statecraft. Admittedly, there is scope for some highly pertinent calculation of variables in

strategic studies, but even in those cases certainty should not be assumed (O'Hanlon 2009). The stability of strategic nuclear deterrence between super and great powers understandably has attracted a vast amount of analytical attention of a metric kind. Draw-down curves allegedly showing levels of strategic forces' survivability in the face of surprise attack have long been a focus of official superpower attention. Always there has been an incalculable risk of policy error leading to nuclear war as a malign result of imprudent human behaviour. Some dysfunctional performance by complex organizations, unanticipated and therefore possibly shocking behaviour on the part an adversary, and the ill consequences that could follow untimely accidents and sheer bad luck, also could result in catastrophe. A political context may be strategically robust in favour of stability, but rogue behaviour by individuals, organizations, and third parties is possible. A certainty of national security on tolerable terms is strictly unattainable. There will always be room for some political argument between competing interests and beliefs bearing on national defence.

The second point registered in Box 10.2 asserts a claim with which many people may be uncomfortable. The choices that serve as the policy 'ends' for strategy are nearly always political—even if they did not appear initially to be political, nonetheless they soon become such. Particular tactical military behaviour is selected for strategic effect that it is hoped will advance the security of our interests. It is obligatory to notice that although this chapter is focused primarily on the challenge in preparing purposefully for defence against foreign dangers, defence policy everywhere is made at home. In practice, and possibly even in theory, it is not possible to conduct a process of policymaking and its enabling strategic planning in any manner other than one dominated by politics. In good part because defence planning is about national security in the future, there are not and can never be answers to the classic question, 'how much is enough?' that are demonstrably empirically correct. Defence planners everywhere must try to provide good enough answers to these key questions:

- How much defence do we need to buy?
- What kind(s) of defence do we need to buy?
- By what date(s) do we need to acquire the products of our defence planning?

Particularly if there is little palpable sense of immediate dire national peril, the answers to the above trio of questions are unlikely to be unchallengeably obvious. Metaphorically expressed, a strategy bridge exists functionally in order to enable the complementary, yet distinctive, realms of policy and (military) strategy to conduct an unequal dialogue (Cohen 2002: chapter 7). The politician cannot simply challenge defence planners to devise plans that are unmistakeably correct in their prospective efficiency for the alleviation of national peril. Opinions on dangers and possible responses to them will differ, and the differences will reflect the distinctive interests as well as genuinely divergent beliefs of the institutions and some of the individuals who are active participants in the making of policy and strategy. Moreover, much of the concern of high relevance to defence planning will derive potently from largely domestic circumstances that can have a logic almost entirely indifferent to a country's external context.

Although politicians are strongly inclined to talk about 'what the country can afford', in reality the authoritative issue is one of choice. Defence planning, always and everywhere, is a political exercise. Planners cannot know what the country needs in order to be secure,

and in practice security is very much a sentiment, a feeling, not a quality expressible metrically. Defence budgets are the negotiated outcome of more or less intense argument—with some purportedly supportive quantitative analysis—among key stakeholders. The defence planner is not engaged in producing and refining plans that assuredly are the correct ones in order to keep the polity safe, though that is a general sincere intention. Rather it is the practical challenge of the need to devise plans that provide for national security likely to prove 'good enough', in circumstances riven by deep uncertainty (Gray 2010b). Recall that tomorrow never comes!

Of emphasis here is both the inalienably political nature of the guidance that policy provides to defence planning, and the fact that the content that is fuel for political debate and dispute may well contain little of strategic merit. People and their institutional interests differ over policy and about menaces from abroad, actual or only potential. Menace spotting is often employed more as support for argument with implications for decisions about the allocation of scarce resources, than as evidence of threat and danger that requires expensive answers.

All strategy, with defence planning as an enabling executive agent, is and has to be adversarial. Such planning is not analogous to a game of solitaire. An adversary is required for strategy to be needed or to work. In theory a defence planning process could all but demobilize itself and simply go through the motions of pretending to provide for the common defence against any or all comers, but the practice of politics could not be friendly to such behaviour. The general theory of strategy is not at all confused or confusing on the fundamental need of strategy makers for actual and typically plausible threats. They comprise the fuel of menace that can be assumed to be normal to the nature of world politics. It remains a dominant fact that in the world politics of the twenty-first century all large and even modest-sized polities conduct defence planning. Enemies worthy of such a prejudiced categorical assignment may not be too obvious or even plausible. However, if we adopt firmly the modern (i.e. twentieth-century) understanding of the meaning of strategy, we are able to appreciate that few polities can or could be truly indifferent to the subject of defence planning. The strategy that the defence planning process typically seeks to implement and advance is not one geared for military success 'in the field'. Instead, the purpose of defence planning is to enable strategic advantage, and hopefully deny disadvantage, to attend the choice and pursuit of chosen policy. The subject here is defence planning, not war planning.

Because defence planning by definition must relate to the future, and because that future cannot be known confidently, let alone reliably, it has to be recognized that defence planning must be likened to a journey of indeterminate duration into terrain that on the one hand is known for certain to be dangerous, but on the other is known not to be predictable as to the actual menaces that will be more or less active.

It is necessary both for defence planners who are military professionals, and the politicians (and civil servants) they serve, to acknowledge the uncertainties that must attend all possible military behaviour in the future. Because war is systemically adversarial, it is important to be able to plan to acquire military forces that would be relatively effective in future combat. Furthermore, it is reasonable to aspire to own military forces that have fairly reliable merit as threat. It is and remains a fact, however, that every war is more or less unique in some of its vital detail. If one plans to be ready enough for whatever demands the political-policy bank of the stretch of water supposedly bridged by strategy chooses to make, what

does one purchase? Do we acquire military forces wide in the range of their competence, but as a consequence distinctly thin in their ability to sustain costly action? Or, do we elect to invest heavily in capabilities greatly limited in their relevance, regarded politically, geostrategically, or even fundamentally, against better armed foes? The political context postulated here could provide fuel for conflict that politician policymakers may discover they wish to conduct, or at least to contribute with capabilities deemed useful by a larger ally. In principle at least, the following non-trivial causes of uncertainty are inalienable from peacetime defence planning.

1. The political context. Since all war, though not all warfare, is political, what will the world be like that produces circumstances in which we may wish, or even need, to perform militarily for strategic effect?
2. What do we think we know about the character of war and its warfare in the future? And, how far into the future is relevant to our planning today?
3. How well will our military forces fight tactically, and how useful will that prove to be, when regarded operationally, strategically, and ultimately politically?

Whatever else can be written about defence planning, the beginning of wisdom must be registration of understanding that necessarily it is an exercise conducted in a condition of true ignorance. *Defence planning is and can only be based on guesswork*. Obvious though this fact ought to be, it is nonetheless resisted by many social and other scientists, and it is rejected as unacceptable by many politicians. It is only sensible to be sympathetic to the plight of politicians, civil servants, and professional soldiers who have no practical choice other than to do their best to cope adequately with a strategic future that simply is not and will never be knowable in advance.

Key Points

- All defence planning is conducted in what is essentially a political process.
- Defence planning has proved historically nearly always to be marked by substantial error.
- Objectively and checkably correct answers to the basic question, 'what should we buy for our future security?' are simply not obtainable.
- Because there is never any information available *from the future about the future*, it is not possible to prove that some defence acquisition scheme is wrong (or right!)
- Defence planning is a necessity for all countries.

Approaches to Defence Planning

Not infrequently is it anticipated that an impressive combination of analytical sophistication and rigorous method will yield understandably what is needed for a polity to have confidence in its defence planning. However, common sense soon reveals the continuing sovereign authority of an all too enduring golden rule: specifically, it is impossible to know the unknowable (see Box 10.3). The practical challenge cannot sensibly be the continuing devotion of

BOX 10.3 Key Perspectives

Rumsfeld Amended

Former US Secretary of Defense Donald Rumsfeld amused and intrigued us with his 'known and unknown' shortlist. He told us that: (1) there are things we know we know; (2) there are things we know we do not know; and also (3) there are unknown unknowns (Rumsfeld 2011: xiii). Two additional items merit addition to Rumsfeld's list: (4) things that we believe we know, but in fact we do not; and (5) things it is impossible to know (e.g. about the future).

scarce analytical talent to an impossible quest. Despite the obvious merit in this negative judgement on much futurology, governments persist in the endeavour to achieve the impossible and peer into the future in a forlorn quest for reliable knowledge. Inconvenient though it is and must remain, there is little, indeed possibly even nothing, about science that is of value to the more demanding of the defence planner's tasks (Grygiel 2013). For two reasons, hard science and its junior social science relatives—e.g. economics and sociology—cannot be mobilized in the quest for reliable truth. First, we are unable to predict reliably the whole context that will be relevant to decisions in the future—both our own and that of our possible adversaries. Second, we cannot be certain as to how the character of the game of nations (and tribes and factions) will alter in the great stream of future time. Many elements that could shape the strategic future are both unknown and unknowable in possibly important detail, and cannot be modelled in a productive quest for reliable knowledge. The necessary concerns of the defence planner do not lend themselves to scientific enquiry legitimately worthy of the name. Certainty of strategic knowledge about the future is unobtainable by any analytical method, no matter how robust.

If we define science as we should, it should refer strictly to reliable and certain knowledge. Quite obviously, the mission of defence planning is a light year or two from being likely to discover what will certainly be the right answer(s) to the challenge of defence in the future. Although science and social science can be of some limited assistance to defence planning, that help cannot be provided with respect to the temporal uncertainties that must dominate the subject of this enquiry. Since science cannot assist in understanding what is unknowable, we are obliged to look for help elsewhere.

Historians are right to warn us that their subject is not an agent of advice, because it comprises the entire confused and often confusing narratives of human strategic experience (Howard 1991a: chapter 1). The abundance of motive and action in the strategic past is the heart of the analytical problem. Everything of strategic concern today and for tomorrow has some provenance. The challenge to defence planners posed by the sheer quantity of variably accessible detail is not easily met. That conceded, the dominant fact remains to the effect that although defence planning must always be a venture into the unknowable, nonetheless generically it is one in which the human race is very experienced. After all, the essential challenge to those charged with the vital task of defence planning has not altered through the entire course of strategic history. The rich variety of historical experience means that each strategic episode is different from all others in some measure, great or small, and in quantity, quality, or both. But, approached with regard to its functional working, defence planning can be considered with common reference to all periods and material and cultural contexts.

While science and social science have little to tell us about defence planning, the creative arts, history in particular, are a source for empirically impressive advice (Gaddis 2002) (see Critical Thinking).

Although defence planning is always novel, given that the 'future' is ever moving and is strictly a notional destination that can never be reached, nonetheless it is a behaviour that has been necessary from the beginning of time. Groups of people have always had to organize themselves for security, an enduring necessity that resulted in the creation of political units known to us today as states. These political communities had to function strategically, competently or otherwise.

Science and social science cannot be of much assistance to the defence planner because the subject requires judgement educated by familiarity with past as well as contemporary experience. The defence planner cannot usefully seek theory that explains from the ranks of scientists and social scientists, because their specialist knowledge does not encompass the variety in strategic history, its continuity in nature, and changing character in detail over time. Also, the adversarial nature of strategic historical experience requires a mature perspective and hopefully some understanding only through appreciation of a whole historical context; this need is met and somewhat tamed by the grand concept of the great stream of time. The relatively high value of historical understanding to defence planning is best appreciated if one considers the rather barren alternatives. If one rejects or scarcely employs historical knowledge, what remains in the shot locker? Since the future has not occurred it is unable to provide data, reliable or otherwise, while the present is too recent to be a source of knowledge on which one could place high confidence.

Only the humanities can aspire to achieve useful understanding of international and national security contexts in the future, however far over the temporal horizon we choose to strive to peer. The historian alone might achieve understanding in the width, depth, and context necessary for competent treatment of security troubles in the future (Howard 1983: 215–16). The claim here is not for some high putative value of specific historical analogy. This chapter is not endorsing the absurdly dangerous idea that tomorrow's challenges and crises should be considered in the presumptive light cast by some selected particular past event or events. History is far too richly variable to be safely usable as a source of analogy for concerns about the future. Since we cannot know exactly, or with confidence even approximately, what will happen in the future, we cannot analogize historically in a quest for anticipatory understanding (Fischer 1970: 257). Instead of the necessarily and inevitably flawed historical analogy, defence planners should be content with historical parallels.

It is an unfortunately persisting fact that many scholars, especially those raised as social scientists, are wont to dismiss past strategic historical experience as irrelevant to the strategic future. This widespread anti-historical attitude reflects a shallow view of relevant strategic education. An appropriate comment on the issue of continuity, change, and enduring relevance has been made by Robert Gilpin of Princeton University. He speculates thus:

> But, in honesty, one must inquire whether or not twentieth-century students of international relations know anything that Thucydides and his fifth-century BC compatriots did not know about the behavior of states. What advice could today's students give that would have enabled the Greeks to have prevented the great war that destroyed their civilization?
>
> (Gilpin 1981: 227)

The contemporary scholar-soldier Robert Johnson has sought to address directly the question of the possible practical utility of historical education. He advises that:

> the true value of history is not to invoke direct analogies, nor does the answer lie in trying to extract selections to suit a particular agenda, as so often occurs. The value of history is rather in encouraging critical reflection, to ask questions, and to challenge the positivist assumptions that crowd our field of view. We are subject to the flux of history, and we cannot entirely escape our present, but we should seek to break free of unreasoned supposition about the future through critical thinking.
>
> (Johnson 2014: 66)

Defence planners should not seek detailed solutions to particular current or anticipated future problems in beliefs and actions lifted from the past. However, they will find that history typically is stocked abundantly with yesterday's challenges that may be understood reasonably as having been common in kind to many of those today. Issues of crisis management, manipulation of threat, alliance, and of all aspects of war and peace, have been substantially continuous and common through all strategic history. The historical experience of international relations over the rise and demise of great and lesser states is as extensive as it is depressingly repetitive. History offers a treasure trove of examples of behaviour relevant to our contemporary case. Provided one never forgets that a parallel discovered between then and now must be regarded only as being situational, such appreciation of possible utility in relevance should only be positive. Historical education cannot provide training for the conduct of defence planning. But it can provide education that fits people so that they are better able to cope with today's challenges.

Key Points

- Science and scientific method cannot penetrate the future to reveal for certain what the content of defence plans should be.
- History, per se, cannot offer advice; it has to be interpreted by expert historians.
- Only the historian is able to offer the understanding of the width, depth, and context of the past that might be of assistance to the defence planner.
- The course of history can be examined in order to locate plausibly parallel episodes to those of concern to us today.
- Historical analogy cannot be employed to help make sense of an unknown and unknowable future.

Guidance for Defence Planning

Because defence planning relates to activities that must provide answers to uncertain questions, this must always be a subject in which there will be no reliably correct answers. The defence planner is committed to a profoundly unscientific exercise. The challenge is to identify and develop answers for the character of national defence good enough to neutralize menaces that cannot be defined with certainty today. These are the principal uncertainties:

1. Our own political variability of possible policy demands.
2. Choices by adversaries.
3. Most relevant geographical contexts for conflicts.
4. Quality of combat performance of our 'home team', adversaries, and our (and their) allies.
5. The course and dynamics of particular wars.

The defence planner should know a great deal about war and its warfare. History, and even possibly personal experience, can prepare the planner to cope with his subject. But there is a non-trivial difficulty in that although all wars share key qualities, identified by Clausewitz as comprising 'the climate of war: danger, exertion, uncertainty and chance', in non-trivial addition, every war is uniquely different (Clausewitz 1976: 104). We know a great deal about the eternal phenomenon we understand as war, but we know little, if indeed anything, reliably certain about the particular wars we may decide we will need to wage in the future. In drafting principles of guidance for defence planning, the salience of the distinction drawn starkly between war in general, and particular wars in the future, is of fundamental importance. All countries do decide, in effect, that they would, and if need be will, fight in the future only in wars of particular kinds. Such, at least, would be the political intention, though frequently the course of events leaves little practical choice other than to attempt what seems to be needed. The historical record shows quite clearly that states often do fight the wars that happen, rather than the one or ones for which they were particularly well prepared.

Historical reality reveals wartime contexts wherein belligerents have been obliged to fight as they had prepared, even though skills and equipment were not well matched to the demands of the day. It is a fundamental challenge to defence planning either to avoid the 'wrong war' problem, or at least to make some provision for alleviation of that difficulty should it arise. Although wars and their warfare happen in good part whether or not belligerents' defence planning staffs guessed correctly about future combat, one should not simply assume that warfare must be a near autonomous independent actor following its own adversarial logic (Porter 2009: 170). War and warfare should be approached as competitive exercises wherein victors are the belligerents who succeed strategically in imposing their preferred style of combat on the enemy.

What follows is a shortlist of principles selected for reasons both of their inherent merit and also their general relevance to most countries.

1. *Prudent policy goals (ends)*

   Given that strategy is always about politics, it is scarcely surprising to advise that a prudent choice of policy (political) ambition is by far the most significant element bearing upon the whole process of defence planning. No matter who else is important in the process, if politicians insist on attempting to achieve impossible or impracticably difficult goals, defence planning must fail to serve a polity well. For example, in the 1960s under US Secretary of Defense Robert McNamara, the Pentagon brought quantified defence analysis to a historically unparalleled pitch of expertise, with an Office of Systems Analysis that was the envy of many defence

departments around the world (Enthoven and Smith 2005). Unfortunately, the newly numerate and rational management of the American defence establishment was, in large part, applied in the service of imprudent US political choices as policy for Vietnam. Even if one performs militarily with competence, it is a general rule that executing the strategically imprudent well will not offset unwise political guidance sufficiently. Prudent defence planning refers to a process mindful of the possible consequences of decisions and actions. Policy options do not appear on policymakers' desks marked helpfully with stickers indicating their certain prudence or imprudence.

2. *Prioritize*

   A defence planning process may be unable to anticipate what particular politicians will want to do, but it should be capable of understanding what is more, and what is less important for a state's national security. Since resources are always limited, it is essential for government to address in some rank order the problem areas about security likely to cause the most damage to national well-being. It is necessary to ensure that the most damaging menaces to the country are covered, indeed preferably are neutralized, as well as can be achieved at socially bearable cost—which is a matter of domestic politics. One can seek to insist that the bigger threats are treated with the serious commitment for their alleviation or eradication that they merit. For reasonably enduring reasons of geopolitics and geostrategy, many—probably most—polities have persisting understanding of the strategic geography exceptionally pertinent to their particular national security context.

3. *Tolerance of error*

   Errors are certain to be made in defence planning. Indeed, error is entirely normal, which has to mean that adequacy in plans requires the ability to correct for past mistakes. Inevitably there is a need to be able to find usable compensation for past error and its consequences. In desperate times a truly strategic competence may well be required to identify ways to accomplish tasks for which past planning has left one thoroughly unprepared. Far more often than not, error in defence planning will only be revealed beyond room for argument by the rapid unanticipated failures in severely adverse events.

4. *Adaptability and flexibility*

   It is important that a defence establishment should be committed to the qualities conveyed by the concepts of adaptability and flexibility. The preservation of good order in defence programmes often discourages willingness to change current goals and habits. As military historian, Williamson Murray, has explained: 'one of the foremost attributes of military effectiveness must lie in the ability of armies, navies, or air forces to recognize and adapt to the actual conditions of combat, as well as to the new tactical, operational, and strategic, not to mention political, challenges that war inevitably throws up' (Murray 2011: 1). It is commonplace for military forces to discover that their largely unilateral, almost autistic, preparation for warfare needs sharp adjustment and adaptation when an enemy is met in combat. This is a usual situation, it is not the exception.

Key Points

- With scientifically correct decisions unobtainable, the defence planner has to attempt to provide good enough solutions to future defence problems.
- Uncertainty rules over the world of the defence planner.
- Prudent political choices of policy are critically important. No analytical expertise in defence planning can correct for serious errors in policy.
- Defence planners must be clear about their priorities. They cannot plan to defend everywhere and in all ways.
- Because errors will certainly be made in defence planning, the process must be capable of tolerating some error.
- In order to tolerate past error it is essential for the defence establishment to be adaptable and flexible.

Conclusion

Three principles conclude this explanation of defence planning. They may be summarized as: (1) the 'good enough' rule; (2) recognition of the principle that it is legitimate and sensible to accommodate change in continuity and continuity in change; and (3) acceptance of the necessary reality that all defence planning is about politics, indeed is political in meaning, and yet strategy and its defence planning is not just politics by another name (Milevski 2014).

Because of the interactive quality to strategic performance, the rich variety of its human dimension, and the sheer complexity of strategy, it is never feasible to calculate scientifically for a certainty in answers to the challenges that defence planners are obliged to try to meet. However, the essential incalculability of problems for national security do not absolve would-be defence planners from the task of settling on answers to problems. Key to approaching the dilemmas of defence planning is the golden rule of the 'good enough'. Although we cannot know for certain whether particular numbers of military assets will be sufficient for the necessary tasks of the future day, we should be capable of estimating by means of our education from experience what ought to prove good enough. Trial and error may well be required too. It is necessary for a defence planning process to understand that it should be capable of choosing to invest in forces approximately suitable, or at least in the zone, to meet future threats.

The second general principle pertains to the relationship between continuity and change. Only rarely does a national defence establishment not have to handle a substantial material and ideational legacy from the past that is leaning into the present and potentially out into the uncertain future. Defence planning must always involve management of some controversial relations between past and present. Armed services are by their nature usually highly conservative organizations, understandably strongly committed to ideas and habits of relevance to willpower and morale. Understandably, also, the dangers of military duty are likely to encourage soldiers to be cautious in the acceptance of novelty.

Finally, no matter how technically wondrous or humanly poignant a defence issue may be, the defence planner should never forget that his professional subject is all about politics, meaning relative influence over others, preferably foreigners (Lasswell 1936). So absorbing and dangerous a commitment is the conduct of warfare that often there is some likelihood

that the legitimate relationship between political purpose and military enablement unfortunately is reversed. The result can be that in effect politics serves war rather than vice versa. War and its warfare should always be subject to the discipline of politics.

Critical Thinking History can be helpful to defence planners

For

- ***History is the data!*** History can provide the only source of real data on human experience: the future never arrives (by definition), while the present is too immediate for its consequences to have been understood.
- ***Continuities in history.*** The most significant continuities in history include: (1) human nature; (2) the necessity for governance—which requires political process; and (3) the logic of strategy.
- ***Great stream of time.*** Although there have been enormous changes of detail, human history should be regarded as a great stream of time, with no beginning and (hopefully) no end.
- ***Prudence is key.*** The most valuable lesson we should draw from history is the supreme importance of the necessity for prudence.

Against

- ***No learning from history.*** We should learn from history that we do not learn and have never learned from history.
- ***Lack of authority in history.*** Our defence challenges tomorrow must flow from today, so the key to their anticipatory treatment is deep understanding of where we are and what it means. Past experience (history) is ill digested, controversial, and must lack authority.
- ***False assumptions.*** The past and our memories of and from it are more likely to hinder than to help us. It is apt to fuel us with false assumptions.
- ***Invention by historians.*** Because history is invented by historians, 'it' cannot be trusted to convey prudent advice.

Questions:

1. Why do states conduct defence planning?
2. Why do states often guess incompetently about their future defence needs?
3. What criteria would you apply for the purpose of judging a state's defence plans?

Questions

1. Since the future never happens, how can we go about trying to prepare for it?
2. How useful is the past in providing some guidance for the future?
3. Can the future be studied scientifically? What do we mean by science?
4. Why is historical analogy invalid as an approach to understanding the future?
5. What are the problems in seeking to use understanding of the past and the present to assist in preparing for the future?

6. What are the pros and cons of the concept of the great stream of time?
7. How competent have defence planners been over the course of the past hundred years?
8. Why do you believe it has been so commonplace for large-scale errors to be made in defence planning?
9. How vulnerable is a defence planning process of government to misdirection by imprudent political choice?
10. What are the better, as contrasted with the worse, ways to conduct defence planning? Are there any good ways?

Further Reading

A. C. Enthoven and K. W. Smith, *How Much is Enough? Shaping the Defense Program, 1961–1969* (1971; Santa Monica, CA: RAND, 2005) is a classic memoir on defence analysis, McNamara-style.

S. Frühling, *Defence Planning and Uncertainty: Preparing for the Next Asia-Pacific War* (Abingdon: Routledge, 2014) is a valuable innovative venture.

J. L. Gaddis, *The Landscape of History: How Historians Map the Past* (Oxford: Oxford University Press, 2002) offers a brilliant long view of the meaning of history.

R. M. Gates, *Duty: Memoirs of a Secretary at War* (London: W. H. Allen, 2014) gives an incredibly detailed account of one of the world's toughest jobs—US Secretary of Defense.

C. S. Gray, *Strategy and Defence Planning: Meeting the Challenge of Uncertainty* (Oxford: Oxford University Press, 2014) seeks to explain the difficulties in planning for an unknowable future.

C. S. Gray, *The Future of Strategy* (Cambridge: Polity Press, 2015) presents the reasons why strategy has a healthy future, fortunately.

M. Howard, *The Lessons of History* (New Haven, CT: Yale University Press, 1991), chapter 1, 6–20 is an exceedingly wise brief treatment of a vital subject.

K. Knorr, ed., *Historical Dimensions of National Security Problems* (Lawrence, KS: University Press of Kansas, 1976), 78–119 is by far the best analysis available on the nature of threat.

E. S. Quade and W. I. Boucher (eds), *Systems Analysis and Policy Planning: Applications in Defense* (New York: American Elsevier, 1968) offers a valuable explanation of defence analytical methods.

H. R. Yarger, *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century* (Westport, CT: Praeger Security International, 2008) is an important book that covers the basics well.

Web Links

RAND Corporation's National Security Research Division **http://www.rand.org/nsrd.html** is a treasure trove on most defence-related subjects.

Strategic Studies Institute **http://www.strategicstudiesinstitute.army.mil** belongs to the US Army and offers a wide range of free material, most of it of high quality.

War on the Rocks **http://warontherocks.com** offers mainly blogs by many well-known strategic commentators.

West Point's Modern War Institue **https://mwi.usma.edu/** offers short essays and blog-type contributions, many of which are quite intelligent.

Center for Strategic & International Studies (CSIS) **http://csis.org/category/topics/defense-and-security** presents analysis on a valuable wide range of defence subjects.

Part II

Contemporary Problems

11 **Irregular Warfare: Terrorism and Insurgency** 183
James D. Kiras

12 **The Second Nuclear Age: Nuclear Weapons in the Twenty-First Century** 202
C. Dale Walton

13 **The Control of Weapons of Mass Destruction** 220
John Baylis

14 **Conventional Power and Contemporary Warfare** 238
John Ferris

15 **Geography and Strategy** 255
Daniel Moran

16 **Humanitarian Intervention and Peace Operations** 273
Sheena Chestnut Greitens

17 **The Rise of Cyberpower** 291
John B. Sheldon

18 **Geopolitics and Grand Strategy** 308
Stefanie Ortmann and Nick Whittaker

Irregular Warfare: Terrorism and Insurgency

JAMES D. KIRAS

Chapter Contents

Introduction 183

Subverting the System: The Theory and Practice of Irregular Warfare 186

Defending the System: Counterinsurgency and Counterterrorism in Theory and Practice 191

Irregular Warfare Now and in the Future 197

Conclusion 199

Reader's Guide

Western democracies have had some difficulty adjusting to the 'new reality' of global violent extremist terrorism and revolutionary violence. These difficulties are reflected in two themes that run through the long history of irregular warfare. The first is that all types of irregular warfare, including terrorism and insurgency, are appealing to those who are seeking to change the status quo. But what role can politics possibly play for those who are willing to kill themselves and others for rewards in the afterlife? Global violent extremists and modern revolutionaries, including anarchists, share much in common with their historical antecedents. The second theme is that conducting irregular warfare to achieve change successfully is a very challenging undertaking. Historically the balance sheet favours those who fight against terrorist and insurgent groups. For dissatisfied groups and individuals, however, irregular warfare will continue to be used as it offers the promise of change to right perceived injustices and wrongs.

Introduction

At the height of the period in irregular warfare known as the 'wars of national liberation' (1962–5), journalist Robert Taber, who had spent time in Cuba during the revolution there, stated that 'the guerrilla fighter's war is political and social, his means are at least as political as they are military, his purpose almost entirely so. Thus we may paraphrase Clausewitz: *Guerrilla war is the extension of politics by means of armed conflict*' (emphasis in original; Taber 1970: 26). More recent critiques suggest that identity or culture explain substate violence; conflict today is, as Emile Simpson suggests, 'war from the ground up' instead (Simpson 2018).

In addition, the technologies associated with globalization, including the Internet, continue to reshape politics and violence.

The aim of this chapter is to demonstrate that the spirit of Clausewitz is still very much relevant to current and future irregular campaigns. Historical experience cannot be summarily dismissed. Religious, social, cultural, and economic factors provide the context which shapes the conduct of irregular conflicts. Terrorists and insurgents, however, ultimately seek to achieve a *political* result from their use of force. These political results in turn serve goals defined by states fighting insurgencies or those aspiring to change the system through armed conflict.

Such motives are discernible even in the cases of al-Qaeda, Boko Haram in Nigeria, and the Islamic State of Iraq and Syria (ISIS). The very nature of the extremist interpretation of Islam impedes Western understanding of the violence. As Johannes Jansen points out: 'Islamic fundamentalism is both fully politics and fully religion' (Jansen 1997: 1). For Westerners, the affairs of the church and those of the state are separable, while within the militant Salafist strain of Islam they are not. Indeed, adherence to religious tenets becomes a form of governance. While religion justifies killing and suggests spiritual rewards, leaders such as Ayman al-Zawahiri stress political power and control: 'victory of Islam will never take place until a Muslim state is established in the manner of the Prophet in the heart of the Islamic world, specifically in the Levant, Egypt, and the neighbouring states of the Peninsula and Iraq' (al-Zawahiri 2005: 2). Until its recent defeat, ISIS declared a de facto religious state, or caliphate, in Iraq and Syria with Abu Bakr al-Baghdadi as its head. From this established political base, its leaders believed the caliphate would expand.

Definitions

The first problem associated with the study of terrorism and irregular warfare relates to the relative and subjective lenses that one applies to the subject. One cannot simply compare accidental death figures, such as those from traffic fatalities, with purposeful violence intended to spread fear among the populace. Much of the confusion associated with terrorism and insurgency stems from the use of either value-laden or emotive language. The term 'freedom fighter' suggests heroism while 'terrorist' conveys cowardice. The term 'guerrilla' still evokes the romance and adventure of rebellion embodied by the iconic Ernesto 'Che' Guevara. There is also little agreement on what to call these types of violence: political violence, terrorism, irregular warfare, people's war, revolutionary warfare, guerrilla warfare, civil wars, or gray zone activities, among others. Terrorism and insurgency are still viewed at best as a nuisance by many military professionals, or a form of 'dirty war' at worst. The line between combatants and non-combatants is unclear, objectives unspecified, and timeline for victory unclear. In addition, military forces often conduct policing functions in this environment, with all of the dangers but little glory.

Irregular warfare, which is different in form but warfare nonetheless, describes types of violence conducted by substate actors, including terrorism and insurgency. Terrorism is easily the most contentious and elusive type of violence to define. For the purposes of this chapter, it is defined as *the sustained use of violence against symbolic or civilian targets by small groups for political purposes through coercion, fear, drawing widespread attention to a political grievance, and/or provoking a draconian or unsustainable response*.

Terrorism cannot result in change on its own. By provoking a response, terrorists hope that their opponent will overreact and reveal their true nature. Some debate exists over whether *terrorism is a tactic* within a broader strategy of insurgency, or whether groups can conduct a *strategy of terrorism* (O'Neill 1990: 24). What separates terrorism from other forms of violence is that the acts committed are legitimized to a degree by their political nature. Hijacking, remote bombing, and assassination are criminal acts, but the legal status of those who conduct them can change if the violence is carried out for a recognized political cause. Two examples illustrate the point. The bombings conducted by anarchists against monarchs in the late nineteenth and early twentieth century are considered acts of terrorism, given their stated objective of changing the political environment. Any one of a number of hijackings of ships off the coast of Somalia and in the Indian Ocean, in contrast, are criminal acts because the motivation behind them is financial gain. Problems exist in determining *which audience*, or population, recognizes the cause, beyond the terrorists themselves, as well as shifts in motive over time. Terrorists seek attention to generate domestic and international support or empathy among a population for the cause that 'drove' them to arms.

Defining insurgency is equally problematic. Insurgency is not conventional war or terrorism, for example, but it shares with them the use of force to achieve a political end. The crucial difference is the scope and scale of the violence. Terrorism rarely results in political change on its own, while insurgency attempts to bring about change through force of arms. The principal difference between irregular and conventional war is relatively simple: the latter involves adversaries more or less symmetric in equipment, training, and approaches to fighting. In an insurgency, the adversaries are asymmetric and the weaker, and almost always a substate, group attempts to bring about political change by administering and fighting more effectively than its state-based foe through the use of *guerrilla tactics*. Raids and ambushes, often by units of organized forces against local security forces, characterize such tactics. Confusion often results from insurgent movements using terrorist tactics to achieve local results. Insurgency, unlike terrorism, is characterized by the support and mobilization of a significant proportion of the population. Individual insurgencies differ widely in terms of character (social, cultural, and economic aspects) and type (revolutionary, partisan, guerrilla, liberation, or civil war), but having the means to contest, hold, and govern territory—political control—is key. Finally, external physical and moral support for an insurgent cause is a prerequisite for success.

Definitions are not the final word on a subject but merely act as gateways. Capricious categorizations can lead to a misleading and seemingly irreconcilable divide between forms of irregular conflict. Terrorism and other forms of irregular warfare are plainly not the same activity. But how does one then classify the so-called '*urban guerrilla*' phenomenon and its ideological impact on terrorist groups during the 1960s? In addition, some terrorist groups adopt parallel efforts that are more commonly associated with insurgencies—have they now become insurgents, do they remain terrorists, or have they become something else? The Lebanese organization known as Hizbullah has used terrorist tactics (kidnappings and suicide bombings), fought both long and short guerrilla campaigns against Israeli forces (1983–2001 and 2006), seized and controlled territory, and provided social welfare to local communities. Ultimately, some arbitrary distinctions must be made in order to grasp the business at hand, without losing perspective on the numerous 'grey zones' endemic to this and other areas of strategic studies.

Subverting the System: The Theory and Practice of Irregular Warfare

Those undertaking insurgency and terrorism are trying to find a way to use their strengths such as mobility, organization, and relative anonymity or stealth, against the weaknesses of their more powerful adversary. Bernard Fall reduced this equation even further when he suggested that '[w]hen a country is being subverted, it is being out-administered, not out-fought' (Fall 1998: 55). Subversion is a time-consuming and resource-intensive activity that does not guarantee success. In almost every case, the length of terrorist and irregular warfare campaigns is measured in *decades* not years (Paul, Clarke, and Grill 2010: xv–xvi). They achieve success by gaining an advantage over their adversaries in terms of time, space, legitimacy, and/or support.

These dimensions of conflict are not mutually exclusive and excellence in one dimension will not compensate for drastic shortcomings in the others. Regardless of the space and time available, for example, a terrorist or insurgent campaign will almost always fail if it cannot attract substantial internal or international support. As in all forms of strategy, insurgencies or terrorist campaigns are *dialectical struggles* between competing adversaries; outcomes are determined by the interaction between opponents (Gray 1999a: 23–5). The goal for the irregular leader is to pit the organization's strengths against enemy weaknesses. The value ascribed by different writers to, and perceived relationships among, time, space, legitimacy, and support create substantial variations in the theories of irregular warfare. These theories often reflect circumstances unique to specific conflicts, a fact that has contributed to failed government efforts to stop insurgents or terrorists. The unconsidered application of a theory based on a specific context to another conflict can lead to disaster.

Time

Time is the most important element required for the successful conclusion of an insurgent and terrorist campaign as it is a commodity that can be exchanged to make up for other weakness. With sufficient time, an insurgent group can organize, sap the resolve of its adversary, and build a conventional force capable of seizing control of the state. Mao organized time in his writings into three interrelated phases: the strategic defensive, the stalemate, and the strategic offensive (see Box 11.1).

BOX 11.1 Key Concepts

Mao's Three Stages of Insurgency

Stage I, Strategic Defensive: This phase is characterized by avoidance at all costs of pitched, set-piece battles. Tactical offensives, with local numerical superiority, are carried out to further stretch enemy resources.
Stage II, Stalemate: This phase begins the prolonged battle to wear down the enemy's physical and moral strength. Government control, in the form of local officials, is targeted, and its representatives killed or forced to leave.
Stage III, Strategic Offensive: The end game of the conflict, in which popular and main forces conduct the battle of manoeuvre and use overwhelming force to destroy decimated enemy forces in their defensive positions.

Mao Tse-Tung (1966: 210–19)

Each phase, carefully conducted, would lead one step closer to victory no matter how long it eventually takes. For example, Mao once stated in 1963 that his forces had 'retreated in space but advanced in time'. He understood that the sequence of phases leading to victory was not necessarily linear; unforeseen circumstances could lead to setbacks and perhaps regression to a previous phase of the insurgency. Endless struggle without an obvious victory would eventually lead to the exhaustion, collapse, or withdrawal of the enemy. The dimension of space works with time, providing insurgents with the leeway to manoeuvre, and demonstrates their superior legitimacy to the population. Perceived legitimacy in turn will generate internal and external support for the insurgents. With popular support, insurgents will be able to raise a superior army, launch bolder attacks, and achieve victory.

Many irregular campaigns result in deadlock after a period of time with neither side able to decisively conclude the conflict. The Liberation Tamil Tigers of Eelam (LTTE) waged insurgency within Sri Lanka for more than four decades; the *Fuerzas Armadas Revolucionarias de Colombia—Ejército del Pueblo* (FARC) has conducted insurgent and terrorist campaigns within Columbia for almost a half-century. Only very rarely does guerrilla struggle end quickly. The most famous quick insurgent success is the Cuban revolution (1957–9). Led by Fidel Castro, this irregular war was concluded in just three years. A number of factors contributed to the rapid collapse of the government forces in Cuba. While few states are as corrupt, inept, and fragile as the Batista regime in the late 1960s, the government of Nouri al-Malaki in Iraq provides a contemporary example of, and explanation for, the growth of ISIS in 2014.

Such brittle adversaries are rare, but local circumstances can convince insurgents or terrorists that time works against them. Carlos Marighella believed that circumstances in Brazil in the 1960s demanded a response other than organizing and waiting for the right revolutionary conditions. Marighella favoured immediate action as he believed the state grew stronger every month while the Brazilian Communist Party did little but talk. By taking action, Marighella believed that the 'urban guerrillas' would build a critical mass for the guerrilla organization, catch the Brazilian state authorities off guard, and provoke an extreme response. In other words, he believed that the state of affairs within Brazil called for reversing the typical relationship between the guerrilla and time.

Space

Space allows irregulars to decide where and when to fight. If their adversary appears in overwhelming numbers, irregulars can make use of space to withdraw and fight when the odds are in their favour. Defenders against sedition cannot be everywhere at once without spreading their forces too thinly and inviting attack from locally superior guerrilla forces. This becomes particularly problematic for those fighting irregulars when they cross state borders or operate across different geographic domains such as air, land, and sea.

The exploitation of formidable terrain that limits the manoeuvre of government forces is a potent way in which lightly armed and mobile terrorists or insurgents offset their relative weaknesses in technology, organization, and numbers. Insurgents have often used difficult terrain for tactical advantage, often against foes ill-equipped to deal with the challenges presented by mountains, jungle, swamps, and even deserts. For example, Afghan guerrillas have used mountainous terrain to their advantage against the NATO-led coalition (2003–14), Soviet forces (1980–8), as well as the British (during the nineteenth century). Triple-canopy jungle limited the utility of US conventional forces in Vietnam against the Viet Cong and North

Vietnamese forces. Urban terrain can also be an arduous obstacle, as the Russians found in 1994. Chechen guerrillas used buildings and narrow roads to offset their weakness and isolate and destroy Soviet formations during the battle for Grozny; Philippine insurgents have tried to do the same recently in the city of Marawi. Terrain difficult for government forces, including sanctuaries across state borders, provides insurgent forces with the opportunity to establish safe areas or bases from which to expand the struggle.

Force-to-space ratios also influence the course and duration of insurgencies. If much territory needs to be defended by a government, terrorists or insurgents can compensate for their operational or strategic inferiority by massing forces locally to achieve tactical superiority. Government forces often attempt to defend territory or resources that have political, economic, social, and/or military value. For example, governments under siege often abandon the countryside in favour of more defensible cities and military bases. More often than not, states have the resources to protect many, but not every local target as their resources are stretched. Col. T. E. Lawrence, for instance, used the Arab force-to-space ratio advantage against the Turks to good effect during the Arab Revolt (1916–18). Given the amount of terrain to be covered, Lawrence calculated that the Turks would need 600,000 troops to prevent 'sedition putting up her head' across the entirety of the Transjordan, a figure six times larger than the forces available to the Turks (Lawrence 1920: 60). One of the most persistent criticisms against US and coalition leaders in defeating insurgency in Afghanistan and Iraq was the lack of enough forces, including competent and motivated Iraqi and Afghan ones, for the space of each country.

Force-to-space ratio superiority does not require irregulars to operate over huge geographic areas in order to be successful. In the case of the guerrilla campaign conducted against the British in Cyprus, the nationalist group EOKA was limited to a space little more than three per cent of that roamed by Lawrence's forces. EOKA's leader, George Grivas-Dighenis, based his strategy on the assumption that substantial numbers of British troops would attempt to put down the insurgency. EOKA members operated in small groups and conducted ambushes, bombings, and assassinations. These actions convinced the British that the benefits of remaining in Cyprus were not worth the political and military price to be paid.

Support

Few insurgencies or terrorist campaigns succeed without some form of support. In addition to munitions, insurgents must look after casualties and continually replenish their supplies, including food and water. They must also constantly update their intelligence on the whereabouts and activities of government forces, as well as train new recruits. Support, however, is interlinked with and inseparable from the legitimacy of the organization. Violence conducted without a comprehensible political purpose will generate little popular support. Without support, insurgents and terrorists will eventually succumb to the efforts of the state or a hostile population. Clausewitz suggested that support, in the form of public opinion, was one of the centres of gravity in a popular uprising (Clausewitz 1993: 720).

Insurgents and terrorists can look for support from both domestic (internal) and international (external) sympathizers. Almost all theorists agree that substantial popular support is required to compensate for the resources available to the state. Even Carlos Marighella, who believed initially that urban guerrillas could find and seize the necessary resources in major towns and

cities to sustain the struggle, eventually relented and recognized the need to cultivate rural popular support. Domestic support can be forced from the population, using terror and intimidation, but long revolutionary struggles should not rely exclusively on such measures.

Although it is now a cliché, Mao's analogy describing the relationship between the guerrilla and the people is still evocative. The guerrillas were likened to 'fish' that swim in a 'sea' of popular support. Without the sea, the fish will die. A dramatic example of the consequences of failing to have domestic support is the fate of Che Guevara. Guevara believed that conditions in Bolivia in 1967 were ripe for a guerrilla insurrection led by his '*foco*'. He overestimated, however, the amount of support he could receive from local communists and farmers in Bolivia. The Bolivian communists were hostile to advice on how to run their revolution from outsiders. More importantly, the local peasants were indifferent to the message preached by Guevara given government sponsored land reform initiatives that addressed some of their grievances. Guevara and his *foco* lacked popular support; the insurgents were either killed or captured within seven months of the first shots being fired (see Box 11.2).

Support is also contingent on the circumstances within a specific country. A danger exists in trying to reproduce success elsewhere using a previously effective revolutionary formula without first identifying the specific base of potential popular support. The uprising of the urban proletariat was considered a necessity in Marxist–Leninist revolutionary theory, but failed dismally when attempted in China (1930) and Vietnam (1968). The agrarian character of China and Vietnam doomed urban revolts to failure; in both states most of the rural population were peasants. As a result, Mao Zedong and Vietnamese General Vo Nguyen Giap respectively modified their strategies, and eventually succeeded.

External support for irregulars largely depends on both the geography of the country and the political relations maintained by the insurgents or terrorists. Such support can be material, in the form of resources or cross-border sanctuaries, or moral, in the case of political recognition and lobbying. Many Marxist terrorist groups during the 1970s, such as the German *Rote Armee Faktion*, received physical support from Soviet Union or its client states. Tangible support included money, advanced weapons, and training. Insurgent and terrorist leaders in countries ranging from the Dutch East Indies (1950, later becoming Indonesia) and British Palestine (1948, later becoming Israel) received external support, as part of a backlash against colonialism, that tipped the balance in their favour. States harbour or support terrorist or insurgent groups for reasons of political expediency and to suit their own policy objectives, rather than genuine sympathy for the cause such groups espouse. The ruling authorities in Jordan and Afghanistan made decisions regarding the relative political cost of providing

BOX 11.2 Key Concepts

Ernesto 'Che' Guevara and the Theory of the *Foco*

Ernesto 'Che' Guevara de la Serna Rosario (1928–67) developed (and Régis Debray expanded on) the idea of *foco* or the centre of gravity of the guerrilla movement. Practically, the *foco* refers to the initial critical mass of the guerrillas, the vanguard of the revolution, from which all else is derived. Philosophically, the *foco* represents the political and military 'heart' of the insurgency, and from it Guevara and Debray believe that *the guerrilla movement itself* can generate the conditions for a revolutionary victory.

sanctuary for their respective 'guests': the Palestinians in Jordan (1970) and Osama bin Laden and al-Qaeda under Taliban protection in Afghanistan (2001). In addition, irregulars can serve to fight proxy wars against their patron's rivals. For example, the United States, Russia, and Iran have supported and sustained different armed groups in Iraq, Syria, and Yemen.

Legitimacy

Insurgents and terrorists fighting irregular wars require internal or external support to sustain their struggle. Terrorists and insurgent leaders need to convey the reason for their actions or else lose sympathy for their cause. They often seek to legitimize their use of violence and translate this into meaningful support for their cause by demonstrating moral superiority over those who represent the state; supplanting the functions of the state at the local level; and spreading a persuasive message.

The moral superiority of the guerrillas is a cornerstone of all irregular and terrorist theory, especially those fuelled by religious zeal. Insurgents derive support from the people and often cultivate their relationship with them. Mao went so far as to outline a 'code of conduct' for the guerrillas, known as 'The Three Rules and Eight Remarks', as a way to demonstrate their moral superiority. The most important job of the guerrilla is to demonstrate this moral superiority in routine contact so that people differentiate the guerrillas from bandits or 'counter-revolutionaries'. Che Guevara insisted that the peasants understand that the guerrillas were as much social reformers as they were protectors of the people.

Peasants who cooperate with the insurgents often face harsh retaliation from the government, but frequently this only further legitimizes the revolutionary cause. Government brutality also allows insurgents to act as the avengers of the people, helping to cement the ties between them. Carlos Marighella, for example, hoped that the actions of the Brazilian authorities would demonstrate conclusively that the 'government is unjust, incapable of solving problems, and that it resorts simply to the physical liquidation of its opponents. The political situation in the country is transformed into a military situation in which the "gorillas" appear more and more to be the ones responsible for violence, while the lives of the people grow worse' (Marighella 1969).

Of course, the admonitions to behave better than government troops are often only applied to those who actively assist insurgents in their struggle. In a number of irregular conflicts, guerrillas and government forces alike regarded an unwillingness to help as aiding and abetting the enemy. David Galula labelled this phenomenon the 'vicious cycle of insurgency,' a trap into which American forces fell in Iraq (Metz 2008: 156). Populations invariably split into willing assistants, staunch foes, and the undecided majority. To help make up the minds of those undecided, insurgents can demonstrate legitimacy by becoming the de facto government in areas under their control. This can include taking 'positive measures' such as the establishment of schools and clinics, or 'negative measures' such as tax collection. In Afghanistan, for example, the Taliban used a system of mobile judges as a positive measure to provide swift and impartial justice, as well as negative measures including the imposition of taxes, public beheadings, and threats of violence through 'night letters' to cement their control over the population. The use of terror as a negative measure to intimidate the population is a matter of debate by irregular warfare practitioners. For Che Guevara, terror tactics were unjustified because they invariably delegitimize the guerrilla's message. Both Mao and Marighella

disagree, noting that acts of terror may be necessary to convince the population of the occupational hazards of working for the government, or to provoke a repressive response. Negative measures backed by proselytizing can be an effective way of legitimizing the insurgent cause by showing conclusively that the government can no longer protect them. Intercepted communications between al-Qaeda leaders suggest that negative measures remain a concern; while violence generates headlines and support, short-term gains may upset long-term goals. The rationale for the executions and harsh punishment meted out by the forces of ISIS may be a severe form of governance or local vendettas gone out of control; the reasons remain unclear.

The most powerful method of legitimizing a struggle is to link military operations with a justifiable political end. Causes vary, but self-determination has been the most pervasive and successful rallying cry. Given the fundamental rights outlined in the Atlantic Charter (1941) and the United Nations Charter (1945), it was difficult for nations such as Great Britain, France, the Netherlands, and Portugal to maintain possession of overseas colonies in the face of native insurgencies claiming the right of self-governance. Other successful causes blend social, cultural, and economic issues into a powerful political message that the government or an international audience finds difficult to counter or resist.

Key Points

- Terrorism and insurgencies can be examined in terms of time, space, legitimacy, or support, reflecting specific local contexts rather than predetermined goals attributed to a general theory.
- Time is an important element in the success of insurgencies, involving a non-linear progression that includes the space to manoeuvre and to gain legitimacy and/or support, all of which are necessary for eventual victory.
- Support is dependent on legitimacy and moral justification provides the cornerstone to sustain the struggle, usually blending cultural and social causes with political ends.

Defending the System: Counterinsurgency and Counterterrorism in Theory and Practice

The difficulties facing governments besieged by insurgents or terrorists may seem insurmountable at first glance, but numerous works have been written to explain how to quell them. This literature ranges from general theories and practical suggestions, based on hard-won experience, to complicated empirical models purporting to predict outcomes or test practical advice. Commentators have reduced complicated political–military struggles against forceful usurpers to a number of principles or formulas for success (see Box 11.3). Brigadier General Samuel B. Griffith suggested in 1961 that anti-guerrilla operations could be summed up in three words: location, isolation, and eradication (Mao Tse-Tung 1961: 32). Griffith's summary is a useful reference point for exploring how to apply the strengths of a state (or group of states) against an irregular threat.

Box 11.3 Key Concepts

Principles, Prerequisites, and Laws of Counterinsurgency and Counterterrorism

(Material quoted from specific texts in chronological order)

Charles W. Gwynn: Principles from *Imperial Policing* (1934)

- Policy remains vested in civil government
- Minimum use of force
- Firm and timely action
- Cooperation between civil and military authorities.

David Galula: Laws of counterinsurgency from *Counter-Insurgency Warfare* (1964)

- Support of the population necessary
- Support gained through an active minority
- Support from population is conditional
- Intensity of efforts and vastness of means are essential.

Robert Thompson: Principles of counterinsurgency from *Defeating Communist Insurgency* (1966)

- Clear political aim
- The government must function in accordance with the law
- The government must have an overall plan
- The government must give priority to defeating the political subversion, not the guerrillas
- The government must secure its base areas first (in the guerrilla phase).

Frank Kitson: Framework for an effective counterinsurgency campaign from *Bunch of Five* (1977)

- Good coordinating machinery (between civil and military agencies)
- Establishing the sort of political atmosphere within which government measures can be introduced with the maximum likelihood of success
- Intelligence (right information = sensible policy)
- Law (upholding the rule of).

British Army: Principles of counterinsurgency from *British Army Field Manual Volume 1, Part 10: Countering Insurgency* (2010)

- Primacy of political purpose
- Unity of effort
- Understand the human terrain
- Secure the population
- Neutralize the insurgent
- Gain and maintain popular support
- Operate in accordance with the law
- Integrate intelligence
- Prepare for the long term
- Learn and adapt.

Box 11.3 (*continued*)

US Army/Marine Corps: Principles of counterinsurgency from FM 3-24/MCWP 3-33.5, *Insurgencies and Countering Insurgencies* (2014)

- Legitimacy is the main objective
- Counterinsurgents must understand the environment
- Intelligence drives operations
- Security under the rule of law is essential
- Counterinsurgents should prepare for a long-term commitment
- Manage information and expectations
- Use the appropriate level of force
- Learn and adapt
- Empower the lowest levels
- Support the host nation.

Location

The most important phase of any counterinsurgency or counterterrorism campaign is recognizing that the threat exists. Counterinsurgency expert Robert Thompson believed it necessary to tackle an insurgency during its subversion and organization phase or at the first signs of a sustained campaign of violence (Thompson 1966: 50). In other words, he believed it necessary to defeat insurgents in both physical space *and* time. The problem for counterinsurgents and counterterrorists is distinguishing between lawful or unlawful forms of discontent. Restricting guaranteed rights and freedoms every time a bomb is detonated will undermine the credibility and intentions of the government. Waiting too long to uphold the rule of law, however, will give the insurgents or terrorists the necessary time to build a robust organizational infrastructure that only the most dedicated efforts might hope to defeat.

Terrorism and insurgency can be staved off with enough early warning, but this implies that an effective intelligence-gathering and assessment organization is operating. Few states possess such resources or foresight. Those willing and able to destroy the system need to be identified and tracked: this requires the assistance of a supportive populace. The question in pluralist systems is whether or not *potentially* seditious individuals can be monitored or arrested without violating civil liberties and undermining the rule of law. Muslim leaders in a number of Western countries, such as Sweden and Great Britain, have suggested that profiling their community should be halted.

Upholding the rule of law is crucial if states are to preserve the legitimacy of their cause and maintain the moral high ground over insurgents or terrorists. Methods to counter terrorism, for example, must be effective yet stay within the boundary of the rule of law domestically and internationally. Citizens of democratic states historically protected rights and freedoms to combat threats when they intruded upon personal privacy. More recently, citizens in the West have been willing to allow greater intrusions on these rights. Managing how and when (and in what measure) to begin counterinsurgency and antiterrorism efforts, such as imposing curfews and controlling media access while upholding the rule of law, is the primary challenge to any government under siege. In most democratic societies, however, steps to counter terrorists are rarely preventative and are almost always taken *after* horrific acts of violence

have been committed, as the Indian reaction to the Mumbai attacks of November 2008 suggests. Democracies run into greater trouble when international actions appear to contravene their domestic laws and international norms. For example, the 2014 publication of the Senate Select Intelligence Committee report on torture and 'enhanced interrogation methods', although contentious for reasons of domestic politics, is an important step in restoring the moral credibility of the United States internationally.

Once an irregular threat has been identified, various civil and military agencies must localize the threat while coordinating their response. They must identify safe houses, group members, and sources of supply. Gathering such information about the terrorists can be daunting, given the desire of most subversives to keep the organization small, stealthy, and secret. For a state providing direct counterinsurgency or counterterrorism support into a geographically and culturally unfamiliar country, as the United States did in South Vietnam, obtaining even basic information on subversives takes time. This problem is compounded when a state either does not have an effective and efficient security apparatus (Afghanistan), or the existing one evaporates and must be painstakingly reconstructed (Iraq). Two of the most time- and resource-intensive phases of current counterterrorism remain 'finding' and 'fixing' individual terrorists and insurgents. Insurgents use the time it takes to respond to retain the initiative and expand their organizational base.

Isolation

Isolating insurgents and terrorists from their bases of support is probably the most important element of successful campaigns against them. Isolation can take the form of physical separation or political alienation. Physical separation can be achieved by moving villagers into more easily defended compounds, known in Malaya and Vietnam as 'strategic hamlets'. Preventative measures such as curfews, prohibited ('no-go') areas, food rationing, aggressive patrolling, and overt presence can also physically isolate insurgents. As with any form of deterrence, the threat posed by patrolling and presence must be a credible one and must not consist simply of half-hearted 'cordon and search' operations. Isolation also means limiting the mobility and range of the insurgents or terrorists, in effect taking away their space and their time. Insurgents and terrorists also can be cut off from their external sources of support by a combination of diplomatic pressure and military measures. Experts suggested the insurgencies in Iraq and Afghanistan could not be dealt with effectively until supply routes from neighbouring countries were cut off.

Segregating insurgents and terrorists from the population involves more than just physically separating them. To impose meaningful isolation, the state must defuse the irregular's most powerful asset: its political message. Widely held grievances that foster a potent source of recruitment and support must be mitigated by the government. Obviously, some messages are more influential than others: self-determination is difficult to counter by an eternal or occupying power, whereas demands for land reform or increased political representation can be more easily satisfied. The words of the government must be accompanied by effective deeds to show that the state can and will respond to what amounts to political extortion. The terrorist or insurgent's 'propaganda of the deed' must be diffused by government displays of a firm, yet lawful response. The displays can range from enforcing a 'no negotiations with terrorists' policy to simple measures like providing basic necessities and local security. The onus is on the representatives of the state to prove that they are *morally superior* to the

guerrillas and terrorists and will provide for the needs of their citizens, including responding to the sources of disgruntlement that led to armed insurrection in the first place. Likewise, the terrorist or insurgent cause must be discredited. Leniency should also be extended to those insurgents and terrorists who give up the armed struggle. Above all, citizens must be convinced that the state's fight is their fight: they have an individual and collective interest in the state's success. Maintaining the link between citizens and state is crucial to ensure long-term security; the success of so-called 'awakening' of the Sunni tribal leaders in Anbar province was squandered by rampant corruption and blatant favouritism and nepotism in Iraq, and made the area fertile ground in which ISIS recruited. With little internal or external sustenance flowing to the rebels, and a population willing to support the government, it is only a matter of time before the state's forces destroy the irregular threat.

Eradication

Eradication, or 'finishing,' involves the physical destruction of the insurgents or terrorists, although few would go so far as to follow Robert Taber's rhetorical advice: 'There is only one means of defeating an insurgent people who will not surrender, and that is extermination. There is only one way to control a territory that harbours resistance, and that is to turn it into a desert' (Taber 1972: 11). The state has numerous advantages over its opponents given its control over social, fiscal, and military resources. The most important question in democratic states is whether or not the leaders of the state can apply their resources effectively to extinguish the insurgent flame without alienating popular support for their own authority. Cultural context matters when determining a response. For example, the leaders of some European countries were hesitant to cast actions against al-Qaeda after September 2001 as a 'war' for cultural and political reasons, based on their historical experience. Indeed, many continued to see the phenomenon of violent extremist terrorism exclusively as a domestic law enforcement issue within their sovereign borders, requiring civilian police or paramilitary forces, not as a *global* problem that might require the use of military forces.

Regardless of the forces used, theory and doctrine are rife with plans that discuss the destruction of guerrillas. These plans range from French Marshal Lyautey's innocuous-sounding 'oil patch' method applied in Morocco in the first quarter of the twentieth century, to the more sinister-sounding Nazi German 'spider's web' and 'partridge drive' tactics. All theorists agree that eliminating the insurgents' safe havens must be a priority. Numbers also make a difference. US counterinsurgency doctrine suggests that 20 to 25 personnel are required for every 1,000 inhabitants (FM 3-24: 23). Most theorists also assert that 'special forces' are also needed to defeat the irregulars at their own game. Some advocate the use of technologies not available to the insurgents, such as helicopters and remote sensors, to enhance the force-to-space balance between government and irregular forces and to achieve superior mobility. Others suggest that a 'degrade and disruption' strategy, using a mixture of special forces and airpower in a relentless campaign to remove key leaders, managers, and facilitators—as is occurring in Iraq and Syria—will eventually erode terrorist groups into irrelevance (see Critical Thinking).

There also are passive ways in which the state can subvert an insurgency and thereby diminish the number of guerrillas or terrorists. One such method combines psychological warfare techniques, promises of amnesty (e.g. the *Chieu Hoi*, or 'Open Arms' programme used in South Vietnam), cash incentives, or land to convince insurgents and terrorists that their struggle is in

vain. Other methods, such as those tried with mixed success in Yemen and Saudi Arabia (the so-called 'Koranic Courts'), attempt to rehabilitate terrorists and reintegrate them into society. Other passive measures include engaging in political dialogue with, and offering support for, moderates within an irregular organization, convincing them of the need to start talking and stop fighting, and causing groups to fracture, splinter, and perhaps turn on themselves.

Political will must underlie efforts to counter terrorism and insurgency. The eradication of an irregular movement is slow and incremental, requiring a significant and consistent investment in time and resources. Rarely have national leaders been able to sustain the political will necessary to defeat insurgents or terrorists, particularly when those leaders are intervening in irregular conflicts in other states. Equally daunting is the fact that the underlying causes of discontent often resurface and the embers of insurgency are rekindled in a different form, as unrest in Iraq and Somalia suggest.

The effects of terrorism can be limited through a combination of offensive and defensive measures, but ultimately bringing terrorists to justice, especially for crimes beyond state borders, can be accomplished by a combination of the political will to sustain the struggle, maintaining core societal valves and upholding norms, and making the best use of state capabilities. Bringing individuals to trial for actions below the threshold of 'an act of war' takes even greater reserves of time, patience, resolve, negotiation, and treasure. It took considerable resources to bring one of the Benghazi Consulate (2012) attackers, Ahmed Khattala, to trial, and the conviction was modest. In the end, the side that will prevail will be the one most willing to continue the struggle and make the least damaging choices throughout its course.

Critical Thinking The use of remotely piloted aircraft (RPAs) can be justified to eliminate terrorists

For

- **Jus in bello**. Killing identified terrorists, whose violence negates legal protection, is justified regardless of how it's done. There's no difference between using a precision guided weapon and sniper shot.
- ***Selective violence***. States target on the basis of rigorously enforced criteria to minimize collateral damage—after weeks or months of highly specialized intelligence collection. Such collection methods and processes cannot be divulged due to the damage caused to national security as a result. RPA strikes are less costly in lives lost than other options available.
- ***Relative efficiency***. RPAs are much less costly in terms of operating costs and domestic public opinion compared to other options. RPA strikes are used because no other reasonable option exists to capture terrorists, given where the latter are located. Other options are far too risky and time windows to act are extremely short.

Against

- **Jus in bello**. National laws do not apply; drone strikes are extrajudicial killing (EJK) and illegal internationally by denying terrorists the 'right to life' and 'right to due process'. Such strikes are tantamount to state-sanctioned murder.
- ***Indiscriminate violence***. Far from being 'targeted', the so-called 'collateral damage' is much higher than reported, especially during repeat strikes (so-called 'double-taps'). This means far too many innocent civilians are killed in the process. Such violence only creates more terrorists than it actually kills.

Critical Thinking *(continued)*

- ***Transparency***. Power to determine life and death must be under sufficient oversight. By keeping the processes and information secret, power can and will be abused. How sufficient is the information used to determine guilt—the results of which determine life or death? Who actually is watching the watchers? The public and the international community have a right to know.

Questions:

1. Do the advantages of using drones outweigh the disadvantages—should they be used?
2. Do certain conditions obviate the concerns against the use of drones to kill terrorists?
3. What are the long-term consequences of using drones?

Key Points

- Methods used by the state in response to local threats are aimed crucially at maintaining a lawful—hence political/moral—legitimacy.
- The strategy of state success is based on isolating the insurgents, both physically and politically.
- The eradication of insurgents is often a slow process and will take different forms in different political and cultural contexts.

Irregular Warfare Now and in the Future

The supposition that terrorism and irregular warfare involve the use of force strictly for political ends has been recently challenged. As stated in the introduction, some suggest that the irregular conflict is no longer about politics. In other words, wars of national liberation, ideological terrorism, and revolution have joined colonial small wars in the museum of 'conflict past'. Instead, some suggest that contemporary and future irregular threats are driven by a mixture of culture, religious fanaticism, and technology.

Culture

Some observers argue that in the future violence will be ethnic- or identity-based. The political basis for war, Clausewitz's trinity of the people, the state, and the armed forces, is irrelevant. Where states cannot effectively govern, they cannot represent the will of the people. Without a state to sustain the armed forces, the only surviving element of Clausewitz's trinity is the people—which splinter in competing cultural and ethnic communities. The moral resolve of such cultural and social networks is superior precisely because they exist to fight. The conventional armed forces of developed nations will be increasingly irrelevant in the face of such superior will and approaches to warfare that offset technological advantages. The net effect is chaos and mayhem among substate groups within 'state' borders as the new norm for war.

Religious Fanaticism

Religious beliefs often shape terrorists' and insurgents' causes and are used to obtain support among a community of the faithful. Throughout history, religion has been a powerful stimulus for political violence by Muslims, Christians, Jews, Sikhs, and other faiths as well. In exchange for personal sacrifice, earthly representatives of some faiths promise terrorist martyrs a glorious afterlife for conducting attacks—suicide or otherwise—that kill non-believers. Religion provides insurgent and terrorist leaders with a number of advantages for their cause. First, leaders such as Osama bin Laden used religion to provide a competing value structure and ideology to rally the deprived and disillusioned behind their cause. What bin Laden and his followers offer is an alternative to Western, materialist culture and an attempt to recapture previous glories of the mythic past. What has surprised Western analysts is the resonance that this vision has across cultural and ethnic lines—the degree of popular support this message continues to have more than a decade after 11 September 2001. Second, religion offers a rationale for action. Much like Che Guevara, Osama bin Laden's followers see themselves as social reformers. Terrorist attacks serve to raise the consciousness of the global Islamic community (the *ummah*) to the existing struggle, as well as to demonstrate to others that there is an alternative to their current situation. Religion can also blind the faithful to certain realities as well. Religious-inspired terrorist movements often overestimate the appeal of their message. As with political ideologues, including Mao Zedong, religious ideologues convince themselves that the future is predetermined based on the righteousness of their cause. Particularly heinous or indiscriminate actions over time may lead even the staunchest supporters, much less allies of convenience, to question the legitimacy and viability of religiously sanctioned terrorism. For example, some affiliated insurgent groups and external supporters of the Taliban and ISIS are distancing themselves from attacks that target or have killed large numbers of fellow Muslims as opposed to their notional enemies.

Technology

The congruence of religion and WMD—including biological, chemical, radiological, and even nuclear weapons—portends a frightful and very real 'apocalypse now'. Modern religious fanatics do not have the political restraint of their terrorist predecessors and may simply be interested in killing as many non-believers as possible. Experts point to the ease with which chemical and biological agents, or 'poor man's atom bombs', can be manufactured or acquired; the decreasing frequency but increasing lethality of terrorist acts; and the breaking of a so-called WMD taboo by Aum Shinrikyo in Tokyo in 1995 and the US Congress anthrax spores mailing in October 2001. Those who track terrorist attempts to acquire WMD suggest that the question is not 'if' such attacks will occur but rather 'when'—and whether Western democracies will be able to manage the consequences.

Information Technology

The Internet transcends borders, so some observers believe that future irregular wars will be fought in cyberspace. Given the vulnerability of websites and servers to hackers, terrorists inevitably will become cyberterrorists through the World Wide Web. The alleged hacking by North Korea of Sony Corporation servers, as well as the 'defacing' of Central Command's

public website by those sympathetic to ISIS, are examples interpreted by some as evidence that cyberwar is a reality. Hacking and defacing provide glimpses into what ambitious cyberterrorists and activists can accomplish. Policymakers fear that cyberterrorists and 'infosurgents' will conduct electronic raids on vital national systems controlled by computers (e.g. financial services, transportation networks, and power grids). Particularly daunting is the prospect that terrorists or other insurgents will harness readily available code, such as Stuxnet or those in the 'Vault 7' releases, to sabotage critical infrastructure such as banking networks, power plants, or other key control systems. Fear is no longer based on the prospect of violence: information and the ability to control it has become the new form of power.

Whether or not terrorist and insurgent campaigns will be entirely 'virtual' is a matter of speculation. A technological reality is that access to the Web, satellite communications, and personal electronic devices greatly enhance the capability of aspiring terrorists and insurgents. According to media reports, the group which rampaged through and besieged part of Mumbai in November 2008 made use of readily available cellular and satellite phones, as well as publicly available satellite maps and Global Positioning Satellite data, to coordinate their attack. Such technology and information was once the exclusive purview of major powers. Today, websites, chat forums, and social media allow the quick dissemination of propaganda, training materials, and 'best practices', while basic commercial equipment allow materials to be produced professionally and disseminated clandestinely. With a computer and connection to the Internet, an individual can do more damage than armed terrorist cells or small insurgent movements. Various electronic publications distributed over the Internet, including magazines such as *Inspire*, *Dabiq*, and *Rumiyah*, have suggested targets, encouraged attacks, and provided instructions on how to do so cheaply and effectively. More importantly, some senior al-Qaeda leaders view the future of the movement as a 'leaderless resistance' of compartmented, geographically dispersed cells. The net effect, observed in the Philippines, Iraq, and elsewhere, is that individuals or small insurgent cells can obtain training and mission planning materials, share information, and coordinate their activities with little fear of being caught by security forces.

Key Points

- Religion is useful as a rallying point and enabler for terrorism, but cannot provide a strategy to achieve the desired objectives.
- Culturally inspired insurgents might change the nature of uprisings from traditional 'trinitarian' wars to chaotic ethnic conflict.
- Information technologies and the World Wide Web have provided terrorists with new capabilities to reach across time and space, creating vulnerability in a state-based system where control of information equals power.

Conclusion

States will be plagued by terrorism and irregular warfare as long as individuals are willing to use violence for political purposes. The shocking cultural details of irregular conflicts, such as the Taliban, al-Qaeda's and ISIS' recorded beheadings of captives, and the use of starvation

as a weapon in Sudan, Somalia, and Yemen, can obscure the political purpose behind the fighting. Terrorism and irregular warfare have long been used to change political systems and acquire power; more recently, cultural schisms have led to a rise in terrorism carried out for religious and personal reasons.

Current re-evaluations of irregular warfare and terrorism often lack context. Religion, culture, ethnicity, and technology remain important elements of irregular warfare. They define how and why individuals take up arms against perceived injustices. But the *ultima ratio* for the use of irregular methods of war is to achieve *political* results. Shoko Asahara, the spiritual leader of the Aum Shinrikyo cult, only attempted to use chemical and biological agents *after* his political ambitions were thwarted in 1990. Revenge for his humiliation at the polls was perhaps the most significant reason for launching chemical and biological attacks. Likewise, the stream of veiled threats of WMD use by al-Qaeda leaders should draw attention to the fact that the movement has failed since 2001 to achieve its stated objective of creating a theocracy to undertake social reform.

Warrior cultures may appear to espouse violence for its own sake, but at the root of their struggle is the quest for political autonomy, control, or power. The protracted guerrilla war fought by the Chechens against the Russians is little different from the one conducted in 1856: the Chechens' desire is to gain political autonomy from Moscow. Native Americans fought against the US Army in the nineteenth century to maintain autonomy and protect their traditional hunting grounds. Even ancient irregulars, classified as *barbarii* by the Romans, were resisting attempts to have *Pax Romana* imposed upon them.

While some authors may question some aspects of Clausewitz's reasoning in light of contemporary politics, his concept of the trinity remains relevant today. To disregard this concept misrepresents its foundation and misconstrues the reasons why irregulars fight in the first place. After all, primordial or expressive violence (the people) serves no purpose unless it is subordinated ultimately to policy (the government)—in other words, instrumental in nature. Violence undertaken for personal gain, be it financial or to enhance one's reputation, is nothing more than a criminal act in civil society and should be dealt with as such.

Questions

1. What is the difference between terrorism and insurgency and why is it important to distinguish between them?
2. Does the nature or character of irregular warfare change—or do both?
3. Can terrorists and insurgents sacrifice the element of time to achieve political change and, if so, under what conditions?
4. Why is the element of space easy to discuss in theory but difficult to incorporate in practice?
5. Why are irregular warfare theorists divided on the use of terror as a method of compelling support?
6. Is irregular warfare governed by the principles of war, or does it have its own principles?
7. Why is locating terrorists and insurgents so difficult?
8. How is the balance struck between force and the rule of law on both sides of an irregular campaign?
9. How can those countering insurgents and terrorists win?
10. Has religion, culture, and technology changed the nature of terrorism?

Further Reading

A. K. Cronin, *How Terrorism Ends* (Princeton, NJ: Princeton University Press, 2009) is a clearly written, analytically concise study of the different pathways to terrorist success or failure.

R. Debray, *Revolution in the Revolution?: Armed Struggle and Political Struggle in Latin America* (London: Pelican, 1968) is written by a French philosopher and develops Che Guevara's concept of the *foco* more fully.

B. B. Fall, 'The Theory and Practice of Insurgency and Counter-Insurgency', Naval War College Review, 15(1) (1998) 46–57 offers a basic introduction to the core concepts of and relationship between insurgency and counterinsurgency.

C. Guevara, *Guerrilla Warfare*, 3rd edn (Wilmington, DE: Scholarly Resources, 1997) is an updated version of Che Guevara's manual on guerrilla warfare based on his Cuban experience.

J. Jansen, *The Dual Nature of Islamic Fundamentalism* (Ithaca, NY: Cornell University Press, 1997) offers numerous insights into the evolution of fundamentalist Islamic thought and its practice by the Muslim Brotherhood in Egypt.

T. E. Lawrence, 'The Evolution of a Revolt', The Army Quarterly, 1(1) (1920): 55–69 gives a distilled account of the strategy used during the Arab Revolt that was embellished considerably when published as *Seven Pillars of Wisdom: A Triumph* (London: Jonathan Cape, 1935) pp. 188–96.

C. Malkasian, *War Comes to Garmser* (Oxford: Oxford University Press, 2013) is one of the most important depictions of the internal state power dynamics, many with long histories, that confront external counterinsurgents.

Mao Tse-Tung, *Selected Military Writings of Mao Tse-Tung* (Peking: Foreign Languages Press, 1966) presents a collection of Mao's most important tracts and provides insights into the evolution of his military thought on irregular warfare.

E. Simpson, *War from the Ground Up* (New York: Oxford University Press, 2018) is a thoughtful, provocative attempt to explain contemporary violence and update the ideas developed by Clausewitz.

Web Links

Combating Terrorism Center (CTC) **http://www.ctc.usma.edu** was founded in 2001 and provides access to a range of outstanding reports and products, based on declassified documents and other primary source research that are available for download.

Small Wars Journal **http://smallwarsjournal.com** offers access to the blog, journal, and professional reading lists posted by a range of practitioners, academicians, and subject matter experts.

Marx to Mao website **http://www.marx2mao.com** provides the full text of most of Mao's writings on guerrilla warfare, as well as those of V. I. Lenin.

US Army Special Operations Command's Assessing Revolutionary and Insurgent Strategies (ARIS) website **http://www.soc.mil/ARIS/ARIS.html** features several useful studies and reports, a number of which have been updated, such as its 'Casebook on Insurgency and Revolutionary Warfare', 'Human Factors Considerations of Underground in Insurgencies', as well as an irregular warfare bibliography.

12

The Second Nuclear Age: Nuclear Weapons in the Twenty-First Century

C. DALE WALTON

Chapter Contents

Introduction 202
The First Nuclear Age 204
Risks in the Second Nuclear Age 206
Adapting to the Second Nuclear Age 211
Conclusion: Looking Towards the Third Nuclear Age? 216
Deterrence in Changing Political and Technological Circumstances 217

Reader's Guide

This chapter considers the role that nuclear weapons have played in international politics, both during and after the cold war. In particular, a distinction is drawn between the First Nuclear Age from approximately 1945 to 1991, whose defining characteristics included its cold war strategic context and the enormous arsenals constructed by the two superpowers, and the ongoing Second Nuclear Age. This era is notable for its combination of horizontal proliferation (the spread of nuclear weapons to more states) and, thus far, vertical de-proliferation (the absolute number of nuclear weapons globally has decreased enormously over the last three decades). In addition, the spread of ballistic missile defences, the political and cultural variety of the states possessing nuclear weapons, and other factors are also important to understanding the dynamics and dangers of this Second Nuclear Age.[1]

Introduction

Since their invention, nuclear weapons have played an important role in the international system, even though they have not been used in wartime since 1945. During the cold war, both the United States and the Soviet Union built large and diverse nuclear arsenals, which included a mix of weapons and delivery vehicles. During this era, academics and policymakers struggled with many difficult issues related to these weapons; in the United States and

[1] The author wishes to acknowledge the contribution of Professor Colin S. Gray to this work, which is based on a co-authored chapter that appeared in an earlier version of this textbook.

other North Atlantic Treaty Organization (NATO) countries, the use of nuclear weapons to deter the Soviet Union from launching an invasion of western and central European NATO countries received particular, even obsessive, attention. Thus, one might say that the main 'theme' of Western nuclear debate during the cold war was the use of nuclear weapons to prevent superpower war, either nuclear or conventional.

This First Nuclear Age—which lasted approximately from 1945 to the 1991 fall of the Soviet Union—was dominated by the American and Soviet superpowers, which first tested nuclear weapons in 1945 and 1949, respectively. Three other countries also became declared nuclear powers during the First Nuclear Age (Great Britain, France, and China), while at least three other states (South Africa, Israel, and India) became undeclared nuclear states, but the arsenals of all of these countries combined were dwarfed by those of either of the two superpowers. As a result, thinking about nuclear issues tended to focus on the United States and Soviet Union—the cold war era was a bipolar one, and that fact was reflected in the superpower nuclear arsenals (see Table 12.1).

Today, Moscow and Washington still possess the world's largest nuclear arsenals, but international political circumstances have changed dramatically in the post-Soviet period. While the Russo-American relationship has been chilly in the twenty-first century, the likelihood of a nuclear conflict between the two states nonetheless appears tiny. However, in some respects, the international environment is more dangerous than it was during the cold war era. The world has transitioned into a Second Nuclear Age, in which these weapons will proliferate

Table 12.1 Growth in the Number of Nuclear Powers

Nuclear weapon states	Date of first test (confirmed or presumed)	Still possesses nuclear weapons?
United States	16 July 1945	Yes
USSR/Russia	29 August 1949	Yes
United Kingdom	3 October 1952	Yes
France	3 December 1960	Yes
China	16 October 1964	Yes
Israel	Uncertain	Yes
India	18 May 1974	Yes
South Africa	22 September 1979	No
Belarus	N/A	No
Kazakhstan	N/A	No
Ukraine	N/A	No
Pakistan	28 May 1998	Yes
North Korea	9 October 2006	Yes

Note: Some countries possessed nuclear weapons for several years before conducting their first nuclear test. Belarus, Kazakhstan, and Ukraine inherited nuclear arsenals with the break-up of the USSR.

horizontally to more states, including some very dangerous and unstable regimes. Therefore, it is quite likely that the odds of a nuclear war occurring in any given year are much greater now than was the case in the First Nuclear Age.

The objective of this chapter is to explore the strategic role that nuclear weapons play in international politics and to study how it has changed over time. The transition from the First to the Second Nuclear Age receives particular attention, and the chapter demonstrates how horizontal nuclear proliferation, the spread of nuclear weapons to more states or other international actors, is creating new threats to the international security environment even as the fears associated with the bipolar cold war confrontation are decreasing. (Vertical nuclear proliferation, by contrast, is an increase in the number of nuclear weapons. Therefore, a country that has five nuclear weapons has proliferated vertically if it produces a sixth one. For decades, the total number of nuclear weapons globally has been on a downward slope because of the shrinking Soviet/Russian and American nuclear arsenals. However, this may soon reverse, as various countries, including China, India, Pakistan, and North Korea, are progressively increasing the size of their nuclear arsenals.)

The First Nuclear Age

The first nuclear test occurred on 16 July 1945 in New Mexico; less than one month later, on 6 and 9 August, nuclear weapons were used against two Japanese cities, Hiroshima and Nagasaki. These devices—nicknamed 'Little Boy' and 'Fat Man'—differed in their designs, but both were fission nuclear weapons. These weapons were the fruit of the Manhattan Project, a massive 'crash programme' to which the American government—worried that Nazi Germany might be the first country to obtain nuclear weapons—devoted billions of dollars and thousands of scientists, technicians, and other personnel.

For a time the United States was the only power capable of building nuclear devices, and thus enjoyed an atomic monopoly. This monopoly was, however, short-lived, partly because Soviet spies were providing data from the American nuclear programme to Moscow even as the Manhattan Project was ongoing. In 1949, the Soviet Union conducted its first nuclear test explosion.

By the mid-1950s both Washington and Moscow had tested fission-fusion nuclear weapons (more commonly referred to as thermonuclear weapons), which were even more powerful than their fission predecessors. Thermonuclear weapons use fissile material more efficiently than fission devices do, making larger yields—in essence, bigger explosions—possible. Nuclear yields are measured in kilotons (thousands of tons of TNT equivalent), and megatons (millions of tons of TNT equivalent). A 5 kiloton weapon, for example, yields an explosion equivalent to 5,000 tons of TNT, while a 2 megaton warhead's explosion equals 2,000,000 tons of TNT (see Box 12.1).

Almost immediately after the bombing of Hiroshima, a great debate began over what nuclear weapons would mean for the future of international relations, and indeed humanity itself. Over the next several decades, a huge body of literature developed which addressed a myriad of issues related to the existence of nuclear weapons. For the purposes at hand, however, the most important writings addressed nuclear deterrence. In essence, nuclear deterrence examined how nuclear weapons could be used to prevent an opponent from undertaking an undesirable action.

BOX 12.1 Key Concepts

Fissile Material

For the building of nuclear weapons, the most important fissile materials are uranium 235 (U235) and plutonium 239 (P239). These radioactive isotopes are difficult to acquire. A given quantity of mined uranium contains very little U235; the latter must be separated from non-fissile uranium. Plutonium is not found in nature in any significant quantity—it is a by-product of nuclear processes guided by humans. The control of fissile materials is very important in preventing nuclear proliferation, but the generation of nuclear power requires fissile material. The International Atomic Energy Agency (IAEA) is tasked with ensuring that non-nuclear weapons countries which have nuclear power plants do not divert fissile material and use it to build nuclear weapons.

In the context of the cold war, perhaps the most critical deterrence issue from the Western perspective was preventing the Soviet Union from invading NATO's European members. Throughout the cold war, the Soviet Union and its Warsaw Pact allies enjoyed a considerable quantitative advantage over NATO in conventional military power (all forces other than weapons of mass destruction (WMD), a category which includes nuclear, chemical, biological, and radiological weapons, are considered conventional). Strategists struggled with how to ensure that Moscow would not attempt to conquer vulnerable NATO countries, and their answers usually relied on nuclear deterrence.

It generally was believed that Soviet leaders would not attack NATO countries if they were convinced that the United States would retaliate by initiating a nuclear attack against the Soviet Union. This is known as a countervalue threat—something that Soviet leaders valued, in this case the Soviet homeland itself, was held hostage to their good behaviour. Another sort of deterrence threat is against counterforce targets, the 'sinews' of state power: military forces, leadership targets, targets relevant to military command and control, and so forth. In general, one can say that the United States relied on a mix of countervalue and counterforce threats to deter the Soviet Union during the cold war (see Box 12.2).

During the First Nuclear Age, the two superpowers each built enormous arsenals of tactical nuclear weapons (TNWs) and strategic nuclear weapons. The distinction between the two types of weapons is somewhat artificial, but as a rule of thumb, TNWs are delivered by means such as tactical aircraft, artillery, or short-range ballistic or cruise missiles. TNWs are generally intended for use in battle, against troop concentrations, ships, or similar targets; the superpowers even developed nuclear depth charges for use against enemy submarines. Strategic nuclear weapons, by contrast, are usually delivered at very long ranges by intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) of intercontinental range, or long-range heavy bombers. These weapons can strike deep into enemy territory, thousands of miles from the point at which they were launched (see Box 12.3).

The United States and Soviet Union built tens of thousands of strategic and tactical warheads with an enormous variety of yields that ranged from less than one kiloton to tens of megatons. In many cases, several warheads were placed on a single delivery vehicle—the American MX ICBM, for example, was designed to carry up to ten multiple independently

BOX 12.2 Key Concepts

Credibility

Credibility is central to the success of any deterrence threat. If a threat is not credible—in short, if the actor being threatened does not believe that its foe will carry out the threat—it is likely to ignore deterrence warnings and do what it wishes. Capability is also central to credibility—a would-be deterrer is inherently more credible if it clearly possesses the means necessary to make good its threat.

One can compare this nuclear deterrence credibility to prevention of crime: if a would-be thief believes that attempting a given robbery will lead to arrest, that individual is likely to conclude that undertaking the act is not in his or her self-interest. This is surety of punishment. A related concept is severity of punishment: the thief who expects that the punishment for a particular crime will be heavy is more likely to be deterred than one who assumes that it will be light. Generally speaking, a deterrence threat that is both credible and severe is far more likely to deter an opponent than one that falls short in either—much less both—of these dimensions.

Every deterrence relationship is unique, and a would-be deterrer must try to understand what their counterpart values and how difficult it will be to dissuade the deterree from undertaking specific actions. Some activities may be easy to deter, while it might be very difficult or even impossible to prevent other ones. If deterrence does fail, a state must then decide whether to carry out its previous threats—and if it does not do so, its credibility will suffer. There is no simple deterrence formula that applies to all potential opponents; it is always important to understand the motivations and desires of those whom one is attempting to deter.

targetable re-entry vehicles (MIRVs). MIRVed warheads were first deployed in the 1970s. Before this time, there had been missiles with several warheads, but they were not independently targetable, which means they could not strike different targets.

Key Points

- Nuclear weapons have not been used in conflict since atomic bombs were dropped on Hiroshima and Nagasaki, Japan, in 1945.
- Nuclear warheads are categorized, along with chemical, biological, and radiological devices, as weapons of mass destruction.
- Competition in the building of nuclear arms was very closely tied to the cold war between the United States and the Soviet Union, and the theoretical models relating to deterrence that were built during that time reflect the bipolar competition between the two superpowers.
- Nuclear warheads are divided into a variety of categories, depending on their design, means of delivery, and other factors. Two of the most important distinctions are between fission and thermonuclear weapons and between tactical and strategic ones.

Risks in the Second Nuclear Age

It would be excessive to claim that nuclear deterrence is either easy or always impossible in the twenty-first century. Deterrence concepts developed during the cold war continue to be useful when discussing today's challenges, but it is perhaps naive to assume that

twenty-first-century actors—particularly, but not only, 'rogue' states such as North Korea—will act in a manner consistent with the assumptions of cold war deterrence theory. The assumptions regarding behaviour that underpin the body of deterrence theory are not universally applicable; every political culture is unique (indeed, every leader is unique), and it should not be expected that states' actions will always be consistent with deterrence theory. Deterrence is not a panacea—threats, whether presently emerging or heretofore unforeseen, cannot all be addressed successfully by consulting 'the cold war deterrence manual'.

Far too often, observers of international politics simply assume that leaders will not undertake particular actions because it would not be in their best interest to do so—with 'best interest' being defined by the observer. Thus, it is widely believed that North Korea would, for example, never provide nuclear devices to terrorists or pre-emptively attack another state with such weapons. In both of these extreme examples, this assumption is likely to be correct—certainly, Pyongyang is aware that such actions would be extraordinarily risky. However, even a very high probability that an event will not occur is not the same as a certainty that it will not occur.

The Reliability of Deterrence

There are still a great many controversies concerning the reliability of deterrence during the cold war. To claim that deterrence theory was proven to have worked well because there was no US–Soviet military conflict, much less a nuclear war, is to assume a causal relationship that may or may not exist. Certainly, the United States attempted to deter Soviet military aggression, but whether American deterrence actually prevented war between the two powers is unknown and, ultimately, unknowable. History, unlike a laboratory experiment, cannot be repeated, and we have no 'control cold war' to compare to the real cold war.

If American strategists had not developed a sophisticated body of deterrence theory, perhaps a nuclear conflict would have occurred—*or perhaps not*. Similarly, perhaps a US–Soviet nuclear conflict would have occurred despite American deterrence if not for historical happenstance. If we are unable to say with certainty that deterrence prevented the cold war from turning hot, we should be all the more cautious when attempting to predict the future behaviour of opponents whose decision-making is opaque and whose values are foreign to those prevailing in the West. To say that 'State X' will not commit a particular act because it would not be in its best interest to do so requires a judgement regarding the interests of that state. However, it is rare for all of a state's key leaders to hold essentially indistinguishable views on their country's well-being; for an outsider to simply assume that his or her own perspective will inevitably be reflected in that country's policy is perilous indeed.

Prudent leaders must factor in the risk of an unlikely event when making decisions; the mere fact that the use of nuclear weapons in a given situation may be imprudent, or even outright foolish, is no guarantee that such weapons will not be used. This is not good news for the reliability of deterrence, and especially troubling when one considers that several unpredictable and/or unstable countries currently have, or in the future may come to possess, nuclear weapons.

The simple answer to these uncertainties is to deny nuclear arsenals to 'roguish', or otherwise unpredictable, states. However, there is every reason to believe that it will be impossible to do so consistently. Rather, we should expect the number of nuclear states to increase over

BOX 12.3 Definitions

Terminology

- *Ballistic missile*. A missile with rocket motors that flies on a ballistic trajectory. Ballistic missiles carry a payload of conventional or WMD warheads, also known as re-entry vehicles. Early ballistic missiles were inaccurate and could only carry relatively small payloads for short distances, but advanced missiles can be of intercontinental range and carry independently targetable warheads.
- *Cruise missile*. A missile with an air-breathing motor; in essence, a small, pilotless aircraft. Bombers can be equipped to carry nuclear-tipped cruise missiles.
- *Decapitation strike*. An attack intended to destroy the leadership and command, control, and communications (C3) network of an enemy nation.
- *Disarming strike*. An attack that attempts to destroy an enemy's nuclear forces. If a disarming strike is successful, the enemy state will not be utterly destroyed, but will be militarily helpless and compelled to negotiate a peace on the disarmer's terms.
- *Fallout*. Radioactive debris resulting from a nuclear explosion; also known as *residual radiation*. Heavier particles tend to settle in the area of the explosion, while lighter ones often travel great distances. Fallout contamination can have serious, even fatal, health impacts.
- *Nuclear effects*. A nuclear explosion creates blast, heat, and ionizing radiation, with fallout remaining after the explosion itself.
- *Triad*. The combination of SLBMs, ICBMs, and nuclear-armed long-range bombers that together comprise the strategic nuclear forces of the United States and Russia.

time. This is not to say that there will be zero non-proliferation victories. Some states seeking nuclear weapons will be dissuaded from acquiring them (as Libya was by the United States), and on rare occasions a nuclear state may even denuclearize (as South Africa did).

It is, however, very unlikely that this means that the spread of nuclear weapons can be reversed overall. Knowledge about any technology will be dispersed over time and nuclear weapons are an old invention—they were first built over seven decades ago. Unsurprisingly, there are increasing numbers of individuals from (currently) non-nuclear countries who are knowledgeable about nuclear weapons technology. The growing number of states with nuclear energy programmes makes it all the more difficult to eradicate proliferation.

Proliferation Networks

The A. Q. Khan network provides an example of how challenging it may be to prevent nuclear proliferation in the Second Nuclear Age. Khan was the 'father' of Pakistan's nuclear weapons programme, and is regarded by many Pakistanis as a national hero. He also, however, was at the centre of an international network trading in nuclear technology; in 2004, he publicly admitted to such activities, stating that his operation was undertaken without the knowledge of Pakistan's government. However, he later renounced this confession, contending that his activities were known to the Pakistani government.

The degree to which Khan acted with official approval remains disputed, but it is clear that his operation was an extensive one that provided proliferation-related assistance to a number of states. The Khan apparatus appears to have provided important support to the Iranian and

North Korean nuclear programmes, among others; beyond this, it demonstrated the increasing difficulty of controlling the spread of nuclear knowledge and materials, especially when shadowy criminal networks make it difficult to prove that a state intended to help others proliferate.

Events in recent years have highlighted the difficulty of even ascertaining accurately whether a country is attempting to proliferate. In 2007, for example, the Israeli government struck an alleged Syrian reactor facility at which, apparently, a number of North Koreans were working—an event that shocked observers, as Syria was not widely suspected to have a serious nuclear weapons programme, much less one closely coordinated with Pyongyang.

Deterrence and Strategic Culture

Although well-designed counterproliferation efforts can slow the spread of nuclear weapons, further proliferation should be regarded as extremely likely. This, in turn, means that there will be more powers that have the capability to initiate nuclear war—and consequently an increasingly complicated global deterrence environment. The Second Nuclear Age is distinct from the first in a number of key respects, one of the most important of which is the increasing unreliability of deterrence. As nuclear weapons proliferate horizontally, the risk of nuclear war occurring *somewhere* on Earth can be expected to increase—especially as many of the proliferating states are not models of good international citizenship. Indeed, if a truly undeterrable leader ever comes to possess nuclear weapons and is determined to use them, deterrence would be impossible. Leaders ultimately *choose* to be deterred, which is to say that they decide not to accept the possible consequences that would follow a particular action. If, however, they are willing to accept the consequences of their preferred action, they may do as they wish.

While it is often assumed, based on the experience of the cold war, that nuclear weapons make countries more cautious and therefore less likely to go to war, there is reason to doubt that this will be true in all cases. We know very little about nuclear decision-making in several countries currently armed with these weapons. Moreover, it is impossible to know how a country such as Iran—which apparently does not have nuclear weapons, but might obtain them—will act if it possesses a nuclear arsenal.

In all likelihood, the countries that are most reliably predictable in regard to nuclear strategic decision-making are stable democracies with a relatively long track record of nuclear possession; states such as Great Britain, France, and the United States would fit into this category. It is far more difficult to anticipate how non-democracies and/or domestically unstable states will act in the future (see Box 12.4).

In the case of most of these countries, we have little trustworthy information about their nuclear doctrine. Doctrine guides countries in their use of military power, and in the case of nuclear weapons it helps lay out a 'road map' as to the circumstances in which these devices might be used. While the cold war superpowers proved reluctant to use nuclear weapons in combat, there is no guarantee that all states will be similarly reticent; some governments with relatively weak conventional forces may see nuclear weapons as offering an invaluable asset to use against better armed enemies. Over time, we will have a clearer notion of how various nuclear states will use their arsenals in negotiations and conflict. In any case, it is clear that future deterrence must be tailored to the cultural, political, military, and other characteristics

BOX 12.4 Case Study

Unstable Nuclear States: The Pakistani Case

In the Second Nuclear Age, several unstable states possess or are attempting to acquire nuclear weapons, and it should be remembered how quickly, and profoundly, the governments of troubled countries can be transformed. Pakistan provides one example. While Pakistan currently has an elected civilian government, pervasive political dysfunction and Islamist extremism feed on each other, undermining that country's internal stability. An internal coup, civil war, or other event could lead to regime change; radical Islamists might take power and/or the country might splinter, much as the Soviet Union did in 1991.

Today, India and Pakistan *appear* to have a reasonably stable deterrence relationship. One could argue that mutual deterrence is working tolerably well in South Asia, and even that a common fear of nuclear usage has prevented large-scale conventional war between the two countries. However, if Pakistan undergoes regime change or disintegrates, deterrence stability could vanish. This highlights one of the dangers of horizontal proliferation to unstable countries—even if the government that obtains nuclear arms is reasonably cautious, its successors may not be.

of the state that one is endeavouring to deter. Not all leaders are similar to the individuals who led the USSR; even if deterrence truly 'worked' during the cold war, it should be assumed that deterrence theory as it developed during that period is not infallible and that deterrence failure is entirely possible.

Ballistic Missile Defence

The role of ballistic missile defences (BMD) is another key distinction between the two nuclear ages. During the First Nuclear Age, the deployment of BMD was a matter of heated debate. BMD opponents warned that such defences would destabilize the nuclear balance between the superpowers, and therefore encourage both countries to build more warheads so as to overwhelm the other side's BMD. This arms race and the general sense of instability might, it was feared, in turn increase the likelihood of a US–Soviet war. Regardless of whether the claims of BMD foes were accurate, the closing of the First Nuclear Age profoundly altered the international security environment. It was not unreasonable to believe that a superpower that already possessed thousands of nuclear weapons might build many thousands more. However, many of the small states constructing nuclear arsenals would be financially and technically incapable of building great numbers of missiles and warheads. In such cases, the fact that other states deploy BMD is unlikely to drive large-scale vertical nuclear proliferation.

In 1971, the United States and Soviet Union agreed to the Anti-Ballistic Missile (ABM) Treaty. This agreement barred both countries from constructing comprehensive national missile defences (however, it did not absolutely ban all missile defences, as it allowed each power to maintain a very strictly limited BMD capability). The treaty was representative of a specific vision of deterrence based on mutual assured destruction (MAD), which assumed that the superpowers would not use nuclear weapons if both believed that, regardless of how well planned a first strike might be, it would be impossible to eliminate the enemy's ability to launch a devastating retaliatory strike.

MAD, in short, envisioned deterrence stability as requiring that any nuclear war be utterly devastating to both sides. The contemporary international system differs radically from the cold war environment, however, and most countries have arsenals that are far too small to practise MAD reliably. In the Second Nuclear Age, the United States, for example, has expressed far more concern regarding the potential threat posed by actors with small actual or potential arsenals, such as North Korea and Iran, than it has regarding Russia's 'MAD-sized' arsenal. Countries with small arsenals (as well as potential nuclear proliferators), in turn, have to take account of the possibility that the arsenal that they build may be defeated by a foe's missile defence.

The United States renounced the ABM Treaty in 2002, leaving it free to build missile defences, and it now possesses a basic homeland missile defence. Moreover, a number of countries, including both nuclear and non-nuclear powers, have begun to deploy BMD systems or are planning to do so. It is near certain that, as the Second Nuclear Age matures, an increasing number of states will deploy these defences, which will complicate the targeting strategy of nuclear powers, particularly ones with modest arsenals.

Key Points

- With the end of the cold war, the world has entered a Second Nuclear Age in which the number of actors possessing nuclear weapons has progressively increased (horizontal proliferation), even as the absolute number of nuclear weapons in the world has decreased (vertical de-proliferation). At the global level, vertical proliferation may soon resume, however; the US and Russian arsenals are now far below their cold war peak sizes, with further deep cuts being unlikely, while a number of countries are currently increasing the size of their arsenals.
- Deterrence may prove unreliable in the future. Deterrence theories that were developed in the context of the struggle between the United States and the Soviet Union may prove to be inapplicable to other countries and contexts.
- Strategic culture influences how a country uses its nuclear arsenal for deterrence and/or war-fighting.
- Ballistic missile defences are an increasingly important factor in nuclear decision-making, and the existence of BMD may discourage some countries from attempting to acquire nuclear weapons.

Adapting to the Second Nuclear Age

In many respects, humanity as a whole is far safer today than it was during the cold war. A US–Soviet nuclear war could well have spelled the end of modern civilization, at least in the northern hemisphere. Today, there appears to be little immediate danger of such a nuclear conflict. It is far more likely that the next nuclear war will involve, at most, a few dozen warheads rather than the tens of thousands that might have been used in a US–Soviet apocalypse. It may be cold comfort when one contemplates the horrors that even a 'small' nuclear war would entail, but the reality that there appears to be little danger of the modern world being wiped out in an afternoon is important nonetheless.

In this Second Nuclear Age, several presumptions, common in the cold war era, may prove to be problematic: that nuclear-armed powers are both politically stable and 'reasonable'; that BMD undermines deterrence; and that arms control and disarmament treaties are the best means to further counterproliferation efforts. The potential problems with the first two assumptions have already been addressed, and we now turn to the third one.

Arms Control and the Second Nuclear Age

Non-proliferation and counterproliferation both relate to efforts to prevent the horizontal proliferation of nuclear weapons. While it is sometimes difficult to distinguish between the two activities, as a general rule the term 'non-proliferation' is used in reference to international legal arrangements such as the Nuclear Non-Proliferation Treaty (NPT). Counterproliferation is more often used to refer to the *enforcement* of the NPT and other international agreements. Counterproliferation can involve a variety of measures, including military force (see Chapter 13).

The NPT, which was opened for signature in 1968 and went into force in 1970, is an international agreement that recognizes only five states—China, Great Britain, France, the Soviet Union/Russia, and the United States—as legitimate nuclear powers. (Importantly, these states are also the five permanent members of the United Nations Security Council.) All other states that signed the treaty agreed to refrain from obtaining nuclear weapons. India, Israel, and Pakistan never signed the NPT; North Korea was formerly a signatory but withdrew from the treaty in 2003.

The overall success of the NPT is debatable. While the number of nuclear powers has not increased hugely in the years since the agreement first came into effect, the great majority of countries signing the NPT probably would not have obtained nuclear weapons anyway. Most states are too small or poor to afford nuclear arsenals, while many states that could build and maintain a nuclear force are inhibited by domestic pressures or have felt that they do not need such weapons to ensure their security. Notably, many wealthy countries are US allies who, heretofore, have found the American 'nuclear umbrella' sufficient to their needs.

A major vulnerability of the NPT and similar universal disarmament agreements is that compliance is essentially voluntary; such treaties have very weak provisions regarding inspection of suspect sites, and no mechanism for seriously punishing bad actors. (The reason for this is that, in order to maximize the number of signatories, such treaties basically accept the 'lowest common denominator'—the provisions must be acceptable to as many states as possible, including would-be bad actors who would otherwise refuse to accede to the agreement—see Box 12.5.)

The case of Iraq before its occupation by the United States illustrates some of the shortcomings of the NPT and other universal arms control agreements. As a militarily defeated state (in the 1991 Persian Gulf War), Iraq submitted to far more intrusive International Atomic Energy Agency (IAEA) inspections than are the norm. It was generally assumed even before the war that Iraq had a nuclear weapons programme, but the fact that Baghdad was quite close to actually building such devices shocked most knowledgeable observers. Despite this, the Iraqi government managed to avoid full disclosure of its WMD programmes and capabilities—and,

BOX 12.5 Case Study

Arms Control Treaties and the International Environment Over Time

History seems to indicate that arms control treaties, at least by themselves, do not ensure international peace. If they did, there would never have been a Second World War, because the period after the First World War was a 'golden age' of arms control, with war itself essentially being banned by the 1928 Kellogg–Briand Pact. The fact that the number of warheads possessed by Russia and the United States decreased radically after the end of the cold war is instructive. One could argue that the successful negotiation of the bilateral Strategic Arms Reduction Talks (START) I, START II, Strategic Offensive Reduction Treaty (SORT), and New START agreements did not fundamentally alter the overall geostrategic environment, and that these treaties merely reflected the fact that the Russo-American relationship itself had changed radically. (See Chapter 13 for further detail on arms control.)

of course, it is now clear that most of the world's intelligence agencies grossly overestimated the progress of Iraqi WMD programmes in the years between 1991 and 2003. If Iraq could mislead outsiders under such conditions, one can readily imagine how easy it would be for other states to do so.

The refusal of Iraq's Ba'ath Party to cooperate fully with IAEA inspections ultimately led to its downfall, but this was the result of Washington's initiative, not that of the IAEA or the United Nations. As the case of North Korea illustrates, apparent non-compliance with agreements such as the NPT does not always result in a prohibitive penalty. Indeed, North Korea at times has profited financially from its NPT non-compliance, thanks to countries such as Japan, South Korea, and the United States, which agreed to provide that country with fuel oil, food, and other goods in exchange for ending its nuclear weapons programme. North Korea took the pay-off and built nuclear weapons nonetheless.

Counterproliferation measures, such as the Proliferation Security Initiative (PSI)—a US-led enterprise that encourages states to cooperate in preventing the transfer of WMD materials and knowledge—attempt to plug the 'holes' in the NPT (see Box 12.6). While one cannot expect arms control and disarmament agreements to solve all proliferation problems, they *can* provide useful leverage for countries that are dedicated to stopping WMD proliferation and are willing to pursue counterproliferation actively.

A sufficiently dedicated proliferator, however, can refuse to yield to sanctions and other pressure, forcing counterproliferators to either undertake assertive disarmament or tacitly accept a new member into the nuclear 'club'. Assertive disarmament is the use of military force to destroy a successful proliferator's actual nuclear arsenal or a would-be proliferator's capability to build nuclear weapons. However, assertive disarmament is very difficult and controversial, and thus has rarely been undertaken. The challenges associated with the invasion and occupation of Iraq illustrate how costly assertive disarmament can be in both financial and human terms for the would-be disarmer.

Together, non-proliferation and counterproliferation efforts may succeed in slowing considerably the horizontal proliferation of nuclear weapons, although one should not expect

Box 12.6 Case Study

US Counterproliferation Regarding North Korea and Iran

The difficulties that the United States has experienced in attempting to prevent proliferation by North Korea and Iran clearly demonstrate the challenges of counterproliferation. For decades now, Washington has demanded that both countries verifiably cease any nuclear proliferation efforts—and, at times, has hinted that it might assertively disarm these states if they do not. However, thus far it has been regularly frustrated by Iran, while failing altogether with North Korea.

Iran has been slippery and strategically ambiguous regarding nuclear weapons, publicly denying that it desires a nuclear arsenal while nevertheless undertaking a huge clandestine effort to acquire capabilities relevant to a nuclear weapons programme. Moreover, historically it has been willing to endure ruinous international economic sanctions rather than accept highly intrusive nuclear inspections. Tehran claims that all of its efforts merely relate to its nuclear energy programme, but many countries pursue peaceful nuclear programmes without controversy simply by following formal and informal non-proliferation 'rules'—and Tehran's unwillingness to do so reasonably justifies great suspicion.

In 2015, Iran agreed to a deal, formally known as the Joint Comprehensive Plan of Action, with the 'P-5+1' (the five permanent members of the UN Security Council, plus Germany) and the European Union. In essence, the arrangement allowed for the progressive lifting of international sanctions in exchange for continued indications that Iran had suspended any efforts to obtain nuclear weapons. While the agreement did not include highly intrusive inspection provisions, many observers express confidence that Iran continues to refrain from building nuclear weapons. In May 2018, the Trump Administration announced that it would withdraw from the nuclear deal and reinstate previously suspended sanctions against Iran. This action was strongly criticized by other parties to the agreement, and left its continued viability in doubt.

North Korea has a nuclear arsenal, and has recently been working to ensure its capability to strike the United States with ICBMs, although its current capabilities continue to be debated. In recent months, tensions between North Korea and the United States have been high. However, at the time of writing, a Singapore summit meeting between President Trump and North Korean Supreme Leader Kim is planned, the first such meeting between the leaders of those two countries. A diplomatic solution to the nuclear crisis would be highly desirable, as even a limited strike against North Korean nuclear and missile capabilities might result in a full-scale war on the Korean Peninsula.

The risks accompanying any US military action against North Korea would be enormous. In addition to its nuclear arsenal, Pyongyang is also believed to have considerable biological and chemical warfare capabilities. Moreover, it possesses great quantities of conventional artillery; North Korea would be likely to inflict massive damage on South Korea's 'megacity' capital, Seoul, which is only a short distance from the border. Just in the early hours of a conflict, tens of thousands of civilians could be killed.

that they can stop it altogether. Certainly, there appears to be little likelihood that nuclear weapons will cease to be an international political tool, either being eliminated entirely or placed in the hands of an international authority such as the IAEA. Indeed, there has been no compelling evidence that progress has been made towards universal nuclear disarmament in recent years. None of the declared nuclear states have surrendered their nuclear arsenals or indicated a willingness to do so at any time in the near future, though they have all agreed publicly that universal disarmament is a laudable goal. At the same time, horizontal proliferation continues (see Critical Thinking).

Critical Thinking There is a 'nuclear taboo'

For

- ***The international price of nuclear use***. A broad international consensus exists that use of these devices is deeply disreputable and immoral under most, if not all, circumstances. A state that used nuclear weapons would most likely face international sanctions and/or other punishment, and other states might ally together for protection against the 'roguish' nuclear user. If the state was judged to be an ongoing danger to the international security environment, it might face severe pressure over a long time period or even attempted regime change by military means.
- ***The personal price of nuclear use***. Regardless of the precise circumstances for nuclear use, the leaders who made the decision to use nuclear weapons would be condemned by at least part of the international community, and various non-governmental organizations (NGOs) and other actors would attempt, perhaps successfully, to ensure their trial and conviction for crimes against humanity.

Against

- ***Not all violations of norms are violations of taboos***. A deep reluctance to employ nuclear arms in warfare is a marked characteristic of recent history. However, 'taboo' is a powerful word, implying a deep-rooted and long-standing repugnance shared by almost all members of a particular society (most cultures, for example, have a taboo against cannibalism). While there clearly is broad distaste for the use of nuclear weapons, under certain extreme circumstances it might be accepted by most of the international community.
- ***No true 'hard cases'***. The norm against the use of nuclear weapons has not faced a single severe 'stress test' in which non-use clearly would have led to disaster for a nuclear-armed country. For example, no nuclear-armed country has chosen to allow itself to be destroyed rather than use these weapons. After 1945, perhaps the closest that any country has come to using nuclear weapons was during the 1973 Yom Kippur War, when Israel was in danger of being overrun and conquered outright by an Egyptian- and Syrian-led coalition. Israel apparently prepared for possible use of its arsenal, but the invasion was soon turned back by conventional means.

Questions:

1. Many observers assert that there is an international taboo against nuclear use, but is the evidence of history since 1945 sufficiently strong to justify such a claim?
2. If nuclear weapons were used by a small actor such as North Korea, would that invalidate the claim that great powers such as China, Russia, and the United States are constrained by a taboo against nuclear use?
3. Is it possible that the use of nuclear weapons in warfare will be 'normalized' in this century?

The Future of Nuclear Weapons

The question of whether nuclear weapons will become outdated is a rather complex one. While a few simple weapons (such as knives) have remained on the battlefield for millennia, it is usual for a weapon to have a reasonably straightforward life cycle, offering great advantages to its possessors when first introduced and then, progressively, growing more

outmoded as new weapons are invented, until eventually it disappears entirely from military use. In due course, this will perhaps be the fate of nuclear weapons, but their life cycle process may require many decades, if not centuries. It is possible that the nuclear weapon will be replaced by an even more devastating new weapon of mass destruction; there has been speculation, for example, on the feasibility of an 'antimatter bomb' that would be enormously powerful. Certainly, militaries on the technological cutting edge will continue to deploy ever more potent 'conventional' weapons. However, for a long time nuclear weapons will probably remain the most powerful destructive devices possessed by human beings.

Given this reality, nuclear weapons will continue to have an international political role. While it is not possible to predict precisely how many states will come to possess these devices over the next few decades, it is very likely indeed that the number of nuclear-armed states will increase, perhaps dramatically. As more states acquire nuclear weapons—and as the nuclear club becomes more diverse ideologically and culturally—we will learn more about how robust deterrence is under a variety of conditions involving different actors. Perhaps we will find that there actually is a strong nuclear taboo which prevents leaders everywhere from 'pushing the button'. It is, however, all too plausible that instead we will see the breaking of the long nuclear truce.

Key Points

- Non-proliferation and counterproliferation measures are used to control, and ideally prevent, the horizontal proliferation of nuclear weapons.
- The NPT acknowledges only five nuclear weapons states (China, France, Great Britain, the Soviet Union/Russia, and the United States) and forbids all other signatories from obtaining nuclear weapons. Most of the world's states are signatories, although some (including nuclear-armed countries such as India, Israel, and Pakistan) are not.
- Effective enforcement of universal disarmament agreements such as the NPT has proven difficult, especially as such agreements generally only have very weak inspection provisions.
- It is very unlikely that nuclear weapons will become obsolescent in the next few decades, or that the world's nuclear powers will all agree to dismantle their arsenals.

Conclusion: Looking Towards the Third Nuclear Age?

Since 1945, nuclear weapons have played a central role in international relations, but that role has changed subtly over time as the number of nuclear-armed actors has increased. While non-proliferation and counterproliferation efforts may slow the spread of nuclear weapons, the number of nuclear-armed countries probably will continue to grow. There are several reasons for this, but the military utility and consequent usefulness of these devices for deterrence and coercion, as well as the prestige associated with possessing a nuclear arsenal, are the most important.

Nuclear arms are particularly valuable to states that, in conventional terms, are militarily weak relative to their foes. For example, in a conventional conflict, most states would find the military power of the United States overwhelming, but even a small nuclear arsenal would

greatly complicate US war planning and raise the possibility of horrific American and allied casualties. In some cases, it might even be possible to prevent the United States from undertaking any military action, making it feasible even for a country such as North Korea or Iran to prevail in a crisis. Nuclear possession is also associated with high status in the international community. Although owning nuclear warheads does not, in isolation, make a country a great power, there is a unique status associated with nuclear possession, and this is surely one of the reasons why some lesser powers have gone to such extraordinary (and expensive) efforts to circumvent international non-proliferation regimes.

Deterrence in Changing Political and Technological Circumstances

While deterrence theories developed during the cold war continue to provide useful 'intellectual nourishment', as the group of nuclear-armed states has diversified the continued validity of these theories has become ever more questionable. As we have seen, every country has a unique strategic culture, and cultural factors can have a significant influence on decisions related to nuclear acquisition, deterrence, and use. We should not expect that the very diverse group of leaders who will wield nuclear weapons in this century will all act as their Soviet and American counterparts did during the cold war.

The simple 'MAD worldview', which assumes that any nuclear war would involve thousands, or even tens of thousands, of nuclear warheads, and be utterly devastating both to the participants and other countries (which would experience the environmental side effects of the massive nuclear exchange), is obsolete. In the cold war, the greatest fear of both superpowers was that the other would be able to disarm it almost entirely in a well-planned first strike. There was relatively little concern over whether their surviving nuclear weapons, especially those mounted on SLBMs and ICBMs, might hit the enemy; so long as the command and control system and a modest percentage of a superpower's arsenal remained intact, it could execute a devastating counterstrike. Certainly, some warheads would fail to strike their targets for any number of reasons—including mechanical failure, simple inaccuracy, and other issues—but the arsenals in question were so large that such problems would not undermine the ability to deliver a fatal blow.

In contrast, most of today's nuclear powers possess rather modest arsenals, and missile defences can complicate nuclear war planning exponentially. When a state with a small nuclear arsenal considers attacking a foe with a missile defence, the attacker cannot be certain how many, if any, of its warheads will break though the defence and strike their targets. It is likely that the proliferation of missile defences in this century will provide many states with a 'shield' that they can use to defend against the nuclear sword wielded by their enemies. Moreover, some states, like the United States, will seek to have both a nuclear sword and a BMD shield. Thus the argument, commonly made in the West during the cold war, that building defences against nuclear weapons is a waste of effort because many warheads would 'leak through' any defence is irrelevant with regard to most of the countries that are, or will become, nuclear-armed in this century. It is already possible that a well-designed missile defence would intercept all the warheads in a small arsenal. Future advances in BMD are likely

to increase the ability of such systems to intercept increasing numbers of warheads—and, critically, to do so reliably, without warheads leaking through.

In the two decades of the Second Nuclear Age we have seen clear patterns develop, such as continuing horizontal proliferation and an ongoing decrease in the size of the Russian and American nuclear arsenals. Most recently, the latter trend was reinforced by the New START treaty, signed in 2010, which limits the two countries to 1,550 deployed warheads each. However, other countries including China, India, and Pakistan are increasing the size of their nuclear arsenals. This, combined with the spread of missile defences over time, has resulted in a complicated environment with many potential nuclear deterrence relationships.

There are still many uncertainties regarding how nuclear weapons will be used politically in the current nuclear age. Thus far, fortunately, most of the 'emerging' nuclear powers have been relatively cautious in issuing nuclear threats. There are, however, many potential flash-points. Moreover, we have not yet seen a 'cascade' of nuclear proliferation, with numerous states in a region simultaneously seeking to build nuclear weapons. It is possible that one will occur in the future in the Middle East, north-east Asia, or elsewhere.

The great theme of the Second Nuclear Age is unpredictability—there is a lack of surety concerning how many nuclear-armed states there will be in the coming years and how those states will use their arsenals for political gain. Perhaps even more worryingly, it is possible that one or more terrorist groups or other violent non-state actors will obtain nuclear weapons. There are many good reasons to celebrate the end of the First Nuclear Age and the consequent greatly diminished probability of a massive nuclear exchange, but it is, regrettably, all too possible that, sooner or later, nuclear weapons will be used *somewhere* in the world. If that were to occur, it might mark the beginning of a Third Nuclear Age—and that epoch could be one of both unbridled horizontal and vertical proliferation and the repeated use of nuclear weapons.

Questions

1. What were the key characteristics of the First and Second Nuclear Ages? In what main respects do the two nuclear ages differ?
2. Why might the cold war model of nuclear deterrence be less relevant in the Second Nuclear Age? In what respects might it still be relevant?
3. Does the horizontal proliferation of nuclear weapons make nuclear war more likely? If so, why?
4. If many countries acquire ballistic missile defences, how might this affect vertical and horizontal proliferation world-wide?
5. How does the history of the A. Q. Khan network demonstrate the difficulties of controlling horizontal proliferation in the Second Nuclear Age?
6. Is it possible to halt the continuing horizontal proliferation of nuclear weapons? If so, how?
7. If it is not possible to stop the spread of nuclear weapons, is it at least possible to significantly slow the proliferation of these devices? If so, how?
8. How important were the US and Soviet nuclear arsenals in preventing the cold war from becoming a third world war?
9. Is a complete global abolition of nuclear weapons a plausible goal? If so, how might it be achieved?

10. Is it ever appropriate for a state to use military force to prevent a would-be proliferator from obtaining nuclear weapons? If so, under what conditions might it be correct to do so?

Further Reading

F. Barnaby, *How to Build a Nuclear Bomb: And Other Weapons of Mass Destruction* (New York: Nation Books, 2004) explains, using accessible language, how a state or non-state actor might go about building weapons of mass destruction.

P. B. Bracken, *The Second Nuclear Age: Strategy, Danger, and the New Power Politics* (New York: Times Books, 2012) explores the concept of the Second Nuclear Age.

L. Freedman, *The Evolution of Nuclear Strategy*, 3rd edn (New York: Palgrave MacMillan, 2004) presents a highly detailed discussion of the historical development of nuclear strategy in a variety of states.

L. Freedman , *Deterrence* (Cambridge: Polity Press, 2004) is a short work that introduces key deterrence concepts and explores how deterrence theory has evolved over time.

A. Futter, *The Politics of Nuclear Weapons* (London: Sage, 2015) provides a broad introduction to the political and technical aspects of nuclear proliferation, deterrence, and related matters.

S.C. Kim and M.D. Cohen, eds, *North Korea and Nuclear Weapons: Entering the New Era of Deterrence* (Washington, DC: Georgetown University Press, 2017) brings together a number of authors who address various issues related to North Korea's nuclear acquisition and the future deterrence of that state.

W. Langewiesche, *The Atomic Bazaar: The Rise of the Nuclear Poor* (New York: Farrar, Straus and Giroux, 2007) explores a number of issues related to horizontal proliferation, including the A. Q. Khan network and the danger of nuclear terrorism.

S. D. Sagan and K. N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, 3rd edn (New York: W. W. Norton, 2012) presents a debate between two international relations scholars about how horizontal nuclear proliferation impacts the global security environment.

Web Links

Alsos Digital Library for Nuclear Issues **http://alsos.wlu.edu** is hosted by Washington and Lee University; it contains annotated descriptions of books, articles, and other materials. It is affiliated with the Nuclear Pathways project.

Federation of American Scientists **http://www.fas.org/nuke** is an anti-nuclear group whose website contains the texts of arms control treaties and other resources.

Nuclear Age Peace Foundation **http://www.nuclearfiles.org** is another anti-nuclear group; it maintains the Nuclear Files site. The site contains various resources related to nuclear weapons and deterrence.

Nuclear Matters Handbook 2016 Edition **https://www.acq.osd.mil/ncbdp/nm/nmhb/index.htm** is an online resource maintained by the US Department of Defense for US government employees working on issues related to nuclear weapons and nuclear power generation.

Nuclear Pathways **http://www.nuclearpathways.org** is a project that is part of the US National Science Digital Library. It gathers together a variety of information on historical and current nuclear weapons issues.

13

The Control of Weapons of Mass Destruction

JOHN BAYLIS

Chapter Contents

Introduction 220
Arms Control during the Cold War 221
The Residual Role of Arms Control in the Post-Cold War Era 224
From Arms Control to Counterproliferation 226
The Challenges of Counterproliferation 229
The Diplomatic Option: Military Responses Withheld? 230
Does Arms Control Have a Future? 231
Conclusion 236

Reader's Guide

One of the most important questions facing humanity during the nuclear age has been how to control weapons regarded as uniquely abhorrent or particularly destructive. During the cold war, this had an added urgency because the numbers and destructive capacity of such weapons meant that they possessed the unique capability to destroy civilization as we know it. With renewed tensions between the US and Russia and the rise of China, arms control is once again an important topic of international security debates. Is the best way to try to negotiate the elimination of nuclear weapons and other weapons of mass destruction completely? Is a better approach to try, through diplomatic means, to manage these weapons to create as much stability in the international system as possible? Or should more forceful means be used to prevent the proliferation of these weapons, especially to those 'rogue states' or terrorist organizations who might be tempted to use them to upset the status quo? These questions and the changing international approach to dealing with weapons of mass destruction are the subject of this chapter.

Introduction

Establishing controls over weapons or delivery systems is a difficult and painstaking process. Despite this, efforts to eliminate weapons through disarmament have a long history, and at least one writer has traced a lineage back to ancient times (Croft 1996). As an academic subject, however, arms control—the mutually agreed management of military relations—is a

more recent arrival. A decade or so after the onset of the cold war in 1947, academic analysis and international policy began to converge, as the prospect of using arms control to stabilize the superpower relationship began to find favour. The hair-raising experience of the Cuban Missile Crisis only served to drive home that the relationship could be dangerously unstable and could not be relied on to run itself. In a wider context, the lesson of the twentieth century seemed to be that warfare would almost always escalate upwards to the most destructive level, and increasingly it was not only the superpowers that possessed the most destructive technology. The spread of weapons of mass destruction (WMD), a term coined and defined by the United Nations in 1948, therefore became a key concern.

This chapter charts the shift that took place during the cold war from disarmament to arms control, and the shift in relative importance that occurred in the early post-cold war period from arms control to more forcible means to tackle proliferation. The chapter shows how concerns emerged in the 1980s and 1990s about the continuing utility of arms control as an effective means of dealing with weapons of mass destruction and how new ideas began to take shape, first in the Clinton administration, and then in the Bush administration, about more militarily driven approaches, associated with counterproliferation. The chapter ends with a discussion of the Trump administration and the challenges presented by new geopolitical tensions.

Arms Control during the Cold War

Following the arms races and the slide to war in the late 1930s, disillusionment with disarmament, as a way to achieve peace and security, characterized official attitudes in the immediate aftermath of the Second World War. The limited attempts at arms control or disarmament that were made by the two emerging superpowers in the new nuclear age that emerged only helped to reinforce the sceptical judgement of the day. Neither side was prepared to take risks with their own security (as they perceived it), especially when it came to weapons which could be a decisive influence in a future conflict. Far from easing the growing tension between the two superpowers in the late 1940s, the modest international control negotiations that were undertaken only exacerbated mistrust and heightened hostility.

By the mid-1950s, the lack of success in disarmament negotiations and growing awareness of the dangers of nuclear war produced a change in approach to arms control. Efforts to negotiate a general and comprehensive disarmament treaty were abandoned in favour of what were known as 'partial measures', such as the 1955 'Open Skies' agreement and negotiations designed to try to ban nuclear testing. Arms control was increasingly viewed as a way to deal with specific problems created by the cold war arms race.

This move towards greater flexibility at the policy level led to what has been described as 'new thinking' in the defence community. Although the ideas that emerged were not as original as the proponents sometimes claimed, a new literature began to appear in the late 1950s developing the theory of arms control (see Box 13.1). These new arms control theorists intended to work within the prevailing system of nuclear deterrence rather than to try to abolish it. Arms control was designed to 'strengthen the operation of the balance of military power against the disruptive effects of the arms dynamic, especially arms competition, arms racing and technological developments that tend to make nuclear and non-nuclear

BOX 13.1 Definitions

Definitions of Arms Control

While the terms 'arms control' and 'disarmament' are sometimes used interchangeably, they reflect very different views about international politics. Hedley Bull, in his book *Control of the Arms Race*, defines disarmament as 'the reduction or abolition of armaments. It may be unilateral or multilateral; general or local; comprehensive or partial; controlled or uncontrolled.' Arms control, on the other hand, according to Bull, involves 'restraint internationally exercised upon armaments policy, whether in respect of the level of armaments, their character, deployment, or use' (Bull 1961: 1).

John Spanier and Joseph Nogee in their study of *The Politics of Disarmament* provide a similar, although more specific, definition of the differences between arms control and disarmament. In their formulation 'while disarmament refers to the complete abolition or partial reduction of the human and material resources of war, arms control deals with the restraints to be imposed upon the use of nuclear weapons' (Spanier and Nogee 1962: 15).

deterrence more difficult' (Buzan and Herring 1998: 212). Its essential aim was to reduce the likelihood and costs of war and to reduce expenditures on both nuclear and conventional arsenals.

As the superpowers edged back from the nuclear abyss after the Cuban Missile Crisis in October 1962, both realized, more than ever before, that they had a mutual interest in effective crisis management. The crisis highlighted the dangers of inadvertent escalation and miscalculation during periods of military confrontation and intense political instability. In June 1963, the United States and the Soviet Union signed a 'hotline' agreement to provide a secure, official, and dependable channel of communication between Moscow and Washington. The intensity of the crisis also highlighted the issue of nuclear testing. Reflecting the less ambitious agenda of the new arms control school, the United States, Britain, and the Soviet Union agreed on a Partial Test Ban Treaty in August 1963. The treaty prohibited all nuclear tests in the atmosphere, but allowed tests to continue underground. Significantly, neither French nor Chinese officials were prepared to accede to the treaty because they believed it benefited more advanced nuclear states (the French tested nuclear weapons in 1960 and the Chinese in 1964).

Limited as the treaty was, it encouraged further arms control initiatives. Between 1963 and 1968, the superpowers focused on their mutual interest in trying to negotiate a wider agreement to prohibit further nuclear proliferation. This culminated in the Non-Proliferation Treaty (NPT), which was signed in July 1968. Once again, initially China and France refused to sign, and a number of other states rejected the treaty on the grounds that it froze the nuclear status quo and incorporated only a limited commitment by the nuclear powers to give up their own weapons. This latter criticism became perennial and was to bedevil the NPT process in later years.

The nuclear explosion by India in 1974, ostensibly for peaceful purposes, highlighted the weaknesses of the treaty. Despite this, the treaty provided some limited, but not unimportant benefits. It became the central plank of the nascent non-proliferation regime, which helped restrain the pace of further nuclear proliferation. It also emphasized the opportunities for cooperation between the superpowers during rocky times in their relationship.

By the mid-1970s, the superpowers also recognized their mutual interest in trying to control the use of pathogens and toxins as weapons of mass destruction. The Biological Weapons Convention (BWC), which entered into force in 1975, banned the development, production, and stockpiling of biological and toxin weapons. It also required states to destroy 'the agents, toxins and weapons equipment and means of delivery in the possession of the parties' to the treaty. The main problem with the convention, however, was that there was no provision for verification of compliance.

Between 1969 and 1972, the superpowers focused for the first time on the difficult task of limiting strategic armaments. In May 1972, the Strategic Arms Limitation Treaty (SALT) I was signed, covering a number of different areas, including limitations on ballistic missile defence. The aim of SALT I was to 'cap' missile and anti-ballistic missile (ABM) deployments at specific levels to prevent a future unrestricted arms race, which would lead to greater international instability. Despite the unprecedented nature of the agreement it quickly became the subject of criticism, both in the United States and in the arms control community itself. According to domestic critics, it froze the numerical superiority of the Soviet Union while at the same time allowing the Soviet Union to compete in those qualitative areas where the United States was in the lead. This failure to address the all-important qualitative issues (including missile accuracy and the placement of multiple warheads on ballistic missiles) was particularly disappointing even for many arms control supporters, who were concerned that the arms race had simply been moved from a quantitative to a qualitative arena.

Given the shortcomings of SALT I, it was not long before new negotiations began in Geneva. Progress, however, proved to be slow. The SALT II agreement eventually reached in 1979 followed closely guidelines reached at Vladivostok five years earlier. The ceiling for strategic delivery vehicles was set at 2,400, with sublimits on ballistic missiles armed with multiple independently targetable re-entry vehicles (MIRVs) and strategic bombers.

Almost immediately, however, the arms control process was derailed by the Soviet invasion of Afghanistan, and in January 1980 President Carter asked the Senate to delay the ratification of the treaty. Although SALT II remained unratified, both the United States and the Soviet Union continued to abide by the limits of the treaty. Despite this tacit agreement, however, the following three years were characterized by frequent accusations by the Reagan administration that the Soviet Union was in breach of the agreement.

By the end of the cold war, despite the 1987 Intermediate-range Nuclear Forces (INF) Agreement (banning missiles with ranges between 500 and 5,000 kilometres), there was a growing disappointment in many quarters with the overall benefits of arms control. There had been periods of détente when arms control appeared to have played a part in helping to enhance confidence between the adversaries, especially by providing a forum for discussion of strategic thinking, the purposes behind force deployments, and concerns about the opponent's force structure and operations. This happened in the aftermath of the Cuban Missile Crisis and in the early 1970s. However, these periods were short-lived and more hostile relations followed. The effects of arms control were clearly limited and temporary. The critics of arms control felt that there was very little evidence that arms control had helped to improve superpower relations during periods of intense hostility. Indeed, they felt that the evidence seemed to support the view that differences over arms control more often than not exacerbated the problems which existed.

Key Points

- The late 1950s brought 'new thinking' and the development of the theory of arms control.
- The aim of arms control was to make the prevailing system work more effectively.
- The Cuban Missile Crisis ushered in a new 'golden age' of arms control agreements.
- By the late 1970s, however, arms control as an approach to peace and security faced increasing problems.
- There were continuing difficulties in the 1980s, which meant that despite the INF Agreement in 1987 there was a growing feeling that the disadvantages of arms control outweighed the benefits.

The Residual Role of Arms Control in the Post-Cold War Era

The ending of the cold war brought a flurry of arms control activity and some remarkably far-reaching progress which rebutted some of the criticisms that had been levied against the arms control concept. Following a number of years of detailed negotiation, in 1991 a Strategic Arms Reduction Treaty (START I) was finally signed. Instead of merely imposing limits on increases in weapons, START reduced the number of strategic delivery vehicles and warheads in a verified process of drawdown.

With the disintegration of the Soviet Union, President Boris Yeltsin of Russia and President Bill Clinton continued the momentum of the early post-cold war years by signing a START II Treaty in 1993 reducing the number of warheads held by both sides even further. As a result of a Protocol to the START I Treaty signed in May 1992, it had been agreed, however, that START II would only enter into force once START I had been ratified by the United States and Russia and entered into force. This proved difficult due to several factors: increasing Russian concerns about the treaty's costs and strategic effects; the need to resolve a new debate over the ABM treaty before agreeing START II limits; and growing hostility towards North Atlantic Treaty Organization (NATO) expansion plans.

These bilateral difficulties were also evident in a number of other fields. Despite the notable achievement of securing the indefinite extension of the NPT in 1995, significant disagreements continued between the nuclear and non-nuclear states over the pace of nuclear disarmament (enshrined in Article 6 of the NPT) (see Box 13.2). At the same time, the nuclear tests carried out by India and Pakistan in May 1998 demonstrated the fragility of the non-proliferation norm outside the treaty in certain parts of the world. Similarly, an apparent breakthrough achieved with the Comprehensive Nuclear Test Ban Treaty (CTBT) in 1996 ground to a halt in late 1999 when the US Senate refused to ratify the treaty.

Attempts to control other weapons of mass destruction also ran into difficulties at about the same time. The Chemical Weapons Convention (CWC), signed in 1993, and which entered into force in April 1997, also suffered from a number of serious weaknesses. The convention was designed to ban the use of chemical weapons, as well as their development, production, transfer, and stockpiling. Stockpiles and production facilities were to be destroyed. Although there was some provision for verification through the OPCW based in The Hague, the widespread industrial and commercial production of chemicals made the convention virtually impossible to police effectively. By 2002, 145 states had ratified both the Biological and Toxins

BOX 13.2 Case Study

International Regimes on WMD

The three key categories of WMD (nuclear, biological, chemical), plus the missile delivery systems usually associated with them, each have an international regime devoted to their control. They are in various stages of development (some might add disarray) and they have not advanced or progressed at an even pace.

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) entered into force on 5 March 1970 and currently has 190 member states. Only India, Israel, North Korea, and Pakistan remain outside it. The NPT's signatory states are divided into two categories: nuclear weapon states (NWS) and non-nuclear weapon states (NNWS). Under the terms of the treaty the latter agree to forgo nuclear weapons entirely, while the former (the five states, Britain, China, France, Russia, and the United States, that possessed nuclear weapons at the signing of the treaty) are committed to 'pursue negotiations in good faith' on nuclear disarmament. This stipulation, set out in Article 6 of the treaty, has proved recurrently controversial, since none of the five NWS has ever looked likely to move seriously towards such an end.

The other 'devil's bargain' in the NPT is drawn from Article 4, which notes the 'inalienable right' of the NNWS to develop civil nuclear power with the 'fullest possible exchange' of information with the NWS. This exchange of information is subject to various safeguards and inspections conducted by the International Atomic Energy Agency (IAEA—see http://www.iaea.org).

The Chemical Weapons Convention (CWC) is a multilateral treaty banning chemical weapons. It entered into force on 29 April 1997, currently has 164 states parties, and is implemented by the Organization for the Prohibition of Chemical Weapons (OPCW—see http://www.opcw.org). The convention bans development, acquisition, or possession of chemical weapons by signatories; their use or preparation for use; the transfer of chemical weapons or any encouragement of chemical weapons in other states; and stipulates the destruction of chemical weapon stockpiles by signatories. The latter is significant: unlike the NPT, the CWC *compels* states parties possessing the banned weapons to dismantle their stocks, and it sets out clear timetables and deadlines for this work. In cases of non-compliance, the OPCW can recommend that the states parties take punitive action, and in extreme cases can refer the case to the UN Security Council.

The Biological Weapons Convention (BWC) entered into force on 26 March 1975 and currently has 150 states parties. It bans development, stockpiling, acquisition, retention, and production of biological agents and toxins, and all weapons designed to use them. Unlike the CWC, it does not ban the use of such weapons, which is affirmed in the 1925 Geneva Protocol.

and the Chemical Conventions, but in both cases there were concerns that a significant number of states were developing weapons covertly.

There were also increasing concerns about the proliferation of nuclear weapons as the new century dawned. Despite the Strategic Offensive Reductions Treaty (SORT) of May 2002 (the Moscow Treaty), further reducing the number of US and Russian warheads to around 2,000 each over the following decade, there appeared to be an increasing incentive for some states and terrorist groups to acquire nuclear weapons and other weapons of mass destruction. With the cold war over, and the United States now the dominant power in the world, those who feared US hegemony or intervention in their internal affairs (like North Korea and possibly Iran) had an interest in developing their own 'ultimate' weapon. After 9/11 there were also concerns that terrorist groups, like al-Qaeda, with nothing to lose, have an interest in acquiring such weapons to further their regional and in some cases global ambitions. As such, the new geostrategic realities of the post-cold war era meant that attempts to control weapons of mass destruction faced new challenges.

By the close of the twentieth century, the picture was therefore a mixed one. Nuclear non-proliferation appeared to have successfully prevented the Kennedy-era fears that the number of nuclear-armed states might exceed 20 by the year 2000, the destruction of chemical weapons was proceeding globally if haltingly, and biological weapons remained, for the great majority of states, beyond the pale of normal military arsenals. Nonetheless, the new century's advent was haunted by a growing feeling that as weapons of mass destruction proliferated to weak states and non-state actors, it would be increasingly difficult to bring traditional arms control techniques and principles to bear to address the new emerging threats.

Key Points

- The post-cold war period saw a flurry of arms control agreements.
- Despite the lessening of hostility between the United States and Russia, however, progress was slow and intermittent.
- Increasingly the utility of arms control was perceived to have declined in the changed international environment which emerged after 9/11.

From Arms Control to Counterproliferation

The United Nations and International Atomic Energy Agency inspectors of Iraqi WMD, after the 1991 Gulf War, found that Iraq had made considerably more progress on developing a nuclear capability than intelligence assessments had supposed. This suggested that proliferation might be moving more quickly than was apparent. The implications of this were far-reaching. Prior to 1990, US intelligence estimated that 20 states in the world possessed chemical weapons and ten were working on biological ones; it now appeared that either this number might be an underestimate, or that those states might be considerably more advanced in this sphere than anyone had previously suspected. Concerns about hidden horizontal and vertical proliferation were therefore strengthened by the experience with Iraq, which in turn led to louder calls for more tools to tackle this problem.

Thus it appeared that the end of the cold war had spawned a new set of threats that might be smaller in scale, but more numerous and potentially more acute. In such conflicts, nuclear weapons were regarded as being likely to be deployed to deter, but chemical and biological weapons were potentially more likely to be deployed in order to be *used* (Lavoy, Sagan, and Wirtz 2000). The CIA Director James Woolsey put this succinctly when he said: 'it was as if we were struggling with a large dragon for 45 years, killed it, and then found ourselves in a jungle full of poisonous snakes' (Woolsey 1998).

The seriousness with which the threat was taken was due to an uncomfortable awareness that WMD might erode the ability of the United States to project military power around the world. Richard Betts alluded to this when he argued that WMD, particularly nuclear weapons, were now 'weapons of the weak—states or groups that are at best second class' (Betts 1998: 27). General Sundarji of the Indian Army similarly argued that '[o]ne principal lesson of the

Gulf War is that, if a state intends to fight the United States, it should avoid doing so until and unless it possesses nuclear weapons' (quoted in Joseph and Reichart 1995: 4).

Betts and Sundarji were both suggesting that, if Iraq had possessed a nuclear capability in 1991, Operation Desert Storm might never have been possible: the United States and its allies might have been deterred from intervening in Kuwait. Washington's confidence in its ability to resist the deterrent strategies of small hostile states might therefore be significantly eroded once these small states possess nuclear weapons. This may also be true for other NATO members who participated in the coalition, such as Britain, or for important regional allies such as Turkey.

Moreover, this problem was exacerbated by a perception (not one universally shared) that some states, or at least their leaders, are simply not deterrable. This is often raised in the context of the so-called 'rogue states'. Officials and analysts in the United States frequently claim that these states are not susceptible to deterrent-based strategies because their leaders are fanatical (i.e. too wedded to ideological or religious fervour), morally bankrupt (i.e. unlikely to recoil from mass casualties on their own soil), or simply crazy or irrational.

These concerns, centring on the possibility that WMD proliferation might either make it difficult for the United States to win a Gulf War-type conflict at acceptable cost, or deter it from acting at all, were at the heart of the Clinton administration's decision, announced in the Bottom Up Review of 1993, that WMD represented the most direct threat to US security. In December of the same year, US Secretary of Defense Les Aspin unveiled the Defense Counterproliferation Initiative (CPI) in a speech to the National Academy of Sciences.[1]

Aspin noted that the United States and NATO had used nuclear weapons as 'the equalizer' to compensate for Soviet conventional superiority. 'Today', he continued, 'it is the United States that has unmatched conventional military power, and it is our potential adversaries who may attain nuclear weapons. We're the ones who could wind up being the equalizee.' In Aspin's view, potential US opponents were all at least capable of producing biological and chemical agents, so that US commanders now had to assume that US forces were threatened by potential battlefield use of WMD.

The goals of the CPI were subsequently defined as:

1. to deter the acquisition of WMD;
2. to 'reverse WMD programmes diplomatically where proliferation has occurred';
3. to ensure that the US had 'the equipment, intelligence capability, and strategy to deter the threat or use of WMD'; and
4. to defeat an enemy armed with WMD (Davis 1994: 9).

The goals of 'counterproliferation', however, were considerably better defined than the concept itself, and indeed the term ought to be used carefully, since it is used to mean different things by different people. Harald Müller and Mitchell Reiss noted in 1995 that there were at least four different definitions of exactly what constituted counterproliferation (Müller and Reiss 1995). See Box 13.3 for an explanation of the term and its usage.

[1] The text of Aspin's speech can be accessed at http://www.fas.org/irp/offdocs/pdd18.htm

BOX 13.3 Case Study

What's in a Name? The Emergence of Counterproliferation

Counterproliferation is defined by Butcher as 'the military component of non-proliferation, in the same way that military strategy is a component of foreign policy' (Butcher 2003: 17). This sounds relatively straightforward, but the term is in fact rather slippery and caution should be exercised when using it.

The term was popularized by Les Aspin's Counterproliferation Initiative (CPI). Several months after his 1993 speech, a National Security Council memo set out a possible definition of counterproliferation:

> [T]he activities of the Department of Defense across the full range of US efforts to combat proliferation, including diplomacy, arms control, export controls, and intelligence collection and analysis, with particular responsibility for assuring US forces and interests can be protected should they confront an adversary armed with WMD or missiles.
>
> Davis (1994: 8)

The Bush administration set out its WMD strategy in a companion document published in December 2002 (White House 2002). The term counterproliferation was given a rather clearer definition than it had hitherto possessed, and for the first time it appeared to be privileged over non-proliferation, of which it had hitherto been viewed as a subset. Counterproliferation was defined as having three key elements: interdiction of WMD transfers to 'hostile states and terrorist organizations'; deterrence of use; and defence. Significantly, the document explicitly states that 'US military forces and appropriate civilian agencies must have the capacity to defend against WMD-armed adversaries, including in appropriate cases through pre-emptive measures'.

The Bush administration's National Security Strategy 2002 appeared to herald a genuine change in this policy. As the administration was attempting to make a case for a pre-emptive/preventive attack on Iraq, its National Security Strategy appeared to generalize from this to make such attacks a part of a wider strategy against proliferation. Within a very short time after publication of the National Security Strategy, the United States had embarked on the most far-reaching anti-WMD operation ever undertaken. This came with the war against Saddam Hussein's Iraq, undertaken in the face of widespread global suspicion and opposition.

The following year, the US Joint Chiefs of Staff published a statement of its doctrine on countering WMD (US Joint Chiefs of Staff 2004). This defined non-proliferation as actions to 'prevent the proliferation of WMD by dissuading or impeding access to, or distribution of, sensitive technologies' (2004: II.1), and specifically cited arms control and international treaties (especially the regimes and treaties on WMD) in the range of relevant activities. Counterproliferation was defined as military activities taken to defeat the threat or use of WMD, with its objective being to deter, interdict, attack, and defend against the range of WMD acquisition, development, and employment situations. The inclusion of acquisition and development as counterproliferation (that is, military) targets is significant.

Key Points

- Strategic responses against WMD proliferation are those involving military means. This is sometimes referred to as 'counterproliferation'.
- Post-cold war interest in such responses is driven by a combination of the emergence of smaller but potentially more immediate threats, and a sense that arms control may be of limited use.
- Concern about proliferation of WMD, particularly nuclear weapons, is significantly driven by a concern that they may be used to deter US-led intervention.
- The 1993 Counterproliferation Initiative was an attempt to develop a coherent strategy to allay those concerns.
- The most far-reaching counterproliferation came in 2003 with the war against Saddam Hussein.

The Challenges of Counterproliferation

There are several problems and dilemmas associated with military responses to proliferation. The foremost difficulty is one of definition: the term 'counterproliferation' can refer to everything from protective clothing for troops to air strikes on nuclear facilities or even regime change. In the latter cases, it requires the surrounding 'political logic' to be more fully developed than is currently the case.

One possible place to develop this logic is the international regimes on WMD and the UN. The great unanswered question of these global WMD regimes has always been: what happens in cases of non-compliance? Counterproliferation can be seen as a response to this question that grew from the initial response of 'defend yourself from WMD attack' to more robust ways to use military force. In specific cases (e.g. the Israeli attack on Osirak in 1981) it has proven controversial, and has yet to make the transition in 'political logic' from its origins in national military strategy to an accepted international context. In general cases, such as the Proliferation Security Initiative (PSI), it is undeveloped but potentially more consensual.

Another, more difficult problem is the issue of operations in the face of an 'imminent threat'. This would perhaps get around the difficulties of generating institutional agreement in the UN for military operations, but still faces the prospect of assessing exactly what constitutes an 'imminent' threat (officials on both sides of the Atlantic have, since the invasion of Iraq, gone to extraordinary lengths to deny that they ever presented Iraq as an imminent threat).[2] As the authors of a 2005 report noted, the United States (and any state, for that matter) has 'the inherent right and a moral obligation' to take pre-emptive military action in the face of imminent threats, but needs clarification of the standards for 'imminence' (Perkovich et al. 2005: 38).

Key Points

- Finding a 'political' logic into which preventive or pre-emptive action can be fitted has not always been easy.
- Pre-emptive operations tend to find their rationale and legitimacy in the context of an ongoing war, such as the 1991 Gulf War operations.
- Preventive operations find their justifying logic in the international norms surrounding WMD, such as the Proliferation Security Initiative, or in an existing strategic doctrine such as Israel's attack on Osirak in 1981.

[2] The British Foreign Secretary, Jack Straw, for example, told the House of Commons that 'we never, ever, said that there was an imminent threat', and claimed that instead he had merely said there was a 'clear and present danger'. See House of Commons *Official Report*, 22 October 2003, Column 677. In Washington, Defense Secretary Donald Rumsfeld told an interviewer, 'You and a few other critics are the only people I've heard use the phrase immediate threat. I didn't, the President didn't. And it's become kind of folklore that that's what happened'.

The Diplomatic Option: Military Responses Withheld?

North Korea and Iran in recent years have represented the foremost nuclear proliferation issues. North Korea was an NPT member state that withdrew its membership, suspended withdrawal, and subsequently followed through with formal withdrawal. North Korea is commonly believed to possess a small number (about ten is the largest estimate) of atomic weapons, and in September 2017 Pyongyang announced that it had carried out a thermonuclear test. Also in recent years North Korea has been engaged in a number of missile tests, including intercontinental missile tests and test flights over Japanese territory.

A US military operation against the Yongbyon nuclear research facility was, apparently, seriously considered by the Clinton administration (Sokolski 2001: 96). The plans were not taken up, although one member of the Clinton administration wrote in 2003 that 'Washington still believed it has the option' of attacking Yongbyon, and that 'even if US forces struck after the plant goes hot, radioactive contamination would likely remain local' (Samore 2003: 18). Following the inauguration of the Trump administration in 2017, the rhetoric between the US and North Korean governments escalated sharply. Rapid developments in the North Korean nuclear and missile programmes, and threats by the Kim Jong-un regime against America and its allies led to counterthreats from the new US president. North Korea threatened to 'sink' Japan and 'turn the US to ashes'. President Trump announced that North Korean nuclear threats would be 'met with fire, fury and frankly power, the likes of which the world has never seen'. President Trump also announced at the UN in September 2017 that any attacks on the US and its allies would result in the total destruction of North Korea.

Despite the extreme rhetoric, the 'red line', noted by Müller, against attacking facilities that contain nuclear fuel, combined with the political and military consequences of preventive or pre-emptive operations against North Korea, meant that it was difficult to take military action. Samore argues that, although the United States could launch a unilateral attack on North Korean nuclear facilities in theory, the retaliation against South Korea would probably be devastating and 'the reaction in Seoul and Tokyo could splinter the alliance' (Samore 2003: 19). These difficulties contributed to diplomatic initiatives during the Winter Olympics in South Korea in early 2018, and to a summit between President Trump and the North Korean leader Kim Jong-un in June 2018. At the time of writing, it remains to be seen whether this major diplomatic initiative will bring about the verifiable and irreversible denuclearization of the Korean peninsula.

Iran remains an NPT member, but the crisis over its plans for its nuclear power programme resulted in diplomatic attempts to persuade Tehran to give up what the West believed was an attempt to develop nuclear weapons by stealth. Israel was reported to have plans to attack nuclear facilities in Iran, and the Bush administration's mantra was always that this option was emphatically 'not ruled out'.

The Obama administration pledged a policy of engagement and 'tough but direct diplomacy', indicating a growing international sense that time was running short to head off a serious Iranian breakout capability. After years of confrontation over Iran's nuclear programme, involving economic sanctions and threats of military action to prevent the development of a nuclear weapons capability (as well as cyberattacks on Iran's nuclear facilities), political changes in Tehran with the election of President Hassan Rouhani led to renewed attempts to find a diplomatic solution. Talks from 2013 between the new Iranian government and the six-country group known as P5+1 (China, France, Russia, the UK, the US, and Germany) led to an agreement in

2015, called the Joint Comprehensive Plan of Action (JCPOA). This involved a promise to ease international sanctions in exchange for Iran drastically scaling back its enrichment of nuclear materials. The limitations were to be verified by the International Atomic Energy Agency (IAEA). For some the agreement was a major success. For others it was 'an historic mistake'.

The latter view was expressed by President Trump and in October 2017, against the advice of close allies and other members of the P5+1, he refused to 'certify' that the Iranians were living up to the spirit of the agreement. Although the IAEA confirmed that Iran was in compliance with the 2015 agreement, President Trump claimed that Iran was meddling in a malign way in Middle Eastern affairs and this, together with its recent missile tests, were contrary to US interests. In May 2018 President Trump decided to withdraw from the Treaty. At the same time the other parties to the Treaty pledged their continuing support for it. Whether the JCPOA will survive remains unclear at the time of writing. As a result the diplomatic efforts of recent years to prevent Iran from acquiring nuclear weapons have been seriously challenged.

Key Points

- Preventive strategies are directed at the process of proliferation, and aim to snuff out development or acquisition of WMD.
- Pre-emptive strategies are directed at the deployed weapons and/or facilities, and aim to prevent their use in war.
- The dilemma over North Korea and Iran in recent years has been whether to continue with diplomatic initiatives or whether to pursue a preventive or pre-emptive strategy.

Does Arms Control Have a Future?

Cold war lessons suggest that arms control agreements have had some role to play in contributing to international security. The cold war experience also suggests that arms control is rarely of decisive importance and it is not wise to see them as a way of fundamentally resolving the world's problems. There are 'good' and 'bad' arms control agreements. Arms control, however, has rarely been seen as decisively important or a solution in its own right. On the contrary, it has traditionally been a fundamentally conservative policy, aimed solely at introducing some measure of predictability into an adversarial relationship. It cannot *by itself* create stability, much less peace, and to hope otherwise is to saddle it with unreasonable expectations that are bound to go unfulfilled (see Critical Thinking).

Viewed in that more sober and cautious light, arms control as a way of controlling weapons of mass destruction should be viewed as a means to an end, never as an end in itself. It relies on the assumption that two or more states that are hostile to one another can also see a mutual interest in avoiding outright conflict. The relative decline in interest in arms control for a number of years after the cold war ended was a function of the fact that the confrontation between the United States and the Soviet Union was over, and so arms control was no longer needed to inject some stability or predictability into the conflict itself, but its role became to assist in eliminating what was now surplus military capability. By 2001, it was believed that consolidation of ageing cold war arsenals no longer required formal, verified treaties.

BOX 13.4 Case Study

The Attempts to Destroy Syrian Chemical Weapons

Since 2011 Syria has been in a state of civil war. In August 2013 a chemical attack took place in the Damascus suburb of Ghouta, which Western governments attributed to the regime of the Syrian President Bashar al-Assad. Following threats by the Obama government of punitive military strikes against Syria, John Kerry, the US Secretary of State, and Sergey Lavrov, the Russian Foreign Minister (a close ally of the Syrian president), negotiated a deal whereby Syria agreed to join the Chemical Weapons Convention (CWC) and destroy its arsenal of chemical weapons. This plan was subsequently endorsed by the OPCW Executive Council and the UN Security Council.

In August 2014, despite some Western concerns that Syria had been 'dragging its feet' on implementing the agreement, President Obama announced that the most dangerous of Syria's chemical weapons had been eliminated aboard the US ship MV *Cape Ray*. Of the 1,300 metric tons of chemical weapons declared by Syria, 600 metric tons were neutralized aboard MV *Cape Ray*: 20 metric tons were weapons-usable sulphur mustard and the rest a sarin precursor known as DF. In addition, 130 metric tons of isopropanol had already been destroyed in Syria. Also, shortly before the August 2014 announcement, the OPCW came to an agreement with Syria to destroy its 12 remaining chemical weapons facilities.

These agreements represented an important milestone in the destruction of Syria's chemical weapons. There remained doubts in the West, however, that Syria had declared all of its chemical weapons, and the OPCW continued to investigate ongoing allegations of further use of chemical weapons by the Assad government in the continuing civil war. In April 2017 the Trump administration undertook a missile strike against a Syrian airfield in retaliation against an alleged use of chemical weapons on civilians in the rebel-held town of Idlib. A further attack took place in April 1918 by US, British, and French forces following an alleged Syrian use of chemical weapons in Douma.

Although forceful counterproliferation seems likely to remain part of some states' strategy to deal with the proliferation of weapons of mass destruction, criticisms following the war in Iraq led to a renewed interest, in the United States and elsewhere, in the continuation and updating of arms control arrangements. What emerged in the Bush and Obama administrations was a broader strategy than in the past for controlling weapons of mass destruction. This framework or architecture consisted of attempts to shore up the non-proliferation regime, renewed interest in traditional bilateral and multilateral arms control measures, together with what has been described as a 'network of partnership' activities designed to act as 'a web of denial' or a 'toolkit' that could be used against those states and non-state actors intent on proliferating weapons of mass destruction (Bernstein 2008). These latter activities included: the Proliferation Security Initiative (PSI); UN Resolutions 1540 and 1887; the Global Initiative to Combat Nuclear Terrorism; the Global Nuclear Energy Partnership; the Cooperative Threat Reduction Programme; and the April 2010 Nuclear Security Summit.

Whether traditional arms control can re-emerge as a significant and sustained approach to international security and play an important role in the control of weapons of mass destruction in the future remains unclear at the time of writing. Despite some earlier reasons for optimism, more recently there have been some important challenges (see Box 13.4). The New START Treaty in April 2010 between the US and Russia agreed to a limit of 700 missiles, 1,550 strategic warheads, and 800 launchers on either side by 2018. This represents a 30 per cent reduction from the levels agreed in the 2002 Moscow Treaty. Both sides also agreed to continue negotiations to deal with stored and non-strategic weapons. The Helsinki summit meeting

between President Trump and President Putin in July 2018 seemed to indicate that both would be willing to see the reductions extended beyond 2021.

This attempt to reduce the saliency of nuclear weapons and to breathe new life into the arms control process, however, faces major contemporary challenges. Apart from President Trump's withdrawal from the JCPOA agreement with Iran, the most important concern has been the deterioration in the relationship between the United States (and Western countries) and Russia since 2014 over the Ukraine and Russia's annexation of the Crimea. This resulted in Western sanctions and new NATO deployments in Eastern Europe. It was also claimed that through its actions Russia had violated the security assurances contained in the 1994 Budapest Memorandum (and thereby undermined non-proliferation efforts), and also that it was in breach of the 1987 INF Treaty with the development and subsequent deployment in 2017 of a new cruise missile. The Western powers also expelled scores of Russian diplomats following accusations of Russian involvement in the novichok attack on Sergei and Yulia Skripal in Salisbury, UK, in March 2018. These charges were denied by the Russian government. Moscow pointed to US deployments of missile defences in Eastern Europe in recent years and destabilizing developments in highly accurate precision conventional weapons. Both governments began a process of significant improvements in their nuclear capabilities, and in late 2014 there were reports that Russia was scaling back its cooperation with the US in securing nuclear materials on Russian territory (*The Times*, 15 November 2014). President Trump's Nuclear Posture Review in 2017 also indicated a significant increase in US nuclear capability. At the same time Russia was engaged in a major nuclear modernization programme of its own.

Apart from difficulties in the US–Russia strategic relationship and the contemporary difficulties in US–North Korean and US–Iranian relations, the CTBT treaty remains some way from ratification and little progress has been made in recent years in negotiating the Fissile Materials Cut-off Treaty (FMCT). At the same time, there are continuing concerns about India and Pakistan developing MIRV technologies, and the difficulties of bringing them both, together with Israel, into the Non-Proliferation regime. There are also concerns about the difficulty of securing regional arms control arrangements in conflict-ridden areas like the Middle East and regarding dual use and new technologies, especially nanotechnologies, which continue to pose particularly hard problems for non-proliferation arrangements. The seriousness of all these challenges raises doubts about the whole basis of the future of arms control.

There are a number of criticisms that can be made of the traditional approach to arms control. Firstly, it tends to be dominated by a focus on the relationship between the United States and the Soviet Union during the cold war. Given the dangers of the nuclear arms race between the superpowers, most of the attention of the arms control community tended to focus on ways that a nuclear war could be avoided and how best to manage the tensions associated with the rivalry between them. As such, arms control theory was largely predicated on an antagonistic bilateral relationship. It was also a relationship which had developed over time, and norms of behaviour had gradually been learned by both sides. How far this experience is relevant to non-superpowers and non-Western powers is questionable. As both Marco Carrans (2016) and Michael Krepon (2012) have argued, the nuclear relationship between India and Pakistan has some distinctive features compared to the relationship between the United States and the Soviet Union. There was a lack of learned behaviour in the early years, as well as different strategic cultures which affected the prospects of arms control agreements between the South Asian adversaries. They were also involved in a triangular relationship with China,

which produced different dynamics to the US–Soviet–Chinese relationship. Similarly, it can be argued that there are few lessons from the cold war US–Soviet arms control relationship that can be applied to contemporary US–North Korean–Chinese nuclear diplomacy.

A second criticism of the traditional approach to dealing with weapons of mass destruction is that it focuses on nuclear, chemical, and biological weapons and does not take account of the dangers associated with cyberwarfare. Despite the growing literature on the contemporary ability of cyberpower and cyberwarfare to inflict enormous damage to a wide range of essential infrastructure facilities, there has been only limited discussion of the kind of interstate diplomacy that is required to deal with these very new kinds of threats. As Joseph Nye has argued, traditional arms control agreements 'spelled out in detail how to manage large, costly, observable weapons and included monitoring procedures'. In contrast, cyber weapons 'can be as simple as a few inexpensively acquired lines of code. They are available to state and non-state actors and can be hard to distinguish from benign online activity. It can also be difficult to determine who is behind their use. The "verify" portion of any cyber-control agreement would be extremely problematic' (Nye 2015). So far, these problems have been too difficult to resolve.

Key Points

- Arms control should be seen as a means to an end, not an end in itself, and it depends on mutual interests.
- Criticisms of counterproliferation following the Iraq war led to renewed interest in arms control, more broadly defined.
- The Obama administration's attempt to reduce the importance of nuclear weapons through supporting a 'return to arms control' was threatened by a deterioration in US–Russian relations over events in the Ukraine.
- More recently, under the Trump presidency arms control has been further undermined by difficulties over the INF agreement, the New START treaty, and the challenges posed by North Korea and the difficulties in the US–Iranian relationship.
- Criticisms can be made of traditional arms control approaches. They tend to focus on the US–Soviet relationship and they have difficulty in dealing with contemporary concerns about cyber weapons.

Critical Thinking 'Arms control contributes significantly to increased international security'

For

- ***Arms control helped prevent conflict in the cold war***. The fact that the cold war did not turn 'hot' provides evidence that arms control agreements reached, especially after the Cuban Missile Crisis, helped prevent the outbreak of war between the superpowers. The Hot Line Agreement, the Partial Test Ban Treaty, the Non-Proliferation Treaty, and the SALT I and SALT II treaties all contributed to a recognition that the superpowers had vital mutual interests in avoiding nuclear war.

Critical Thinking *(continued)*

- ***Arms agreements contributed to ending the cold war.*** Agreements such as the Stockholm Accords of 1986 and the Intermediate Nuclear Force (INF) Agreement of 1987 played an essential part in building confidence between East and West, creating the necessary trust to reduce hostility.
- ***Arms control can mitigate arms races.*** Constant rapid technological changes and mutual suspicions inherent in a system of international anarchy help to encourage arms competition, which in turn poses dangers to international security. By addressing the instabilities of the military balance of power, arms control significantly contributes to the absence of great power conflict.
- ***Grounds for optimism exist, despite contemporary tensions.*** Despite contemporary tensions between the US and Russia, Rose Gottemoeller, Deputy Secretary General of NATO, has declared that: 'Over the past few years, we have achieved significant results in cooperation with the Russians. This includes Russian support of Security Council resolutions that created the toughest sanctions ever on North Korea and Iran, our work together on eliminating Syria's chemical weapons, our continuing successful implementation of the New Start Treaty, and the completion of the 1993 US–Russian Federation Highly Enriched Uranium (HEU) Purchase Agreement' (US Department of State 2014). Such statements reflect continuing mutual interests despite the differences between the two countries.

Against

- ***Few real restraints existed in the cold war.*** Arms control had little or no impact on the prevention of war between 1945 and 1990. Nuclear testing continued, despite the partial Test Ban Treaty; proliferation was not prevented by the Non-Proliferation Treaty; quantitative and qualitative improvements in strategic armaments continued in spite of the SALT I and II treaties; and the MBFR Treaty failed to achieve conventional arms limitation.
- ***Arms control did little to help end the cold war.*** The end of the cold war was largely the result of political changes, especially in the Soviet Union, where Gorbachev recognized the crippling economic costs of the continuing arms competition with the United States.
- ***Cosmetic arms control.*** Where agreements were reached in the cold war, the states concerned merely agreed not to do those things they did not wish to do anyway.
- ***Contemporary tensions.*** Russian action in the Ukraine, especially its annexation of the Crimea, and Western responses have had a detrimental impact on a range of existing arms control arrangements. The North Korean Crisis and the criticisms of the JCPOA agreement with Iran by President Trump also raise concerns about the nuclear non-proliferation regime.

Questions:

1. What are the strengths and weaknesses of the non-proliferation regime?
2. Has the Chemical Weapons Convention been successful?
3. Does strategic nuclear arms control have a future?

Conclusion

Overall, there appears to be no single approach, whether it be disarmament, arms control, or counterproliferation, which provides an easy and sustainable solution to the problem of controlling weapons of mass destruction. The vision of a world free of such weapons should not be dismissed and nor should forceful counterproliferation be discounted in certain extreme situations. Both, however, raise serious problems. Arms control, both traditional treaties and new partnership arrangements, is not a panacea. The new initiatives introduced by the Obama administration in 2009 and 2010 aimed to reinvigorate the arms control process and were welcomed by many observers as an important contribution to global security. There was, at the time, a growing consensus that, despite their imperfections, arms control arrangements, more widely and consistently applied and more dependably verified and policed, could yield important benefits. Specifically, they could help to provide preventive barriers, greater assurance, and trust between states, which is essential in dealing with the critical political issues that cause states to arm themselves, as well as the dangers of terrorist groups using weapons of mass destruction. Major geopolitical changes in recent years and the current tensions in US–Russian relations, however, as well as the continuing question marks over North Korean de-nuclearization and contemporary challenges to the JCPOA agreement with Iran, and concerns about the effectiveness of the Chemical Weapons Convention, seem to challenge this optimism. At the same time there was some optimism resulting from the summit between President Trump and Chairman Kim Jong-un in June 2018. It remains to be seen whether contemporary arms control agreements can be achieved and sustained in a new, more fluid and complicated, era of great power suspicion and rivalry, and whether new approaches to dealing with the dangers posed by cyber weapons can be found.

Questions

1. What are the differences between disarmament and arms control?
2. Which was the most important arms control agreement in the cold war?
3. What were the key criticisms of arms control by the end of the cold war?
4. How useful has arms control been in helping to preserve peace and security in the post-cold war period?
5. Is arms control compatible with counterproliferation?
6. Account for the growing interest in strategic military responses to proliferation.
7. In what way does the North Korean Crisis pose serious problems for the non-proliferation regime?
8. Are chemical weapons as much of a problem for global security as nuclear weapons?
9. What are the contemporary difficulties facing arms control?
10. What issues arise for strategists with low numbers of nuclear weapons?
11. Discuss President Trump's approach to arms control.

Further Reading

I. Anthony and A. D. Rotfeld (eds), *A Future Arms Control Agenda* (Oxford: Oxford University Press, 2001) provides an analysis of post-cold war thinking on arms control.

H. Bull, *The Control of the Arms Race* (London: Weidenfeld & Nicolson, 1961) is a classic study that developed the first modern concept of arms control.

I. Daalder and **T. Terry (eds), *Rethinking the Unthinkable: New Directions in Nuclear Arms Control* (London: Frank Cass, 1993)** is a useful volume on thinking about arms control shortly after the cold war ended.

S. Feldman, 'The Bombing of Osiraq—Revisited', *International Security* 7(2) (Autumn 1982): 114–42 is a useful source on the Israeli attack on Osiraq in 1981.

C. S. Gray, *House of Cards: Why Arms Control Must Fail* (Ithaca, NY: Cornell University Press, 1992) provides an interesting and controversial critique of the utility of arms control.

E. Herring, (ed.), *Preventing the Use of Weapons of Mass Destruction* (London: Frank Cass, 2000) explores the options for preventing use, rather than simply spread, of WMD.

J. A. Larsen and J. J. Wirtz (eds), *Arms Control and Cooperative Security* (London: Lynne Rienner, 2009) contains some interesting articles on the relationship between arms control and its contribution to cooperative security.

H. Müller, D. Fisher, and W. Kötter, *Nuclear Non-Proliferation and Global Order* (New York: Oxford University Press, 1994) examines the relationship between non-proliferation and issues relating to international order.

T. Schelling and M. Halperin, *Strategy and Arms Control* (Washington, DC: Pergamon-Brassey's, 1985) is a classical study that helped to develop the concept of arms control.

W. Walker, *A Perpetual Menace: Nuclear Weapons and International Order* (London: Routledge, 2011) provides an excellent analysis of the history of nuclear weapons and how they have affected international order.

Web Links

The Acronym Institute for Disarmament Diplomacy **http://www.acronym.org.uk** provides a useful, and often critical, view of Western arms control policies.

The Defense Threat Reduction Agency **http://www.dtra.mil** covers the various approaches adopted by the US to reduce the threats to its national security.

Arms Control Association **http://www.armscontrol.org** gives information on a wide range of issues relating to arms control.

Center for Nonproliferation Studies, Monterey **http://cns.miis.edu** provides information on the activities and research undertaken by the Center.

Conventional Power and Contemporary Warfare

JOHN FERRIS

Chapter Contents

Introduction: Power and War—A History 238
New World Orders: 1945, 1989, 2001 239
Power and Hyperpower 241
Military Affairs: Revolution and Counter-Revolution 243
Arts of War 244
Military Balances 246
World on the Scales 248
War, What is it Good For? 250
Conclusion 252

Reader's Guide

This chapter assesses conventional power today. It analyses how, and how far, conventional forces shape the contemporary world, whether by fighting wars or by backing policy in peace. The chapter examines how they function in areas ranging from distant strike to urban warfare, and compares their role to that of other forms of force, like weapons of mass destruction (WMDs) and terrorism. It ends by discussing the conventional strength of states in the world, and trends in its development and distribution.

Introduction: Power and War—A History

In romance, war is like this. States fight, therefore armies enter *decisive battle*. One wins, the other loses, the victor gains, immediately, and both return to their seats. Sometimes war is like a waltz, but mostly not. Often, it is long and destructive, costing both sides more than they gain. Even victors suffer unintended damage. Battles are inconclusive, or victories have no value. Enemies refuse to surrender, or recover from defeat and force you to fight again. They reject your rules, evade your strengths, attack your weaknesses, and impose their will on you. Intentions and effects become confused. Paradox rules. Politicians imagine armies are military scalpels for political surgery, but in war, one operates with a battleaxe and without a medical licence on a patient who is trying to amputate your arm, in the dark.

This chapter examines the present and emerging state of conventional military power, including its distribution, what it can and cannot do, what is changing and what is not. One cannot understand these trends only by considering the record of conventional war. Nor can one look just at the states that most often fight them, or have the best weapons. Third-rate powers shape conventional war as much as advanced ones. And all do so by their weaknesses as well as their strengths.

Refined power yields armed forces, which are usually small in size and costly to maintain. In the past, states regularly fielded hundreds of thousands of soldiers, and millions in the twentieth century. Yet these periods are unusual, because armies erode the wealth of nations and the power of states. In classical Greece, armies were usually fewer than 15,000 men, rarely 50,000; so too in the European empires of the nineteenth century. Since 1989, armies have again slipped in size. The greatest power on Earth can barely send 100,000 soldiers on one expedition beyond its borders. Navies have been even smaller, because they are a rich state's weapon, dependent on industry and wealth. Expensive to build and maintain, fleets vanish without a regular programme of shipbuilding. Navies usually die in the dockyard, not in battle. Few states maintain large navies for long; and those that do command the seas as armies rarely do the land. Sea power is the child of wealth and resolve; so too, air power. Military power has social roots, many forms, and a competitive nature—your system compared to the enemy's in specific circumstances. The edge of the razor is comparative advantage, your strengths, and ability to force them on the enemy. Numbers and technology matter, but not enough to win every time. A belligerent able to take heavy losses without surrendering beats one with high technology and low willpower. Able armies with no material edge whip larger enemies. Politics and willpower defeat firepower and technology, or vice versa. Small elite forces crush half-trained hosts, or not. It depends on the circumstances (see Box 14.1).

Until 1945, the greatest form of military power was conventional force. It was the weapon of choice for the strong, particularly useful against the weak, common between neighbours. It could inflict more precise and powerful damage than irregular forces and keep battle from one's home, yet it had limits. Sometimes conventional war is unavoidable or an effective way to achieve ends. Merely to avoid defeat is good. More is possible if one is strong and smart, or the enemy weak and foolish—preferably both at once. Yet, as in any competition, the use of conventional force has unpredictable outcomes. Decisive battles are like strikes of lightning—they happen rarely. The greatest of world powers emerged through long runs of decisive victories over many enemies—Romans, Arabs, Mongols, British. These circumstances are significant, but not common. The classic example of a decisive battle is Cannae in 216 BCE—yet its victor lost that war. The average outcome of war is attrition, slow and costly to both sides. Conventional war is like gambling. All that is sure is an entry cost, and some combination of risk and gain. Some people love the risk, forget the odds, and think the pay-off certain; others fear to play; skill matters, and the strength of your hand; so does chance.

New World Orders: 1945, 1989, 2001

Between 1815 and 1945, Western military systems beat all others at once. Europeans conquered the Earth, and then destroyed each other. From the wreck emerged a new *world order*, defined by decolonization, the cold war, and nuclear weapons. Industrialized states

BOX 14.1 Key Concepts

The Intricacies of Power

Power is an alloy, formed from the interaction of material factors (geography, demography, and economy) and the administrative capacity and political structure of a state—its ability to command a people and tap these resources. The first group defines the potential power of a state, the second how much can be tapped. Their relationship converts material power from crude to finished form—from resources to forces. Overwhelming strength in one element may not a great power make, nor weakness in one destroy it. A poor country may remain a great power because its forces are large, its geopolitical position favourable, its institutions stable, and its statesmen able. A rich country may not convert its wealth to power, and so will matter less in world affairs than is possible. Rich states rarely tap their resources systematically for strategic purpose. That bolsters the position of anyone willing to do so, rich or not. In power, resolve outweighs wealth. Power is a concrete quality: the resources a state taps for strategic purposes, as against those it might, but does not. It takes different forms in diplomacy, a short campaign between two countries, or a prolonged and total war of attrition involving a state system. Usually, institutions are the main factor in power, because they turn raw into refined strength—a hard task, dominated by marginal superiority. For most of history, a state able to jump from tapping 1 per cent of its potential power to 2 per cent might double its military capacity. The edge provided by institutions dulled from 1870 because, ironically, they became more effective, numerous, and common. Advanced states adopted many systems (conscript armies, General Staffs), which turned wealth into power more efficiently. Brute demographic and industrial strength was the key predictor of power in the First and Second World Wars. The value of institutional superiority rose after 1945, at least for developing states. Israel's battlefield success stems from the fact that it possesses techniques like conscription and a quickly mobilized reserve while its neighbours do not.

split between two alliances, balanced in destructive capability. They waged the greatest arms races ever known, with conventional and nuclear, chemical, and bacteriological WMDs. A war between them risked suicide. This made conventional strength just one part of power, imposed an upper limit on *the rationality of force*, and reshaped world politics. The industrialized states possessed more power than in 1939, but their influence declined. Decolonization was the primary political force; the cold war was a local phenomenon of the industrialized world. The European empires shattered, breaking the world into bits. Power had to be gained in each region. The USSR and the United States dominated the industrialized world, but neither picked up the pieces of imperialism. They simply established ties with regional successor states, some of which became stronger than most advanced countries.

Since 1945, the major industrialized states have not fought each other, nor—excepting the guerrilla wars which accompanied decolonization and interventions against Islamic insurgents or for liberal humanitarianism after 1990—many other countries at all. War has rarely been fought by the strong nor practised at the state of the art. The core of world power was not the centre of world war. That was Asia and Africa, where most states lacked the economic or administrative abilities to fight total wars or to win quick and cheap victories. Most conflicts stemmed from the end of imperialism, whether wars of national liberation to overthrow it or of succession between new states, striving to determine strength, status, and frontiers. They ended by 1975. In these Third World wars, many states had modern weapons but few used them well. The relationship between victory on the battlefield and at the peace table was complex. Rarely did force achieve great aims, or precise ones.

In 1989, with the collapse of the Soviet bloc and Russian capabilities, the distribution of power in the world altered again, as did its nature. Western states, overwhelmingly superior in military technology, cut their forces and spending by 25 per cent, and assumed they could master the new world order. But they were misinformed. The end of the cold war prompted the collapse of several states and another wave of wars of succession. In most of Asia, strong non-Western states became more powerful, continuing to dominate their regions and acquire WMDs. Arab powers slipped in status, because they could no longer gain free weapons from superpowers. In the Middle East, the United States used force for *realpolitik*, crippling Iraq and checking Iran. Otherwise, power became decoupled from policy. When Western states used their power, they did so in an odd way. Their peoples, reluctant to fight except for vital interests, sometimes wished one foreign party would cease to bully another and deployed token forces to achieve that end. They pursued international acts of charity through multilateral military means, driven not by reasons of state but public opinion, aiming not to defeat a foe but to do good and no bad. Such ends were hard to achieve or to pursue.

Then, on 11 September 2001, al-Qaeda launched an act of 'propaganda by the deed', to rally Muslims against the United States. This attack tied together every level of force, from terrorism to WMDs, and plugged power back into politics. Rich states took hard actions. The United States ceased swinging between isolationism and internationalism. It bolstered its conventional power, declared policies of unilateralism and pre-emptive attack against anything it deemed a threat, and occupied Afghanistan and Iraq. The lonely hyperpower, pillar of the world order, was wounded. It pursued absolute security, which many other states saw as a threat to themselves. It used all types of power to reshape all forms of politics everywhere in the world, at once. This affected the distribution of power, and its use.

Key Points

- Several forms of a unified world political system have existed since 1800. Conventional force played a different role in each one.
- Conventional power was used frequently between 1815 and 1945. Military superiority underwrote European imperialism.
- After 1945, major states rarely used conventional force against each other, but did so more often against weaker states, which fought each other frequently.
- Since 1945, the power of conventional force has been limited by WMDs, and guerrilla warfare.

Power and Hyperpower

If riches made strength, Europe would be the greatest power on Earth, the United States second, and Japan and China tied for third; but the issue is the marriage of will and wealth. One may divide conventional military powers into four groups: *the United States*, *advanced states* (industrialized, capitalist, mostly liberal-democratic, ranging in size from Singapore to Germany), *developing powers* (with small-to-large industrial bases, and mostly authoritarian governments, like China, India, and Russia), and *weak states* (most of those in Africa,

and some in Asia). Weak states have little offensive power; their strength is the difficulty of occupation. Any rich country can speedily increase its conventional forces but their ratio of will to power varies. Most European states have little power to project, and less will. They are unlikely to be attacked by conventional force or to fight each other, though Russia is a threat. They are most likely to use force against the weakest states, in humanitarian interventions or against Islamic insurgents. Britain and France can launch expeditionary forces, but barely. Advanced states in Asia, like Singapore and Japan, maintain powerful defensive capabilities. Conventional power matters more to Israel than any other nation on Earth, except North Korea. Many developing states tap far more of their resources for forces, and are far stronger in their own regions, than any rich country except Israel, South Korea, and the United States. Russia and China remain the world's second-strongest conventional powers, while others have large forces and some offensive capability. Russia's economy is fragile, whereas China combines dynamic military and industrial strength. All these states stand well behind the state of the art, and are cautious about using such forces. Russia's experiences against Georgia in 2009 and Ukraine in 2014–17, and those of Britain and France against Libya during 2011, show that even major powers cannot easily defeat fourth-rate foes.

Americans have a taste for, and the infrastructure to exercise, power across the world. Their post-9/11 expansion in military spending has stalled, but at far higher levels than in 2000. No other state has had the absolute and relative conventional power the United States possessed in 2017. Overwhelming strength at sea and in air, strike, and space dissuades any challenges in these key areas. The United States has more aircraft carriers than the rest of the world combined, able to launch ten times as many aircraft. The American air force matches every other one on Earth put together. This capacity underwrites Pax Americana just as sea power did Pax Britannica. It augments nuclear power as a means to deter attack and sustains the United States' loose leadership over all advanced countries, the structure through which Washington exerts political influence. This creates a key phenomenon in contemporary politics, that rich states will not fight each other and often will cooperate. Yet these edges are of limited value in land combat—indeed, the cost needed to develop them weakens American power in that sphere. Its relative advantage lies in distant strike, compellence, deterrence, and dissuasion, and its weakness in close-quarters combat and occupation. The United States could smash the air and naval power of almost any developing country, but can occupy few of them. Threats of force serve Washington more than its use. These are just some of the paradoxes of conventional power in the contemporary world.

Key Points

- Overwhelming conventional power, along with nuclear weapons, make the United States the world leader. This strength supports dissuasion better than war.
- Many rich states have powerful conventional forces at home. Few have expeditionary capabilities.
- Some developing powers have powerful conventional forces at home. None can project it far from their borders.
- Most states have weak conventional forces.

Military Affairs: Revolution and Counter-Revolution

Between 1989 and 2006, American military policy was driven by efforts to ride a revolution in military affairs (RMA). Armed forces would act without friction on near-perfect knowledge, through the fusion of precision guided munitions (PGMs), information technology, and command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR). Conventional force would have more power as a tool of state and the leading powers greater superiority in it, than ever since Omdurman, the heyday of European imperialism.

When these ideas were tested in conflict, the conversion of military to political success proved hard, but Western forces coordinated command and intelligence with unprecedented skill. This multiplied the strength of all forms of centralized firepower and rapid, precise, and long-distance weapons. These leaps in quality, and in the quantity of aircraft and PGMs, enabled strike forces to matter far more than ever before, equalling armies in land warfare.

Yet victory did not flow straight, or simply, from the RMA. Information overload and friction between headquarters and inexperienced personnel swamped commands. Distant strike succeeded only when the machine performed without friction. Any friction yielded failure; no system is perfect. Close-quarters battle shaped land war as much as distant strike, and mattered far more against guerrillas. Western powers could not easily defeat any enemy with competent leadership, a decent army, and fair public consent.

These tests show the limits to ideas about *transformed forces*. They posit a world without strategy, a one-dimensional and one-sided struggle. The United States always plays to its strengths, and need never defend its weaknesses. High-technology forces assault weak enemies, without initiative. They play to your strengths. A fine-tuned, high-performance machine works perfectly, without any effort being made to hamper its effect. It is convenient when an enemy chooses to be foolish and weak, but that is its choice, not yours. A smart but weak foe refuses any game where you can apply your strengths, and makes you play another. A tough and able foe turns the characteristics of your game into a strength of its own, by attacking any precondition for your machine to work and imposing its rules on you. By doing what suits them, they change their strengths and weaknesses—and yours.

The RMA in Reality

The idea of an RMA was oversold, but has some value. In assessing power for air and sea, C4ISR matters as much as hardware. An air force with better C4ISR matches one with far more aircraft. The RMA did many things, but not everything. It has *multiplied American strengths, but not reduced its weaknesses*. The RMA increased the value of high technology and firepower in conventional war, but little else; where these things matter, they do more than ever; where they do not, nothing has changed. Its advocates assume that conventional power has grown steadily more powerful, and everything else weaker, that the RMA has universal force across all arms, instead of strength in some and weakness in others. Their arguments look at only one development, instead of the reciprocal relationship between several of them. The revolution is advancing; so is the counter-revolution.

Strike weapons enable a new version of gunboat diplomacy, letting one destroy targets from a distance, to make a political point. They enable conventional forces to hit harder, further, and more accurately than ever before; they reshape operations at sea and in the air; but that is not all of war, nor is it new. Technology enables transformation; that it has transformed the power of aircraft more than that of armies is suggestive. In land warfare, command and intelligence have never worked as they do at sea or in the air.

Perhaps conventional forces are midway through a decades-long transition from one set of forms—armies, navies, and air forces—to another, close-quarters land forces, navies, strike weapons, and space power. If so, some services may not survive as they are. If no aircraft have pilots, air forces and artillery might merge, and dominate blue water, where no large surface warships can survive the hostility of the United States. However, this transition is far from over and it will affect armies least—perhaps not much at all. Land warfare will continue to involve an equal and overlapping combination of close quarters and distant firepower, as it has done since 1940—or 1916.

At one and the same time, the strike capacity of advanced states has risen as has the power of terrorists against them, while nothing has changed in close-quarters combat or guerrilla warfare. Nor can any one master all these domains at once.

Key Points

- Conventional forces take many forms. Their strength is hard to compare.
- High-technology forces can strike blows of unprecedented precision and weight, which has transformed sea power, air power, and all forms of distant strike.
- The power of armies has not been transformed for close-quarters combat, or against guerrillas.

Arts of War

Armies cannot evade economics. To buy one thing is not to buy another. To maintain large standing forces reduces the procurement of new equipment, and vice versa. The entry cost for the RMA is high; it incurs opportunity costs. This situation forces choices on all states, with a mixture of costs and benefits. The United States will lead in transformed forces, because it cares about them while no one else can keep up. But even its military budget, equal to almost every other state on Earth, has limits. So to make anyone else think twice about competition, the United States will keep the entry cost to the RMA high. Nor is the new American way of war a model for everyone. In transformed power, the United States is a giant and everyone else a dwarf. Transformation gives no one else quite the same bang for a buck. It will be less cost-efficient for weak than for strong states. Its pressure on defence budgets reinforces the tendencies towards demilitarization in Europe, while complicating life for all other advanced powers. The RMA will give them the edge over enemies which cannot adopt such innovations, but not revolutionary ones. Israel does not need transformation to master Arab armies. It will not silence North Korean artillery in range of Seoul.

Comparative advantage takes many forms. The United States owns sea power, air power, and strike, with everything that promises. Even forcing enemies to asymmetry has

advantages, as unconventional means often solve problems worse than conventional ones. Asymmetric means are unlikely to wreck (as compared to degrade) American strengths in the air or blue water, but the story is different on land. American choices for transformation will leave its enemies strong cards to play. Between 1870 and 1989, the standard form of armies was large conscript forces, able to deliver and absorb heavy punishment. Given their costs in money and skilled personnel, transformed armies will be smaller services, with unprecedented reliance on firepower and technology. Like eggshells armed with hammers, they can inflict damage, but not take it—closer to the model of artillery than infantry. When they are good they will be very good. They will be better than ever at anything dominated by firepower, but worse at anything else. They cannot take losses; they cannot easily deploy their strengths or shield their weaknesses in close-quarters combat. Once, an army able to defeat an enemy was big enough to occupy it—now, one can easily be powerful enough to crush a foe but too small to hold its territory. Western regular forces in Iraq and Afghanistan relied heavily on their reserves and mercenaries to function. Nor do Special Forces change this equation. These units are useful, but not new, essentially equalling the light infantry or cavalry maintained by states over past centuries, their mobility multiplied by air power and C4ISR.

Again, until 1945, nothing limited the upper edge of force except one's ability to get there. If one could annihilate an enemy, one did. No longer is that true, because of the mixture of images, ethics, and opinion aroused by modern media. A desire to minimize the deaths of enemy civilians, even of soldiers, complicates Western actions, as one tries to avoid overstepping the upper level of permissible force. Legal advisors serve on military staffs, to ensure that only lawful targets are struck. Because they are the safest means to navigate near the tolerated limits on force, precision and control are the fundamental gains from transformation, while the most obvious use of PGMs is to assassinate individuals in irregular warfare. These gloves would come off if any people thought its vital interests were at stake—then conventional weapons could wreak mass destruction, to the surprise of the unwary instigator. Russia and China might do so from the start.

Developing states will maintain large forces for close-quarters combat. One lesson from recent wars is the difference a decent army and second-rate kit make. This is not a new lesson. Over the past century, developing states like Turkey, Vietnam, and Japan created armies able to inflict heavy punishment while absorbing even more, making willpower a decisive factor and often beating richer but less resolute enemies. In ground war, defenders will be most strong and attackers least so, home field advantage will matter, and Western armies must handle cities. Urban combat divides the value of training, technology, and firepower and multiplies that of morale and the ability to take losses. Civilian casualties and relief efforts shape victory as much as tactics. Western forces will not enter into urban warfare unless every other option is exhausted. Urban warfare and the price of occupation are the functional equivalents of WMDs for weak states. They will deter attack.

Developing countries will aim to negate high-technology forces through asymmetric strategies. Any able enemy at war with the United States will jam any communications on the electromagnetic spectrum. This would damage American power far more than their own, and perhaps stall its entire war machinery. The final *asymmetric* response of enemies to American conventional power will be to pick up its pieces and go home—to WMDs or terrorism.

Key Points

- The RMA will help the United States more than any other country.
- Transformed fighting services have weaknesses as well as strengths.
- When they can play to their strengths, they will succeed.
- Rational foes play to their strengths and their enemies' weaknesses. Developing countries may trump the RMA through asymmetric strategies, WMDs, urban warfare, guerrilla warfare, terrorism, or good forces with low technology.

Military Balances

Sometimes, conventional power is easy to calculate. Each side fights the same way and has so many archers or tanks; you multiply the quantity by some coefficient representing quality, and Bob's your uncle. Today, simply to gauge conventional power is problematic, because its forms vary and are changing (see Box 14.2). Perhaps one can measure power in PGMs for all states, simply by multiplying their quality and quantity by some coefficient representing C4ISR. So too with blue water navies, as they are rare and commentators agree on what makes power for them (that story ends at the green water mark). Such measurements are harder with armies. Those of developing powers have a strong but short punch, great on their

BOX 14.2 Case Study

Arms and Power

Over the past century, many developing countries built good armament industries, resting on effective links between businesses and bureaucrats, and decent kit. They entered the state of the art, learning to copy and then innovate, by forming liaisons with arms producers in many states; buying much material and acquiring more via espionage; making weapons under licence and reverse engineering; and training labour to build munitions and designers to make them.

While a score of states entered such arrangements, two cases transformed world power. In 1921 all Japanese warships and naval aircraft were versions of British equipment, gained through purchase or joint ventures. Over the next 20 years, Japan developed advanced naval and aeronautical industries through hard work and copies of all the kit it could buy. So too, Soviet tanks of 1941 were derived from refinement of Western technology purchased a decade earlier. Its aircraft industry of 1951 relied heavily on Western designs acquired by aid, accident, and espionage.

Since 2000, arms sales have been driven by the hunger of firms for profits, and the desire of their states to strengthen those industries while acquiring political influence through their product. The United States makes massive arms sales to its allies, especially in the Persian Gulf, needing means to keep Iran in check. So too have France and Britain. Russia leads in the transfer of advanced military technology, so as to salvage its military-industrial base, the only area where its firms can compete on world terms. This provided its only success in industrial exports, especially in procurement arrangements with India, but enabled China to strip Russian technology and become a strategic and industrial competitor. China purchased leading Russian aircraft, missiles, destroyers, and submarines, and also stole from it the technology for radar and data link systems, and fighters. Indicatively, in 2018 China still pursued Russian technology like aircraft engines and avionics, although they were a generation behind the West.

borders but not beyond; best measured by the number of soldiers they could deploy on their frontier. North Korea or China could throw millions of soldiers to their frontiers, India or Turkey likely 400,000. Rich states have armies with longer range but less weight. Their strength is best measured by the combat troops ready for expeditionary service: Germany, Canada, and Australia might deploy 2,000 each, France and Britain 10,000, and the United States 140,000. World conventional power rests on a combination of a blue water fleet and an expeditionary capability, in which the United States stands alone in its class, with Britain and France the only bantams. To compare these forms of force is like gauging apples and oranges; the point is where the struggle occurs. In Fujian, the Chinese army would reign supreme; 50 miles off shore, it would drown.

The balance of power is changing most in Asia. India's competition with Pakistan is unlikely to end, but it is one-sided. Pakistan strains its resources to play. Indian leaders distort the danger of Pakistan, because a weak enemy suits them. India does not seek to conquer its neighbours, however much it wishes them subordinate—few things could be more disastrous for India than conquering Pakistan and having to rule its people. Meanwhile, India already projects force far from its shores. It aims to be one of two dominant powers in the Indian Ocean, alongside the United States, with land-based aviation and a fleet, based around two aircraft carriers and 25 decent destroyers and frigates. That power will rise after 2018, as it junks old kit and acquires new. If India continues its drift towards alignment with the West, and its moderate investment in new forces, it will be a regional sea power. That will strengthen its influence throughout the Indian Ocean littoral, but to what effect remains uncertain. Since 1949, India has found power and strategy hard to handle. It uses power merely as one means to demonstrate status, rather than as a tool to pursue interests. India, the least of the great powers, punches below its weight. It has more power than it uses.

China has less power than it needs. It has great ambitions, and moderate strength. It aims to absorb Taiwan and remove the American containment of its coasts—easier said than done, on terrain where the United States is strong and China weak in both sea and air power. Since 1949, China has pursued the area-denial maritime strategy of a continental power—to keep rivals far away through land-based force and a brown water navy. China hopes to push that perimeter towards Japan and Taiwan, but is painfully slow in gathering the means, such as cruise missiles, better aircraft, and bigger ships. Over the past generation it has junked much old kit and built a medium-sized modern navy, which shows signs of striking for blue water. However, its efforts are unlikely to bear fruit for decades. American sea and air power can easily pin China on its coast, if they wish. Only if and when Taiwan and China are reunified will it break that barrier and reach blue water and so become a world naval power.

Key Points

- Conventional power is hard to calculate. It depends on circumstances.
- Conventional forces take many forms, to handle different problems.
- They succeed by developing and exploiting comparative advantages over competitors.
- Only years of sustained effort enables any state to challenge an established air or sea power.

World on the Scales

In 2018, the world confronts the biggest changes in power since 1989. China's rise alarms its neighbours, though it is decades away from being a global power (see Critical Thinking). Europe, rich and weak, slides to strategic irrelevance as actor, though not object. The United States has destabilized Western alliances, forcing its allies to do things they found difficult—to look after themselves. The chastened hyperpower reconsidered its strategies of 1989 and 2001. The United States will maintain far and away the largest military expenditure on Earth, but cut it well below the level of inflation, forcing bitter budgetary battles, and killing some programmes, especially in land forces. Just because a power declines while others rise, however, need not mean that it will fall, or not immediately. Its position may hold steady for decades, or tip suddenly at any time. In power, tipping points matter as much as trends. Unfortunately, they are harder to foresee.

The United States will remain an unmatched power for decades to come, but its power is declining, and hyperpolarity vanishing, for reasons beyond its control. Other states are exercising their weight. Meanwhile, the first rise since 1989 in the size and quality of armed forces is occurring, as all major states pursue great programmes of rearmament to counter the rust-out of old kit. Only some will succeed. Talk is cheap, weapons are not. They rise in price as they become more sophisticated, driving down orders, which further increases unit costs. So to maintain national arms industries, states rarely buy equipment off the shelf from others, but prefer indigenous firms, usually more costly and of lesser quality than the best on Earth. Without constant orders, arms firms wither. These factors drive supply and demand for the arms trade.

After 2000, military budgets jumped, but then stalled and now are falling. Western states almost doubled their military spending between 2000 and 2008, while that of China trebled, but inflation ate most of that increase. Governments are shocked to find how so much can buy so little. All navies and air forces are in crisis, as numbers of personnel and kit plummet to allow recapitalization. Western ones must explain why they need new equipment, when they already have the world's best, and threats are so weak and far away. The US Navy, a vaunted 600-ship navy in 1989, has 300 in 2018. Since 2001, the US Air Force has slashed its ranks to produce tiny numbers of its next two generations of fighters, the F-22 and F-35—183 F-22s eliminated 20,000 personnel, almost 10 per cent of the total. These pressures drove Western states to develop aircraft by international consortia, including the F-35. Washington's refusal to do so with the F-22, to maintain the secrecy of stealth technology, shaped its astronomical unit cost, of US$339,000,000 per aircraft. In order to buy new kit, between 1990 and 2009 Russia cut its army by 70 per cent, to 500,000 men, while China cut its army by 20 per cent and its air force by 50 per cent. Moscow and Beijing linked their status as powers to massive new arms programmes, like the Indo-Russian Sukhoi 57/HAL fighter aircraft, intended to compete where American power is strongest. If these aims fail, so will their policies.

Gold and Iron

Cost barriers and economic recession cripple the ability of states to keep their place, and to develop dominant weapons systems, especially aircraft and warships. By 2015, after many

problems, the F-35 programme finally gelled. Western countries could acquire advanced fighters, if they were willing to pay the price—not easy, since their defence budgets slipped by 12 per cent between 2010 and 2018. Russian and Chinese fighter programmes were less successful. While British and Japanese naval construction surged, other secondary fleets confronted a choice between rust or boom.

In these spheres, no state faced greater trouble than Russia. Between 2000 and 2008, its defence expenditures quintupled after a decade-long collapse, which barely saved its conventional forces from becoming obsolete. Even so, its navy became a floating museum. Financial crises tripped up Russian plans to construct or rebuild 54 warships between 2014 and 2020, and to commission 1,000 aeroplanes and helicopters. Constantly, Russia announced plans to build large numbers of leading edge weapons systems, but just produced a few modified and mediocre Soviet models. When given 25 per cent of Russia's total expenditure on military procurement between 2010 and 2017, the navy merely completed six large but obsolete warships. An order for 250 Sukhoi 57s shrank to 18, while its claims for quality evaporated. Russia adopted 50 SU-35s, based on a 1980s platform, as its main fighter, and hoped to make 30 TU-22M3m bombers, an updated 1970s aeroplane, its strike aircraft. Russian army kit remained large and good, but Russia was a power only compared to Ukraine. Its real comparative advantage was cyber subversion. Unless Russia makes military investments at the scale that bankrupted the USSR, Russian conventional power will fade: yet only these forces and its nuclear capability support its claims to be a great power. How Russian leaders will harmonize this dissonance remains a great unknown in power politics.

In the decade after 2017, the countries least affected by economic malaise may develop the capabilities to meet their declared policies. South Korea, China, India, and Japan are almost bound to become militarily more powerful, though they may largely just check each other. Most countries will not match words with deeds, however much they hide decline through bluster, like squid behind ink.

A struggle will occur between the economic power and political will of major states, embodied in military procurement; the outcome will be measured in the quantity and quality of conventional forces. The only safe bets are that the United States will remain the greatest of powers and China its greatest competitor, that any country which fails in rearmament will fall in power, and that many will do so. Their efforts to achieve these ends, and their success compared to their rivals, will add uncertainty to the base of a new world order. Nothing drives a state towards desperation more than the fear that it is declining while a rival is rising (see Box 14.3).

Key Points

- The distribution of conventional power is changing.
- Western countries are in decline.
- New world powers are emerging, especially China and India.
- The impact of these changes will vary with the desire of states to tap economic power for strategic purposes, and with the skill of their policies.

BOX 14.3 Case study

The Future of Power Relations: China and India

Power, in Asia and elsewhere, turns on the military application of industry. China and India have large sectors in those areas, inefficient and corrupt. Defence industries and governments have tangled relations. Firms in Chinese provinces, political fiefdoms, rarely cooperate with those elsewhere, preventing economies of scale or rationalization. In India, industrial, labour, and political lobbies prevent private arms firms from competing with state ones. Indigenous production of aircraft and the acquisition of foreign ones are delayed for decades as firms and the state tinker with contracts, especially over arrangements for technology transfer (though this happens in rich nations too).

China and India depend on access to foreign technology; but each works with many partners, through which it builds advanced kit and tries to leapfrog time-consuming stages of technological development. Their civil economies have able elements in high technology, but weaknesses in innovation. China seeks to establish defence industries of the top rank by 2025, an ambitious, but achievable, aim. Since 1995, China has performed consistently at the upper bound of expectations; no other power has risen so fast and so far. Its rise exploited every relationship and technique, combining joint licences, reverse engineering, and espionage, to strip Western technology in the 1980s, and Russian technology since then. India depends more on its suppliers and performs worse in programmes, though aided by foreign powers' greater willingness to exchange technology with Delhi than with Beijing. Nonetheless, arguments between Russia and India stalled the Sukhoi 57/HAL, and their procurement arrangement. Russia needed Indian money to build modern weapons. In return, India demanded full technology transfer. In 20 years, China and India will probably have established good military industries, and closed the gap with leading economies, even in information technology. Though the edge will remain with the rich, they may then be the world's second and third strongest economies and conventional powers, and growing fast.

War, What is it Good For?

Wars occur from combinations of intention and error. They are unusually likely when the nature and distribution of power change rapidly, as strong states misconstrue their strength, declining ones strive to hold on to what they have, and growing ones seek to take more. These circumstances exist today. The American drawdown from Iraq and Afghanistan is opening up uncertainty across the Middle East, where ethnic and religious divisions rip states apart. Classic confrontations loom between rising and declining powers. Mexican stand-offs rule Asia: between India and Pakistan; North Korea vs South Korea, Japan, and the United States; and Beijing vs most of its neighbours and Washington. Chinese power waxes steadily, but is not yet significant in WMDs or at sea. Since 1949, China has aimed to maximize its regional power, and has often provoked high-risk incidents, believing that teaching lessons to neighbours is a good thing and that it can control the worst cases—characteristics shared by the United States. Both believe they are on the defensive over Taiwan, and respond to perceived aggression in a tough and self-righteous manner. Meanwhile, just as the Soviet collapse reshaped power in Asia, so would any resurgence of Russia—or Japan.

The Middle East is governed not by stalemate but vacuum. Outside Jordan and Hizbullah, Arab forces are poor in quality, while Israeli ones are excellent. Israel, the military master of the Arab world, can overawe its neighbours and wreck any threat, yet it cannot directly

translate that strength into political power, as demonstrated by its irrelevance during the greatest political change in the Middle East for generations, the Arab Spring of 2011, and the collapse of Iraq and Syria. Turkey, militarily the next most powerful of regional states, handles this translation little better. The states best poised to manipulate these circumstances—Saudi Arabia, the Gulf states, and Iran—are militarily weak. In wars across Iraq, Syria, and Yemen, most Arab conventional units performed badly, despite having modern Western or Russian weapons in masses. During 2014, 5,000 Daesh irregulars demolished 40,000 Iraqi soldiers, far better armed, seizing their weapons and half of Iraq. The effective soldiers were motivated irregulars, Iranian and Hizbullah conventional units, and Russian and Western Special Forces and aircraft. Together, they enabled the Iraqi and Syrian states to recover much of their territories, and boosted Iranian influence across the region. War centred not on conventional operations, but the assassination of politicians and generals, suicide bombing, ethnic cleansing and enslavement, and sieges which annihilated cities and civilians. Israel and America cannot use conventional force to block big dangers, such as the rise of jihadist regimes in Egypt or Saudi Arabia, though that could aid them in containment. Nor, short of occupying Lebanon or Gaza, can Israel destroy the ability of Hamas and Hizbullah to bombard its territory with missiles. The military weakness of Arab states and the turmoil within them make that region even less stable than usual.

In these cases, conventional force is part of power, but not the whole of it. It does not primarily define the balance between Israel, the United States, and Iran. Conventional forces shielded the development of a nuclear capability which made North Korea a regional power, intimidating South Korea and Japan, and deterring the United States. A tough neighbourhood may drive Japan to increase its conventional power, but like Pyongyang, Tokyo has more to gain from nuclear weapons. Conventional power lets Western countries intervene in weak states, but not conquer them. It enables China and Russia to use subversion, coercion, and irregular force to bully weak neighbours, but not strong ones. NATO tripwire forces checked Russian actions in Eastern Europe, but it really countered them through economic sanctions. China can strengthen its hand against the United States through conventional force to match American strengths, asymmetric force to degrade them, politics, or WMDs. The latter options are its best chances for success. For most developing states, WMDs offer the simplest military solution to strategic problems. For China in Taiwan, and Iran in Iraq and Afghanistan, political influence is a better instrument than armies, just as terrorism is a tool of policy by other means.

Bigger questions loom behind these matters, like the use of WMDs in conventional war. When only one side has chemical weapons, it routinely uses them, but not nuclear weapons. How far can states equipped with WMDs use conventional force against each other? The rules for these games remain obscure. Again, the single greatest factor in world politics since 1989 has been the relationship between overwhelming American power and its erratic use. The United States' search for absolute security made all its rivals insecure, looking to defend themselves or escape the firing line. Its power and threats frightened many hostile states into changing their ways, but also convinced any serious rival that it must neutralize that threat by being able to endanger America. American success in conventional power will drive any rational enemy to abandon head-on competition, and to pursue asymmetry or WMDs, easier to build and with a more certain deterrent effect.

Key Points

- Wars occur from both accident and intention.
- Conventional power is part of the balance in every zone of conflict.
- The limits of conventional power matter no less than its strengths.

Conclusion

Conventional power is a great but limited tool of state. Once it was a spear against the strong; now, it is most valuable as a weapon against the weak. It remains the main shield for most states, but the sword of choice for few. It is more useful as a negative than a positive tool: to stop others from moving, as against doing so oneself. It is a fundamental means to demonstrate resolve, or support any strategies of dissuasion, subversion, and compellence, though no more so than nuclear power or diplomatic influence. Any state threatened by conventional force must match it or die. Such forces can save oneself, aid one's friends, destroy one's enemies, and, occasionally, strike like lightning. Still, their utility has slipped steadily over the past century, as has the willingness of states to use them. Conventional force has failed to achieve specific results predictably or cheaply. The outcome of its use has been more uncertain than ever before. Often, it has caused complex collateral damage, or trapped its users in the mire of world war or guerrilla conflict. In the future, conventional force will be more discussed than used. When deployed, it will face characteristic problems, or victory traps. If one uses cruise missiles for diplomacy, a few civilian deaths will tarnish the political message. No matter the cause—*raison d'état* or humanitarian intervention, whether single-handed or under UN control—Western states will use conventional power primarily where the entry cost seems low and chances for success high: against weak or failing states. This raises immediate questions. Can outsiders end a civil war? Does occupation cause resistance? Will Western publics tolerate the violence necessary for victory except for defence of vital interests? Nor can armies be used on any great issue without raising the issue of WMDs.

Conventional force affects the policies of single actors, and the system as a whole. Many consequences of conventional power lie outside that plane, in what it drives states to do elsewhere. Its impact is most critical in deterring people from using an obvious tool, and in driving them to develop others. In theory, levels of force are divided; in reality, they are intertwined. An American air strike on Iranian nuclear power stations might spark terrorism across the Middle East. The pure game of conventional power is played in a narrow field between two limits: WMDs, and terrorism and guerrilla warfare. To be too good in this game is not a simple blessing. Too much success drives one's rival off this field to play on others. A rational enemy plays to its own strengths, not yours. Conventional power remains a strong card, perhaps the king of trumps in a game where the ace is unplayable, but it cannot take every hand. Perhaps it can take only 1 out of 13. The trick will be learning how to play that card only when it can take the game—and to know when that game is worth the gamble.

Critical Thinking China will master East Asia by 2035

For

- ***Economic power***. The Chinese economy, the most dynamic among major states, has grown more than any other since 1980. In 2017, its GDP was second only to the United States, larger but expanding more slowly.
- ***Rising defence spending***. Chinese defence spending has been growing faster than in any other country, by 50 per cent between 2008 and 2014. In 2017, it almost matched that of any two other countries except the United States, though barely reaching 20 per cent of the American level.
- ***Growing military capabilities***. China is militarily the strongest state in East Asia. Its capabilities are hard to calculate, as it deceives foreign powers, but Chinese firms produce large quantities of advanced land and air equipment, including fighters which match any others deployed in 2017, except the F-22 and F-35—the real competition.
- ***Rivals' weaknesses***. Of China's neighbours, only India, Japan, and Russia can withstand its power by themselves. The offshore balancer, the United States, faces world-wide commitments with limited resources. Problems in Eastern Europe and the Middle East cripple its attempt to focus more resources in East Asia, via the Pacific pivot. China can multiply these problems by cooperating to cause trouble with American enemies in Eurasia, especially Russia.
- ***Leverage***. China can turn its conventional power to political purpose by subverting or coercing its neighbours, making them accept its regional hegemony one by one, each step aiding the whole. Such political successes sap the effect of American conventional capabilities.

Against

- ***Slowing economy***. As with all developing economies, the growth rate of the Chinese economy is slowing as it matures, exacerbating problems caused by a corrupt state and an ageing and poor population.
- ***Military technological inferiority***. Chinese warships and aircraft are one to three generations behind Western countries. They cannot easily eliminate that weakness, or match American military spending and technology, nor can Beijing mistake this inferiority.
- ***Making enemies needlessly***. Chinese coercion angers its neighbours. The weak ones look for allies. The strong ones rearm. No power is more affected by the rise of China than Japan, and none could do more to counter it. Japan has a better navy and air force than China and intends to maintain that status. If Japan wished, it could easily become the world's second sea and air power. India and even Russia also fear Chinese expansion.
- ***Rivals' power***. The United States, Japan, and other Western powers are so powerful at sea and in the air that they can easily deploy forces superior to those of China in Asia over the next generation, tailored to defeat its challenge.
- ***Containment***. The conventional power of the United States and its allies prevents China from coercing its neighbours through war. Chinese belligerence drives its neighbours towards American arms. The competition will turn to diplomacy, with possible outcomes ranging from a continuation of the status quo, to a change of Chinese policy, to its successful co-option of one neighbour or another, or war.

Questions:

1. Will China master East Asia by 2035?
2. Do economic issues outweigh any other factor in the struggle for mastery in East Asia?
3. How can Japan shape whether China or the United States masters East Asia?

Questions

1. Did the United States win, or did Iraq lose, the Gulf War of 2003?
2. How does sea power matter today? Why, and to whom?
3. What use are air power and PGMs to the United States, compared to nuclear power?
4. What is a decisive battle? How many of them have happened since 1945?
5. Does Russia threaten NATO and its members more through conventional forces, nuclear forces, or cyber subversion?
6. Compare and contrast the conventional military power of Israel, Iran, and India. What good does it do them? What are the limits to its value?
7. How far can states equipped with WMDs engage in conventional war?
8. Is attrition the normal state of conventional war? Is indecisiveness its normal outcome?
9. How, and how easily, can conventional forces defeat terrorists or guerrillas?
10. How will Russia and Japan respond to the rise of China?

Further Reading

C. Archer, J. Ferris, H. Herwig, and T. Travers, *A World History of Warfare* (Lincoln, NE: University of Nebraska Press, 2002) offers a good modern account of the history of war.

International Institute for Strategic Studies, *The Military Balance* (London: IISS and Routledge, 2017) gives an authoritative, comprehensive, and annual assessment of conventional forces and weapons.

Jane's Information Group (various publications) is a credible source for information on conventional forces and weapons.

J. Lynn, *Battle, A History of Combat and Culture* (Boulder, CO: Westview Press, 2003) also offers a useful analysis of the history of war.

R. Weigley, *The Age of Battles: The Quest for Decisive Warfare* (Bloomington, IN: Indiana University Press, 1991) provides another perspective on the history of conventional war.

Web Links

The Air War College Portal to the Internet **http://www.au.af.mil/au/awc/awcgate/awcgate.htm** is an excellent source for studies of current military topics, with links to official, semi-official, and unclassified websites.

The Center for Strategic and International Studies **http://www.csis.org** gives analyses of international strategic issues, particularly useful for conflicts as they occur.

The RAND Corporation **http://www.rand.org** presents excellent and wide-ranging studies of contemporary strategic policy and military forces, often surprisingly detailed.

Carnegie Endowment for International Peace **http://www.carnegieendowment.org** provides writings on international strategic issues and conflicts, from a liberal perspective.

International Crisis Group **http://www.crisisgroup.org** provides analyses of international strategic issues and conflicts, particularly their internal political dimensions.

Geography and Strategy

DANIEL MORAN

Chapter Contents

Introduction: The Lie of the Land 255
Land Warfare: The Quest for Victory 256
Maritime Strategy 260
Air Power 264
The Final Frontier: Space War 267
War by Other Means: Cyberspace 269
Conclusion 271

Reader's Guide

This chapter explores the strategic possibilities presented by warfare in different physical environments. It identifies the strengths and weaknesses of forces that fight on land and sea and in the air. It also considers the strategic potential of warfare in space, and of information technologies employed as weapons. In practice, modern warfare almost always seeks synergy between the realms in which force is deployed. To that extent what follows is not a realistic presentation of how modern war is actually conducted. Nevertheless it can be instructive to consider those forms separately in order to understand what can and cannot be accomplished by various forms of violence.

Introduction: The Lie of the Land

Strategic theory is concerned with the use of force by political communities. The psychological effects that violence causes do not vary in any predictable way with respect to the means employed: a blow delivered from the sea feels much the same as one from the land. Carl von Clausewitz, the Prussian theorist whose work *On War* (1832) is foundational to modern strategic thinking, wrote exclusively about war on land. But the distinctive characteristics of war as he conceived it—the overwhelming effects of fear, chance, and uncertainty; the escalatory dynamic that drives adversaries to extreme measures; the superior strength of the defensive; the difficulty of sustaining military action over long periods; the need for constant adaptation to the unexpected—are equally familiar to those who have fought on the sea or in the air. The contest of wills that is central to every strategic encounter will play itself out in similar fashion, regardless of the physical environment in which it occurs.

Nevertheless, in practice the conduct of war is overwhelmingly shaped by its geographical setting. All armies resemble each other more than they do the navies and air forces that fight under the same flags. Before any armed force can come to grips with its opponent, it must first master the immediate challenges of its physical environment. Ships must float. Aircraft must remain suspended in the air. Armies must propel themselves across a landscape rich with obstacles. War*fare*, the *making* of war, is first of all about making the most of one's chances within the constraints imposed by nature. Only after that has been accomplished can the enemy be given the attention he deserves.

Physical geography defines the tactical identities of armed forces. It also shapes their strategic effects. Armies, navies, and air forces possess distinctive strengths and weaknesses when it comes to translating military effort into political results. A country that fights chiefly with an army will be confronted with strategic possibilities different from those available to one that fights mainly on the sea or in the air. The aim of this chapter is to highlight those possibilities: to consider the conduct of war in different physical environments, and to identify the strategic risks and opportunities that each presents.

Combined Arms and 'Joint' Warfare

The discussion that follows is a somewhat artificial exercise, rather than a description of reality. This artificiality is owed mainly to the invention of the aeroplane, and secondarily to the mastery of wireless communications. Nowadays good armies and navies never operate without seeking to control the skies over their heads. Major naval weapons systems are in fact aerial weapons (aeroplanes, missiles, etc.), tactically indistinguishable from those of an air force. An air force in turn depends on a ground-based infrastructure whose establishment and defence will generally be the work of an army. Forces operating on land, sea, and in the air also communicate constantly with each other, tailoring their operations accordingly. Such practices are at the heart of 'joint' military operations, in which land, sea, and air forces cooperate to their collective advantage. The superiority of joint operations is now taken for granted by military planners. Left to their own devices, armies, navies, and air forces each present a limited set of strategic capabilities. Their individual strengths are offset by equally distinctive weaknesses. Joint warfare is now the norm, or rather the ideal, because it allows military organizations to exploit the strengths and mask the weaknesses of their component parts.

Land Warfare: The Quest for Victory

Land armies are the pre-eminent form of military power everywhere. This is owed to their role in the creation of political communities, whose independent existence depends on their ability to defend themselves against others. Only land armies can secure territorial frontiers, and it is by virtue of their ability to exercise continuous control over territory that sovereign states are most readily distinguished from other political forms. Political entities that are not states can make war. But unless they can field an army they cannot control territory, and in the absence of such control they will never take their place among the sovereign nations of the world. Historically, armies and states have created each other.

Armies Exist to Control Territory and People

Armies are the only armed forces intended to seize and hold, and not merely to destroy, their objectives. That armies seek to destroy each other is also true, as it is for navies and air forces. But death and destruction in war are always a means to an end, and if the end is to gain control of a human population, then only an army will do. Once an army has established such control, the difficulty of dislodging it can be considerable. 'Regime change' is inherently an army mission, and cannot be contemplated by any state that is not prepared to commit its land forces to the fight on a sufficient scale to dislodge and replace the ground forces of the enemy.

Such a commitment is now considered an especially weighty one. For a country like the United States, which is able to inflict massive damage and suffering by means of naval and air forces, the decision to employ its army is often more politically perilous than the decision to fight in the first place. Any military operation involving what are sometimes called 'boots on the ground' will have a heightened significance for public opinion in a democratic society, if only because of the additional risk of friendly casualties. Such a step is normally considered only after some form of strategic bombardment has been tried and found wanting. The major American interventions in Korea, Vietnam, and Iraq (in 1990–1) all began with an initial decision to employ air and naval forces, followed by a separate, independently considered decision to send in the army. No such step-wise approach occurred in the invasion of Iraq in 2003 because in that instance the overthrow of the enemy state was the objective from the start.

The Politics of Land Warfare

Additional political scrutiny attaches to land warfare because the use of land forces has a kind of finality about it that does not apply to naval and air operations. If the outstanding advantage of armies is their ability to hold their ground, their outstanding disadvantage is that they are difficult to move. Employing them requires enormous determination, and one reason to employ them is because you want to convey such determination to the enemy. Once the commitment has been made, however, it is difficult to undo. Land forces engaged with an undefeated adversary cannot disengage without incurring tactical risk. They are also liable to present a spectacle of failure for the world to see. Ships and aeroplanes come and go. An army comes and stays. That is its nature and purpose, both tactically and strategically.

The defensive resilience of armies renders the delivery of a successful attack extremely difficult. War on land is almost always a grinding, wearisome business. The 'art of war' is devoted to figuring out how to make it less so (see Box 15.1). The goal of all warfare, as the sixteenth-century Austrian field marshal Raimondo de Montecucolli said, is 'victory', an observation that stood out when it was made because it cast aside a variety of other objectives—honour, glory, plunder, prestige—that the aristocratic elites of those times rated highly. In strategic terms victory is a political and not merely a military concept. This is one reason why Montecucolli's modern successors tend to add the word 'decisive', meaning victory that goes beyond the accomplishment of tactical goals, and achieves results that alter the political conditions that brought the war about. For an army, victory of this kind cannot usually be gained by pushing the enemy around, or even away. It requires that his powers of resistance

be broken and disorganized, so that he confronts the possibility that, at some point in the future, he may become defenceless.

Operational Art

In modern times military theorists have identified three general paths to this kind of success. The first, which emerges in the strategic literature of the eighteenth century, is to manoeuvre against the flanks and rear of the opposing army. The fighting elements of land armies represent only a fraction of their manpower. The rest are devoted to maintaining the complex logistical system required to keep the army moving, eating, and fighting. Attacks directed against that system often have disproportionately disruptive effects. Precisely because the vulnerability of an army's logistics is so well recognized, however, it usually proves difficult to exploit. Armies take good care to protect their communications if they can. Nor is it easy to engage in bold manoeuvre against the enemy's rear while protecting one's own against similar assault. Modern armies work hard to outmanoeuvre each other, and when they have succeeded, as in the German offensives against France in 1870 and 1940, the results have been impressive. But such outcomes are historically rare, because armies of similar size, fighting with similar methods, have little chance of wrong-footing each other so grievously as to win all at once. When such efforts fail, the grim realities of attrition swiftly reassert themselves (see Box 15.1).

An obvious solution is to have an army that is not of similar size to your opponent's, but is instead much larger. Modern states possess extensive means of mobilizing their populations for war, either by persuading them to fight or by coercing them to do so. Until the turn of the nineteenth century, governments were reluctant to call upon the mass of their subjects to bear arms, because they could not afford to equip the huge armies that would have

BOX 15.1 Key Concepts

Manoeuvre versus Attrition

Writers on land warfare routinely distinguish between 'manoeuvre warfare' and 'attrition'. The distinction is not hard and fast: opportunities for manoeuvre may only arise as a result of preparatory, systematic destruction of enemy forces, which is what one normally means by attrition. Nevertheless, the difference between the two approaches bears thinking about.

Attrition emphasizes cumulative destruction through the systematic application of firepower. It is often the natural choice for the side with greater material resources, which does not need to do anything fancy to win. Attritional fighting tends to focus tactical decisions on choices among different targets or objectives, which can often be prioritized according to some doctrinally codified scheme.

While attritional methods tend to be generic and repetitive, the idea of manoeuvre only has meaning in relation to a particular opponent. It seeks to capitalize on specific vulnerabilities—the fact that enemy forces move slowly, for instance, or are poorly supplied with bridging equipment, or have low morale—in order to achieve disproportionate effects. Most people associate manoeuvre with rapid movement, but it is really a more general concept, which tries to gain exceptional advantage from the control of small amounts of space and time. The provision of local security to isolated villages by small detachments of American forces during the Vietnam War is an example of manoeuvre warfare, because the aim was not to destroy enemy forces, but to thwart the enemy's intentions by controlling small but critical bits of territory—the bits where Vietnamese people actually lived.

resulted, and because doing so entailed political risks: people mobilized for war might expect political concessions in return. The fact that a country's inhabitants had just been trained and equipped for fighting also seemed to increase the possibility that they would seize those concessions for themselves. It is not surprising that universal conscription was first attempted by a revolutionary government, that of France in 1793. The resulting army dwarfed those of France's adversaries, and could only be defeated once Europe's other great powers adopted similar methods.

Firepower

During the nineteenth century major land armies grew dramatically in size. The consequences of this development were amplified by modern weaponry, whose range and lethality increased dramatically. As soldiers pondered this new reality, they recognized that it cut against the possibility that they might outfox their opponent. Forces numbering in the millions could scarcely be manoeuvred in any meaningful sense, and once they got within range of each other no outcome seemed possible except massacre on an epic scale.

If there was a way out, the best observers concluded, it could only be found at the outset of hostilities, when you might catch your enemy unprepared for action. The best chance for decisive victory seemed to lie with the side that could strike hardest right at the start. Here was a third path to victory, one whose attractiveness has survived a considerable record of historical disappointment. Many of the major wars of the twentieth century began with massive attacks designed to achieve swift and decisive success. Examples include the Japanese offensive against Russia in 1904, and against America and Great Britain in 1941; the German offensive of 1914, and the so-called blitzkrieg of 1939–41; the North Korean invasion of South Korea in 1950; the Iraqi invasions of Iran in 1980, and of Kuwait in 1990; Israel's attacks against Egypt and Syria in 1967, and those by Egypt and Syria against Israel in 1973. This list could be expanded without difficulty, but the basic impression would not change, which is that on the whole the advantages of attacking first have not proven sufficiently decisive to outweigh more fundamental sources of military strength. Land armies are voracious consumers of men and materiel. In general, victory on land has gone to belligerents with sufficient political determination, social resilience, and economic productivity to sustain military effort over the long haul.

Many thoughtful soldiers nevertheless remain convinced that it is their duty to win quickly if they can. Not all, however. Revolutionary insurgency is a form of land warfare that embraces protraction as a source of strategic leverage, by which an opponent may be worn down. Insurgents take advantage of a terrain feature that conventional forces prefer to avoid: the civil population, within which the insurgent conceals himself, and which he holds hostage. Such methods are timeless. Whenever the weak have fought the strong they have relied on ambushes, traps, terrorism, hit-and-run attacks, and so on, in the hope that, just by staying alive and engaged, victory may come to them.

Unconventional Warfare

If such unconventional warfare has loomed large in recent years, it is partly because of the decline of conventional land warfare as a feature of the international system. Since the end

of the Second World War advanced societies have avoided fighting each other, so that major wars have only been waged by or against second-rate powers. It is also true that the insurgent's chances have improved owing to better technology, above all in the area of communications. A few radios connecting isolated rebel bands or terrorist cells can make an enormous difference at the tactical level, while the ability to communicate with the civil population via the public media has gone some distance towards evening up the odds in a contest whose basic terms are always defined ideologically.

Counterinsurgency can fairly be numbered among the most important missions of contemporary armies. This is a reality that professional soldiers are often reluctant to embrace, however. The swift overthrow of an enemy army remains the acme of professional military achievement. Setting this traditional standard aside will require a re-examination of the basic assumptions on which land warfare has been conducted for three hundred years.

Key Points

- Armies are distinguished from other military branches by their ability to seize and hold, rather than simply to destroy, their objectives.
- Land warfare in the industrial era has shown a strong tendency towards stalemate and attrition.
- The aim of manoeuvre warfare is to strike the enemy at times and places that achieve disproportionate destructive or disruptive effects.
- Modern wars often begin with massive initial offensives designed to win before the other side is fully mobilized.
- Revolutionary insurgency does not seek to win quickly, but rather by slowly eroding the moral and political resolve of the enemy.

Maritime Strategy

Human populations have always been concentrated near the world's oceans and navigable rivers. This pattern means that most of mankind lives within range of the aircraft and missiles that comprise the bulk of modern naval weapons. Nevertheless, bombarding the shore has historically been the least significant of naval missions. The distinctive strategic contribution of navies depends on their activity on the sea, always keeping in mind that nothing that happens there can matter unless it alters the thinking and actions of those living on the land.

Until the sixteenth century the main role of navies was to transport soldiers to an enemy shore. The ability to do this conferred important advantages, above all the freedom to choose the time and place of an attack. Such navies were tactical adjuncts to armies. Naval warfare existed, in the sense that when warships met on the sea they tried to fight each other. But such episodes were rare and inconsequential. What mattered were the soldiers that the ships carried. It was their combat that decided the war.

The Age of Sail

The development of sailing warships capable of traversing the world's oceans transformed this ancient picture. Sailing navies were the instruments by which European overseas empires were created. The highly integrated world system that we know today is descended from them. The role of navies in this process was twofold: to transport soldiers, merchants, missionaries, and settlers to the far corners of the world; and to protect or prey upon the network of seaborne trade that resulted.

The inelastic agrarian economies of continental states could offer nothing like the wealth generated by long-distance trade, which sailing navies made possible. Sailing navies were instruments of economic warfare, and achieved strategic effects mainly through their impact on international trade. When the American naval officer and theorist Alfred Thayer Mahan coined the term 'sea power' at the end of the nineteenth century, it was the synergy between naval power, commerce, and colonial expansion that he had in mind. From Mahan's perspective, states whose navies could 'command' the sea—that is, employ it for their own purposes while denying its use to others—were destined to dominate those who could not.

By the time Mahan was writing, however, the organic relationship between naval power and maritime trade was beginning to break down. This was owed partly to the Industrial Revolution, which allowed continental states to match the economic productivity of overseas commerce; and partly to the increasingly intricate economic dependencies that trade itself created. Mahan and his contemporaries thought the strategic significance of sea power was destined to increase in proportion to the value of the goods that moved across the world's oceans. In practice, however, the world economy gradually became too large and complex to be coerced by direct military means.

Blockade and Economic Warfare

One can see this by comparing the operations of the Royal Navy against Napoleonic France at the start of the nineteenth century, and against Germany at the start of the twentieth. Naval warfare in the first of these contests centred on a close blockade of the enemy's coast. British warships, too powerful and numerous to be driven off by their French counterparts, lurked in the maritime approaches to French ports, cutting them off from seaborne trade. British ships also stopped and searched any commercial vessel on the high seas that was suspected of trading with the enemy. Neutral powers had no choice but to accept this interference, since their own navies were no match for the British. In time, businessmen in Europe and the Americas came to prefer transporting their goods in British ships, or under British licence. Naval superiority also allowed Britain to seize France's overseas colonies, whose trade shifted to the British side of the ledger. None of this could prevent Napoleon's armies from running roughshod over opposing armies in the short run. But over the longer term the financial leverage that accrued to Britain and its allies proved overwhelming. The final campaigns that brought Napoleon down were not conducted by British armies, but they were paid for by the British treasury, grown rich from the exercise of maritime strategy in its classic form.

Nothing remotely similar was possible a century later, when Britain found itself at war with Germany. Close blockade of the German coast had been rendered impracticable by the new weaponry of the industrial age—long-range guns, mines, torpedoes, etc. Britain instead

attempted a 'distant' blockade of the entire European continent, which affronted the rights of neutral states, who were no longer willing to knuckle under so easily. Britain's own ability to wage war depended on access to world markets, and the prospect that Britain's neutral trading partners might refuse to do business with it, or even enter the war on the other side, set strict limits on how British sea power could be exercised.

Against Napoleon, the British had grown rich by cornering the market on overseas trade. Against Germany they grew poor, borrowing money from the United States to finance their own war effort. The task of depriving a great industrial nation of the means to carry on war proved to be beyond the power of the Royal Navy; to which was added the defensive burdens of Germany's retaliatory submarine campaign, which seriously threatened Britain's own overseas trade for the first time in centuries. Britain's centrality to the global economy that it helped to create had ceased to be an unambiguous source of strategic leverage, and was shown to be a strategic vulnerability as well, one that is now shared to some degree by every advanced society.

Economic warfare has declined as a naval mission, as its political and economic consequences have become increasingly unmanageable. The strategic advantage afforded by sea power in wartime has accordingly become less distinctive—though it goes without saying that any nation separated from potential adversaries by an ocean will require a navy if it wishes to get across. Nowadays the high seas have become a zone of safety across which an enormous share of world trade can pass unmolested—a fact that should not be obscured by incidental concerns about piracy, or speculation about the supposed vulnerability of maritime straits to closure by terrorists. Systemically, the sea today is part of the ballast that keeps the world economy, and global order generally, on an even keel. If that should cease to be true, the world would quickly become a different and more dangerous place (see Critical Thinking).

Critical Thinking Attacking or interdicting trade on the high seas still makes sense

For

- ***Economics***. Modern armed forces are the product of modern economies, and modern economies always require access to international markets for goods, natural resources, and finance. Cutting off an adversary from these things raises the cost (i.e. the suffering) of war for his own side, even if it does not immediately compromise his ability to fight.
- ***Politics***. Politically, it makes no sense to allow an enemy to conduct 'business as usual'. Letting that happen will erode morale on your side, and make it easy for neutrals to stay neutral, when what you want is for them to side with you, or at least to put pressure on your enemy to come to terms.

Against

- ***Unacceptable costs***. To suppress maritime trade you must be willing to sink merchant ships manned by civilians. Even if you are prepared to accept the political consequences of that, it is not worth risking a valuable warship for such a purpose. The economic harm you inflict will also be felt mainly

Critical Thinking *(continued)*

by the civil population: in wartime the government and armed forces are first in line for everything, so they will not feel the pressure. Neutrals will turn against you, since their trade will also be disrupted.

- ***Too slow***. Economic warfare is always slow to have its effect. You should put your thought and effort into trying to win quickly.

Questions:

1. Does the intricate integration of the world economy help to contain and moderate the disruptive effects of war? Or does it just make things worse? Worse how?
2. Is attacking seaborne trade more likely to appeal to the stronger or to the weaker side in war?
3. How should neutral states behave if they are confronted by belligerents who are trying to cut each other off from global markets?

Good Order at Sea

At present the only nation that possesses a navy of global strategic significance is the United States. That significance rests on the leading role that it plays in maintaining good order at sea, and on its ability to project power from sea to shore. In this latter role it functions like a specialized sort of air force, which compensates for the short range of its weapons by the ability to move its bases around. The advantages of being able to do this should not be underestimated. Land-based air forces require a massive fixed infrastructure, whose location may limit how those forces can be used. Aircraft operating from land bases sufficiently remote to be safe from enemy attack may have to fly through neutral airspace to reach their targets, for which permission may be denied in a crisis. Forward bases constructed to avert this problem take time and resources to build, and are no more defensible than any other fixed asset within range of enemy weapons. If such bases are built on enemy territory, then the territory must first be seized. If they are built on neutral or allied territory, then operations again become subject to political requirements that may be difficult to control. Warships do not suffer from these liabilities, but can approach their targets directly from international waters. Once on the scene, they can sustain operations almost indefinitely, being continuously replenished and resupplied at sea (see Box 15.2).

There can be no guarantee that such advantages will last forever. The strategic utility of a powerful navy is ultimately subject to the continuing evolution of long-range strike systems and other weapons of 'access denial', which are designed to hold warships so far off shore that they cannot fight effectively against an enemy on land. Such weapons are easy to envision, but they are difficult to realize in practice. In the meantime, naval forces offer a combination of striking power, speed, and flexibility that is well suited to a security environment in which threats cannot be anticipated long in advance. The ability of naval forces to perform the kind of constabulary function required in a world of brushfire conflicts and rapidly emerging crises is one of their most distinctive contributions to the contemporary world picture.

BOX 15.2 Case Study

Gunboat Diplomacy

'Gunboat diplomacy' is a phrase dating from the heyday of European imperialism. It referred to the fact that colonial powers might convey their wishes to those less powerful than themselves by dispatching a warship in lieu of an ambassador, with a few rounds of gunfire substituting for the customary diplomatic note. Such practices have gone out of fashion, and the phrase with it; but the underlying reality to which it refers remains important to understanding the strategic leverage that a navy affords.

A powerful navy generally has a significant proportion of its ships at sea even in peacetime. Armies and air forces only deploy for combat when danger looms. Warships on the high seas, on the other hand, have much the same capabilities in peacetime as in time of war. They are armed and ready, and can appear wherever they can find water under their keels.

A nation that maintains significant naval forces at sea acquires significant strategic options. Warships can convey a threat, or reassure a friend, without engaging in any warlike act whatever. Because they are already 'out there' they are almost always the first to respond in a crisis. The speed with which warships on station can respond to trouble also helps to deter certain kinds of trouble from happening in the first place. While long-range land-based aircraft can strike anywhere, the military options they offer when they arrive on the scene are limited to either blowing something up, or not. Naval forces provide a more diverse array of choices, ranging from prolonged observation, through the delivery of an implied threat, to the conduct of air strikes and the mounting of an amphibious assault.

The ability to do such things has never been the primary reason to have a navy, but it is an important extra benefit if you have one anyway. Like any military action, the practice of 'gunboat diplomacy' entails risk, including that of providing adversaries with isolated targets of opportunity—a peril illustrated by the surprise attack on the *USS Cole* during a port visit to Yemen in October 2000. Nevertheless, warships continuously at sea are well suited to a security environment characterized by diffuse threats and rapidly emerging crises, including natural catastrophes like the Indian Ocean tsunami of 2004, in which the first effective humanitarian relief was delivered by warships on station in the area.

Key Points

- Sailing navies achieved strategic influence mainly through their impact on international trade.
- The strategic leverage of navies in war has declined in the industrial era, as continental economies have become more robust, and as the complexity of the global economy has increased.
- The ability of warships to operate freely in international waters can afford direct strategic access to an opponent, which may otherwise be unavailable.
- Nowadays the traditional goal of naval warfare—to 'command the sea'—must be balanced against the comparably important challenge of projecting military power from sea to shore.

Air Power

Few human inventions have been as eagerly anticipated as the 'flying machine', images of which can be found in art and literature since the Renaissance. Few doubted that such a machine would find many remarkable applications in war, to the point where imagination has often outstripped reality. The history of air warfare has been shaped to an unusual degree

by exaggerated expectations of one kind or another, compared to which the real capabilities of air forces have often fallen short.

Theory vs Practice

The tens of thousands of military aircraft that flew over the battlefields of the First World War did so mainly to perform reconnaissance, in the hope of getting the vast armies beneath them moving again. They possessed nothing like the range and striking power envisioned by H. G. Wells a few years before in his novel *Wings* (1908), in which an air armada launched from Germany devastates New York City. Technological advances rapidly increased the ability of aircraft to lift explosives off the ground, however, and by the end of the Second World War British and American air forces were wreaking havoc on a scale resembling the apocalyptic fantasies of air power enthusiasts like Giulio Douhet, whose book *Command of the Air* (1921) claimed that aerial bombardment would be so terrible as to bring any war to a swift conclusion.

This prediction failed to come true, however. After the dust settled, many wondered whether the aerial devastation of German and Japanese cities had not merely amplified the horrors of modern war, spreading them haphazardly among civil populations that might have been spared. The grim prophecy of British Prime Minister Stanley Baldwin, looking at the other side of the coin, had proven equally faulty. He had told an alarmed House of Commons in 1932 that 'the bomber will always get through'. They had not. By 1945 the Royal Air Force had suffered more casualties than the Royal Navy, testimony to something real airmen always understood: war in the air is difficult, dangerous, and disappointing, just like war everywhere else.

Air Power and Air Forces

The integration of aerial weapons into the conduct of war was the central military problem of the twentieth century. Looking backwards from the twenty-first it is apparent that a great deal was accomplished, so that a surprisingly clear and convincing picture has emerged. The frustrations of the world wars were owed partly to immature technologies, partly to the tendency of institutional interests to compromise objective analysis. The strongest advocates of air power were convinced that only independent air services, co-equal with armies and navies, could master this new method of fighting. Their desire for institutional independence led to exaggerated claims that the long-range bombardment of economic and civil infrastructure could decide the outcome of war. Such claims inspired equally exaggerated scepticism that air power was all that important. The resolution of these bureaucratic quarrels (always in favour of independent air forces), combined with the progress of technology, have given rise to a more stable picture, in which air power is featured not so much as the universal solvent of modern war, but as the all-purpose glue that makes modern combined arms operations possible (see Box 15.3).

If air power retains an independent strategic role, it is at the extreme ends of the conflict spectrum. Nuclear weapons, if they are again employed by an organized government, will almost certainly be delivered by aircraft or missiles, and it is easy to believe that their detonations, if sufficiently numerous, will render the activities of armies and navies inconsequential. More interesting, and more unexpected from the point of view of traditional air power

BOX 15.3 Key Perspectives

Command of the Air

Giulio Douhet was an Italian artillery officer, whose experience of stalemate in the First World War made him eager for any tactical alternative that promised a swift and decisive military result. After the war he became an important proponent of air power. He thought that the air, like the sea, could be 'commanded' by a superior force that would deny its use to the enemy. The passage below encapsulates his vision, whose influence is apparent in the air campaigns of the Second World War.

> To have command of the air means to be in a position to prevent the enemy from flying while retaining the ability to fly oneself ... An aerial fleet capable of dumping hundreds of tons of ... bombs can easily be organized; therefore, the striking force and magnitude of aerial offensives, considered from the standpoint of either material or moral significance, is far more effective than those of any other offensive yet known. A nation which has command of the air is in a position to protect its own territory from enemy aerial attack and even to put a halt to the enemy's auxiliary actions in support of his land and sea operations, leaving him powerless to do much of anything. Such offensive actions can not only cut off an opponent's army and navy from their bases of operations, but can also bomb the interior of the enemy's country so devastatingly that the physical and moral resistance of the people would also collapse.
>
> Douhet (1983: 24–5).

theory, is the role of air weapons in conflicts where only limited force is required. Air power has become the main tool by which strong countries seek to coerce weak ones, for two general reasons. The first is that Stanley Baldwin's prophecy has now come true. Bombers almost always do get through, owing to doctrinal and technological developments that allow the best air forces to suppress all but the very best air defence systems. Although any pilot flying a combat mission is undoubtedly risking his or her life, the risk is often small compared to any other comparably destructive act of war. It disappears entirely if the blow is delivered by ballistic or cruise missiles, or by unmanned 'drones', whose numbers and versatility have increased markedly in recent years. Bombers and missiles now strike their targets with a consistency that was scarcely imaginable in earlier times. In the world wars, aerial weapons were synonymous with indiscriminate destruction. Today they are synonymous with stealth and precision.

Coercive Bombing

Whether or not this is a good thing depends on how one views the gap between peace and war, which has narrowed by virtue of the ease with which aerial strike operations can be conducted. The use of bombardment to punctuate a diplomatic demand or enforce a sanctions regime may pose little risk to the personnel involved, but the possibility that such attacks will inspire an escalatory response from the other side cannot be dismissed. The aim of violence in war is always to break the enemy's will. Yet it may equally well harden his heart, stiffen his spine, and stimulate his imagination.

Which of these will happen is never easy to anticipate. Strategic theory concerns itself with the way political communities use (and experience) force. Strategic effectiveness is

thus dependent, to some extent, on how accurately belligerents understand each other. Strategic bombing, as originally conceived, envisioned the enemy society as a single entity mobilized for war. Enemy governments were seen as authentic expressions of those societies, all of whose members were complicit in the violence of war. This view provided a moral justification and a tactical rationale for the far-reaching destruction that aerial bombardment entailed, in which damage inflicted anywhere was supposed to make itself felt everywhere. An army could be disabled without the ugly necessity of confronting its weapons, by demolishing the factories that made those weapons, along with the homes and bodies of the people who worked in the factories. Civilian deaths were not just tolerated, but sought.

Liberal democracies, at least, are inclined to think of their adversaries differently now. They no longer take the psychological unity of armed forces, state, and society for granted. On the contrary, these are now often seen as being artificially stitched together by political expediency, brute force, or some other fragile thread. The resulting seams have become the main targets of strategic bombardment in its current form. The aim of an air campaign conducted with precision weapons is to disable the government, the armed forces, and the critical infrastructure that supports them, while sparing as much of the surrounding society as possible. Apart from its greater humanity, this approach has the additional advantage of making the reconstruction and rehabilitation of a defeated enemy easier. But whether these strategic assumptions are more reliable than those that prevailed in the past is an open question. Today's understanding of how air power works has been refined in campaigns against isolated, despotic regimes. Such experiences may have made democratic countries too quick to doubt the moral resilience of their opponents. Totalitarian and criminal regimes may be quite firmly rooted in their surrounding societies, and correspondingly difficult to coerce without inspiring the kind of escalatory reactions that lead to general war.

Key Points

- The integration of aerial weapons into warfare was the dominant operational problem in the twentieth century.
- Expectations about what air forces can achieve have often run ahead of what has been possible in practice.
- Modern air campaigns are no longer oriented towards inflicting mass destruction, but are intended to disable an enemy government and its armed forces, while sparing the surrounding society as far as possible.
- Precision weaponry has made aerial bombardment the weapon of choice for coercing concessions from a weaker enemy.

The Final Frontier: Space War

Compared to the land or the sea, the air has proven to be a remarkably permissive arena of war, at least for those who can operate there unopposed. Yet its characteristics can still

be improved on. Beyond the Earth's atmosphere lies, well, nothing. That is what space is: a perfectly transparent, friction-free environment, which has never yet been employed for any warlike purpose other than to observe and support activity on the planet's surface below. In this regard it has acquired immense importance. Space is nothing, but it is not empty. Thousands of military and commercial satellites are already there, performing all manner of communication and reconnaissance functions, and providing the terminal guidance that has made the accuracy of major weapons systems increasingly independent of their range. Whenever we speak of 'precision' weapons, we are almost always talking about systems that depend, in some degree, on assets deployed in space. If the land, sea, and air forces of the United States were deprived of their ability to communicate with the space-based systems orbiting overhead, the effect would be comparable to a major battlefield defeat. To that extent, space war already exists.

Space as a Battlefield

Whether space holds strategic possibilities independent of the contribution that space-based systems already make to the conduct of war is a matter of speculation. The military use of space is governed by two international legal norms. The first holds that claims of national sovereignty do not apply beyond the Earth's atmosphere; the second that actual weapons (as distinct from sensors and control systems) cannot be deployed there. These provisions are not so much barriers to action as reflections of a prevailing consensus. The first has contributed to the exploitation of space for reconnaissance and communications. Any country capable of launching a satellite is free to peer down on its neighbours. This arrangement contributed to the stability of strategic deterrence during the cold war, by affording the United States and the Soviet Union a high degree of confidence that each knew what the other was up to.

The ban on putting weapons in space is less a matter of perceived mutual advantage than of apparent futility. The transparency that makes space such an ideal environment for reconnaissance and communications means that weapons placed there would be highly vulnerable to detection and destruction, without offering tactical capabilities significantly different from those available on the planet's surface. War in space could also end up creating conditions that make its continuance impossible. Once satellites take to destroying each other, the low-orbital space in which most of them operate will rapidly fill up with junk, even small bits of which pose a lethal risk to whatever working systems remain in orbit. This problem already exists, to the point where scientists have become concerned about the cascading effect that will result if existing bits of junk start smashing into each other. The immensity of space should not conceal the fact that only small slices of it are currently of practical use to humanity. Those slices are already becoming contaminated by human use.

For now, the strategic application of space appears likely to remain confined to the collection and distribution of information, for purposes of precision targeting, and for the collection of general intelligence. Challenges in the latter area lie less in collecting data than in employing it effectively. It is easier to launch satellites capable of recording every mobile phone conversation in Afghanistan, or of photographing every flatbed truck in Shanghai, than it is to field the army of Pashtun speakers and photo-analysts required to interpret the results. Those who have gone to war have always hungered for more information. Technically speaking,

Key Points

- Space systems are vital to the conduct of war on land, sea, and in the air. Advanced military information systems often depend on space-based components, whose destruction would severely degrade those systems' performance.
- Fighting that involves the destruction of objects in space risks fouling the orbital environment with debris, to the point where it becomes unusable for military (or other) purposes.
- So far as is publicly known, there are no weapons currently based in space.

that hunger is now on the verge of satiation. Yet the results may prove less digestible than our ancestors imagined.

War by Other Means: Cyberspace

Up to now modern war has been all about people hurling pieces of metal at each other. Its historical development has been marked by a steady increase in the size, velocity, range, variety, and lethality of the pieces. Nuclear weapons represent a modest departure from this pattern, since their destructiveness is achieved by different means. Yet they too are products of a massive metal-bashing, industrial-age infrastructure, and impose huge economic, logistical, and organizational burdens on those who employ them.

Information Warfare

What if it were otherwise? What if war could be fought without the need to store up and discharge massive amounts of kinetic energy? What would that be like? No one has the faintest idea. But the flourishing of information technology has at least removed the question from the realm of fantasy. Whether 'cyberspace' really deserves to be treated as an independent realm of war may be disputed. It is a wholly imaginary place, originally conceived in a work of science fiction, and now conjured up by physical systems that are no less subject to direct attack than other military or civilian objects. Yet the centrality of those systems to the conduct of war today is beyond dispute. To that extent 'cyberwar', like 'space war', already exists.

One reason information warfare has come in for so much scrutiny is the uneasy realization that complex information systems, on which even mundane military operations now depend, are unusually vulnerable to attack compared to other military assets. This is a grave problem, but it remains a tactical one, and should not be confused with the direct use of information as a strategic weapon. The latter is also readily distinguishable from propaganda (also known as 'the war of ideas'). Strategy is not about persuasion, at least not primarily. It is about the *forcible* imposition of one's will on an adversary.

'Confusion to Our Enemies'

Whether such imposition can be accomplished by the manipulation or disruption of information alone is difficult to say. A computer virus that disabled a national stock exchange

might have consequences comparable to those of a military attack. If such a blow were delivered during a 'shooting' war it would require no explanation, and would merely be another means by which one side sought to injure the other. On its own, a cyberattack of this kind would be difficult to exploit for strategic purposes, if only because, once its source and purpose were revealed, it might invite a conventional military response by way of rejoinder. Nevertheless, it is becoming increasingly clear that information is becoming one of the 'arms' whose effective combination is crucial to the conduct of war. A computer terminal may not look as alarming as a warship or an M-16, but appearances can be deceiving.

Like most forms of modern warfare, information attacks seek precision. And like most new forms of fighting (think of aeroplanes) they often fail to achieve it, producing general havoc and distress whose effects may be difficult to exploit for any defined purpose. An example of successful precision is the cyberattack mounted in 2010 against the Iranian nuclear programme, by parties still officially unknown. The attackers employed a computer 'worm' known as Stuxnet, specifically designed to disable the control systems of centrifuges used to enrich uranium. Such an effort requires a great deal of money and time, plus painstaking intelligence. If you take those things away, a cyberdevice set loose on the world might end up anywhere. In this respect information war suffers from some of the same limitations as biological warfare, which has loomed ominously on the strategic horizon for over a century without ever having been realized in practice, because its fratricidal risks have outweighed its prospective benefits. In this sense, at least, the metaphor of the 'virus' is well chosen.

Until now no information attack in any form has been regarded as an act of war by the victim. 'Cyber' weapons have so far been deployed exclusively within the gray zone of provocation, harassment, and intimidation that have always separated peace and war. Whether this will remain true is impossible to say. For now, the strategic geography of cyberspace remains terra incognita. It is a place where it is cheap to operate, and to fight undetected, provided you are willing to settle for mostly incidental confusion as your desired result. Its greatest appeal for now may be to terrorists and weak states who lack the means or opportunity to fight openly on a scale commensurate with their ambitions; who do not mind if they are not given public credit for their deeds; and who are not especially dependent on information technology themselves. For the rest, information warfare currently presents itself mainly as a defensive problem for advanced societies, and its value as a tool of strategic coercion remains unproven.

Key Points

- As modern weapons have come to rely on precision sensors and advanced communications systems, the question of whether information itself may become a weapon has gained increasing attention.
- The information technologies on which modern societies now rely pose an attractive target to potential adversaries, especially for those that are not particularly dependent on similar technologies.
- Although attacks on or interference with information systems have become a more prominent part of international politics lately, such actions are not yet regarded as acts of war.

Conclusion

It would be naive to suppose that the expansion of war into the new and nebulous realm of cyberspace, should it occur, will have a moderating effect on its destructiveness. However and wherever war is waged—land, sea, air, space, or 'cyberspace'—it will remain the brutal business it has always been, in which victory will go to those with the material and emotional resources required to stand the strain.

Questions

1. The commitment of ground forces in war appears to require a higher level of political commitment than the commitment of air and naval forces. Does this have the effect of eroding, or strengthening, the psychological barrier that separates peace and war?
2. If having a large and powerful navy is a good idea, why is the United States the only country that has one? Are there any circumstances under which we can expect this to change?
3. In peacetime, strategic decision-making often translates into decisions about how to spend money on defence. Where, between its army, navy, and air force, should an advanced society be investing its marginal defence dollars today?
4. Would your answer to the previous question be different for a developing nation? Or for a country like Iran or North Korea, which feels threatened by the United States?
5. Given that advances in precision weaponry are now entering an era of diminishing returns (after several decades of rapid advance), where should air, sea, and land forces be looking to improve their combat effectiveness?
6. If you could invent a new weapon, what would it do?
7. If you could invent a new defensive technology or system, what would it do?
8. Do you expect the current international consensus against placing weapons in space to continue? What kinds of developments would you expect to undermine this consensus?
9. Revolutionary insurgency has proven more successful in modern times than in the more remote past. Why is this? Do you expect this pattern to continue? Or would you expect that regular armed forces will eventually reassert their historical mastery of the battlefield?
10. Is it more helpful to think of information as a weapon in its own right, or as a means of making other weapons more effective?

Further Reading

D. Gates, *Sky Wars: A History of Military Aerospace Power* (London: Reaktion Books, 2003) covers topics from the Wright Brothers to missile defence.

P. L. Hays, B. J. Vallance, and A. R. Van Tassell (eds), *Spacepower for a New Millennium: Space and US National Security* (New York: McGraw-Hill, 2000) discusses the strategic exploitation of space.

G. J. Rattray, *Strategic Warfare in Cyberspace* (Cambridge, MA: MIT Press, 2001) looks beyond tactical issues to consider the strategic implications of information warfare.

H. Strachan, *European Armies and the Conduct of War* (London: Routledge, 1988) is a survey of the history of war on the continent where it first achieved modern form.

G. Till, *Seapower: A Guide for the Twenty-first Century* (London: Frank Cass, 2004) offers an up-to-date introduction.

Web Links

The Federation of American Scientists **http://www.fas.org/index.html** is a comprehensive site dealing with defence planning and technology.

The National Security Archive of George Washington University **http://www.gwu.edu/~nsarchiv/** is an online repository of documents and commentary pertaining to strategic issues.

Global Security **http://www.globalsecurity.org/** is exceptionally strong on weapons and other military systems.

Air University Bibliographies **http://www.au.af.mil/au/aul/bib97.htm** offers hundreds of specialized bibliographies on topics relevant to the study of war, strategy, and international politics.

16

Humanitarian Intervention and Peace Operations

SHEENA CHESTNUT GREITENS

Chapter Contents

Introduction 273
The Changing Face of Peacekeeping 274
The Politics of Humanitarian Intervention 278
The Military Character of Peace Operations 283
Conclusion: Problems and Prospects 287

Reader's Guide

Since the early 1990s, the number of humanitarian interventions and peace operations has increased, and their scope has expanded. This chapter begins by considering the transition from traditional peacekeeping to more ambitious post-cold war peace operations; it discusses some of the difficulties of principle and practice that emerged in that transition. The next section examines the politics of intervention and the constraints imposed by international and domestic politics. The chapter then explores the applicability of the main principles of war to peace operations, and how these principles interact with political imperatives. It concludes by outlining future challenges for peacekeeping and by examining the effects of peacekeeping and the perspectives of the individuals and communities targeted by intervention and peacekeeping efforts.[1]

Introduction

Humanitarian intervention is directed towards two purposes: protecting fundamental human rights and providing emergency assistance. It can take non-military forms, such as emergency aid (money, medicine, food, and expertise) in the aftermath of a natural disaster or human rights promotion using diplomacy and sanctions. When reporters and policymakers speak

[1] The author wishes to acknowledge the contribution of Professor Theo Farrell, who co-authored earlier editions of this chapter, and to thank Emily Paddon for helpful feedback and Jason Kwon for excellent research assistance.

of humanitarian intervention, however, they usually mean 'forcible military intervention in humanitarian crises'. In countries where ongoing conflict threatens aid operations, or regimes engage in massive human rights abuses, intervening forces can undertake operations aimed at suppressing conflict and creating security.

Humanitarian interventions were relatively uncommon during the cold war, but have increased in both size and frequency since the early 1990s. As these interventions have grown in scope and complexity, they have also increased in importance. Until recently, however, strategic studies traditionally devoted relatively little attention to low-intensity conflict, focusing instead on war between major powers. Now, as the study of civil conflict gains increased prominence, students and scholars—like soldiers and statesmen—must understand the dynamics of humanitarian intervention and peace operations.

The Changing Face of Peacekeeping

During the cold war, humanitarian intervention was rare for three reasons. Firstly, the great powers focused their efforts on building up massive forces to deter the outbreak of World War III. They did intervene in Third World conflicts, but for the purpose of supporting their own (or undermining the other side's) client states. These interventions funded and armed clients engaged in human rights violations, and fuelled proxy wars rather than stopped them. Secondly, public audiences viewed these conflicts as elements of a larger cold war battle in which national security was a higher priority than human rights, so there was less public pressure on governments to respond to humanitarian crises by intervening. Thirdly, cold war politics paralysed the United Nations Security Council (UNSC) and prevented international collaboration on intervention. To be legal under international law, intervention must be authorized by a Security Council resolution, but that resolution can be vetoed by any of the permanent five members (P5) of the Security Council. With the P5 split—Britain, France, and the United States versus the Soviet Union and later communist China—the sides traded 279 vetoes during the cold war.

Despite these impediments, the UNSC authorized a few limited 'traditional peacekeeping' missions during the cold war. These missions lay somewhere between the United Nations' Chapter VI (on 'pacific settlement of disputes') and Chapter VII, which provides for the use of force to uphold international peace and security. Only once did the United Nations (UN) authorize a Chapter VII peace enforcement mission—in 1950 in Korea—and on one other occasion (in the Congo in 1960–4) it allowed a peacekeeping mission to turn into peace enforcement. Just 13 traditional peacekeeping missions were established between 1948 and 1978, and none between 1978 and the end of the cold war. These missions typically occurred only after a conflict had ended and if the UN obtained the consent of the belligerent parties. Their contingents were small, lightly armed, and supplied by neutral or non-aligned states. They relied on impartiality and goodwill to fulfil their mandates, which were typically to monitor ceasefires and supervise truces.

Peacekeeping Expands after the Cold War

The end of the cold war created demand, opportunities, and incentives for intervention, and led to an unprecedented increase in the number and scale of military interventions by UN forces.

A series of regional peace agreements (in Afghanistan, Angola, Namibia, Central America, and Cambodia) demanded peacekeeping forces to supervise ceasefires, demobilizations, and elections. At the same time, great power cooperation in the UN became possible, a new surplus of military power could be redeployed towards humanitarian ends, and public pressure to respond to large-scale civilian suffering increased, while an ideological shift that emphasized democracy, liberal government, and human rights placed a new emphasis on preventing human suffering. Between 1988 and 1993, 20 new peacekeeping missions were established. The annual UN peacekeeping budget increased from US$230 million in 1988 to between US$800 million and US$1.6 billion in the 1990s, and to over US$6.8 billion in 2017–18 (United Nations 2017).

As a result, today's humanitarian interventions have become larger, more complex affairs. They involve a wider range of tasks, including protecting territory, people, and aid operations, disarming belligerents, monitoring demobilization, policing demilitarized sites, monitoring and running elections, and helping to reconstruct governments, police forces, and armies. It is probably more accurate to call these operations 'peace enforcement' than peacekeeping, because the forces involved in these operations are commonly intervening in situations where peace has not already been made. Today's operations are therefore based on a different understanding of the relationship between consent, impartiality, and force. Peacekeepers are often intervening without the full consent of local parties to a conflict; strict impartiality against warring parties is unlikely or impossible in cases of genocide or when spoilers seek to use violence to undermine peace (Stedman 1997: 5). To accomplish the tasks assigned under these broadened mandates, peacekeepers have used more force, and used it more often, than had been expected previously.

How Post-Cold War Operations Shaped Peacekeeping Debates

Three major operations in the 1990s affected the international community's already shifting approach to peacekeeping: Somalia, Bosnia, and Rwanda. These interventions illustrated the difficulties of adapting to a more expansive international peacekeeping mandate. They also emphasized the differences of opinion between intervention optimists, who argued that the international community can and should intervene forcibly to rebuild failed states and reform murderous ones, and intervention pessimists, who were generally sceptical about or opposed to international intervention into humanitarian crises and conflicts. (Many people fall somewhere between these two positions.)

In Somalia, optimism led the UN to expand a relatively successful limited mission focused on securing aid operations into an ambitious and ultimately failed operation that sought to disarm warring factions and reconstruct the Somali state. Failure in Somalia contributed to reluctance on the part of both the United Nations and the Clinton administration to intervene in Bosnia and Rwanda. In Bosnia, reluctance to call in air strikes when land forces proved insufficient meant that peacekeepers did not prevent ethnic cleansing until after the failure to protect designated safe areas led to the slaughter of their male civilian inhabitants (see Box 16.1).

While much of the world's attention was focused on fighting in the Balkans, an estimated 800,000 people were massacred in approximately 100 days between April and July 1994 in Rwanda. When Hutu extremists began a campaign of mass slaughter against the Tutsi and moderate Hutus, the UN peacekeeping force assigned to monitor Rwanda's peace and power-sharing agreement found itself understaffed, under-resourced, and unauthorized to use

BOX 16.1 Key Perspectives

The UN's Failure to Stop Serb Spoilers in Bosnia

> With the benefit of hindsight, one can see that many of the errors the United Nations made [in Bosnia] flowed from a single and no doubt well-intentioned effort: we tried to keep the peace and apply the rules of peacekeeping when there was no peace to keep . . . None of the conditions for the deployment of peacekeepers had been met: there was no peace agreement—not even a functioning ceasefire—there was no clear will to peace and there was no clear consent by the belligerents . . . Nor was the provision of humanitarian aid a sufficient response to 'ethnic cleansing' and to an attempted genocide.
>
> Kofi Annan

force to prevent genocide. The mission was not expanded in size and authorized to protect the population until May 1994, and even after that UN member states declined to contribute forces. The genocide eventually ran out of steam as the Rwandan Patriotic Front swept down from Uganda to push back Hutu extremists, who fled to Zaire. Although sceptics claimed that the speed of the genocide was so fast that even the United States could not have intervened effectively (Juperman 2000), most observers concluded that the UN had enough warning of the genocide to have bolstered the mission and perhaps prevented the genocide, or at least slowed its pace. Ultimately, an independent inquiry charged the UN with 'overriding failure', and concluded that 'the Security Council bears responsibility for its lack of political will to do more to stop the killing'. The spillover of conflict from Rwanda into eastern Congo contributed to ongoing conflict in that country that was once referred to as 'Africa's World War'—involving eight countries, a myriad of armed groups, an estimated 5 million deaths, and the largest peacekeeping mission mounted by the UN at that time.

Peacekeeping Since 2000

The notable failures of the mid-1990s led to a temporary lull in peacekeeping operations (Tharoor 1995–6). Despite some lower-profile successes, only one major UN mission was launched between 1993 and 1998, in Eastern Slavonia (Fortna and Howard 2008: 287–8). Gradually, however, several developments combined to rejuvenate peacekeeping and open up space for more permissive norms around humanitarian intervention.

First, new institutions like the International Criminal Court and post-conflict tribunals in Rwanda, the former Yugoslavia, and elsewhere began to hold leaders accountable for breaches of humanitarian law. Second, the United Nations itself sought to reform peacekeeping operations. The Brahimi Report (United Nations General Assembly and Security Council 2000) articulated a strategic perspective on peacekeeping, expanded the UN's Department of Peacekeeping Operations, and reformed the practices and processes of peace operations. Third, internal conflict and mass atrocity were redefined as potential threats to 'international peace and security' (invoking Chapter VII). These efforts began in the early 1990s, but gained momentum towards the end of the decade.

Finally, the United Nations began increasingly to emphasize the importance of the protection of civilians (Wills 2009). The Security Council issued the first mandate including the protection of civilians in Sierra Leone in 1999, and the following year the International Commission on Intervention and State Sovereignty (ICISS) convened for the first time. The ICISS

would eventually issue a document titled 'Responsibility to Protect', which the UN and others have increasingly accepted (though not uniformly) as a global norm. This emphasis, combined with other developments, elevated civilian protection and placed significant limits on the previous norm of state sovereignty. In 2011, UN Resolution 1973 on Libya marked the first time that the UN had authorized the use of force to protect civilians against the wishes of a functional state (Bellamy and Williams 2011), and in 2013, after the failure to protect civilian populations in Sri Lanka in 2009, UN Secretary-General Ban Ki-Moon released a policy called 'Rights Up Front', in which the need to protect people from human rights violations occupies the centre of the UN's work.

Today, there are more peacekeepers deployed than at any point previously: around 120,000 personnel from 124 countries in 16 missions on multiple continents as of November 2017—many in active conflict areas (United Nations 2016). This expansion in scope, coupled with a continued expansion in the mandates given to peacekeeping forces, has led to operations that today are 'unparalleled in their organizational complexity and the scope of their ambition'. At the same time, their complexity and scale have created serious concern about overstraining the institutions responsible for peacekeeping activity (Paddon 2011).

Regionalization of Peacekeeping: Benefits and Challenges

Awareness of the limitations of UN capacity has resulted in the regionalization of peace operations in some cases, and a diversification of actors or division of labour between various organizations in others. African states, in particular, have been encouraged to develop a regional capacity for peace operations on the continent—an area with high demand for peace forces which the US and others are less keen to fill. The African Union (AU) operation in Sudan, which deployed in 2004, is an example of this shift towards regionalization. NATO, which deployed massive forces in Bosnia and Kosovo in the 1990s, has more recently conducted operations in Afghanistan and Libya. Regional organizations have also acted as gatekeepers in authorizing the use of force and shaping the mandates of interventions, as the League of Arab States and Gulf Cooperation Council both did with respect to Libya in 2011 (Bellamy and Williams 2011).

Often a single state or regional organization has led an intervention, either with the authorization of a UN resolution, and/or with a less coercive UN peacekeeping force following behind (Fortna and Howard 2008: 291–2). These regional coalitions were initially thought to enjoy several advantages over UN operations: greater force cohesion, better local knowledge, greater commitment to the mission, and more suitable force structure. Experience, however, has revealed unexpected problems with regionalization. When the Economic Community of West African States Ceasefire Monitoring Group attempted to restore order to the failed Liberian state in 1990–6, it was divided by subregional rivalries between Francophone and Anglophone West African contributing states. The intervening forces also exhibited poor understanding of Liberia's political dynamics, relied on local surrogate forces who had an interest in continuing the conflict, and lacked the equipment, training, and logistical support for effective counter-insurgency operations. In more recent operations, such as those in Mali and the Central African Republic, troop shortfalls remain a serious problem, and regional organizations have not been able to take effective action without significant support from Western powers. In Darfur, the African Union operation was eventually replaced by a hybrid UN–AU mission (UNAMID) when the AU force failed to reduce violence. Serious questions about regionalization and the ideal force composition of peacekeeping missions, therefore, remain unresolved today.

Evolving Norms in Contemporary Peacekeeping

Thus, as the context of peacekeeping has changed and developed, the principles that have traditionally guided peacekeeping—impartiality, consent, and restraint on the use of force—have also been subject to continuous debate and renegotiation. Impartiality has been redefined as a lack of favouritism or prejudice rather than as neutrality, and UN guidelines emphasize that impartiality is not an excuse for inaction where mandates call for civilian protection. Because peacekeepers often intervene in situations where conflict is ongoing, their actions are commonly seen as taking one party's side over others. The UN Mission in South Sudan (UNMISS), for example, was criticized by both the government and by anti-government forces for not being sufficiently impartial.

How we think about consent and restraint in using force in peacekeeping has also evolved. Consent, while still revered at the strategic level, is acknowledged to break down in tactical situations where forceful action is sometimes needed to execute the mandate. And the non-use of force has been abrogated when necessary for self-defence of the mission's forces or when essential to defend the mandate—which often now includes the protection of civilians. As each new situation poses different challenges to these principles, debate will undoubtedly continue.

Key Points

- Limited traditional peacekeeping operations have given way in the post-cold war era to larger, more complex, and more ambitious peace operations.
- The debate between intervention optimists and pessimists played out in UN interventions in Bosnia, Somalia, and Rwanda. Critics charge that intervening forces tried to do too much in Somalia, failed to stop spoilers in Bosnia, and did not do enough in Rwanda.
- Peacekeeping operations have become more regionalized since 2000, but questions remain about how effective regional organizations can be.
- The shift towards peace operations has prompted a rethinking of the relationship between impartiality, consent, and the use of force.

The Politics of Humanitarian Intervention

Political considerations focus international attention selectively, prompting a stronger response to some crises, at some times and places, than others. These considerations also shape the speed, scale, and exact form of humanitarian intervention (Roberts and Zaum 2008; Hehir 2013). Serbia's repression in Kosovo triggered Western humanitarian intervention, but Russia's repression in Chechnya did not. Iraqi attacks on Kurds in 1991 resulted in the creation of a Kurdish 'safe haven' in Iraq, guarded by thousands of troops and Allied air power, although even deadlier Iraqi attacks on Kurds several years earlier had led to no response. Political constraints and incentives define crises and shape responses at several different levels: at the level of domestic politics in both the state targeted for intervention and the states that are considering intervening, and at the level of international geopolitics—most commonly via the UN Security Council.

Security Council Politics

The 15 members of the UN Security Council are responsible for authorizing forcible humanitarian interventions. Authorization requires a majority of nine UNSC members, but real power resides with the P5, who each have the right of veto. Conflict between the P5 countries during the cold war made the Security Council a moribund instrument for managing international security. Although cooperation between the P5 has improved since then, four political problems still dog UNSC sponsorship of humanitarian intervention.

First, the P5 are all states with great power interests and aspirations. Great power differences can produce a 'veto problem' if one P5 member simply refuses to contemplate a UN intervention that it considers threatening to its interests. Russia, for example, was prepared to veto UN intervention in Kosovo in the late 1990s, a problem that was resolved by NATO acting on humanitarian grounds without a Security Council resolution. More recently, Russia has opposed the use of force to intervene on humanitarian grounds in Syria, but has used the language of civilian protection to justify its interventions in Georgia and Ukraine. It is clear today that some members of the Security Council, including some of the P5, are reluctant to cede the principle of state sovereignty to a new norm of civilian protection, unless doing so suits their more traditionally defined national interests. Great power interests also shape the selection of interventions; France's history in Africa inclines it to intervene more often in this region, while China—a country that is traditionally sceptical of peacekeeping—recently provided a large contingent of peacekeepers to South Sudan where it has sizeable investments in the oil industry and a number of Chinese citizens working.

Second, there may be a 'logrolling problem'. If a particular crisis is associated with a certain P5 member (or members), others may withhold support or threaten to veto unless they are promised support for their interests in exchange. In the mid-1990s, for example, Russia and later China obstructed UNSC resolutions on peace operations in Haiti because Russia wanted UN endorsement of its own intervention in Georgia, while China wanted a public apology from Haiti for inviting Taiwan's vice-president to Haiti's 1996 presidential inauguration.

Third, even if the P5 agree to authorize a UN peace operations force, they must still overcome a 'posturing problem', which is a tendency to 'talk the talk but not walk the walk'. The great powers sometimes pass grand-sounding Security Council resolutions that are not backed by adequate political engagement and commitment of the necessary resources to implement the resolution. The creation of 'safe areas' in Bosnia is a classic example of this type of posturing problem. These areas were not actually safe because the Security Council was not prepared to deploy additional forces to protect them (see Box 16.1). Several UNSC members and the UN Secretariat warned at the time that 'without the provision of any credible military threat' these safe areas would be meaningless, but the great powers went ahead anyway. In today's missions, troop shortfalls remain common. The UN's Department of Peacekeeping Operations 'New Horizon' agenda, promulgated in 2009, has sought to expand partnerships as a means of overcoming resource and manpower shortages and providing more effective and timely responses, but building the capacity to effectively implement peacekeeping mandates is likely to remain a fundamental challenge (Welsh 2014).

Fourth, even if the P5 are prepared to walk the walk, they can disagree on which direction to take. Great powers may disagree on the nature of the humanitarian crisis, or on the most effective response. This 'coordination problem' was evident in Bosnia, where the United

States and its European allies had different perceptions of the conflict and disagreed on the appropriate response. European powers saw an ethnic conflict to be solved by partition. The United States saw it as a war started by Serbia, and opposed partition because it would reward Serbian aggression. Only in 1995, when the United States accepted that partition was a necessary evil, was the international community able to solve the coordination problem and take effective action. Similar disagreements among great powers have affected intervention outcomes in the ongoing crisis in Syria today (see Critical Thinking). Even when the UNSC appears to have achieved consensus, problems can arise with implementation. Members of the P5 may interpret mandates differently, or may in their own actions be combining intervention for humanitarian purposes with intervention that is aimed at other goals.

Critical Thinking Is intervention in Syria necessary and appropriate?

In March 2011, protests in Syria were violently repressed by the government of President Bashar al-Assad. Opposition groups responded with armed resistance, and fighting escalated into civil war, eventually also involving jihadist groups such as Islamic State. The UN and others estimated that as of mid-2016, around 400,000 people had been killed, and that at least 5 million refugees had fled Syria, with another 6.3 million displaced internally. Debate over whether and how to intervene has occurred since the beginning of the conflict, particularly after 2013 reports that the regime had used chemical weapons against civilians. Both Russia and the United States have conducted air strikes in the region since 2014.

For

- ***A humanitarian crisis.*** The immense human costs of the conflict require the world to try to stop the conflict.
- ***Risking instability and radicalization.*** Without intervention, the country will stall in instability and create a power vacuum for jihadists and others that is detrimental to Western interests.
- ***Credibility at stake.*** Intervention is necessary to preserve Western credibility, especially after the US made use of chemical weapons a 'red line'.
- ***Success is possible.*** Limited intervention by the West may be able to accomplish coalition goals and protect civilians.

Against

- ***Too costly and too risky.*** Effective intervention in Syria would be very costly and too risky to Western forces.
- ***Unlikely to succeed.*** Limited, lower-risk intervention, on the other hand, would not accomplish the objectives of stability and civilian protection.
- ***Inappropriate objectives.*** Intervening would mean taking the side of the rebel forces against Assad, but regime change is not an appropriate objective for intervention.
- ***Harmful to other important geopolitical relationships.*** Intervening in Syria would place the West at increased risk of conflict with Russia and Iran, both of whom have supported the Syrian regime.
- ***Likely to worsen instability and radicalization.*** Providing support to rebels in Syria also means supporting radical Islamists, including groups (Islamic State, for example) that coalition forces are simultaneously fighting. Thus, intervention does not contribute to regional stability.

Critical Thinking *(continued)*

Questions:

1. Should the West intervene in Syria?
2. How do geopolitical and UNSC dynamics affect the debate over intervention?
3. Would a regional or global coalition be more effective in Syria? Why?

Domestic Politics: Public Opinion and Media Coverage

Policymakers and commentators alike believe that Western public opinion can make or break humanitarian interventions. Two factors are thought to be particularly important in shaping public opinion: media coverage and casualties.

Media and technology shape the way that global events are reported, and therefore shape the politics of humanitarian intervention. In the 1990s, policymakers and scholars referred to a 'CNN effect' after extensive television coverage of the 1990–1 Gulf War seemed to change the way conflicts were reported. Media attention to Somalia and Bosnia, and the public outcry that followed, are thought to have prompted intervention in these places (Holbrooke 1999: 20; von Hippel 2000: 59). Media coverage and access to technology also, however, shape the selective nature of humanitarian intervention, helping to draw attention to some conflicts but not others. Diplomats and pundits have suggested that extensive coverage of the conflict in Syria, with videos uploaded every day onto YouTube, has helped prompt calls for intervention there, while areas such as South Sudan receive far less attention because their lack of technology and connectivity makes the costs of those conflicts less visible to a global audience.

Policymakers and pundits also assume that public support for humanitarian intervention depends on minimal peacekeeper casualties. The argument suggests that the public will be particularly sensitive to casualties in humanitarian interventions because these military actions are freely entered into by governments: they are 'wars of choice' as opposed to 'wars of necessity' fought to defend national security. Policymakers worry that media coverage of peacekeeping deaths will collapse public support for these operations, as happened in Somalia after the deaths of 18 American soldiers in the early 1990s.

Critics suggest that both claims are overstated. Arguments about the impact of media coverage underestimate the extent to which governments can frame the debate to choose the place and time of intervention. Leaders are most likely to be able to shape media coverage in this way when they already know their desired course of action. Disunity and divided government, therefore, are thought to increase public responsiveness to media coverage and reduce leaders' ability to drive the media agenda. In Somalia, the Bush administration's uncertainty and a pro-intervention lobby in US aid agencies and Congress pushed the United States towards intervention, while the Clinton administration resisted calls for ground intervention in Kosovo because it was sure that it opposed intervention, and because that stance had support in Congress. Internal debate within the Obama administration about what the strategy should be also heightened the effect of public pressure to 'do something' in Syria as the costs of that conflict have mounted.

The effect of the media can also be overstated because media attention is often short-lived, and humanitarian crises often outlast the coverage of them in the news. Technology

can also encourage oversimplification of complex problems and validate 'slacktivism', in which people make symbolic gestures of support, such as posting on social media, that do not have meaningful impact (Gladwell 2010; Lewis, Gray, and Meierhenrich 2014). Both the Save Darfur campaign of the mid-2000s and the 'Kony 2012' video have been criticized on these grounds (see Box 16.2).

BOX 16.2 Case Study

'Kony 2012' and #StopKony

In March 2012, California-based non-profit organization Invisible Children released an advocacy video called 'Kony 2012', which detailed the crimes of Ugandan warlord Joseph Kony and called for his immediate arrest. The video was viewed over 100 million times in a week and retweeted by prominent celebrities using the hashtag #StopKony. The social media campaign led to a US Senate resolution and public outcry over Kony's past atrocities in Uganda. Several weeks later, the African Union announced a decision to mobilize 5,000 troops to find and capture Kony, which had reportedly been planned prior to the launch of the video. The video itself quickly became the subject of controversy and criticism, both for its oversimplified presentation of the conflict and for its promotion of 'slacktivism'. As of mid-2017, Joseph Kony remained at large, but his group had dwindled in size. The US and Uganda ended their search for Kony in 2017, having assessed that his organization no longer posed a significant threat.

Claims about casualties can be similarly misleading. Empirical evidence suggests that peacekeeper casualties do not necessarily result in public calls for immediate withdrawal (Gelpi, Feaver, and Reifler 2009). Indeed, casualties can sometimes lead to a rallying of public support. In the case of Somalia, most Americans actually favoured increased US military involvement immediately following the killing of US soldiers, especially if ordinary Somalis wanted an American presence. Similarly, the execution of Western journalists in the Middle East in 2014 helped to harden popular and political opinion against the Islamic State.

Key Points

- Humanitarian intervention is affected by domestic politics, politics in the UN Security Council, and the politics of the target country and region. All of these levels operate together to define the crisis and shape international responses.
- UN Security Council cooperation on humanitarian intervention can be hindered by one or more of the P5 seeking to advance their own national interests, either through logrolling behaviour or using their veto.
- Even when the P5 agree to act, effective intervention can be hampered by posturing, where tough talk is not matched by action, or lack of coordination, where states disagree on the best course of action.
- Technology and media coverage of conflict can help to shape public demand for humanitarian intervention, but political elites can, under certain circumstances, still shape public debate to affect the place, time, and type of intervention.
- Although policymakers fear that casualties can collapse public support for intervention, this is not always the case.

The Military Character of Peace Operations

To protect civilians or stop conflict, peace forces must be prepared to engage in combat. Most often, these military forces have been designed, equipped, and trained according to fundamental principles of war—these principles, however, do not always apply straightforwardly to peace operations. In fact, four main principles of war—clear identification of the objective, unity of effort, massing of forces, and surprise—are problematic when it comes to peace operations.

Principles and Practicalities

The principle that military operations should be conducted towards clearly defined, decisive, and attainable objectives is difficult to achieve in peace operations, where objectives are often poorly defined. In a UN intervention, for instance, objectives are established by Security Council mandate, sometimes in consultation with the host government. In non-UN interventions, contributing national governments set the objectives. As noted in the previous section, however, a number of political factors can prevent the construction of a mandate with a clear objective. Mandates may be deliberately vague to overcome coordination problems among great powers. They may be imprecise, non-credible, or simply unattainable when Security Council members want to threaten or coerce but are reluctant to commit to tough action or provide the necessary resources.

Mandates may also be unclear because peace operations themselves have become increasingly complex, and now include tasks aimed at longer-term goals like political stability and economic development. These tasks are not military in nature, but will impact the long-term success of military actions. Commanders who are given a complex mandate will attempt to translate it into more limited mission objectives that are both clear and attainable. Simpler and more limited objectives, however, will often be less decisive in the long term. The UN mission in Somalia sought to create a secure environment for aid operations by keeping armed bandits at bay rather than disarming them, and in Bosnia UN forces protected humanitarian aid by escorting convoys rather than securing routes because the latter would have involved using force to clear roadblocks. These objectives were attainable in the short term, but a secure environment did not outlast the presence of the peacekeepers.

The second principle, unity of effort, is achieved in war through unity of command: by placing all forces under a single commander. The coalition forces that liberated France in 1944 were led by one general (Dwight Eisenhower), as were those that liberated Kuwait in 1991 (Norman Schwarzkopf). Forces in peace operations, however, are often drawn from a wider variety of troop-contributing countries (TCCs) than forces in normal coalition warfare. Differences in military culture, lack of prior joint operational experience, and potential political rivalries between TCCs all inhibit the creation and operation of an effective command structure. Sometimes differences are so great that they render the chain of command inoperative, as in the bitter 2000 dispute between an Indian commander and the Nigerian and Zambian contingents in the UN force in Sierra Leone. The governments of TCCs also limit what the UN can do with their troops, creating restrictive rules of engagement, or bypassing the mission command structure and issuing instructions directly to their forces in the field, thereby

creating two chains of command rather than one. Additionally, Western powers have sometimes supported UN missions with forces that were not actually under UN command. The Anglo-French Rapid Reaction Force in Bosnia, the US Quick Reaction Force in Somalia, and British military forces in Sierra Leone, for example, all remained under national command.

Even if unity of command is achieved, commanders of peace operations must also coordinate with civilian agencies—often a multitude of UN, non-government, and local aid actors—to achieve unity of effort. This is especially challenging now that UN missions are 'integrated missions' involving more complex tasks and a wider range of actors (Metcalfe, Giffen, and Elhawary 2011). Here, differences in military and civilian organizational cultures are even more pronounced, and can pose high barriers to effective, timely coordination. In Somalia, civil–military cooperation broke down when the military way of doing things—controlling movement and information—infuriated civilian aid agencies.

Thirdly, commanders seek to mass force by concentrating troops and deploying combat power at places and times that will have greatest impact on the enemy. When it comes to peace operations, however, forces are commonly dispersed rather than concentrated, to maintain high visibility and provide security on the ground. Force dispersal means that fewer elements of combat power are available for decisive action, and limits the ability to concentrate force for maximum impact. The problems of under-resourced missions and disunity of command also limit opportunities to mass force.

The fourth principle, surprise, highlights the importance of striking the enemy when and where they least expect it. The critical ingredients for surprise are speed, secrecy, and deception. Lack of unity of command makes it difficult for peace forces to achieve speed in their area of operations. Secrecy is often compromised by the imperative for unity of effort, which requires peace forces to share operational information with civilian agencies, many of which in turn hire and share information with local staff. In Somalia, for instance, warlord leader Mohamed Farrah Aideed had excellent intelligence about peacekeeping operations partly because he used local aid workers as spies. Deception is also problematic in urban environments, because the local population can act as eyes and ears for belligerent parties.

Good intelligence is also critical to achieving surprise. Peacekeeping forces, however, often struggle to obtain good intelligence because their ability to monitor, communicate, and respond to developments is hampered by a lack of technology (and sometimes by their mission and command structure). In 2013, the Security Council authorized the first use of drones in peacekeeping, for surveillance and monitoring in the Democratic Republic of Congo. While many agree that drones can do much to improve the situational awareness of peacekeeping forces, their deployment may also put peacekeeping forces in a difficult position by making them aware of situations to which they are obligated to respond—for example, to protect civilians—when they lack the physical and organizational capacity to do so. The authorization of drones for monitoring and surveillance also opens the question, currently unresolved, of whether armed drones should be employed for civilian protection if peacekeeping forces are insufficient or unable to reach a crisis location in time (Dorn 2011; Karlsrud and Rosen 2013).

Politics and Public Opinion: Interaction with Military Principles

The political imperatives that shape peace operations pull them even further away from the traditional principles of war. Political sensitivity to casualties results in a focus on managing

BOX 16.3 Case Study

NATO's 2011 Intervention in Libya

In March 2011, UNSC Resolution 1973 authorized a no-fly zone over Libya, demanding a ceasefire and an end to attacks on civilians. The resolution imposed tighter sanctions on the Libyan government and forbade any 'foreign occupation force' on Libyan soil. It was passed unanimously, with ten votes in support and five abstentions (Brazil, China, Germany, India, and Russia). The resolution's aim was 'to protect civilians and civilian areas targeted by Colonel Muammar Al-Qadhafi, his allied forces, and mercenaries'. Members of the Obama administration, however, advanced at least five additional reasons for intervention: promoting regime change; sending a message to other dictators; supporting Libya's rebel movement; repaying European support in Afghanistan; and the belief that achieving the desired end-state would be easy. These actions, intended to increase public support for the intervention, made it harder to maintain a clear mission focus. As Micah Zenko noted:

> When presidents authorize military action, they must have a clear objective in mind. Without a singular, defined goal, policymakers cannot appropriately match means and ends, which increases the likelihood of failure . . . In the case of Libya, there was only one overarching rationale provided—the protection of civilians—yet the initial intervention and now the 97-day bombing campaign has been about so much more.
>
> Zenko 2011; UNSC 2011

public opinion to maintain support for intervention. In Kosovo, NATO launched an elaborate public relations campaign to counter Serbia's portrayal of itself as a victim of NATO aggression. And during NATO's 2011 intervention into Libya, the Obama administration tried to focus public attention on human rights violations, though this was never the sole aim articulated (see Box 16.3).

Concerns with public opinion produce three specific pathologies in interventions and peace operations. First is the strategic compression of the battlefield. In conventional war, strategic outcomes are shaped by military action at the operational level: the success or failure of entire campaigns. By contrast, in interventions or peace operations, tactical actions may have heightened strategic consequences. (The bombing of the Chinese embassy in Kosovo, for example, disrupted NATO strategy in 1999.) As a result, commanders make decisions with more awareness of the domestic political consequences of their actions, either through direct communication with those at home or through pressure from civilian authorities.

The second operational pathology is a heightened focus on full force protection so that intervening forces are not vulnerable to attack. Making full force protection an operational imperative can hinder effective execution of a mission. It concentrates force in situations where the dispersal of forces would be more effective, and often requires ground personnel to wear body armour and travel at high speeds, visibly demonstrating distrust towards local populations in situations when a more relaxed force posture would make it easier to build relations with local communities. Senior officers closer to political pressures are often more intent on force protection, while junior officers sometimes view the force protection requirements as an impediment to success.

The third issue is an over-reliance on air power and unrealistic expectations of what it can accomplish (see Box 16.4). As the 1990–1 campaign in Iraq and more recent campaigns in Libya and Syria have shown, air power is most effective when employed in synergy with land

BOX 16.4 Key Perspectives

Fatal Attraction: America and Air Power

> Air power can help sustain domestic support or coalition unity . . . but it cannot eliminate underlying political constraints. In Eliot Cohen's words, 'Air power is an unusually seductive form of military strength, in part because, like modern courtship, it appears to offer gratification without commitment.' This view poses a challenge for air power. Because policymakers often see air power strikes as a low-risk, low-commitment measure, air power will be called on when US public or allied commitment is weak—a situation that will make successful coercion far harder when casualties do occur or when air strikes fail to break adversary resistance. Air power, like other military instruments, cannot overcome a complete lack of political will.
>
> Byman and Waxman (2000: 38)

power to destroy military infrastructure and soften defences for land forces. Casualty aversion, however, makes Western powers deeply reluctant to put 'boots on the ground'. They seek to achieve force protection by making sure that the only forces deployed are in fast jets thousands of metres above the conflict.

Western air power can sometimes be combined successfully with local land forces. NATO bombing of Bosnian Serb bases in 1995, combined with a successful Bosniak-Croat land offensive against Serb territory in Eastern Bosnia, forced Bosnian Serbs to sue for peace. NATO air operations in Libya in 2011 provided critical support to rebel forces seeking to advance and overthrow Muammar Gaddafi. At other times, however, rejection of ground intervention has had negative consequences. In Kosovo in 1999, NATO's restriction of its campaign to air power alone gave Serb forces room to terrorize the Albanian population and drive them out of the province. The Kosovo Liberation Army (unlike the Croatian Army in Bosnia) could not generate enough combat power to be an effective surrogate ground force for NATO. As a result, Serb forces held out against NATO bombing for 78 days before capitulating—which they did only under threat of a ground invasion, and after the province had essentially been 'cleansed' of Albanians.

Domestic Politics and Current Interventions

Many of these operational pathologies were visible in coalition military operations in Afghanistan and Iraq, as well as in the operations that followed. The US-led invasions of Afghanistan in 2001 and Iraq in 2003 are not examples of humanitarian interventions, because they were primarily about protecting the national security of the United States and its coalition partners from terrorism and weapons of mass destruction. Nevertheless, policymakers predicted that humanitarian outcomes and democracy promotion would be by-products of these operations.

The post-conflict stabilization operations led by the United States in Iraq and NATO in Afghanistan have, however, been similar to peace operations. Force protection concerns affected US counterinsurgency strategy, informing the initial decision to concentrate rather than disperse forces in Iraq. Casualty aversion was also an issue. Although several thousand fatalities (nearly 7,000 as of late 2014) resulted in a marked decline in US public support for

the operations and mounting political pressure for withdrawal, the United States 'surged' troops to both countries before eventually withdrawing.

Finally, although these campaigns did not rely excessively on air power, American experiences in Iraq and Afghanistan were critical to informing the Obama administration's decision to rely almost exclusively on air power for NATO's intervention in Libya in early 2011 and contributed significantly to the reluctance to send ground troops back to the Middle East as the conflict with the Islamic State and fighting in Syria unfolded in 2014. Precedents from US global counterterrorism efforts have also shaped the 2011 'armed humanitarian intervention' in central Africa, where American special forces have been tasked with helping regional militaries capture Joseph Kony and counter his Lord's Resistance Army, while engaging in combat only in self-defence. Thus, despite the fact that they were not undertaken primarily for humanitarian purposes, operations in Iraq and Afghanistan will continue to influence future humanitarian interventions and peace operations.

Key Points

- In practice, peace operations often contravene one or more of the four main principles of war—clear identification of the objective, unity of effort, massing of forces, and surprise. Obtaining good intelligence in peace operations can also be difficult.
- Political imperatives, such as the need to manage public support, can create a number of operational pathologies during humanitarian interventions and peace operations.
- The operational pathologies imposed by political considerations include compression of the battlefield such that tactical incidents have disproportionate strategic and political consequences, prioritizing force protection at the expense of mission requirements, and an over-reliance on air power.
- Non-humanitarian military interventions and operations, such as the US-led coalition operations in Iraq and Afghanistan, are likely to affect the calculus about whether to intervene on humanitarian grounds in future scenarios, and are likely to shape the nature of any intervention.

Conclusion: Problems and Prospects

This chapter has explored issues and debates surrounding humanitarian intervention and peace operations. In order to intervene, the international community must not only find the political will to do so, but must manage both international and domestic politics and match the will to act with appropriate capacity and resource commitments. Peacekeeping forces must then balance consent, impartiality, and the need to use force to defend their mandates; inability to strike the correct balance can lead to a variety of failures. Additionally, domestic and international political pressures and incentives influence peace operations in ways that divert them from the principles of war. Each of these issues poses challenges for peacekeeping.

Nevertheless, intervention and peacekeeping are here to stay. Despite debate about the most effective form and organization of peacekeeping, there is broad consensus that it works. Studies that examine peace operations in the context of inter-state war as well as

in cases of civil conflict suggest that the presence of peacekeepers makes re-emergence of civil war much less likely, even after peacekeepers go home (Fortna 2003, 2008; for a partially contrasting view, see Greig and Diehl 2005; Barnett, Fang, and Zurcher 2014). Recently, academic research has also explored broader notions of success and effectiveness in peacekeeping, such as longer-term contributions to peacebuilding (Sandler 2017). And theoretical debates aside, there are more peacekeepers deployed now than ever before: over 120,000 as of late 2016.

Future debates are likely to centre on several areas. One is the question of what specific form peacekeeping missions should take. Recent research suggests that the structure and composition of peacekeeping forces shape how they behave on the ground, leading scholars and practitioners to revisit normative debates about burden sharing—what allocation of financial and troop contributions is appropriate for various peacekeeping situations (Bove and Ruggieri 2016; Sandler 2017). Prominent in this discussion is the role that gender plays, especially with the increase in attention to sexual violence during civil conflict (Cohen 2013, 2016), and the UN has moved to try to increase the percentage and number of female peacekeepers. This issue is likely to be debated for years to come: both the impact of having more female peacekeepers, and the role that peacekeeping practices play in gender outcomes in the country are in question (Crawford, Lebovic, and Macdonald 2015; Karim and Beardsley 2017).

Another question is what relationship peacekeeping should have with transitional administration and attempts at state building, especially as these metrics increasingly shape how people think about the 'effectiveness' of peacekeeping. Under transitional administrations, the UN not only takes on the tasks of multidimensional peace operations, but also assumes executive authority over the state's administration and government, a process that has only been attempted a handful of times. As missions become more integrated, involving numerous actors and a range of complex tasks, these questions will become increasingly important. Optimists emphasize the possibility that intervening actors—the United States, the United Nations, or any third party—can successfully build a state or democracy if they have the right strategy, resources, and political will. Others are sceptical, arguing that the success of intervention depends more on local capacity and local political dynamics than on anything foreigners do: the international community might be good at building telecommunications networks, but it is far worse at transforming local political culture to meet Western standards in areas like the rule of law (Stewart 2011).

Finally, this emphasis on local actors parallels a call among scholars of peacekeeping for more attention to the 'perspectives of the peacekept' to assess how they respond to intervention and peacekeeping efforts—a topic that so far has received relatively little attention (Clapham 1998; Pouligny 2006; Moore 2013; Autesserre 2014; Ruggieri, Dorussen, and Gizelis 2017). Normatively, these developments also raise new questions about impartiality and under what circumstances building or supporting a state is the most important priority, particularly in cases where the government itself has been one of the chief violators of the emerging norm of civilian protection.

Humanitarian intervention and peace operations remain a fixture on the landscape of global politics. Given their importance, the questions and debates that surround these operations are likely to influence international practices—and the field of strategic studies—for years to come.

Questions

1. Why was humanitarian intervention rare during the cold war?
2. How did peacekeeping change in the 1990s? Why? How has it changed in the past decade?
3. What is the ideal composition of a peacekeeping force? Is regionalization of peace operations a good idea?
4. Is impartiality possible during peacekeeping? Why or why not?
5. Are you an intervention optimist or pessimist? Why?
6. To what extent does public opinion 'make and break' humanitarian interventions? Why? What operational pathologies can public opinion create?
7. What four problems associated with the UN Security Council hinder effective action in response to humanitarian crises?
8. How well do the principles of war apply to peace operations?
9. Does peacekeeping work? What does it mean for peacekeeping to be effective?
10. How much has technology changed the nature of peacekeeping? What exactly has changed and why?

Further Reading

A. J. Bellamy, P. Williams, and S. Griffin, *Understanding Peacekeeping*, 2nd edn (Cambridge: Polity, 2010) is an excellent, up-to-date introductory text.

V. P. Fortna and L. M. Howard, 'Pitfalls and Prospects in the Peacekeeping Literature,' *Annual Review of Political Science* 11 (2008): 283–301 gives a concise, thorough review of contemporary debates and questions. Books written by these authors individually are also worth a careful read.

S. Karim and K. Beardsley, *Equal Opportunity Peacekeeping: Women, Peace, and Security in Post-Conflict States* (Oxford: Oxford University Press, 2017) examines the role of gender in peacekeeping operations.

J. Koops et al. *Oxford Handbook of United Nations Peacekeeping Operations* (Oxford: Oxford University Press, 2015) analyses all 67 UN peacekeeping operations launched between 1948 and 2013.

H. Langholtz, B. Kondoch, and A. Wells (eds), *International Peacekeeping: Yearbook of International Peace Operations* (Leiden: Brill, ongoing) is essential reading for scholars and students of peace operations, published annually.

E. Paddon, *Taking Sides in Peacekeeping: Impartiality and the Future of the United Nations* (Oxford University Press, 2016) offers a field-based examination of how the principle of impartiality has evolved and shaped peace operations along the way.

R. Paris, *At War's End: Building Peace After Civil Conflict* (Cambridge: Cambridge University Press, 2004) presents a critique of the democratization and marketization agenda inherent in peace operations.

United Nations Blue Book Series (New York: United Nations) includes volumes on previous interventions, each with primary source materials and lengthy commentary by the Secretary General.

J. Welsh (ed.), *Humanitarian Intervention and International Relations* (Oxford: Oxford University Press, 2004) gives an examination of issues and cases through the lens of international relations theory.

N. J. Wheeler, *Saving Strangers: Humanitarian Intervention in International Society* (Oxford: Oxford University Press, 2000) considers the ethical case for intervention, and analyses cases during and after the cold war.

Web Links

United Nations Peacekeeping **http://peacekeeping.un.org/en** contains a brief history of peacekeeping, discussion of principles and processes, overviews of current operations, and reports on past ones.

Website of the International Coalition for the Responsibility to Protect **http://www.responsibilitytoprotect.org** provides access to helpful resources on humanitarian intervention, including the comprehensive International Commission on Intervention and State Sovereignty report.

Stimson Center Program on the Future of Peace Operations **https://www.stimson.org/programs/future-peace-operations** offers research and commentary on current issues related to intervention and peace operations.

Security Council Report **http://www.securitycouncilreport.org** provides reports on the United Nations Security Council, including intervention and peacekeeping activities.

International Peace Institute **https://www.ipinst.org/** focuses on conflict prevention and settlement and has provided training to UN peacekeepers.

New York University Center on International Cooperation **http://www.cic.nyu.edu** offers helpful events and publications on global peace operations, humanitarian intervention, and peacebuilding.

The Rise of Cyberpower

JOHN B. SHELDON

Chapter Contents

Introduction 291
Terms and Definitions 292
Cyberspace, Cyberpower, and the Infosphere 296
A New Dimension for Conflict 299
A Twenty-First-Century Revolution in Military Affairs? 302
Conclusion 306

Reader's Guide

Recent years have seen the rapid spread of information-communication technologies around the world, creating a globally connected domain called cyberspace. Every aspect of modern society, from how we communicate to how we wage war, can now be said to be cyberdependent. Nearly every function of modern society is enabled by cyberspace. This is both an advantage and a serious vulnerability. A variety of actors—ranging from individuals and small groups to non-state actors and governments—are developing cyberattack capabilities that can disrupt and even destroy core elements of modern society. Defence against these threats is challenging because, in cyberspace, the offence is the dominant form of warfare. Yet, despite this advantage, cyberattack entails risks. The pervasiveness of cyberspace, and the growing importance of cyberpower, is having a tangible impact on international politics and the use of military force in the twenty-first century. What are the implications of these trends, and why should strategists care about them?

Introduction

The first electronic computer, the Electronic Numerical Integrator and Computer, was housed in a large building. It was developed in 1946 for the US Army to plot scores of artillery targets rapidly. Since then, computers have shrunk in size, become much more powerful, and now pervade every aspect of modern life. These developments—and the rapid and inexorable rise of the World Wide Web and the Internet—have produced startling and indelible changes in modern societies, the global economy, and in the conduct of politics and warfare. Indeed, these changes have occurred in such a relatively small space of time and with such scope that analysts and scholars have still to discern all of the implications of the rise of cyberpower.

The implications for strategy are similarly challenging to identify, though broad trends and issues are sufficiently well known that strategists are now able to analyse trends. Because

cyberpower is having a broad and meaningful impact on the conduct of war, it is producing significant challenges for strategic studies. These broad and meaningful impacts, along with their attendant challenges and opportunities, may also be driving a change in the character of war. This chapter outlines these trends and issues and explains what cyberpower means for the future of strategy and conflict.

Terms and Definitions

Strategic studies, not unlike other disciplines, places a premium on definitions even though they are contextually and culturally situated. For example, an American definition of air power may not necessarily resonate with, say, a Ugandan definition, given the vast differences in historical and operational experiences, as well as differences in capability and how the instrument of air power is wielded to achieve political objectives set out by the respective polities. Ultimately, however, definitional debates about air power, as well as land and sea power, tend to revolve around a handful of competing definitions.

Not so with cyberspace, and its consequential product, cyberpower. There is a plethora of competing definitions of cyberspace (see Box 17.1) and a number of competing

BOX 17.1 Definitions

Competing Definitions of Cyberspace

> Cyberspace is that intangible place between computers where information momentarily exists on its route from one end of the global network to the other.
>
> Winn Schwartau (1996: 71)

> 'Cyberspace' is the information space consisting of the sum total of all computer networks.
>
> Dorothy Denning (1999: 22)

> Cyberspace consists of electronically powered hardware, networks, operating systems, and transmission standards.
>
> Gregory J. Rattray (2001: 65)

> Cyberspace: Domain characterized by the use of electronics and the electromagnetic spectrum to store, modify, and exchange data via networked systems and associated physical infrastructures.
>
> General James E. Cartwright, Vice-Chairman of the Joint Chiefs of Staff (no date: 7)

> A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers.
>
> The Hon. Gordon England, Deputy Secretary of Defense (2008; quoted from Kuehl 2009: 27)

> I think that a more accurate analogy can be found in the realm of science fiction's parallel universes—mysterious, invisible realms existing in parallel to the physical world, but able to influence it in countless ways. Although that's more metaphor than reality, we need to change the habit of thinking about cyberspace as if it's the same thing as physical space.
>
> Jeffrey Carr (2010: xiii)

definitions of cyberpower (see Box 17.3). Much of this definitional churn is the result of the fact that, as strategic phenomena, both cyberspace and cyberpower are relatively new when compared to land, sea, air, and space power. Of equal plausibility, however, is that many strategists are confronted with the uncomfortable notion that cyberspace is an intangible, fluid, and counterintuitive phenomenon (or if one prefers, a domain, which is discussed later) that defies the neat categorizations of the other strategic domains. In contrast, the strategic effects that can be produced from cyberspace—cyberpower—are somewhat easier to grasp.

Cyberspace

The term cyberspace was first coined in a 1982 short story titled 'Burning Chrome', by Canadian science fiction writer William Gibson, and later popularized in his famous 1984 novel *Neuromancer*. Gibson defined cyberspace as a 'consensual hallucination' (Gibson 1984: 51) that takes place when humans interact with networked computers. The term has morphed and evolved ever since.

For the strategist, definitions attempt to lend cyberspace a certain tangibility and uniformity similar to the definitions of land, sea, air, and space power. Many definitions fail to emphasize the physical manifestations of cyberspace—such as computers and networks and other infrastructure—and the code that makes the machines and networks function. Other definitions depict cyberspace as an informational and virtual place that exists within an infrastructure that is implied. Such definitions emphasize the cognitive element where the human being interacts directly with information created, stored, and transmitted in cyberspace. Very few definitions combine the physical and cognitive elements of cyberspace, though cyberpower theorist Martin C. Libicki offers a characterization of cyberspace that includes the physical infrastructure, the code that provides the logic for computers to operate, and the human–computer interface that involves cognition (see Box 17.2).

All of the definitions in circulation today vary in terms of what constitutes cyberspace. As a result, some definitions include certain features that may be found in cyberspace, and others omit the same features. Definitional wars by nature can be tedious to those not directly

BOX 17.2 Key Perspectives

Libicki's Three Layers of Cyberspace

Libicki divides cyberspace into three layers:

Physical comprising hardware, cables, satellites, routers, and other components of the physical infrastructure.

Syntactic comprising the code (software) that formats, instructs, and controls information.

Semantic comprising the cyberspace–human interface where information is meaningful to human beings.

Control of any one layer of cyberspace does not confer control of the other two remaining layers.

Martin C. Libicki (2007: 8–9)

involved, but, in the case of cyberspace, what is and what is not included in any definition may have serious implications for its strategic application:

> The issue of defining cyberspace is not trivial. What we decide to include or exclude from cyberspace has significant implications for the operations of power, as it determines the purview of cyberspace strategies and the operations of cyberpower.
>
> Betz and Stevens (2012: 36)

An example of this issue can be found among cyberspace definitions that include the naturally occurring electromagnetic spectrum (EMS) and those that do not. The point being that inclusion or exclusion of the EMS in definitions can determine how, and by whom, cyberspace operations are conducted.

For the purposes of this chapter, cyberspace is defined as:

> a global domain within the information environment whose distinctive and unique character is framed by the use of electronics and the electromagnetic spectrum to create, store, modify, exchange, and exploit information via interdependent and interconnected networks using information-communication technologies.
>
> Kuehl (2009: 28)

Cyberpower

If cyberspace is the domain where information can be created, stored, transmitted, and generally manipulated, then cyberpower is the process of converting information into strategic effect. This strategic effect ultimately manifests itself in the cognitive processes of human beings, but can also indirectly manifest itself in the strategic domains of land, sea, air, and space, as well as cyberspace itself.

Compared to cyberspace, there are relatively few definitions of cyberpower. Cyberpower definitions emphasize how cyberspace can be used to fulfil the ends of strategy. One category of definition emphasizes the instrumentality of cyberpower without discussing the dialectic process of exercising that power in the face of an adversary. The other category of definition acknowledges that cyberpower is used against a wilful and intelligent adversary that will probably also attempt to use cyberpower for their own ends. This chapter defines cyberpower as the ability, in peace, crisis, and war, to exert prompt and sustained influence in and from cyberspace.

Cyberwar?

In early 2010, former US Director of National Intelligence Vice-Admiral Mike McConnell, US Navy (retired), asserted: 'The United States is fighting a cyberwar today, and we are losing. It's that simple' (McConnell 2010). McConnell is among numerous commentators and authors who use the term cyberwar (or cyberwarfare or cyber conflict) to describe the range of nefarious activities that take place in cyberspace every day. The vast majority of these activities range from young hackers showing off their skills and online political protest and dissent called hacktivism, to criminal activity and espionage; very few can actually be described as actual cyberattacks that might cause serious harm to the national security of a state. This is

BOX 17.3 Definitions

Competing Definitions of Cyberpower

> The ability to use cyberspace to create advantages and influence events in all the operational environments and across the instruments of power.
>
> Daniel T. Kuehl (2009: 38)

> Cyberpower can be defined in terms of a set of resources that relate to the creation, control, and communication of electronic and computer-based information—infrastructure, networks, software, human skills. This includes not only the Internet of networked computers, but also Intranets, cellular technologies, and space-based communications. Defined behaviorally, cyberpower is the ability to obtain preferred outcomes through use of the electronically interconnected information resources of the cyberdomain.
>
> Joseph S. Nye, Jr. (2011)

> Cyberpower is the national ability to disrupt [the] obscured bad actor somewhere in the digitized globe, whether nonstate or state, in proportion to its motivations/capabilities to attack with violent effects and yet be resilient against imposed or enhanced nasty surprises across all critical nationally sustaining systems.
>
> Chris C. Demchak (2011: ix)

> [C]yber-power can be understood as the variety of powers that circulate in cyberspace and which shape the experiences of those who act in and through cyberspace … cyber-power is therefore the manifestation of power in cyberspace rather than a new or different form of power.
>
> David J. Betz and Tim Stevens (2012: 44)

not to deny that hackers' pranks and hacktivism are bothersome, even serious, or that crime and espionage carried out by cyber means are not significant issues in need of coherent policy responses. There is a question, however, as to whether these activities together constitute a cyberwar and therefore merit the type of response that a war might warrant.

Some authors argue, however, that the rise of cyberspace has changed the character of war significantly, making any malign cyber incident conducted against a state or its society or economy a new form of conflict. Actors who hold some form of animus towards their target and create a cyber incident to coerce that target to acquiesce to their political objective are often seen as engaging in cyberwar. Chris Demchak describes this emerging situation as a change in the very nature of conflict:

> The nature of 'war' moves from societally threatening one-off clashes of violence between close neighbors to a global version of long-term, episodically and catastrophically dangerous, chronic insecurities that involve the whole society.
>
> Demchak (2011: 4)

There are few examples of cyberpower being used in actual combat, and the veracity of accounts of these isolated examples is subject to debate. For military planners, it is this use of cyberspace that is of significant interest. Since cyberpower in this context is used to achieve definable objectives as part of an overall strategy, it is perhaps more accurate to speak of 'cyberpower in war, or war by cyber means', rather than the more misleading term cyberwar (Sheldon 2011). Thomas Rid, however, argues that to speak of cyberpower even in this way does not reflect what he perceives as its true character. For Rid, cyberpower's limitations as

an instrument of power are significant and therefore its contribution to the future of warfare is likely to be constrained. Instead, Rid argues that cyberpower possesses the non-violent potential to counter and even replace traditionally violent means to achieve political objectives. This can be achieved through espionage, sabotage, and subversion by cyber means and without resorting to physical violence (Rid 2013). For instance, Russia uses social media to shape international political opinion, even going so far as to use cyber actors—so-called 'trolls'—with false identities to communicate selected messages to an unsuspecting audience, most recently the American public during the 2016 presidential election.

Given the pervasiveness of cyberspace in every aspect of modern life, its workings and dynamics are of the greatest concern to strategic studies and to any practising strategist. It is also clear that cyberspace and applications of cyberpower evolve continuously, forcing strategists to anticipate how the latest twist of the information revolution will impact on military and political affairs.

Key Points

- Definitions matter, but because cyberspace is a relatively new phenomenon within strategic studies it is likely that the definitional winnowing-out process will take at least several decades to complete.
- The popular term 'cyberwar' to some is a reflection of the changed character of war, but is also contested.
- Despite the plethora of definitions, cyberpower has been used for several decades. Practice drives theory, not the other way around.

Cyberspace, Cyberpower, and the Infosphere

One can identify multiple known characteristics and attributes of cyberspace and cyberpower. These characteristics and attributes are based on empirical observations of how cyberspace works and how cyberpower is wielded. It is too soon to tell how many of the characteristics and attributes are permanent features of cyberspace and cyberpower, or whether they may change along with changes in cyber technologies or the motivations of actors that use cyberspace.

The Infosphere

The infosphere, also known as the information environment or domain, is a realm without which cyberspace is meaningless and cyberpower does not exist. The infosphere is best thought of as a place in space and time where information exists and flows (Lonsdale 2004: 181). The currency of cyberspace is information found in the infosphere, and the use of the information to achieve political objectives is cyberpower. Information—how it is created, stored, communicated, and manipulated—is a product of the infosphere, yet cyberspace is far from the sum of all infosphere activities. Cyberspace is merely a subset of the infosphere, albeit an increasingly significant one. The infosphere consists of everything from direct human interactions where information is exchanged, and mediated communication through such technologies as the telephone, and printed matter. Cyberspace, however, is rapidly

filling the various functions of the infosphere. Young people today actually would rather 'text' or 'snapchat' online than talk to each other.

Cyberspace Characteristics

With its subordination to the infosphere noted, certain characteristics of cyberspace can be deduced and identified.

Low cost of entry. The resources and expertise required to enter, exist in, and exploit cyberspace are extremely modest compared to the resources and expertise required for exploiting the land, sea, air, and space domains. Anyone with access to networked information-communication technologies can use it.

Multiple actors. The low cost of entry into cyberspace means that the number and types of actors able to operate in the domain and potentially generate strategic effect is virtually unlimited when compared to the land, sea, air, and space domains. Individuals, groups, organizations, corporations, non-state actors, as well as states all participate in cyberspace.

Cyberspace relies on the electromagnetic spectrum. Cyberspace cannot exist without being able to exploit the naturally existing electromagnetic spectrum. Without the electromagnetic spectrum, not only would millions of information and communications technologies be unable to communicate with each other, but these technologies themselves would be unable to function.

Cyberspace requires man-made objects to exist. This makes cyberspace unique when compared to the land, sea, air, and space domains. Without integrated circuit boards, semiconductors, and microchips, fibre optics, and other information and communications technologies, there would be no cyberspace.

Cyberspace can be constantly replicated. Many cyberspaces can exist simultaneously—some contested, some not. For the most part, nothing is final in cyberspace. With air power, enemy aircraft can be destroyed, and there the matter ends. In cyberspace, a Salafist jihadi website, for example, can be purposefully shut down, only for the same group to start a new website within hours on a different server using a different domain name. Similarly, networks can be quickly repaired and reconstituted, thanks to relatively inexpensive and readily available hardware.

Cyberspace is near instantaneous. Information traverses cyberspace at what is called net-speed—the speed at which any part of the network at any one time is able to move information. In many cases net-speed is nearly the speed of light; in other cases it is not quite that fast. For a human user, however, modern networks can seem to move information almost instantaneously. 'Tweets' and news stories can go 'viral' in a matter of hours, producing a national or even global social and political impact that leaves officials scrambling to respond effectively. The near-instantaneous speed of cyberspace can seemingly collapse time and space, yet governments' strategic and political responses to often totally unanticipated cyber events still take place at a very human pace.

Cyberpower Attributes

Similarly, certain characteristics of cyberpower can be deduced and identified.

Cyberpower is pervasive. Land, sea, air, and space power are able to generate strategic effect on each of the other domains, but nothing generates strategic effect in all domains so

absolutely and simultaneously as cyberpower. Cyber dependencies are a matter of fact in the military, economy, and society of a growing number of countries, and they critically enable land, sea, air, and space power—as well as other instruments of power, such as diplomacy, media, and commerce.

Cyberpower is complementary. Unlike land, sea, and air power, but in many ways like space power, cyberpower is largely a complementary instrument. It is indirect because the coercive ability of cyberpower is limited and is likely to remain limited. Shutting down a power grid via cyberpower, for example, would undoubtedly have catastrophic consequences, but cyberpower would probably have to be used in a concerted strategy with land, sea, or air power to change facts on the ground.

Cyberpower can be stealthy. One of cyberpower's attractions for many users is the ability to wield it surreptitiously on a global scale without it being attributed to the perpetrator. Malicious software can be planted in enemy networks without knowledge until the cyber weapon is activated and causes its intended damage. Databases can be raided for classified or proprietary information, and the owners of that information may not be any the wiser as terabytes of data are stolen. Similarly, private citizens can go about their day-to-day lives only to discover that cyber criminals have used their credit cards or ruined their credit rating by stealing their identity. This ability to use cyberpower stealthily, aided by the inherent difficulties of attributing the identity and motivation of most attackers, makes it a very attractive instrument for those who want to undertake clandestine nefarious activities.

A Global Commons or 'Globally Connected Domain'

Cyberspace is often described as, and assumed to be, a global commons—an internationally recognized legal status granted to the international high seas, Antarctica, and outer space. This is an understandable assumption to make given the near ubiquity of cyberspace and its low cost of entry. Seemingly anyone and everyone can access cyberspace for free. The reality is somewhat more prosaic. Figures vary somewhat, but it is estimated that up to 90 per cent of the infrastructure that comprises cyberspace is privately owned, with the remaining 10 per cent or so owned by governments. Private and government ownership of an entity like cyberspace immediately calls into question the assumption that it is a global commons. Furthermore, to interact with cyberspace, one has to somehow gain access to a computer and a network. Although users only have to pay marginal costs for gaining access to cyberspace, sometimes these costs can be substantial, especially if high-capacity systems are required to achieve major objectives.

Some authors recognize these facts but still proclaim cyberspace to be a global commons, citing the ubiquity of cyberspace and the ever-increasing hundreds of millions of people around the world who are interacting with it on a daily basis, perhaps giving cyberspace the *appearance* of being a global commons. Yet, such claims are problematic as more states—democracies and authoritarian regimes alike—are increasingly asserting sovereignty in cyberspace, leading to what some have identified as the growing territorializing of cyberspace. In response to claims that cyberspace is a global commons, others, such as the US government, recognize the unique elements of cyberspace—its global ubiquity, nearly 3 billion users, and massive international information flows—and have instead labelled it a 'globally connected domain' (US Joint Chiefs of Staff 2011: 3). This description is far from perfect, but is perhaps a more accurate reflection of the status of cyberspace in domestic and international politics.

Key Points

- Cyberspace exists within the long-established information environment, or infosphere.
- Cyberspace has numerous characteristics that make it unique compared to the strategic domains of land, sea, air, and space power.
- Cyberpower possesses several attributes that make it an increasingly important strategic instrument.
- Cyberspace is often described as a global commons, but is perhaps best described as a globally connected domain.

A New Dimension for Conflict

With over 3.5 billion users, combined with the growing ubiquity of cyberspace in societies, it is not surprising that cyberspace has become a place of constant conflict, resulting in disruption, deception, and theft. While conflict is an ever-present feature of cyberspace, not all conflicts there equate to what many would regard as war in the Clausewitzian sense. Disputes involve political propaganda, personal vendettas, organizational rivalries, and private citizens motivated by nationalist sentiment. Attacks often involve the cyber networks of states, commercial enterprises, and individuals. States have also attacked cyber targets in other states, as is alleged to have happened in the Stuxnet malware attack against the nuclear facility at Natanz, Iran, in 2009 (see Box 17.4), as well as non-state organizations, as the alleged North Korean attack against Sony Pictures in November 2014 demonstrates.

Since cyberspace is offence-dominant for now, the advantage in cyber conflict can be said to favour the attacker. As a result, it might seem that cyberspace is a target-rich environment for any would-be attacker, though it should be noted that cyberattack is not without its problems and challenges. Some scholars believe that the ease of cyberattack against targets vital to the everyday functioning of modern societies heralds an age of perpetual disruption, the worst effects of which can only be mitigated by an emphasis on resilience in the networking of critical infrastructures and the storage and transmission of sensitive information.

The Problem of Cyber Security

In cyberspace the offence enjoys an advantage over the defence, and so the challenge for those charged with cyber security is to be successful in maintaining defences all of the time, an impossible expectation to meet indefinitely. For any would-be cyber-attacker, the challenge is significantly easier in many respects: they only have to be successful once to attack a target system or network.

Effective cyber security cannot hope to prevent every cyberattack from occurring. It can, however, mitigate the worst effects of any cyberattack by reducing the prospects of catastrophic consequences or by taking steps to reduce the extent or duration of any disruption caused by the initial attack. These mitigation measures involve technical solutions, inculcating a culture of cyber security, and implementing measures to ensure resilience.

Technical solutions to cyberattack include up-to-date cyber security software, capabilities, and methods applied to information and communication technologies and networks, such

BOX 17.4 Key Concepts

Stuxnet

Stuxnet is an unusual type of malicious software (malware) that targets computers and networks that meet very specific configurations. Where other types of malware harm every computer in infected networks, Stuxnet only harmed a specific set of computers in one location, namely a nuclear enrichment plant at Natanz in Iran. Discovered and made public in the summer of 2010, Stuxnet is said to have first appeared in June 2009, with follow-on variants detected in March and April 2010.

It is now widely believed that Stuxnet was developed by a state (recent revelations in the media suggest it was the United States and Israel, but neither government has officially admitted responsibility) to target centrifuges used to enrich uranium at a nuclear facility at Natanz, Iran. It is believed that of the approximately 4,700 centrifuges in operation at Natanz, about 1,000 were destroyed from late 2009 to early 2010. Stuxnet is believed to have destroyed the centrifuges by infecting their operational control system. According to reports, operators of the control system were unaware of anything untoward happening, apparently due to a feature of Stuxnet that deceived operators into believing that centrifuge operations were normal. In reality, Stuxnet compromised control of the centrifuges and spun approximately 10 per cent of them so fast that they were destroyed.

Stuxnet is believed to have set back the Iranian nuclear programme by several months, though at one point Israeli intelligence believed that the programme had been delayed by several years. Stuxnet successfully struck its target, but its effect was temporary.

Despite this, Stuxnet is now widely regarded as a major turning point in the evolution of offensive cyber capabilities and cyberwarfare in general. Stuxnet proves that an offensive cyber capability can more or less precisely target a remote system, compromise it, and cause physical destruction.

as firewalls, anti-virus software, and thoroughly trained system administrators who maintain networks. Inculcating a culture of cyber security includes educating workforces who must use cyberspace in best cyber security practices and how to spot potential threats and problems, as well as enforcing laws and regulations against anyone who knowingly or negligently endangers cyber security. Resilience measures include better protection of sensitive information, perhaps by excluding it from accessible networks, as well as removing the interface between critical infrastructure and accessible networks to prevent remote, unauthorized access to services and systems that are important to societies.

Cyber security is also plagued by the problem of attribution. Cyberattacks can be masked, routed through various countries, and even designed to give the appearance of originating from somewhere other than their true point of origin. For any victim of a cyberattack, this makes it difficult to attribute the attack to its true perpetrator, limiting opportunities to apportion blame or formulate a response that might include a retaliatory cyberattack or even the use of military force. Apportioning blame and formulating an appropriate response to cyberattack is problematic because attribution can be extremely difficult.

Attribution is more than just locating the geographical origins of a cyberattack. It is also about attributing the identity of the attacker and their motivations for the attack. Just because a cyberattack may be attributed to have originated from a certain country, it does not necessarily mean that those who carried out the attack did so with the knowledge and authorization of the government of that country, or that the attack in question was indeed intended to be an act of war. Attribution of attacker identity and motivations is extremely hard to

ascertain reliably and again stymies the attribution of responsibility for a cyberattack, as well as the formulation of an appropriate response.

Given the challenges involved with cyber security, coupled with the offensive advantage enjoyed by cyberattack, a number of scholars have promoted the idea of deterrence as a means of preventing catastrophic cyberattacks. The notion that cyberattacks might be deterred has some merit, depending on the deterrence strategy employed. A large portion of the literature concerned with cyberspace and deterrence focuses on deterrence by punishment strategies, whereby a cyberattack is punished by a retaliatory cyberattack or some other military, diplomatic, or economic response. The problem with the deterrence by punishment strategy is that it presumes not only that the victim of the cyberattack will be able to attribute the location of where the attack originated, but also the identities and motivations of the attackers. Given that attribution is still a significant challenge, a deterrence by punishment strategy in cyberspace is both unreliable and carries a high degree of risk of not only overreaction to any attack, but even complete miscalculation that results in the punishment of innocent third parties. Furthermore, knowing that attribution is a challenge, any would-be cyber-attacker would find the deterrence by punishment strategy lacking in credibility, making it potentially worse than useless.

Deterrence by denial strategies, on the other hand, places the onus of miscalculation on the would-be cyber-attacker. Greater investment in cyber defences, creating a culture of cyber security, and resilience measures can raise the risks and reduce the benefits of mounting cyberattacks. Handfuls of cyberattacks might get through here and there, but the effort placed into the attack may prove to be too costly if successes are too few and far between.

The problem with deterrence by denial strategies in cyberspace is that they are also costly to implement because they create operational inefficiencies and lead to a never-ending requirement for state of the art equipment and services. Fostering a meaningful culture of cyber security to create deterrence by denial forces users to comply with stringent security requirements that are sometimes difficult to follow. Resilience measures are also very costly to implement because they require stand-alone platforms and back-up systems that are run in parallel to systems used on a day-to-day basis.

The Challenges and Unknowns of Cyberattack

While cyber security is beset by challenges, it might seem that cyberattack enjoys free rein in cyberspace. In reality, while the offence is dominant in cyberspace, not only is cyberattack not without its own challenges, it is also beset with a number of unknowns.

The alleged US and Israeli Stuxnet operation against the Iranian nuclear programme provides a useful example. A cyber operation of this scale has many moving parts and is therefore subject to the friction that will inevitably arise out of such complexity. Advanced technical expertise, meticulous intelligence preparation, sophisticated logistics, and tens, if not hundreds, of millions of dollars are required to pull off cyberattacks on the scale of Stuxnet. All of these activities also have to be undertaken under the cover of the strictest secrecy to prevent the target from taking defensive measures that would eliminate operational or technical weaknesses before they can be exploited. Cyberattacks involve extensive planning and preparation, and may fail long before they can be implemented.

Cyberattacks are burdensome and time-consuming because their success depends on extensive intelligence collection and surveillance of targets. Intelligence collection and surveillance of targets in cyberspace requires penetrating adversary computers and networks, running the risk of discovery. Furthermore, though cyberattacks might be successful, they will entail unforeseen and unintended consequences, including the risk of blowback. For example, malicious software (malware) might take down an intended target in cyberspace, but may then propagate throughout the network attacking unintended targets (hence the term 'blowback'), including cyber assets belonging to the attacker. An example of unintended consequences would be a cyberattack against the critical infrastructure of an opposing state that results in civilian casualties in your own state because hospitals were affected in the aftermath of power and telecommunication outages produced when malicious software jumped national borders.

The offence–defence cycle and sustaining the offence in cyberspace are also challenges. The offence–defence cycle between cyberattack capabilities and defences means that the effectiveness of offensive cyber weapons will be short-lived. Once a belligerent tips their cyberattack hand by exploiting a 'zero-day' vulnerability (i.e. a vulnerability unknown to the target), it does not take long for a defender to devise a defence (i.e. software 'patches' or workarounds) to a new offensive capability. This means that the employment of cyberattack weapons will probably be reserved for a large strategic pay-off, rather than a short-term tactical advantage. It also means that after a short time, the ability of an attacker to sustain the offence in cyberspace becomes increasingly challenging as the initiative starts to shift towards the defence as the victim patches vulnerabilities revealed by 'zero-day exploits'.

Key Points

- Cyber security—or cyber defence—is exceptionally challenging due to the offensive advantage enjoyed by cyber-attackers.
- Attribution of attacker identity and motivation is particularly challenging and can stymie an effective response.
- In cyberspace, deterrence by denial strategies is more effective than deterrence by punishment.
- While it is easier to attack rather than defend in cyberspace, cyberattack is not without its risks and challenges.

A Twenty-First-Century Revolution in Military Affairs?

Individuals, organizations, non-state actors, and states are using cyberspace, and wielding cyberpower, every day in new and innovative ways for the purposes of achieving political objectives. Cyberspace and cyberpower enable existing human activities and types of military power, but they do not render them obsolete. Cyberpower also changes the character of human activity. For instance, cyberspace has radically changed how corporations organize themselves, how people receive information, and how teenagers communicate.

Cyberspace has also created the opportunity for super-empowered individuals to emerge in the realm of economic, social, and political activity. In the realm of strategy, cyberpower is recasting the context in which all strategic activity takes place, namely international politics. Cyberpower also blurs the distinction between war and peace, undermines the privileged role of the state in war, and might possibly have long-term implications for how military forces are organized.

Cyberpower Recasts International Politics

The pervasiveness of cyberspace, and the ubiquity of cyberpower, has an impact on international relations and the privileged role of the state in international politics.

The rise of cyberpower has helped developing states accelerate their economic development, while enabling their military, diplomatic, and cultural instruments of national power. Cyberpower has allowed a number of developing states to enjoy significant economic growth and a commensurate increase in the potency of their instruments of national power, thus enabling them to catch up with developed states. This phenomenon, best demonstrated by the rise of India and China, has recast the distribution of power in international politics, resulting in net gains for rising powers, and relative losses for established, developed powers.

The rise of cyberpower has also empowered individuals, organizations, and non-state actors, allowing them to have a global reach, a form of global influence, that hitherto was rare for individuals. It took decades for Mahatma Gandhi to become an internationally recognized symbol of social justice before the Internet; it took just hours for David Dao to become an internationally recognized symbol of airline injustice once passenger videos went viral. The mass leaking of classified information by the US Army service member then known as Bradley Manning and subsequently by US National Security Agency (NSA) contractor Edward Snowden are different types of examples of this disproportionate influence and reach. They also highlight the potential damage that can be caused by a disaffected insider to any organization where access to vast quantities of information is unrestricted. Cyberspace can enable individuals and groups with belligerent intentions to use cyber capabilities offensively against targets across the world, as demonstrated by hackers from the terrorist group Islamic State when they breached and temporarily hijacked the social media capabilities of US Central Command in January 2015. This empowering of individuals and groups has led to a redistribution of power in international politics that further undermines the monopoly of power traditionally enjoyed by states. Nevertheless, this empowerment through cyberpower only goes so far. States still enjoy capabilities and capacities for the employment and projection of power that are beyond the reach of individuals and groups. Although many scholars believe that cyberpower significantly undermines state power by weakening state sovereignty, states are also finding various ways of asserting their sovereignty in cyberspace.

Claims that cyberpower has recast international politics for individuals and groups at the expense of states has greater plausibility than the assertion that cyberpower renders state sovereignty irrelevant. The state will continue to be the primary actor in international politics, despite the irritation felt in capitals across the globe about certain activities undertaken by individuals and groups in cyberspace.

Critical Thinking Cyberwar is possible

For

- ***Developed states are vulnerable.*** Modern societies are highly networked by computers, especially in terms of their critical national infrastructures, making anonymous cyberattacks very attractive to enemies.
- ***Disruptive cyberattacks have already occurred.*** Cyberwarfare's potential has already been demonstrated by the joint US/Israeli attack on Iran's Natanz nuclear facility in 2010 and Israel's attack on a suspected nuclear facility in Syria in 2007 which disabled Syrian radar installations prior to the attack.
- ***War includes non-physical effects.*** War includes social, political, and cultural effects, as well as 'kinetic' (i.e. physical) effects. Cyberattacks may be non-violent, but they can be used to steal secrets and distort decision-making in ways that can win wars. Cyberattacks can therefore be an important part of warlike operations, in terms of sabotage and espionage, as well as intelligence activities.

Against

- ***Cyberwar is unlikely in a globalized world.*** It can be argued that the interconnected nature of the Internet and of global information-communication technologies decreases, rather than increases, the likelihood of cyberwar in terms of direct state-to-state attacks. Mutual vulnerability creates a form of deterrence.
- ***War is by nature violent.*** War, as defined by Clausewitz, requires violence to be perpetrated. Digital attacks are non-violent. According to Thomas Rid, 'Never has a human being been injured or hurt as an immediate consequence of a computer attack.'
- ***No country has gone to war in cyberspace.*** Digital attacks can be a part of sabotage or espionage, but these activities are not new. As such, digital weapons may be part of future military conflict, but this does not deserve the label 'cyberwarfare'.

Questions:

1. Is cyberwar possible?
2. Are cyberattacks just a nuisance or an emerging form of conflict?
3. Are governments and non-state actors reluctant to engage in cyberwarfare because of mutual vulnerability?

A Coming Change in the Character of War?

Cyberpower is a useful strategic instrument since it can be wielded globally with a certain degree of anonymity in peace, crisis, and war. Cyberpower enables global reach, creating the ability to attack critical systems such as national infrastructure remotely, duping individuals into divulging sensitive information, disrupting services, and using social media to create social and political agitation in targeted audiences. Such attacks, deception operations, and disruptions by cyberpower potentially blur the distinction between peace and war (see Critical Thinking). Terrorism, and the use of terrorists as proxies by

states, already blurs this distinction but cyberpower adds to what might potentially be a dangerous ambiguity between peace and war. States subject to countless cyberattacks that lead to significant physical or socio-political disruption, or that suffer the loss of sensitive information related to national defence, may perceive that they are the victims of actions that are a prelude to war or merit a military response. Misperception and miscalculation are major risks in such circumstances. If these kinds of attacks, disruptions, and deception operations become the norm in international politics, they might come to be perceived as a kind of background noise to the everyday dynamics of international relations. For some observers, these trends indicate that we are entering an age of perpetual disruption—life might have been better without the dystopia commonly found on social media.

Cyberpower creates great efficiencies in how people organize activities. Cyberpower also magnifies the ability of individuals to control operations and transmit virtually unlimited amounts of data across the planet at virtually no cost, creating opportunities that were unimaginable only a few decades ago. Cyberpower has already demonstrated these opportunities and benefits in the economic sphere, with corporations increasing both productivity and profit margins while using fewer people and leaner, flatter, and more responsive organizational structures. Modern militaries are also subject to these greater efficiencies and magnified effects thanks to cyberpower, creating leaner force structures and more automated capabilities, which place a premium on recruiting more highly skilled personnel. Military hierarchies are likely to shrink in size, as will numbers of personnel required to staff them. There is already a growing reliance on automated capabilities and systems, such as remotely piloted vehicles, and the cost of training even the lowest-ranking serviceperson is increasing due to the complex technical skills required in modern militaries. The implications of these cyberpower trends within militaries are debatable, and cannot be divorced from the context of how, when, and for what purpose military force will be used in the twenty-first century. Nevertheless, it is plausible to suggest that as military organization and structure changes due to the pervasiveness of cyberpower, when and how military force will be used might also change. These changes might culminate in a twenty-first-century revolution in military affairs (RMA) if they lead to new military doctrines, force structures, and changes in the conduct of war.

Key Points

- Cyberpower has contributed to the redistribution of power taking place in international politics today.
- Cyberpower has empowered individuals, organizations, and non-state actors, allowing them greater participation and influence in international politics.
- Cyberpower has not rendered the state irrelevant. It has made sovereignty more porous, but states are increasingly asserting sovereignty in cyberspace.
- Cyberpower is impacting not only the structure of military force, but also how it is used and in what circumstances. It might produce a revolution in military affairs in the twenty-first century.
- Some believe that the rise of cyberpower heralds the arrival of an age of perpetual disruption.

Conclusion

The dependencies and complex interactions that emerge in cyberspace benefit societies because of the low-cost communication it facilitates and because of the efficiencies and automation of tedious functions it creates and enables. These dependencies and complex interactions also create a host of vulnerabilities throughout modern society. These vulnerabilities can be exploited by those intent on launching cyberattacks.

As more and more state functions, including military capabilities and command and control, become increasingly dependent on cyberspace, strategists should concern themselves with the vulnerabilities and opportunities created by cyberspace. The challenge is finding the right balance between absolute cyber security that will invariably constrain the use of cyberspace and unconstrained cyberattack that ricochets throughout networks with unintended consequences, creating a real risk of blowback.

Nearly every facet of strategy in the contemporary world is affected, influenced, and shaped by cyberpower. The implications of this have yet to play out fully, and it is for these reasons that cyberspace and cyberpower are of vital interest and importance to the strategist and strategic studies.

Questions

1. Why are there so many definitions of cyberspace and cyberpower? Are definitions important, or is it more important that various actors are using cyberspace?
2. What is the difference between cyberspace and cyberpower?
3. Is there such a thing as cyberwar?
4. What is the relationship between the infosphere and cyberspace? What is the difference between the two?
5. What makes cyberspace unique compared to the other strategic domains?
6. What attributes might cyberpower possess other than those discussed in this chapter?
7. Why is cyber security so challenging? What is your opinion of the cyber security solutions offered in this chapter? What would you do differently?
8. What makes cyberattack so dangerous, despite the fact that it is easier to do when compared to cyber security?
9. Is the rise of cyberpower a potential revolution in military affairs? If your answer is yes, why? If your answer is no, why not?
10. Relate cyberpower to other strategic issues covered in this book—what possible connections are you able to discern?

Further Reading

J. Arquilla and D. Ronfeldt (eds), *In Athena's Camp: Preparing for Conflict in the Information Age* (Santa Monica, CA: RAND, 1997) is a groundbreaking collection of essays that helped define the field, including Arquilla and Ronfeldt's classic essay, 'Cyberwar is Coming!'

S. W. Brenner, *Cyberthreats: The Emerging Fault Lines of the Nation State* (New York: Oxford University Press, 2009) is a comprehensive analysis of cyber threats and the problem of attributing them.

R. A. Clarke and R. K. Knake, *Cyber War: The Next Threat to National Security and What to Do About It* (New York: Ecco, 2010) provides some thought-provoking solutions to the cyber security problem, as well as other policy issues pertaining to cyberspace, from a US perspective. It is regarded by many to be alarmist in its assessment of cyber threats.

F. D. Kramer, S. H. Starr, and L. K. Wentz (eds), *Cyberpower and National Security* (Washington, DC: Potomac Books, 2009) is an excellent collection of essays covering all the major cyberspace policy issues of concern to any modern state.

M. C. Libicki, *Conquest in Cyberspace: National Security and Information Warfare* (Cambridge: Cambridge University Press, 2007) is one of the major theoretical works on cyberspace and cyberpower in recent years.

D. J. Lonsdale, *The Nature of War in the Information Age: Clausewitzian Future* (London: Frank Cass, 2004) is a landmark work that applies Clausewitzian strategic logic to cyberpower and demolishes the arguments of cyber true-believers.

J. S. Nye, Jr, *The Future of Power* (New York: Public Affairs, 2011) provides an interesting analysis of how cyberpower is significantly impacting international politics.

W. A. Owens, K. W. Dam, and H. S. Lin (eds), *Technology, Policy, Law, and Ethics Regarding US Acquisition and Use of Cyberattack Capabilities* (Washington, DC: The National Academies Press, 2009) is a US National Research Council report that provides an exhaustive and detailed survey of the implications of acquiring and using cyberattack capabilities.

T. Rid, *Cyber War Will Not Take Place* (New York: Oxford University Press, 2013) is a refreshingly contrarian yet rigorous counter to the cyberwar narrative.

P. W. Singer and A. Friedman, *Cybersecurity and Cyberwar: What Everyone Needs to Know* (New York: Oxford University Press, 2014) is by far the most comprehensive primer on cyber security and warfare issues.

Web Links

Atlantic Council's Cyber Statecraft Initiative **http://www.atlanticcouncil.org/programs/brent-scowcroft-center/cyber-statecraft** provides excellent analysis of cyberpower issues and their impact on national security, statecraft, and international politics.

The Citizen Lab **http://citizenlab.org** is hosted by the Munk School of Global Affairs at the University of Toronto and is an innovative outfit standing at the intersection of digital media, global security, and human rights. The Citizen Lab has helped produce a series of reports that have, among other things, uncovered an alleged Chinese cyber espionage ring and exposed the sale of Internet filtering technologies by Western corporations to authoritarian regimes.

Cyberwarzone **http://cyberwarzone.com** is a useful site for news and analysis on nation-state cyber-attacks and criminal and terrorist uses of cyberspace.

Army Cyber Institute **http://cyber.army.mil/** is a useful resource for the latest military thinking on cyber issues and war.

Krypt3ia **http://krypt3ia.wordpress.com** is a thoughtful and detailed blog on cyber security and warfare.

Geopolitics and Grand Strategy

STEFANIE ORTMANN AND NICK WHITTAKER

Chapter Contents

Introduction 308

The Second World War, the Cold War, and the Development of Grand Strategy 314

Geopolitics and Grand Strategy Today 316

Grand Strategy in a Complex World 319

Rethinking Geopolitics 321

Conclusion 324

Reader's Guide

Geopolitics and grand strategy are modern concepts of statecraft associated with the rise and decline of great powers. This chapter looks at the concept of geopolitics and its significance for grand strategy. It does so by tracing the development of the concepts and showing how their meanings evolved in response to changing world historical contexts. It explains why geopolitics and grand strategy are associated with the politics of great powers and why these concepts are currently making a comeback. The chapter then goes on to discuss the pitfalls and problems associated with formulating a grand strategy, and why geopolitics is as much about interpretation as it is about objective geographical factors.

Introduction

The idea that world politics is ultimately driven by competition between a small number of great powers has recently been making a comeback. For more than a decade after the end of the cold war, it had been possible to believe that the rivalry between great powers was being replaced with the benign hegemony of the United States, the guarantor of a new liberal world order. As US President Clinton proclaimed in 1992, 'In a world where freedom, not tyranny, is on the march, the cynical calculus of power politics does not compute. It is ill-suited to a new era' (Clinton 1992). However, this picture no longer captures the dynamics of international politics. As Russia is at loggerheads with the West and China is becoming increasingly assertive, geopolitical rivalries are once again returning to the centre stage of world affairs. Nor is this just about military sabre-rattling in a few far-flung regions of the world. Partly as a result

of increased economic interdependence since the end of the cold war, some non-Western states, first and foremost China, have gone through a sustained period of accelerated economic growth. In the meantime, the US and other major Western economies have suffered relative economic decline, a development accelerated by the effects of the global economic crisis of 2008.

In response, there have been calls for a new grand strategy to preserve the power of the United States in the face of this emerging challenge to its global dominance, with a renewed focus on geopolitics to counter the rise of China and other regional powers in the non-Western world. In the broadest sense, geopolitics is about the political implications of geographical space, the way that geography may contribute to conflict or convey strategic advantages. In association with grand strategy, it is a concept that is intimately connected to the idea of great powers as central actors in world affairs.

Grand Strategy and Geography

Grand strategy is an evolution of strategy away from a narrow focus on victory in war towards a much broader, more long-term vision that is essentially political in nature (see Box 18.1). The strategist and historian Paul Kennedy sees the essence of grand strategy in deliberating the proper balance of priorities of a state by coordinating ends and means (Kennedy 1991).

BOX 18.1 Definitions

Evolving Definitions of Grand Strategy and Geopolitics

Grand Strategy

> Grand strategy should both calculate and develop the economic resources and manpower of nations in order to sustain the fighting services … it should not only combine the various instruments, but so regulate their use as to avoid damage to the future state of peace—for its security and prosperity.
>
> Sir Basil Liddell Hart (1935)

> Strategy is the art of controlling and utilizing the resources of a nation … including its armed forces to the end that its vital interest shall be effectively promoted and secured against enemies, actual, potential or merely presumed. The highest type of strategy—sometimes called grand strategy—is that which so integrates the policies and armaments of the nation that the resort to war is either rendered unnecessary or is undertaken with the maximum chance of victory.
>
> Edward Mead Earle (1943)

> The crux of grand strategy lies therefore in policy, that is, the capacity of the nation's leaders to bring together all of the elements, both military and non-military, for the preservation and enhancement of the nation's long-term (that is, in wartime and peacetime) best interests.
>
> Paul Kennedy (1991)

> In a world where great states confront overstretch, they must make hard choices. Thus, in the end, grand strategy is more often than not about the ability to adjust to the reality that resources, will, and interests inevitably find themselves out of balance in some areas.
>
> Williamson Murray (2011)

(continued . . .)

BOX 18.1 *(continued)*

As far as a world power like America is concerned, a grand strategy involves first imagining some future world order within which the nation's standing, prosperity and security are significantly enhanced, and then plotting and maintaining a course to that desired end while employing—to the fullest extent possible—all elements of our nation's power toward generating those conditions. Naturally, such grand goals typically take decades to achieve.

Thomas P. Barnett (2011)

Strategy is oriented towards the future. It is a declaration of intent and an indication of the possible means required to fulfil that intent. But once strategy moves beyond the near term, it struggles to define exactly what it intends to do … The operational plans of military strategy look to the near term and work with specific situations. Grand strategy, on the other hand, can entertain ambitions and goals that are more visionary and aspirational than pragmatic and immediate.

Hew Strachan (2011)

Geopolitics

For the first time we can perceive something of the real proportion of features and events on the stage of the whole world, and may seek a formula which shall express certain aspects … of geographical causation in universal history.

Halford Mackinder (1904)

Not by accident is the word 'Politik' preceded by that little prefix 'geo.' This prefix … relates politics to the soil. It rids politics of arid theories and senseless phrases which might trap our political leaders into hopeless utopias. It puts them back on solid ground. Geopolitik demonstrates the dependence of all political developments on the permanent reality of the soil.

Karl Haushofer (1942)

Geography is the most fundamental factor in the foreign policy of states, because it is the most permanent.

Nicholas Spykman (1942)

1. All politics is geopolitics. 2. All strategy is geostrategy. 3. Geography is 'out there' objectively as environment or 'terrain.' 4. Geography also is 'within us,' in here, as imagined spatial relationships.

Colin Gray (1999a)

The geopolitical imagination … has never exercised absolute power over the course of world politics, in the sense of transcending the effects of technological, economic and other material determinants … the modern geopolitical imagination has, however, provided meaning and rationalization to practice by political élites the world over. It has defined the 'ideological space,' to use Immanuel Wallerstein's phrase, from which the geographic categories upon which the world is organized and works are derived.

John Agnew (2003)

Although security remains central, grand strategy is not limited to military strategy. Security, in the context of grand strategy, may be understood as securing and enhancing the state's interests, and securing it against external threats and possible opponents. Grand strategy draws on all the military, diplomatic, cultural, and economic means and instruments at the state's disposal. In the most basic terms, it refers to a long-term, multidimensional plan for securing and enhancing a state's power and prosperity. It is associated with states that have a wide range of global interests and a number of resources that can be mobilized, including

Box 18.2 Key Concepts

The Persistence of Identity Narratives: Britain as an Island

The idea of being an island has shaped British foreign policy for centuries. In the past, Britain's island status and its focus on sea power was central to the maintenance of the British Empire. It also meant that Britain was perceived to be separate from the rest of Europe. This might seem obvious: after all, Britain is physically separated from the continent by the English Channel. But while this separateness is reflected in identity narratives, British and continental European histories have always been intertwined through trade, invasions, and shared culture.

Britain's island identity has remained significant in British politics to this day, even though technological change, not least the channel tunnel, has vastly diminished physical distance. During debates about whether Britain should join the European Communities (now the European Union) in the 1960s, British politicians wondered whether Britain was really a part of Europe, and if joining would mean separation from the rest of the world. In the late 1980s Prime Minister Margaret Thatcher frequently depicted Britain as an island separate from Europe, with more in common with other English-speaking places like the US, Canada, and Australia.

The vote for 'Brexit' in 2016 has brought Britain's island identity to the fore once more as the referendum indicated a small majority in favour of separation from the European Union (EU). Although a divisive issue amongst both the public and politicians, Prime Minister Theresa May has looked to approach the issue by announcing the return of 'Global Britain', in which Britain is the hub of a global trading network. This posture recalls classic imperial themes of maritime Britain, partially distanced from Europe while at the centre of a world-wide network, managed by 'lines of communication' connecting it to places like India, Singapore, and Australia.

the use of force. As the historian and strategist Williamson Murray put it, 'grand strategy is a matter involving great states and great states alone' (Murray 2011: 1). However, it also implies a situation where resources are limited and where the leader of a powerful state has to make strategic, long-term choices about how to selectively invest resources and project its power.

In all of this, geography matters. Trade and communication routes are strategically important for large, economically powerful states, as is the location of natural resources. Any projection of power will have a geographical focus, since no state has the resources to be equally engaged everywhere at the same time. There is an important cultural component to this geographical factor—the outlooks of British and continental policymakers differ dramatically, partly because of Britain's position as an island at the margin of the continent. Technological changes have significantly altered the significance of this geographic factor over the last century, but the image of Britain as an island remains powerful and is influential in Britain's relations with Europe today (see Box 18.2).

Imperial Competition and the Invention of Geopolitics

Geopolitics and grand strategy are practical political concepts rather than academic theories. They do however share a focus on the politics of great powers and an emphasis on statecraft with classical realism (see Chapter 1). They also share the assumption that there are timeless patterns of state behaviour that can be uncovered and used as guidance for policymakers' decisions—patterns that are at least in part determined by geography. In line with this

anchoring in classical realist thought, grand strategy is often depicted as a way of thinking that applies across all times and all places. This is not the case. Grand strategy and geopolitics are distinctly modern and European concepts of statecraft, emerging as approaches to international politics only at a time when European and later US power acquired global reach. As the British geographer Halford Mackinder put it in 1904, by the turn of the twentieth century international politics had for the first time become a 'closed political system . . . of world-wide scope' (Mackinder 1904: 27). The development of geopolitics and grand strategy occurred in this context.

Mackinder's observation described a genuinely new development that reflected the imperial expansion of the European powers. By the beginning of the twentieth century, Britain, France, the Russian empire, and a number of latecomers to the imperial game were mapping and reclaiming most parts of the globe, often in competition with each other. By this point, the development of the European system of states had produced a small number of particularly powerful states, the great powers, which claimed special responsibility for managing international affairs. The colonial expansion of European great powers ushered in a new global competition, as unmapped and unclaimed parts of the globe became increasingly scarce. The 'scramble for Africa' between Britain, France, and other European powers and the colonial 'Great Game' in Central Asia between the British and the Russian empire heightened international tensions.

Geography and the Management of Empire

Imperial expansion highlighted the importance of geographical factors. Increasingly far-flung supply and trade routes by land and sea needed to be secured to enable economic growth at home. Overseas territories rich in natural resources were seen as strategic necessities for enhancing the prosperity and power of colonial states. Colonial expansion fuelled capitalist development and enabled the British Empire to become a global hegemonic power. But by the last decades of the nineteenth century, both the newly unified German state and the United States were rapidly industrializing and beginning to challenge Britain's economic dominance. Germany in particular was becoming a disruptive force in international political dynamics still dominated by the European powers. As a latecomer to the circle of European great powers, the German Reich had missed out on much of the colonial expansion, but its leaders set out to change that by aggressive global politics. This included investing heavily in naval rearmament—potentially challenging British naval power at the same time as Britain acquired ever more far-flung possessions in Africa, Asia, and the Pacific.

The increasingly tense international situation at the turn of the twentieth century was reflected in attempts by various European and American thinkers to systematically explain international affairs by reference to geography. The American naval strategist Alfred Thayer Mahan argued that sea power was of crucial strategic importance and advocated that the US join the imperial scramble. Partly due to his influence, the US entered the naval arms race and became engaged in Cuba, Puerto Rico, and the Philippines. In contrast, Mackinder, a geographer and politician, was worried about Britain's long-term decline. He believed that new technologies such as the railways were increasing the strategic significance of land over sea, increasing the power of Germany and the Russian empire and threatening the global dominance of Britain, which largely relied on sea power. He declared one area in particular to

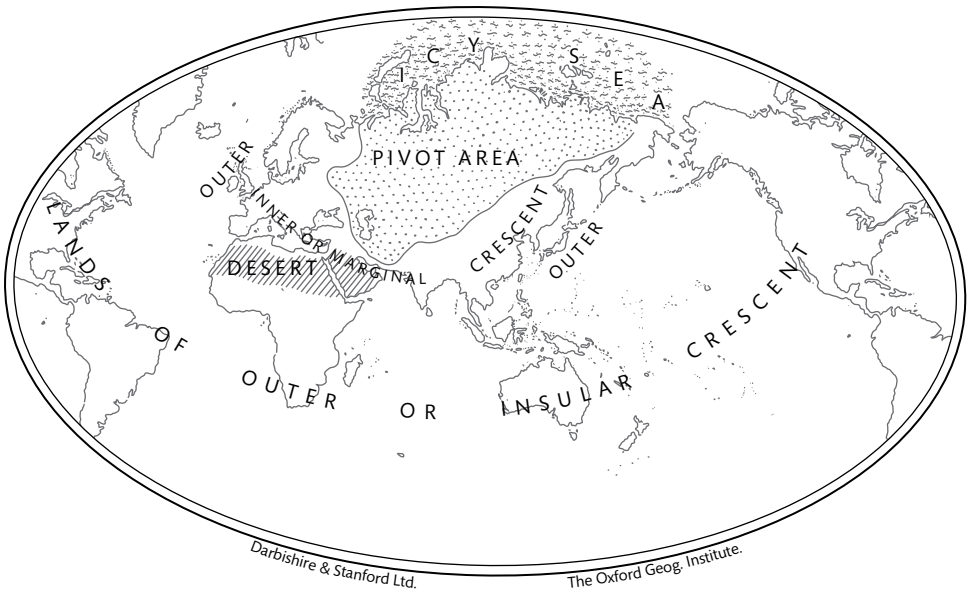


Figure 18.1 Mackinder's view of the Heartland

Source: H. J. Mackinder, 'The Geographical Pivot of History', *The Geographical Journal*, vol. 23, no. 4, 1904, p. 435.

be central to global dominance: the Eurasian Heartland, comprising large parts of Russia and Central Asia (see Figure 18.1).

Mackinder condensed his theory into a famous, and still influential, quote: 'Who rules East Europe commands the Heartland: Who rules the Heartland commands the World Island: Who rules the World Island commands the World' (Mackinder 1919). The size of countries and the importance of population growth was the main concern of German geographers, most notoriously Friedrich Ratzel, who developed the concept of *Lebensraum* ('living space') which later became central in Hitler's geopolitical thinking. Ratzel posited a historical difference between the settled Aryan races populating German territory and the marauding tribes to the east that threatened them. He proposed that modern Germany should secure additional land and resources to counter an ever-present threat from Russia. Rudolph Kiellen, the Swedish geographer who first coined the term *Geopolitik* (geopolitics) combined elements of these theories in his claim that states have to face two strategic imperatives to survive and thrive: demography, or the management of people (*ethnopolitik*), and the management of territorial expansion (*geopolitik*).

Geopolitical Competition for Survival

These classical geopolitical theories reflected prevalent ideas of their time. They grew out of a belief that everything, including international politics, could be understood scientifically by uncovering the causal factors that drive the behaviour of human beings and states. Geography was seen as one of these objective factors in world politics. By virtue of natural resources, climate, location, and size, strategic advantages were bestowed on some states,

while others were trapped in unfavourable conditions. However, this was also a time of rapid technological change fuelled by scientific discovery, which was reflected in the concern of Mackinder and others with technology and its interaction with geography. Importantly, these thinkers saw competition as the essence of world politics, pitting states against each other in a race for global dominance. What was at stake was survival—the idea that only the strongest, most resourceful states would continue to exist. This vision was influenced by a popular pseudo-scientific theory of the time, Social Darwinism. It revolved around the idea that there is a process of natural selection, a fight for the survival of the fittest and strongest, not just among species but also between peoples and states. Germany and the United States in particular were cast as vigorous and rapidly growing, while established powers such as Britain and France were seen as exhausted and in decline.

Key Points

- The emergence of geopolitics reflected a new sense that the world was now a unified political space at the end of the nineteenth century, which emerged as a result of the imperial competition of European great powers.
- It also reflected a shifting constellation of power, with British economic strength in decline and Germany and the United States rising as new powerful actors in world politics.
- Classical geopolitical thought links territory to power and sees world politics as a competition between the most powerful states. It proposes that geographical and other environmental factors explain why some states thrive while others decline.

The Second World War, the Cold War, and the Development of Grand Strategy

From the start, geopolitical thought was about strategy—geographic factors were thought to determine the behaviour of states over long periods of time and could therefore be drawn on for the formulation of a strategy over decades. In the interwar years, this expansion of the strategic horizon was reflected in the new concept of grand strategy (see Box 18.1). Basil Liddell Hart, the British military historian who first coined the phrase, referred to grand strategy as the 'higher level' of wartime strategy, coordinating all the resources at a state's disposal towards the political ends of a war. After the outbreak of the Second World War, the term was adopted by American strategists, in particular Edward Mead Earle, whose thoughts on grand strategy remained influential for decades. Another wartime advocate of a US grand strategy, Nicholas Spykman, adopted Mackinder's theory of the heartland to respond to the looming conflict with the Soviet Union at the end of the war. Arguing that control over the 'rimland', central Europe, would decide the fate of world politics, he urged US policymakers to remain engaged in Europe to counter possible Soviet dominance of the continent.

Both Mead Earle and Spykman responded to the growing threat of a large-scale confrontation with the Soviet Union, which became a reality as the Second World War drew to an end. Spykman's admonition did become US policy, and as the cold war unfolded, a grand strategy inspired by a geopolitical view of the world remained one of its guiding principles. From the start, the cold war was a global struggle with specific regional geopolitical dynamics. Stalin

BOX 18.3 Key Concepts

Containment

Containment was first developed at the onset of the cold war by George F. Kennan, a diplomat who had studied the Soviet Union closely. He proposed a strategy which relied on countering Soviet influence 'by the adroit and vigilant application of counterforce at a series of constantly shifting geographical and political points' (Kennan 1947). By the 1950s, the competition for spheres of influence between the United States and the Soviet Union acquired a global dimension, partly as a result of decolonization in Africa and Asia. Containment was reformulated and expanded into what became known as 'domino theory'—the idea that Soviet influence had to be countered everywhere, since one state turning communist could easily spread communism to neighbouring states until an entire world region would fall. Containment was a form of geopolitics, but one which encompassed ideological competition as well as competition for resources. It required the US to engage across all areas of the globe to stop the spread of communism, whether or not the countries concerned were strategically important. In Vietnam in particular, hundreds of thousands of US soldiers were sent to help fight communist guerrillas in a costly, drawn-out, and ultimately unsuccessful war. Overall, containment was a consistent, if not always consistently implemented, grand strategic framework that was remarkably long-lived. Since the Soviet Union remained the much weaker economy, containment was an effective long-term strategy that helped to drain Soviet resources, though it was by no means the only factor in the collapse of the Soviet Union.

installed communist leaders in the newly liberated states of eastern Europe and integrated these states into a Soviet-led alliance system that was motivated by geopolitics as much as ideology. This was mirrored in the development of the US strategic doctrine of containment, which similarly applied a geopolitical rationale to the ideological focus of the cold war, and remained in place until the demise of the Soviet Union (see Box 18.3).

The Revival of Geopolitical Thinking After the Second World War

Given the global scope of the cold war and its long-term strategic horizon, it may seem surprising that the actual concepts of geopolitics and grand strategy were by no means central tenets of strategic thinking during the cold war and fell out of use for decades, to be revived only in the 1970s and 1980s. In part, this reflected the way that geopolitical ideas had become thoroughly delegitimized by their association with Nazi Germany. Another factor was the start of the nuclear arms race between the Soviet Union and the United States, which seemed to obliterate the geographical factor in world politics. As both sides developed intercontinental ballistic missile systems capable of destroying each other's cities in a matter of hours, a grand strategy based on geopolitical considerations—such as the difference between land power and sea power—seemed obsolete. In fact, deterrence, the foundation of US military strategy during the cold war, had no connection to geopolitical reasoning; it was purely based on out-arming and out-spending the Soviet Union, expanding nuclear and conventional capabilities to deter the Soviet Union from using its own nuclear weapons.

By the 1970s, as the economic burden of the nuclear arms race began to be felt in the US, and it seemed for a while that the Soviet Union would become the dominant military power, geopolitics began to be re-evaluated in US policy circles. This revival was associated in

particular with two influential figures, Henry Kissinger and Zbigniew Brzezinski. Kissinger, as national security advisor to President Nixon, was the architect of warmer relations with communist China, a policy that was later expanded by Brzezinski. Kissinger's understanding of geopolitics as great power politics was influenced by a deep knowledge of European history and the varying ways in which the balance of power between the European great powers had played out over the centuries. He believed in the continuing relevance of power balancing as a principle of international politics. Brzezinski's understanding of geopolitics drew more explicitly on Mackinder's heartland theory. Like Mackinder, he saw control over the Eurasian land mass as central to world domination and eventual victory in the cold war. Both Kissinger and Brzezinski advocated a move away from the bipolar stalemate between the United States and the Soviet Union towards a more dynamic multipolar order by engaging with communist China, which a decade earlier had fallen out with the Soviet Union over questions of communist doctrine. A US–Chinese rapprochement was aimed at weakening the grip of the Soviet Union over the Eurasian land mass, and above all at preventing a mending of relations between the two communist countries which would have led to absolute Soviet dominance of the Eurasian continent.

Key Points

- The concept of grand strategy was first developed in the context of the Second World War and was an extension of the long-term strategic view inherent in geopolitical thought.
- Both the Soviet Union and the United States acted geopolitically during the cold war. Containment was a grand strategy informed by geopolitical reasoning, but driven by ideological concerns rather than resource competition.
- The revival of geopolitics in the 1970s occurred at a time when the US was seen to be in relative decline, and means other than the nuclear arms race were sought to secure its position.

Geopolitics and Grand Strategy Today

Geopolitics and grand strategy as concepts of statecraft first emerged at a specific historical constellation: the long-term decline of a hegemonic power and the rise of new challengers. There are parallels between the situation of the British Empire at the turn of the twentieth century and the global position of the United States today. The period of global primacy that the US enjoyed after the cold war may not be over, but global shifts are unfolding that make it appear less durable and absolute than a decade ago. As in the case of imperial Britain, this is driven by relative economic decline. The inexorable economic rise of China, now the world's second largest economy, was accelerated by the global economic crisis of 2008, which many emerging economies weathered better than Europe and the United States. Nor is this just an issue of Chinese economic growth. Over the last two decades, the combined GDP of the Group of Seven industrialized nations as a percentage of the world's total has decreased from over 70 per cent to 50 per cent (Laub and McBride 2017). This redistribution of global wealth away from the US and Western Europe towards the major developing economies in the global South is unprecedented in the modern era.

BOX 18.4 Key Concepts

The US 'Pivot to Asia'

The US 'Pivot to Asia', a major strategic shift to a renewed engagement in East Asia, was partly motivated by a wish to curb increasing Chinese assertiveness in the region. China has been staking out territorial claims over islands in the South China Sea, to secure maritime shipping routes as well as potential energy resources in the maritime shelf belonging to these islands. It has increased its naval presence and started to invest heavily in building up a blue water navy. This has led to tensions with some of its neighbours, in particular Vietnam, the Philippines, and Japan—the latter two being key US military allies in the region. The military dimension of the pivot may be contributing to a 'spiral of insecurity' in which each side reacts to a perceived threat by building up its own military capacities. Partly in response to the pivot, China has accelerated and expanded its naval armament. Japan, China's traditional adversary in the region, has been encouraged by the renewed US engagement to escalate its own simmering tensions with China, and is pushing for remilitarization. While the pivot may have reassured America's partners and thwarted Chinese ambitions in the short term, the result has been a negative transformation of the overall security dynamics of the region.

Consequences of this shift are beginning to affect international politics. As the US academic Jon Alterman put it, China's demands are now 'too large not to affect the global environment, and its external vulnerabilities are too large to rely on others to defend them' (Alterman 2013: 2). Familiar geopolitical themes, such as the need to secure resources, are driving China's new global engagement. China is poor in energy resources and aims to secure supplies for its expanding economy. It is now the world's second largest consumer of oil and its demand for gas is rapidly increasing (US Energy Information Administration 2017). The presence of China in regions such as the Middle East and its growing energy relationship with Russia have broader geopolitical implications. These developments give new leverage to regional players the US has been trying to isolate, such as Syria and Iran, and provide the backdrop for Russia's continued assertiveness over Ukraine. China's current reliance on energy supplied via sea routes controlled by the United States has been driving regional tensions over Chinese territorial claims in the South China Sea (see Box 18.4).

Challenges to US Dominance

Unlike Germany in the 1890s, neither China nor Russia is directly challenging the US in military terms, and would not be in a position to do so. US defence spending is in decline, but the United States remains the world's largest military power by far, accounting for more than a third of total global military expenditure in 2016 (International Institute for Strategic Studies 2017). Yet both China and Russia are rearming. Russia is currently embarking on an ambitious programme of military modernization, while China is increasing its defence spending by double digits each year. And, as Russia's stand-off with the West over Syria and Ukraine and China's stance in the South China Sea demonstrate, both are increasingly willing to challenge regional security orders sustained by the United States. In addition, as the territorial order imposed by Western colonial powers is breaking down in the Middle East, Iran is seizing its

chance to extend its regional influence and challenge the dominance of US allies such as Saudi Arabia. In all these regions, new security issues are becoming intertwined with more traditional geopolitical challenges to US primacy.

In this complex strategic environment, a number of commentators have argued that the United States suffers from 'imperial overstretch', a term coined by Paul Kennedy for a situation where excessive defence budgets undermine the prosperity of a country and weaken it internationally as a result (Kennedy 1988). While the proportion of US defence spending in relation to GDP is still less than that of many smaller states, stagnant economic growth since the global economic crisis means that bloated defence budgets are becoming a problem. At the same time, the diverging nature of the actual and potential threats presented by transnational terrorism and other non-state actors and the revival of geopolitical competition mean that there are increasingly hard choices to be made about how to invest limited resources.

Evolving Understandings of Great Power Competition

The emphasis on peacetime development reflects shifting understandings of great power competition and great power war since 1945. Before the First World War, wars between great powers were frequent but limited in scale, and often used to effect power transitions. However, the First and Second World Wars showed that military technology had developed to a point where war between major industrialized states involved exorbitant social and economic costs. This was exacerbated by the arrival of atomic weapons at the onset of the cold war. A highly interdependent global economy has further diminished the returns and increased the costs of great power war. Partly as a result of these developments, there has been no direct war between major powers since 1945. It is therefore not surprising that the current discourse on rising powers has foregrounded relative economic development over simple rankings of military capabilities. The broader aim of securing the prosperity and power of the polity may or may not mean a major role for defence and the armed forces—it depends on the nature of the strategic environment, which determines how these aims can be achieved.

Key Points

- The rise of China and the relative economic decline of the US are driving the current revival of interest in geopolitics and grand strategy.
- China's economic expansion and its need for energy supplies are already having an effect on political dynamics in various regions of the world.
- The US remains militarily dominant. Russia, China, and some other states are rearming, but at present this is not a direct challenge.
- Some suggest that the US suffers from 'imperial overstretch', spending so much on its defence budget that it is weakened overall.
- The emphasis of grand strategy has shifted to peacetime development, partly because war between great powers now seems improbable.

Grand Strategy in a Complex World

It is not difficult to find declarations of long-term strategic ambitions in the public statements of policymakers, especially those representing major powers. However, a proliferation of strategic documents and the declaration of lofty aims are not necessarily an indication that a grand strategy exists and is being implemented. The historical record is patchy. As Williamson Murray remarked, 'those who have developed successful grand strategies in the past have been very much the exception . . . a strategic framework, much less a grand strategy has rarely guided those responsible for the long-term survival of the state' (Murray 2011: 3). There are many obstacles to the successful formulation of a grand strategy, let alone its implementation, in an uncertain and complex international environment. A grand strategy is by its very nature comprehensive, encompassing in the words of one author 'a clear understanding of the nature of the international environment, a country's highest goals and interests within that environment, the primary threats to those goals and interests, and the way that finite resources can be used to deal with competing challenges and opportunities' (Brands 2014: 13). A grand strategist must understand and assess an exceptionally broad range of factors, individually and in relation to each other. As Lawrence Freedman has pointed out, this is a problematic assumption (Freedman 2013). There are limitations related to the imperfect functioning of the machinery of the state within which the grand strategist must operate. The information reaching the decision-maker from the lower levels of bureaucracy may be incomplete or biased, and the gap between formulation and implementation of policies is exponentially increased in a strategy aimed at guiding policy over a long period of time in diverse and evolving circumstances. Even assuming a perfectly operational decision-making environment, the level of complexity involved in formulating a grand strategy poses questions about its feasibility. The holistic assessment of such a broad range of factors may simply surpass the limits of human intelligence. It certainly raises questions about contingency and predictability in a system as complex as the international environment.

Contextualizing Grand Strategy

A grand strategy is a guiding framework that allows policymakers to steer through the uncertainties of a complex international environment. Finding such a framework becomes more difficult the more uncertain this environment is and the more it presents different and sometimes mutually incompatible strategic challenges. It is not a coincidence that conceptions of grand strategy first emerged at a time when the range of actors posing a potential threat to Britain and the United States was limited and the threat was clear. The idea of a grand strategy bears the imprint of its time, in particular in implicit assumptions about just how clear and consensual the interests and goals of a state really are. The current revival of thinking about grand strategy faces a very different scenario from that of the cold war—in fact, calls for a new grand strategy for the United States have arisen precisely because of this new complexity (see Critical Thinking). Moreover, the ends of a grand strategy, in the most general sense of defining the national interest, have also become more difficult to formulate in the absence of a single overarching threat. While there is a connection between primacy and prosperity, the

precise balance is ultimately a political decision and open to political contestation, especially where competing demands are made on finite resources.

Even where ends are reasonably clear, the long-term nature of grand strategy and the complexity of the global environment make it difficult to employ adequate means and formulate concrete policies. In a complex system, there will be contingencies and unpredictable events with multiple interdependent causes, sometimes the future unintended consequences of strategic decisions taken today. These contingencies may escalate into 'black swan' events: improbable, large-scale events that have transformative effects and are largely unpredictable to a given set of observers (Taleb and Blyth 2011). In fact, contingent events are commonplace in international history and are often the cause of major upheavals. The collapse of the Soviet Union and 9/11 both fall into this category; informed observers failed to predict them, and their consequences changed the dynamics of international politics. By definition, there can be no planning for the surprising and unexpected, though grand strategies should provide guiding principles for making sense of and responding to these kinds of large-scale events. However, there is a real danger that the interpretative 'lenses' provided by a grand strategy may blind the decision-maker to the transformative consequences of a contingent event and thus prevent rather than enable an adequate reaction. The line between a clear guiding principle and rigidity is thin, and can have far-reaching consequences when crossed. A grand strategy that fails to grasp how a contingent event changes the dynamics of international interaction, or that has identified trends in world politics wrongly from the outset, may trigger the very kind of development it set out to avoid. Strategic decisions are applied in context, in a highly dynamic international environment populated by other actors that inevitably react to policy moves directed at them (see Box 18.4).

Strategic Horizons in the Modern World

Policymakers are well aware of the uncertainties of their decision-making environment. Since the end of the cold war, strategic documents make habitual reference to the complexity of the international environment and stress the need for adaptability and flexibility in strategic planning. Given its extended time horizon, grand strategy must be able to adapt to changing contexts in a complex and always evolving international system. However, if flexibility and adaptability are key, is the formulation of long-term holistic frameworks a useful endeavour? Critics of the idea of grand strategy have pointed out that it is too general and the international environment too complex for it to be of much use in concrete situations facing the decision-maker (Krasner 2010; Strachan 2011; Dombrowski and Reich 2017). And yet, while the difficulties inherent in grand strategic thinking are immense, in a modern state the lack of an overall strategic direction can be even more detrimental. This remains true above all for great powers, which will by definition have a wide variety of divergent and sometimes contradictory interests in far-flung locations, but rarely enough resources to cover all of them.

In the absence of a grand strategic framework, strategic decisions will still be made, but the risk that they will be based on short-term pressures or on unexamined bias increases. Frequently, the result may be non-decisions, 'muddling through' as a result of bureaucratic inertia, or policies formulated on the basis of past approaches that are wholly inadequate for a changing strategic context (Lindblom 1959). This kind of non-decision can have far-reaching consequences. The failure to formulate a new European security architecture that could

bind in a newly democratic Russia after the fall of the Soviet Union is a case in point. Instead, NATO, the cold war institution that had been created explicitly to defend Western Europe against the Soviet Union, reformulated its mission statement and was enlarged eastwards. The unintended consequence of NATO enlargement and further NATO actions in Europe, especially the bombardment of Serbia over Kosovo in 1999, was a strengthening of nationalist and anti-Western forces in Russia and an increasingly fraught relationship with the West. William Clinton, the US president endorsing these decisions, did not believe in the idea of grand strategy (Brands 2014). The initial decision to enlarge seems to have been driven mainly by persistent lobbying by the smaller East European states and a vague sense that this would help consolidate a liberal community of values in Europe (Schimmelfennig 2000). Somewhat ironically, given what has been said about the pitfalls of grand strategy, its long-term horizon and holistic approach may be necessary to recognize the dangerous implications of short-term decisions responding to past contexts.

Key Points

- In a complex and fluid world, it has become much more difficult to formulate grand strategies.
- Rigid grand strategies, or those based on the wrong assumptions, can have negative consequences, since they blind decision-makers to unpredictable changes in the strategic environment.
- For a large, powerful state, grand strategic planning may be necessary, since the effects of simply 'muddling through' may be worse.

Rethinking Geopolitics

The grand strategist must be flexible and adaptable, but also look out for persistent structures that allow him or her to specify strategic aims. The original association between geopolitics and grand strategy derives exactly from this conundrum. Constants such as a state's size, location, climate, and resources were seen as objective constraining and enabling factors that allowed predictions to be made about a state's power and influence. Even though the scientific credentials of this kind of geographical determinism have long since been called into question, geography remains inextricably intertwined with the making of grand strategy. For one, grand strategy has to be geographically specific in the sense of being located in and directed at a specific context. Factors of physical geography, like the size of states, their location, and their neighbours, remain fundamentally important in this regard. The isolated geographical position of the United States, without major competitors or threats in close proximity, provides security but also makes it logistically difficult to project power. On the other hand, Russia's open and porous borders, its proximity to major competitors, and its harsh climate are all potential vulnerabilities. A state's access to resources also remains central, and hydrocarbon resources in particular are as important now as they were when classical geopolitical thinkers first constructed their theories. Nevertheless, resource bases, just like other aspects of physical geography, are not a fixed and unchanging factor of world politics. Currently, a major strategic shift is under way as a result of new technologies for the exploitation of non-conventional energy resources. It makes the United States less dependent on oil from the

Middle East; in fact, the US is becoming a net energy exporter (International Energy Agency 2017). As this example illustrates, seemingly permanent geographic factors such as the location of resources can be altered by the development of new technologies. The interaction between geography and technological change is a central feature of geopolitics.

Nevertheless, simply focusing on the relationship between geography and technology fails to capture a central way in which geography becomes relevant to world politics. The geographical context in which policymaking necessarily orients itself does not only refer to factors of physical geography. As the strategist Colin Gray put it, 'Although there is a brute force existentiality to physical geography, as a generalization it is geography in the mind, of the imagination, that matters most . . . The geography is as unarguable as its perceived political meaning is contestable' (Gray 2013: 118). Brute geographical facts acquire their significance in cultural and social contexts. This starts with the fact that cultures and civilizations are located in particular geographical spaces. On a different scale, human beings attach meaning to places—meaning that can become politically and strategically significant. Often, especially where particular sites and territories are part of narratives of collective identity, these interpretations can become powerful mobilizing factors. This has been true for the many ethnic conflicts of the post-cold war world. But identity and territory are also linked in the nation state, and interpretations of geography can be and often are a powerful influence on foreign policymaking. Often, these identity narratives are about dynamics of 'Othering', the inclusion in or exclusion from an imagined geopolitical space. The relationship between Russia and the 'West' (in itself such an imagined space, comprising countries and institutions supporting a US-dominated liberal order) is a case in point (see Box 18.5).

BOX 18.5 Case Study

Russia, Ukraine, and the West

The continuing stand-off between Russia and the West over influence in Ukraine seems to confirm Brzezinski's dictum that Ukraine is a 'pivot state' because of its sensitive geopolitical location (Brzezinski 1997). While Ukraine's strategic location is important to Russia, Russia's meddling in Eastern Ukraine is not explained by a focus on resources and geostrategy alone. Ukraine has a central place in Russian identity narratives; after the collapse of the Soviet Union, many Russians found it hard to accept Ukrainian independence. Putin's project of a Eurasian economic union was partly designed to bind Ukraine to Russia and stop its move towards closer association with the European Union (EU). The immediate context that triggered the Ukrainian crisis in 2013 was then Ukrainian President Victor Yanukovich's intention to sign an association (trade) agreement with the EU. This was not a geopolitical zero-sum game—the trade agreement and the Eurasian economic union were not mutually exclusive. But relations between Russia and the EU had deteriorated, partly as a result of EU support for the democratic 'colour revolutions' in Georgia and Ukraine and the 'conservative turn' and erosion of Russian democracy under Putin. There is now a clear rejection by the Kremlin of a liberal European identity for Russia—and Russia is attempting to export this illiberalism by supporting far-right movements across Europe. In terms of broader geopolitics of identity, the EU stands for the West, the external 'Other' against which Russian identity is defined. The association agreement was perceived in Moscow in terms of these geopolitics of identity, as a move to join a liberal Western 'Other'. Ukraine is pivotal because of the meaning attached to it by Russian policymakers, which in turn links to broader perceptions of the relationship between Russia and the West.

Geopolitics and Identity

The role played by interpretation and identity complicates the uses of geography for making grand strategy. Yet the effects of geography are inescapable in international politics, whether they are the 'brute force' of geographical constraints in a given strategic context, or the role played by interpretations of geography. There clearly is value in reflecting on the way that decision-makers' interpretations of geography may affect their formulation of strategy, as well as in understanding the meaning particular geographic factors have for an adversary. As the persistent identity of Britain as an island nation illustrates, specific interpretations of geography in a narrative of collective identity are remarkably long-lived (see Box 18.2). However, this comes with a caveat—it is all too easy to assume that interpretations of geography in identity narratives are fixed, leading to the kind of rigidity that undermines the aims of a grand strategy. Instead, collective meanings and identities are fluid and often politically contested, and are always reinterpreted in particular contexts. Classical geopolitics conceptualized the geographic factor as timeless and universal. However, the basic meaning of geopolitics, the political uses of geography, draws attention to context, which is always situated and specific. Interpretations of geographical factors, just like objective geographic constraints, may be long-lived, but it is the task of the grand strategist to assess how they play out in any given situation.

Key Points

- Geography is not a fixed and immutable factor in world affairs.
- Technological change affects the way that geographical factors play out in international politics.
- Geographical factors matter both as external constraints and because they are interpreted and politically contested, and often part of identity narratives.
- This duality complicates the uses of geopolitics for grand strategy, but also adds a new, important dimension that makers of grand strategy need to take into account.

Critical Thinking The United States should pull back

The US has not substantially reduced its military spending from cold war levels and continues to pursue active, global foreign policies. Trump won the presidential elections in 2016 partly on the promise to end this practice and 'put America first'. With financial pressures and recent, unpopular wars in Afghanistan and Iraq, should the US pull back from the world?

For

- ***Favourable geopolitics***. With two weak and friendly neighbours—Canada and Mexico—and surrounded by open seas, there is no genuine threat to US territory. Its huge nuclear arsenal also acts as a powerful deterrent.
- ***Creating more enemies***. By aggressively pursuing the 'war on terror', the US is already creating more

(continued . . .)

Critical Thinking *(continued)*

enemies amongst Muslims. An active foreign policy could encourage rivals such as China and Russia into an alliance which could dominate Eurasia—they are already getting closer, partly in response to US actions, and are both rearming.

- ***Free-riding allies***. America's allies can 'free-ride' on US power. NATO members are able to reduce their military spending, knowing that they are protected by the US nuclear umbrella; Israel and Taiwan can embark on risky policies guaranteed by Washington.

Against

- ***No danger from rival coalitions***. US military preponderance means it need not worry about coalitions of other powers forming against it. Moreover, China and Russia have a long history of mutual suspicion and the Kremlin might fear dependence on China's economic might.
- ***Defence technology leverage***. By maintaining a large defence budget, the US has leverage over other countries which need American technology. Britain, for example, can only purchase certain components of its nuclear deterrent from the US.
- ***Strong, prosperous relationships***. Alliances such as NATO lessen the likelihood of being dragged into unnecessary wars by creating a network of strong relationships and trust. These alliances and active American engagement in the world guarantee global trade and prosperity. An 'America First' approach repels other countries, erodes trust, and could quickly weaken existing alliance structures.

Questions:

1. Should the US pull back and 'put America first'?
2. Should the US pull back in Asia but increase its presence elsewhere?
3. To what extent is the US in decline as a global superpower?

Conclusion

Formulating and implementing a grand strategy in today's complex international environment is an exceedingly difficult task, and it is not helped by the fact that geography is not the kind of scientific long-term grounding for grand strategy that the classical geopoliticians imagined. However, this complexity may be the very reason a grand strategy should be attempted. In an evolving international environment, it is dangerous to continue implementing policies and approaches that no longer fit the times. It is equally dangerous to attempt a grand strategy directed at the wrong target, and with an erroneous understanding of what is needed to achieve desired ends—US President George W. Bush's strategy in the war on terror may serve as an example. Nevertheless, the multiple challenges that affect the world today are so diverse that a concerted attempt to balance ends and means seems more necessary than ever. In democratic states this means that the welfare and prosperity of the nation, in line with the values of the polity, are the ultimate end. Grand strategy is about the right balance between means and ends, not about hedging against all possible threats and winning wars at all costs. In all of this, thinking geopolitically is central, in the most basic sense that geography is central to politics and foreign policy must be geographically focused. However, geographic

factors are not an objective and unchanging determinant of world politics. Their political implications may lie precisely in the meanings they carry for particular actors. Perceptions of geographical factors, especially where they involve identity narratives, can be long-lasting, but they are not fixed and the way they become politicized in any particular situation is highly context-dependent. Even though this complicates the relationship between geopolitics and grand strategy, it remains a fundamental factor that the grand strategist has to grapple with in a challenging and fluid international environment.

Questions

1. What are the aims of grand strategy?
2. Why is there renewed interest in geopolitics and grand strategy at this particular historical juncture?
3. What explains the emergence of geopolitical thought at the turn of the twentieth century?
4. Compare and contrast evolving definitions of grand strategy and geopolitics. How and why have these definitions changed?
5. To what extent was the grand strategy of containment during the cold war motivated by geopolitical reasoning?
6. What are the problems inherent in formulating grand strategies? Can they be overcome?
7. Why is grand strategy associated with the statecraft of great powers?
8. How has geopolitics traditionally been associated with grand strategy? What are the problems of this association?
9. If geopolitics is both about the 'out there' and the 'in here', as Colin Gray has written (Box 18.1), what is its use for the formulation of grand strategy?
10. Is the rise of China a challenge to US primacy?

Further Reading

J. Agnew, *Geopolitics: Re-visioning World Politics*, 2nd edn (London: Routledge, 2003) critically investigates the way that modern world politics is underpinned by a European geopolitical imagination associated with the rise of the great powers.

H. Brands, *What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush* (Ithaca, NY: Cornell University Press, 2014) is a spirited defence of the idea that grand strategy is both useful and doable, with in-depth case studies of successes and failures in US grand strategy.

Z. Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997) reformulates Mackinder's heartland theory for the post-cold war world. A classic read by one of the architects of the geopolitical revival in the US.

C. S. Gray and G. Sloan (eds), *Geopolitics, Geography, and Strategy* (London: Routledge, 1999) is an edited volume covering a wide range of topics and approaches, from treatments of military strategy to critical reflections on geography and culture.

J. J. Grygiel, *Great Powers and Geopolitical Change* (Baltimore, MD: Johns Hopkins University Press, 2006) emphasizes the interplay between technological change and geography, and analyses in historical case studies how great powers have responded to such dramatic geopolitical changes as the discovery of new trade routes and continents.

P. Kennedy, *The Rise And Fall Of The Great Powers: Economic Change And Military Conflict* (London: Unwin Hyman, 1988) offers a magisterial account of relative economic decline and its effects on world politics that remains essential reading.

J. J. Mearsheimer, *The Tragedy of Great Power Politics,* 2nd updated edn (New York: Norton, 2014) stresses the pursuit of primacy as a central driving force in world politics. Consistently insightful, with a new chapter on the role of China in world affairs.

W. Murray, R. H. Sinnreich, and J. Lacey (eds), *The Shaping of Grand Strategy: Policy, Diplomacy, and War* (Cambridge: Cambridge University Press, 2011) is an exploration of grand strategy in history by a group of leading historians, with insightful general discussions of the meaning of grand strategy and the many failures in its implementation.

S. Reich and P. Dombrowski, *The End of Grand Strategy: US Maritime Operations in the 21st Century* (Ithaca, NY: Cornell University Press, 2018) makes the case against a unitary grand strategy for current US foreign policy, arguing that security issues have become far too complex for this in recent years.

Web Links

Center for Security Studies, ETH Zurich **http://www.css.ethz.ch/en/services.html** contains a wealth of relevant information, including articles on geopolitics and grand strategy.

Exploring Geopolitics **http://www.exploringgeopolitics.org/** is a rich resource on classical and contemporary geopolitics, with many interviews with leading academics in the field as well as introductory articles on relevant topics.

Foreign Policy magazine **http://foreignpolicy.com** analyses US foreign policy, often with an eye for geopolitical questions and discussions of US grand strategy.

Geopolitics and Security, blog run by the Geography department at Royal Holloway, University of London (RHUL), **https://rhulgeopolitics.wordpress.com/** is a blog on current geopolitical themes, interpreted through the lens of critical geopolitics and in particular the 'popular geopolitical culture' approach by Klaus Dodds, professor at RHUL. It provides an expanded view of geopolitics as an interpretative frame to understand everything from fake news to the Arctic issue.

Part III

The Future of Strategy

19 Strategic Studies: The West and the Rest 329
Amitav Acharya and Jiajie He

20 Strategic Studies and its Critics 348
Columba Peoples

21 A New Agenda for Security and Strategy? 366
James J. Wirtz

22 The Practice of Strategy 385
Colin S. Gray and Jeannie L. Johnson

23 Does Strategic Studies Have a Future? 404
Lawrence Freedman

19

Strategic Studies: The West and the Rest

AMITAV ACHARYA AND JIAJIE HE

Chapter Contents

Introduction 329
'Strategy and Ethnocentrism' Revisited 330
Strategic Studies During the Cold War 332
The Changing Nature of Conflict 333
Non-Military Threats 335
Strategic Studies and the Global Power Shift 337
Strategic Culture and Grand Strategy Debates in China and India 340
Conclusion: Strategic Studies and Global International Relations 344

Reader's Guide

This chapter discusses the limitations and problems strategic studies faces when dealing with security challenges in the global South. Because mainstream strategic studies tends to be Western-dominated (or American-centric) and often ignores the concerns of Third World countries, it is important to introduce diversity into traditional strategic studies, including the studies of domestic or regime insecurities, non-traditional security threats, human security, and the strategic culture of the emerging powers such as China and India. Though often neglected, the non-Western world has made important contributions to international relations (IR) theories and concepts. To bridge the divide between West and non-West, Global IR is proposed as a new approach to strategic studies.

Introduction

Strategic studies has been a laggard in adapting to the changing nature of conflict and the global power shift, especially when compared to its offshoot, security studies. This chapter looks at the limitations and challenges strategic studies faces when dealing with the security challenges in the global South. These include the nature of conflict and violence, especially the rise of internal conflicts; the salience of non-military threats; and, more recently, the emergence of new world powers such as China and India. In conclusion, the chapter argues that the emerging framework of a Global IR can offer helpful points of departure for strategic studies as it tries to adapt to the strategic challenges and responses of non-Western countries.

'Strategy and Ethnocentrism' Revisited

In his book, *The Future of Strategy*, Colin Gray (2015: 47–9) argues that strategy is universal. While we agree that strategy serves politics and is often adversarial, we think his claim about strategy's functions in peace and war needs an important qualification. Specifically, Western writings on strategy, on such supposedly universal concepts as war or peace, draw heavily from the ideas, agency, and historical experiences of Europe (including its antecedents like classical Greece and Rome) or the 'West' in general. They often neglect or give only token space to other historical experiences and cases, such as ancient Sumer, India, or China, even when these examples might support their theories, and especially when they challenge or refute them, or add variations and nuances to their supposedly universal explanations. Like international relations in general, strategic studies has been a Western-dominated enterprise. Nevertheless, supposedly universal strategic concepts can have different meanings and applications in different contexts. Failure to appreciate these differences is at the heart of the ethnocentrism that bedevils strategic studies and international relations.

In his classic work, *Strategy and Ethnocentrism*, Ken Booth highlights the ethnocentric nature of strategic studies. He defines ethnocentrism as the inability to 'see the world through the eyes of a different national or ethnic group: it is the inability to put aside one's own cultural attitudes and imaginatively recreate the world from the perspective of those belonging to a different group' (Booth 1979: 15). Booth (1979: 15) identifies three meanings of ethnocentrism: '(1) as a term to describe feelings of group centrality and superiority; (2) as a technical term to describe faulty methodology in social sciences; and (3) as a synonym for being "culture-bound"'. *The Concise Oxford Dictionary of Sociology* similarly defined ethnocentrism as 'the practice of studying and making judgments about other societies in terms of one's own cultural assumptions or bias. Ethnocentrism often suggests that the way something is done in other societies is inferior to the way it is done in one's own society' (Marshall 1994: 158).

The problem of ethnocentrism in strategic studies is especially acute when it comes to dealing with the non-Western world. One example of this tendency can be found in the treatment of Third World conflicts in the cold war literature on strategic studies. According to Robert Rubinstein, rather than focusing on the local-level concerns that motivate less powerful nations and local groups, the discussions of collective violence and security in the Third World often accord a privileged position to the interests and interpretations of the superpowers. As a result, they see Third World diplomatic and military initiatives from the perspective of ideological, political, and economic superpower contests (Rubinstein 1994: 988). Analysing a Rand Corporation study of US involvement in Third World conflicts (Hosmer 1985), Rubinstein found that the study ignored the specific interests and concerns of Third World countries and groups but attributed US involvement mainly to its relation to the Soviet Union. As Rubinstein concluded, while this study was preoccupied with East–West relations, it excluded numerous regional concerns around the world (Rubinstein 1994: 988).

Another example is the celebration of the cold war as a 'long peace' (Gaddis 1986), rooted in Kenneth Waltz's neo-realist assertion that bipolar international systems are more 'stable' (Waltz 1964, 1979) than multipolar ones. Such generalizations seem particularly absurd given the large numbers of conflicts and fatalities that occurred in the non-Western world. Mohammed Ayoob (1986), a noted Indian scholar, has argued that the refusal of Western strategists and policymakers to recognize the severity of regional conflicts in the Third World except

as a 'side-show' to the great game of the superpowers ensured not only grave distortions in the understanding of the causes and remedies of these conflicts, but might also have had the more pernicious effect of rendering these struggles more 'permissible'.

The most famous project to study war, which is the core issue of traditional strategic studies, is the 'Correlates of War' project at the University of Michigan. It used criteria for defining war which excluded imperial and colonial wars because of the 'inadequate political status of their participants'. As a consequence, while the project's data set for inter-state wars from 1816 to the then-present (1972) involving 'nation states' was definitive, the data for 'extra-systemic' wars—i.e. imperial and colonial wars—remained, as Vasquez (1993: 27) observes, 'woefully incomplete for non-national entities . . . usually the victims in this historical period'. Criticizing this project, Vasquez (1993: 27) concluded that it is the historical legacy of Western imperialism and racism that should take the responsibility for Western nations' failure to systematically record the fatalities suffered by non-national groupings in imperial and colonial wars.

Yet another example of ethnocentric bias in strategic studies is the tendency among deterrence theorists to insist on 'rationality' as a precondition for the applicability of their theoretical constructs. This went in tandem with another crucial assumption: that Third World leaders are unfit to possess nuclear weapons. This view is held not just by many Western nuclear strategists, but, as Hugh Gusterson's (1999) ethnographic study of Lawrence Livermore Laboratory confirms, by American nuclear scientists and weapons designers as well. Many scholars concerned with rationality denied the possibility that nuclear weapons can be safely acquired and managed by Third World countries, a view which K. Subhramanyam (1993), an Indian strategist, called 'racist'.

Finally, strategic culture was one potential entry point in introducing diversity into traditional strategic studies. But, as one of the authors has argued before, the concept of strategic culture may not be the most useful or adequate conceptual tool to investigate conflict and violence in the non-Western world. The literature on strategic culture focuses largely on the behaviour of great powers in the international system. For example, the pioneering work on strategic culture was concerned with Soviet military conduct, while more recent scholarship on the subject has dealt with China. The discourse on strategic culture has rarely been concerned with smaller or weaker powers, such as the non-Western countries.

Key Points

- Ethnocentrism is an important feature of strategic studies, but it becomes especially acute when dealing with the non-Western world.
- The literature on strategic studies during the cold war typically ignored the specific interests and concerns of Third World countries and groups.
- Deterrence theorists tended to assume that Third World countries were unfit to possess nuclear weapons because their leaders were not 'rational' enough to safely acquire and manage such weapons.
- Despite its inadequacy, strategic culture was one potential entry point in introducing diversity into traditional strategic studies.

Strategic Studies During the Cold War

During the cold war, mainstream strategic studies focused on the stability of the 'central strategic balance' (involving superpower nuclear deterrence and their European alliances). It gave far less attention to regional conflict and regional security (conflict and conflict-management issues in the Third World). The problems of regional instability in the Third World were recognized only to the extent that they had the potential to affect the superpower relationship.

Not surprisingly, therefore, in a 1988 survey of the field, Joseph Nye and Sean Lynn-Jones (1988: 27) acknowledged 'ethnocentric biases' (attributable to the development of the field primarily in the United States) which have led security studies scholars to concentrate on issues relating to 'superpower rivalry, nuclear arms control, and American policy debates' while neglecting 'many equally significant issues' including 'regional security issues (apart from Western Europe), domestic politics, and economic security'. Yet, as Mohammed Ayoob (1988: 1) pointed out, since the end of the Second World War, most instances of international violence have taken place in the Third World rather than between the superpowers.[1]

Many non-Western scholars argued that the concept of national security that lies at the heart of strategic studies was unsuitable for analysing security issues in the Third World. Whereas the main sources of insecurity in the Third World were internal in nature, the primary threats to Western countries were external (Ayoob 1984; Azar and Moon 1984; Soedjatmoko 1985; Sayigh 1990). Mohammed Ayoob (1986: 9–10) drew attention to the fact that most Third World states lack 'unconditional legitimacy', including a 'capacity to ensure the habitual identification of their inhabitants with the post-colonial structures that have emerged within colonially-dictated boundaries'. Hence, domestic or regime insecurities are more central to Third World security concerns than state security concerns. The combination of a weak state structure and regime vulnerability explains why most security problems and policies of Third World states are essentially inward-looking, which cannot be appreciated or conceptualized if one accepts the standard strategic studies view that national security concerns arise when a country's core values are threatened by *external* actions or events.

These arguments were not simply based on guesswork. Several studies have found that the vast majority of conflicts in the Third World are intra-state in nature (anti-regime insurrections, civil wars, tribal conflicts, etc.). A study by Istvan Kende found that of the 120 wars during the 1945–76 period, 102 were internal wars (including anti-regime wars and tribal conflicts), while another study by Michael Kidron and Ronald Segal covering the 1973–86 period found a mix of 66 internal wars and 30 border wars (cited in Thomas 1991: 269).

[1] To an even greater degree than many Western analysts of this period, Stephen Van Evera's (1990–1: 9–10) narrow and ethnocentric conception of security simply could not anticipate the divergent elements of insecurity outside Europe that were already becoming central to American 'national security' and will become dominant within a decade. Far more prescient was Mohammed Ayoob (1988: 1).

Key Points

- During the cold war, mainstream strategic studies focused primarily on the stability of the 'central strategic balance', but neglected other equally significant issues, including regional conflicts, domestic politics, and economic security.
- The concept of national security that lies at the heart of strategic studies was unsuitable for analysing security issues in the Third World.
- Unlike for Western states, the security problems faced by Third World states more often come from domestic or regime insecurities than from external security concerns.

The Changing Nature of Conflict

As the cold war ended, the challenge for strategic studies was to adapt to a broader view of insecurity that reflected the predicament of the vast majority of people in the world, rather than that of the Western countries. It is not clear whether strategic studies kept up with the changing pattern of conflict, where the main theatre is the non-Western world.

A New Trend in Armed Conflicts

After the end of the cold war, some assessments, such as the *Human Security Report 2005*, suggested that there had been a sharp decline in armed conflicts and that war was taking fewer lives than ever before. Several reasons were suggested for this trend: the end of the cold war, increasing UN peace operations, rising economic interdependence among nations, the spread of democracy, economic growth in the global South, and the spread of norms against use of force.

But not everyone was convinced. Sceptics argued that the decline in warfare has not been as pronounced as claimed, and that the trend was not irreversible. Moreover, old warfare (inter-state conflict) was simply being offset by new forms, such as humanitarian intervention.

What is less contestable, and this remains a key challenge to the war-centric nature of strategic studies, is the steady decline of conventional inter-state conflict and the growth of intra-state and internationalized conflicts. According to the Uppsala Conflict Data Project, there was only one large-scale inter-state conflict (between India and Pakistan) in 2014 (Pettersson and Wallensteen 2015: 537). But the overall trend in armed conflicts—defined as conflicts between two parties, at least one of which is a government of a state, leading to a minimum of 25 battle-related deaths—has fluctuated in the post-cold war period. It dropped from 51 in 1991 (the peak year for armed conflicts in the post-cold war era) to a low of 31 in 2010. But the year 2014 saw an upsurge, with a total of 40 armed conflicts, the highest number since 1999 (Pettersson and Wallensteen 2015: 536). Conflicts claiming more than 1,000 lives, defined as wars, have declined from 16 in 1988 to 7 in 2013, but increased to 11 in 2014 (Pettersson and Wallensteen 2015: 539).

Human Security

Whatever the trend in the number of conflicts, it is clear that violence has become more complex and its sources more varied than in the situation conventional strategic studies was

founded on. A more normative issue for strategic studies is accounting for the human cost of conflict, which is central to the new paradigm of human security. Traditional strategic studies was concerned with the security of the state, yet human security is about security for people.

There have been major disagreements over two definitions of human security: freedom from fear and freedom from want. The Canadian formulation saw human security as a matter of reducing the human costs of violent conflict and sought to pursue it through policies to abolish land mines (the Ottawa Land Mine Treaty), deter and punish genocide and crimes against humanity (through the creation of the International Criminal Court), and measures to curb the use of child soldiers. It rejected the developmental aspects of human security, such as those related to poverty reduction. It was concerned that including social and economic measures of human security would make the concept too broad, and the scarce resources of the promoters of human security would prove insufficient. But the Japanese and Thai (then under democratic rule) conceptions of human security insisted on including economic and social aspects in the human security paradigm. There is now a consensus that human security should include both freedom from fear and freedom from want.

Technology and Human Security

Because of its preoccupation with war, strategic studies might have missed out on the relevance of the relatively new idea of human security. While some in traditional strategic studies argued that technological change might save lives, technology has placed an ever-increasing power of destruction in the hands of an ever-decreasing number of actors. Military build-ups and arms races are usually a throwback to the old notion of national security, although some would claim that the revolution in military affairs (RMA) reduces the human costs of violent conflict. New military technologies do save lives, and even make warfare more humane. Hence, human security may well depend not just on making war or violence less likely, but also on reducing the human costs of conflicts that cannot simply be avoided. In other words, solutions to the problem of human security in conflict zones can be found in the new technologies of warfare. But the recent experience in Afghanistan, where highly advanced weapons have not prevented significant collateral damage, does not inspire much confidence in this view. Similarly, new forms of inexpensive small arms with enhanced lethality underscore one reason why the concept of human security has gained resonance among some of its advocates.

Key Points

- People disagree on whether the decline in armed conflicts after the end of the cold war was real and irreversible.
- There was a steady decline of conventional inter-state conflicts and growth of intra-state and internationalized conflicts in the post-cold war period.
- A new dimension of strategic studies is concerned with human security, which should include both freedom from fear and freedom from want.
- It is contestable whether the revolution in military affairs has reduced the human costs of conflicts.

Non-Military Threats

The various attacks on the traditional notion of security that surfaced before or after the end of the cold war might have differed in terms of their conceptual focus or political motivation, but the common element in all these approaches is a call to broaden the conception of the spectrum of threats that cause insecurity. Hence, one of the main challenges to strategic studies is how to take into account non-military threats to security. As Jessica Tuchman Mathews (1989: 162) noted, just as economic or resources issues crept into the security agenda in the 1970s, ecological issues have made their way into the security studies discourse in the 1980s and 1990s. But the attempt to redefine security has not been uncontested. Some pointed to the danger of conceptual dilution: the fear that the inclusion of non-military phenomena within the purview of security studies would lead to an 'excessive' broadening of the field. Stephen Walt (1991: 213) argued that the inclusion of such phenomena as 'pollution, disease, child abuse, or economic recessions' in security studies would 'destroy its intellectual coherence'. Ayoob (1991: 259), while more tolerant of including non-military threats (as will be discussed shortly), nonetheless warned that with some of the recent attempts to broaden the concept of security this 'runs the risk of making the concept so elastic as to detract seriously from its utility as an analytical tool'. Another argument against the inclusion of non-military phenomena is that despite the proliferation of other threats, war remains the principal threat to international order (Walt 1991: 213). As Barry Buzan (2007: 287) has argued: 'other types of threat are rising in importance *regardless of the decline of military concerns*' (emphasis added). Yet another objection to considering non-military threats is based on the argument that there are major differences between military and non-military phenomena in terms of the impact they exert on the security perceptions and policies of states. To begin with, most types of non-military threats (including environmental, demographic, and resource problems) usually have a longer gestation period and require a larger time frame in so far as their management and resolution are concerned. In addition, ecological and economic threats have characteristics quite different from military threats. In the economic arena, it is recognized, even by those who argue for the inclusion of economic threats in the security studies agenda, that there are broad differences between the military and economic behaviour of states. As Stanley Hoffmann (1985: 55) pointed out, whereas collective action is often seen as beneficial in the world economy, unilateral action is preferable in the realm of force because of the conflict of interests.[2]

But the case for broadening security is especially compelling in the case of the global South. Certain non-military threats, such as resource scarcity, environmental degradation, overpopulation, and underdevelopment, are much more acute in the global South than in the global North. Few developing countries would exclude the issue of economic development and well-being from the national security agenda because of the fragility of their social system (Vayrynen 1990: 10). As Caroline Thomas (1987: 1) put it, 'security in the context of the Third World does not

[2] Similar questions have been raised in discussing the prospects for international cooperation in economic and security areas in the regime literature. See Charles Lipson (1984: 12) and Janice Gross Stein (1985: 611–15).

simply refer to the military dimension, as is often assumed in the Western discussions of the concept, but to the *whole range of dimensions of a state's existence which has been taken care of in the more developed states, especially those in the West*' (emphasis added). The vulnerability of Third World states to resource, ecological, and other transnational issues is compounded by their lack of material, human, and institutional capacity to deal with these problems. In addition, Third World states enjoy little influence over the international context in which these problems arise.

Faced with this debate, some analysts have suggested that a middle ground is possible between the supporters and critics of broadening security. They offer criteria to distinguish which non-military phenomena should be and could be included in the security studies discourse without broadening the field too much. Ayoob (1991: 259) has suggested that the question of whether something should be called a threat should be decided by taking into account its ability to overthrow or significantly undermine the territorial and institutional structures of states, as well as the regimes that support and represent these structures. For Ayoob, debt burdens or even famines should not be included in this category because they would not threaten the territorial or institutional survival of states or the survival of governing elites within those states.

The challenge for strategic studies is to find a way to reconcile the arguments for and against the broadening of security and strategy in a way that captures the security challenges facing the wider international community, and not just the West. To this end, it might consider the following:

1. Non-military threats that challenge the very existence, structure, or institutions of a state, its government as well as its population, either in an immediate or a recurring manner. Such issues are usually politicized ('securitized') in ways that they become part of the central agenda of the state, and hence an integral part of its national security concerns. Developments such as resource exploitation in disputed maritime areas or an uncontrolled refugee exodus that threatens the ethnic political balance in a neighbouring state may directly threaten the sovereignty, territorial integrity, economic well-being, and political stability of a state. Such conceptions of national security may be relative to the state or society in question, but to ignore such issues of survival because they do not involve the use or threat of force is simply unrealistic for a discipline whose concerns centre on the 'core values of the state'. In other words, when considering threats to security, one need not be confined to military threats alone, but must also consider those threats that affect the survival and maintenance of the core values of the country.
2. Non-military threats which are used in conjunction with, or as a substitute for, military force. These include economic sanctions, diplomatic action, and environmental terrorism (denial of access to resources). They are integral parts of the security policy of the country that poses the threat and are used deliberately by one state as an instrument of aggression against another. For example, economic and ecological policy instruments can be used deliberately by a state to undermine the quality of life of the population of another state or states. The key words here are 'deliberate' and 'conscious' use of these instruments. They may also affect the military capacity or policy of an actor. For example, economic sanctions can curb militarization by consciously linking foreign aid with the level of defence expenditure and internal security policies of the recipient.
3. Vulnerabilities linked to non-military threats that provoke an actual or threatened military action by the target. This differs from the second category in the sense that the

military action is conceived or initiated on the basis of perceived or actual vulnerability and in anticipation of a threat that might materialize in the future. Such vulnerabilities could lead to military action by a country not facing an immediate threat or in a peacetime situation.

4. Non-military threats that are in the realm of values, i.e. ideological threats, which undermine regime legitimacy and unite the people against the government.
5. Threats posed by the government to the security and survival of its own people, usually involving the deliberate policy and practice of a regime to control popular dissent. Such threats put the state as the main threat to, rather than provider of, the security of the people. These threats could include military oppression, economic deprivation, or political discrimination. Thus, strategic studies cannot ignore certain human rights issues. Although some policies are non-military, they are frequently linked to violence and disorder.
6. Any other development which threatens the very physical survival of a state and is recognized as such by the great majority of its population (for example, the impact of global warming on South Pacific islands).

This type of exercise may seem arbitrary or not exhaustive enough. As Edward Azar and Chung-in Moon (1988: 2) have argued, because the nature of threats is contingent on time, place, and issue areas, it makes no sense to define the operational meaning of national security in a rigid way and apply it universally. A contextual broadening of the concept of security beyond the phenomena of war is not only consistent with its philosophical aspirations to account for challenges to the core values of states and societies, but is also both inevitable and potentially in the long-term interests of the field of strategic studies if it is to retain its relevance to policymakers concerned with problems of peace and war in an increasingly globalized world.

Key Points

- Despite a call to broaden the conception of the spectrum of threats that cause insecurity, people disagree over whether it is beneficial to take into account non-military threats in strategic studies.
- Certain non-military threats are much more acute in the global South than in the global North. Therefore, in developing countries, the notion of national security cannot be separated from non-military threats to security.
- It is important for strategic studies to reconcile the arguments for and against the broadening of security and strategy in a way that captures the security challenges facing the wider international community, and not just the West.

Strategic Studies and the Global Power Shift

A key trend in world politics today is the global power shift. Despite persistent debates about its nature and extent, the global power shift is real. A few trends here are revealing. In the year 1800, China alone produced about 30 per cent of the world's gross domestic product (GDP). Add India, and that figure rises to more than half of the world's GDP. Strikingly, that age of

Asian economic primacy may be returning. A recent report by the Asian Development Bank suggests that by 2050, China could account for 20 per cent of global GDP and India for 16 per cent. By comparison, the US will account for 12 per cent. There is also evidence of a more general 'rise of the rest'. The non-Western countries (minus Japan) have increased their share of global output from one-third in 1990, to about half now. The global South's share of global GDP rose from 33 per cent in 1980 to 45 per cent in 2010 (United Nations Development Program 2013: 2), while extreme poverty (below $1.25 per day) decreased from 43.1 per cent in 1990 to 22.4 per cent in 2008 (United Nations Development Program 2013: 13).The OECD (2010: 2) estimates that the global South could account for 57 per cent of global GDP by 2030. While the growth of some of the emerging powers has slowed in recent years, much of the shift has already occurred and will continue to redefine the global environment. According to estimates, in the next 35 years, the established advanced economies in North America, Western Europe, and Japan will increasingly lose their weight in the global economy (Price Waterhouse Cooper 2015: 1). This could mean a future in which globalization is driven more by South–South linkages than by North–North or North–South linkages (Acharya 2017).

The Global Power Shift and its Challenges for Strategic Studies

The global power shift raises two key challenges for strategic studies. The first is ascertaining whether it will lead to more conflicts. Neo-realists are not the only ones who argue that the shifts in the distribution of power have a major effect on security concepts and practices, although they are more likely than liberals or constructivists to view these changes as system-wide; focus their analysis on states, rather than individuals or societies; and make balance of power the key tool for investigating the nature and impact of change. But given that the cold war was hardly an era of peace in the non-Western world, the consequences of the end of bipolarity may not be viewed in the same light in different parts of the world. At the very least, a plurality of powers or the absence of a global hegemon dominant in all issue areas of international relations might encourage alternative views about strategy and security to emerge.

But the main question about shifts in the distribution of power is not whether it will generate more or less stability (in the manner of the old debate about whether bipolarity is more stable than multipolarity), but whose concept of strategy and security will matter most. Will the emerging powers simply follow the logic of Western strategic concepts? To take a particularly important example, for more than a decade, the Chinese have promoted what they call 'a new security concept' (NSC). According to the Chinese government's official position paper on the subject, the NSC includes the following:

> –To conduct cooperation on the basis of the UN Charter, the Five Principles of Peaceful Coexistence and other widely recognized norms governing international relations, and give full play to the leading role of the United Nations;
>
> –To peacefully resolve territorial and border disputes and other controversial issues through negotiations;
>
> –To reform and improve the existing international economic and financial organizations and promote common prosperity in line with the principle of reciprocity and mutual benefit and common development;

> –To place emphasis on non-traditional security areas such as combating terrorism and transnational crimes, in addition to the traditional security areas like preventing foreign invasion and safeguarding territorial integrity;
>
> –To conduct effective disarmament and arms control with broad participation in line with the principle of justice, comprehensiveness, rationality and balance, prevent the proliferation of weapons of massive destruction, uphold the current international arms control and disarmament regime and refrain from arms race.
>
> Ministry of Foreign Affairs of the People's Republic of China (2002)

Some of these points seem like official propaganda. Even a superficial glance at the paper will quickly reveal that few of the elements of the NSC are really 'new'. The Five Principles of Peaceful Coexistence goes back to the 1950s. The demand for reforming international institutions to make them more attuned to reciprocity and mutual benefit (and less dominated by the West) is a familiar slogan from the developing nations bloc, with which China has long self-identified. If the NSC is not even new for the Chinese themselves, what is really new about it? It may well be that the NSC is an alternative to the 'cold war mentality' (guess whose?), another Chinese construct. It may also be seen as an effort to legitimize China's growing power and role in international affairs, and to address concerns raised by the West's 'China threat theory'.

Moreover, there are several reasons to doubt that emerging powers like China or India are willing or able to reshape the concept of security. First, the new powers of the world are not a very homogenous lot, even within Asia. They do not have a uniform view on security and order in the national and international context. Second, the tools and media of security discourse—the research centres, journals, publishing houses, and the media with a global reach—are still heavily centred in the West. And even if they do influence how security is defined in the twenty-first century, this might well mean a return to the traditional definition of security, namely a kind of neo-Westphalianism. Indeed, India and China both hold a rigid view of sovereignty and reject post-Westphalian notions such as humanitarian intervention or human security. Critics might wonder whether these countries or their academic centres will bring ideas and approaches into the debate over the meaning of security that rationalize and promote their own respective interests. As a result, conceptual competition is likely and will dilute these countries' impact in reshaping the meaning of security.

But given their rising power and status, the ideas of the emerging powers cannot be simply dismissed. Changes to power structures mean room for new leadership, which may make the real difference in how the concept of security is defined and understood. Common to all conceptualizations of power today is the decline, if not the end, of Western dominance, and the growing weight of non-Western countries—including China, India, Brazil, Japan, Indonesia, South Africa, Nigeria, Iran, and Egypt—in world affairs. Even if one selects only a handful of these countries, such as China, India, and Brazil, as the emerging global powers of the twenty-first century, does it not mean that their respective ideas about security will affect how the concept is understood in the academic literature and policy discourse? It is quite likely that to remain relevant, the American-centric or Western-centric definition of strategy and security will have to accommodate ideas and approaches that reflect the vantage points and perspectives of these emerging powers, even if these new perspectives do not quite replace older Western-centric definitions.

A Multiplex World

Since the end of the cold war, we have seen major debates as to whether the system has been unipolar, multipolar, or neo-bipolar (US–China replacing US–USSR). While unipolarity might now be regarded as having been a moment (albeit a long one), rather than an era, its decline has triggered another round of debate about the shape of the coming power configuration in world politics. However, the decline of the post-Second World War international order, which we have called the American World Order, is not leading to multipolarity, as many traditional pundits assume, but to *multiplexity* (Acharya 2014a, 2016; Kuo 2016). Multiplexity, or the idea of a multiplex world, has the following main features: it is not a multipolar world in the traditional European sense. That order assumes the primacy of great powers, whereas a multiplex world has many different actors. These are not just states, but also include international institutions, non-governmental organizations, multinational corporations, and transnational networks (good and bad). These actors are connected by complex forms of linkages that include trade, finance, and transnational production networks. Moreover, interdependence today goes beyond economics by including other issue areas, such as the environment, disease, human rights, and social media. A multiplex world has multiple layers of global, interregional, regional, domestic, and substate governance.

Key Points

- The global power shift has already occurred and will continue to define international affairs.
- Against the backdrop of the global power shift, it is important to consider whose concept of strategy and security will matter most.
- Given the growing weight of the emerging powers in world affairs, the American-centric or Western-centric definition of strategy and security will have to accommodate ideas and approaches that reflect the vantage points and perspectives of these emerging powers.
- The decline of the post-Second World War international order is leading to a multiplex world, characterized by different actors connected by various forms of linkages, complex interdependence covering many issue areas, and multiple layers of governance.

Strategic Culture and Grand Strategy Debates in China and India

With the global power shift, the strategic culture of emerging powers like China and India will increasingly influence general strategic studies. Therefore, it is necessary to briefly explore the strategic culture of these two countries and see how they have adjusted their traditional conceptions of strategy as their influence in world affairs grows.

Strategic Culture in China

Scholars agree that two distinct yet related paradigms of strategic culture have influenced Chinese perceptions of threats and security: the Confucian–Mencian paradigm and the

parabellum or realpolitik paradigm (Yuan 1999: 86). Specifically, the Confucian–Mencian paradigm placed a strong emphasis on morality and assumed that conflict could be avoided through the promotion of good government and the co-opting or enculturation of external threats. The use of force, if inevitable, should only happen in the name of the righteous restoration of moral-political order and, as Sun Zi stated (see Box 19.1), should aim to subdue the enemy without fighting (Johnston 1995: 249). In contrast, the parabellum or realpolitik view suggested conflict to be both ubiquitous and zero-sum. In cases in which strategic conditions were ripe, the offensive application of violence was preferable and likely to be successful (Johnston 1995: 249). Despite their importance, which paradigm was dominant in imperial China is a matter of debate.

While Chinese strategic culture in the communist era still had indelible marks of both historical paradigms, Mao Zedong and his successors were also influenced by modern China's experience of semi-colonization. In particular, throughout his political career, Mao's primary goal was to drive out 'imperial' influence, and he was committed to bringing China back to its rightful place among the nations (Zhang 1999: 31–2). Internationally, he emphasized China's duty to support all national independence and liberation movements in the developing world, and aimed to restore international respect for the new China (Zhang 1999: 38). Mao also made a judgement that just war and unjust war depended on whether a conflict was supported by the people (see Box 19.2). In military actions, the Chinese were generally defensive and rarely aimed to obtain territory, defeat enemies, or acquire power. Instead, they preferred to express strong will, embarrass enemies, and, in some cases, teach lessons to them (Adelman and Shih 1993: 238).

After the passing of Mao in 1976, leaders in Beijing gradually developed a new type of strategic thinking. On the one hand, the humiliating history of early modern China left them with a strong sense of victimhood, which generated a robust modernization drive, a desire to seek economic growth, and sensitivity to issues like state sovereignty, territorial integration, and economic security (Zhang 2002: 81). On the other hand, in contrast to the alignment policy of the Mao era, Chinese leaders now emphasized the importance of self-reliance in developing their defence industry and strategy and avoided getting entangled by issues that were irrelevant to their national interests (Zhang 2002: 84). With its accelerating military build-up and expanding national interests, China will become more assertive in international security affairs in the future, while remaining pragmatic in its strategic calculations.

BOX 19.1 Key Perspectives

Sun Zi and Strategy

Sun Zi (also known as Sun Tzu) was a Chinese military general and strategist who served the Wu during the Spring and Autumn period (771–476 BC). He was the author of *The Art of War*, which is widely regarded as the first military strategy book in the world.

The Art of War discusses topics from the general role of force in warfare to strategy, logistics, and intelligence, and provides a systematic guide to strategy and tactics for rulers and commanders (Johnston 1995: 41). The book emphasizes the importance of deception in warfare and considers subduing the enemy without fighting to be the acme of skill. It is still read and widely appreciated today.

BOX 19.2 Key Perspectives

Mao Zedong and Strategy

Mao Zedong (also known as Mao Tse-tung) was the principal Chinese revolutionary and founding father of the People's Republic of China (PRC). He governed China from the establishment of the PRC in 1949 until his death in 1976.

Mao distinguished between two types of war: just war and unjust war. Whereas just wars would induce social progress, unjust wars would impede such progress and constrain economic productivity (Lo 2015: 157). In the specific ideological environment of the time, just wars often referred to revolutionary wars waged by oppressed people against their oppressors, including national liberation wars, anti-colonial wars, and anti-aggression wars (Liu 2014: 566–7).

For Mao, the importance of a just rationale for war was related to the poverty facing the Chinese revolutionary army during its early days. Lacking the necessary economic and military means to sustain operations, Mao emphasized that it was not material conditions but people that played a decisive role in wars (Katzenbach and Hanrahan 1955: 327). Therefore, in war practices, he replaced guns with propaganda, machines with men, mechanization with space, and, most essentially, industrial with political mobilization (Katzenbach and Hanrahan 1955: 327), all of which were only possible with a just cause.

Mao's just war theory had little to do with the concern of *jus in bello* (Lo 2015: 158). Instead, it was mainly instrumental and underlined the importance of political propaganda and mobilization, which proved effective, especially when the power comparison was unfavourable.

Strategic Culture in India

India's grand strategic thought emerged from changing historical contexts over thousands of years. In particular, two of the great epics of Hinduism, the *Ramayana* and the *Mahabharata*, had a far-reaching impact on modern India's strategic culture. According to Swarna Rajagopalan (2014: 57–8), in the world of the epics, rulers were responsible for upholding dharma (in today's context, norms and principles) and preventing a return to anarchy. Violence would only be justified to punish those who violated the moral and ethical standards of the time. Meanwhile, other scholars claim that the realist school of Indian political thought also traces back to the ancient book, the *Arthashastra* (see Box 19.3). For Kautilya, who authored the book, power was the dominant reality in politics and, when opportune conditions have been established, the ruler of a state should subvert his neighbour's realm without hesitance (Kissinger 2014: 195–6).

While rulers in ancient India and the Indian epics promoted a moralist strategy that encouraged accommodation and justice to secure order and a realist one that focused on the necessity of violence and power (Vivekanandan 2014: 79), for much of the modern era, independent India's thinking on international relations was influenced by the internationalism and pacifism of Jawaharlal Nehru (see Box 19.4). Specifically, Nehruvian thinking highlighted the power of communication and negotiation in dealing with security threats (Bajpai, Basit, and Krishnappa 2014a: 16). Although the threat of war was inevitable in an anarchical world, violence was deemed a regrettable last resort and strictly limited. In the 1950s, together with China and Burma, Nehru defined proper behaviour in international relations in terms of 'five principles of peaceful coexistence' (known in India as the Panchsheel Treaty).

Nevertheless, since the end of the cold war, the influence of Nehruvian internationalism has gradually been abridged in Indian strategic thinking. Replacing it is Hindu nationalism (or

Hindutva), which claims the superiority of Hindu civilization to others (Bajpai 2014: 131). Specifically, to Hindutva proponents, 'Muslim' Pakistan and China constitute the greatest threats to the Hindu civilization (Bajpai 2014: 134). Unlike Nehru, they accept the use of organized violence and believe it to be indispensable in achieving complete victory over an opponent (Bajpai 2014: 138). The influence of Hindu nationalism has been further expanded since the Bharatiya Janata Party (BJP) was elected by a decisive margin in May 2014.

Key Points

- Two paradigms of strategic culture influenced Chinese perceptions of threats and security: the Confucian–Mencian paradigm that placed a strong emphasis on morality and the parabellum paradigm that suggested conflict to be both ubiquitous and zero-sum.
- Modern Chinese strategic culture is influenced by both traditional culture and modern China's semi-colonial experience.
- Ancient India and the Indian epics promoted both a moralist strategy that encouraged accommodation and justice to secure order and a realist one that focused on the necessity of violence and power.
- Though the internationalism and pacifism of Jawaharlal Nehru dominated independent India's strategic culture for many years, its influence has been gradually replaced by Hindu nationalism since the end of the cold war.

BOX 19.3 Key Perspectives

Kautilya and Strategy

Kautilya was the fourth-century BC Indian minister who engineered the rise of the Maurya Dynasty and was the author of a classic treatise on polity—the *Arthashastra*.

The *Arthashastra*—which literally means 'The Science of Material Gain'—provides practical advice to state rulers on strategies of war and peace, ways to maintain order and safeguard interests, and schemes to continually expand and strengthen the realm for maximizing benefits (Karnad 2014: 203–4). In the *Arthashastra*, Kautilya maintains that power is the dominant reality in the world and states can achieve security through expansion. He also encourages the development of covert intelligence systems that reach into all levels of society, and supports political and secret assassinations (Encyclopaedia Britannica 2017).

Importantly, Kautilya developed a theory of international relations known as *rajamandala*, or the 'circle of states' (Pillalamarri 2015). According to this theory, being at the centre of contiguous states, a state is surrounded by a circle of neighbouring states that are often hostile to it. In order to build an alliance system and subvert his neighbours' realms, the ruler should seek allies from among his neighbours' neighbours—which form another circle surrounding the circle of neighbouring states—and prevent his rivals from aligning against him (Kissinger 2014: 196). In other words, the *rajamandala* indicates that neighbours are natural enemies to a ruler whereas neighbours' neighbours could be friends.

As Henry Kissinger acknowledges, the *Arthashastra* developed a realist vision of politics long before *The Prince* and is 'a combination of Machiavelli and Clausewitz' (Kissinger 2014: 195).

Box 19.4 Key Perspectives

Nehru and Strategy

Jawaharlal Nehru was the first prime minister of independent India. As a major advocate of non-alignment, he resisted the balance of power and emphasized the importance of communication and negotiation in international relations.

In order to concentrate on significant domestic challenges, Nehru maintained that India should avoid being entangled by other countries' quarrels and not participate in the power politics of the cold war blocs (Kalyanaraman 2014: 153–4). Moreover, he believed that the balance of power (and, therefore, alliances) impoverished societies and was futile in overcoming the anarchical nature of the international system. It would bring nothing but more instability to the world (Bajpai 2014: 117–18). Therefore, in his view, non-alignment was also essential to world peace.

Instead of alliances, Nehru relied on the power of communication and negotiation when facing security threats. Whereas violence was a regrettable last resort in international relations, he insisted that the state of anarchy could be mitigated by wise and cooperative policies among states. Most adversarial relationships resulted from misunderstanding, which could be overcome if greater communication and contact were encouraged (Bajpai 2014: 122). Compared with confrontation, he preferred the negotiated settlement of disputes.

Nehru was a pacifist and idealist, who, on the one hand, made efforts to prevent India from being drawn into power politics and, on the other hand, stayed neutral and accommodating in the interest of world peace.

Conclusion: Strategic Studies and Global International Relations

While we distinguish strategic studies from security studies, some elements of security studies help enhance our understanding of strategic studies. As stated, extant strategic studies does not sufficiently take into account the ideas, concepts, and theories developed in the field of security studies, especially those related to the security predicament of the non-Western world. These include human security, organized violence from states, and threats across political boundaries (Krause and Williams 1997: 44–5). In other words, strategic studies remains too preoccupied with systemic sources of conflict, focusing on issues of distribution of power and polarity, whereas much of the conceptual advance in security studies has been in the area of analysing local, regional, and global sources of conflict and conflict management. Therefore, to remain a vital part of the international relations discipline, strategic studies needs to account for global realities that have been highlighted in the broader security studies thinking or indeed Global IR thinking.

The idea of Global IR reflects a growing and widespread dissatisfaction with Western dominance and American-centrism in IR theory. Among other things, these efforts seek to examine the reasons for this dominance and identify sources of non-Western contributions to IR theories and concepts. Among these are classical ideas and writings of other societies, thoughts of nationalist leaders, contemporary regional dynamics, patterns and practices of foreign policy and international relations, and writings of non-Western scholars.

Global IR seeks to bridge the divide between West and non-West. Global IR is not a theory. Nor is it a paradigm to be juxtaposed against realism, liberalism, and constructivism. The basic

purpose of Global IR is to develop a broader and more inclusive agenda that truly reflects the growing diversity of IR scholars and their intellectual concerns. While Global IR has several elements, among the most important for strategic studies is the need for grounding in world history. Traditional IR theory and strategic studies draw almost exclusively from Western history. This is a major reason for the ethnocentrism of the field. The histories, voices, and contributions of other civilizations are marginalized (see Critical Thinking). One clear example of this can be seen in the concept of the 'international system'. It is viewed primarily in terms of Westphalian anarchy. Other types of systems, such as those based on hierarchy, empire, or mixed systems are ignored. This approach is defended on the ground that the Westphalian system has expanded and become the global pattern and standard. But this homogenization obscures the variations and differences among regional orders, as well as the evolution and de-Westphalization of international relations. De-Westphalization is often feared in the West as a harbinger of instability, unless it is for humanitarian intervention.

We can learn much from a closer examination of non-Western antecedents of 'international systems' and regional 'world orders'. The Amarna system (the international system throughout the Near East during the fifteenth to fourteenth centuries BC), the Chinese world order (the pre-1900 Sino-centric tributary system of East Asia), and the Mandala system[3] (the precolonial international system of South East Asia) are important examples. Here, it is vital that we supplement our nation state perspective with insights from the study of civilizations. The nation state perspective takes us back 500 years. A civilizational perspective takes us back 5,000 years. The nation state perspective coincides with Western dominance. A civilizational perspective shows multiplex agents of human progress. As the relatively short *durée* of European or Western dominance passes, it is not unreasonable to suppose that historical and indigenous patterns and practices of international relations have not been entirely obliterated and might re-emerge, if not completely, then sufficiently to induce consequential changes to the world order.

To overcome its ethnocentrism, strategic studies need not discard existing theories, methodologies, and approaches. This is neither possible nor desirable. Instead, Global IR argues that they need to be debated, exposed, broadened, and infused with a more universal history of ideas and approaches. IR theories are hardly monolithic or unchanging when it comes to dealing with the non-Western world. Realism always has a more universal potential or pretence. For example, the idea of balance of power has been derived and applied to ancient Chinese and Indian thinkers and interactions. Constructivism highlights culture and identity as causal forces. Hence, it offers more scope for bringing in the experience of other cultures and societies. With increasing economic interdependence, institutions, and democratization, liberal theories become more relevant to world politics. Marxism has been enriched by dependency theory which reflected economic conditions in Latin America and other parts of the world. These theories need to do more of this deepening and widening. But this is not enough. It is not enough to go about finding the equivalents of terms like balance, state,

[3] 'Mandala' is a Sanskrit word that means 'circle'. While 'rajamandala' in Kautilya's theory is a geopolitical concept that describes the spatial positioning of friendly and hostile states from the perspective of a specific 'raja' (king or prince), 'the Mandala system of South East Asia' refers to a political system in which polities are defined by the centre of their administration rather than by their geopolitical boundaries (as in the nation state system).

norms, and sovereignty from other cultures and use them to universalize existing IR schools. It is not enough to 'test' or apply existing theories to non-Western areas and when and where there is a mismatch, use it to modify the existing theory. We also need to go beyond existing theories. Global IR calls for developing whole new theories and perspectives from other societies and time horizons on their own terms.

Critical Thinking All Strategic cultures are morally equivalent

For

- ***Morality is inherently subjective and context-specific***. There is no objective standard of morality that can be used to judge all strategic cultures.
- ***The only reason that Western or American strategic culture seems to be more civilized is because of their dominance in both power and discourse.*** Without this dominance, all strategic cultures would be perceived to be equal.
- ***If some strategic cultures seem to be more aggressive (barbarian) than others, it is the result of political grievances or power repression in the real world.*** No brutality is produced by strategic culture per se.

Against

- ***Western strategic culture is far more civilized, ethical, and moral than competing strategic cultures.***
- ***Some cultures tend to be more offensive-minded than others.*** Historically, both imperial Japan and Nazi Germany were guided by their offensive strategic cultures.
- ***Barbarism in war is no guarantee of victory.*** Strategic cultures that strike the correct balance between violence and restraint in war are morally, militarily and politically superior to their less successful competitors.

Questions:

1. Should war on terror be taken as a clash of civilizations?
2. Should (radical) Islam be blamed for the spread of terrorism?
3. What should we do to overcome the cultural bias in strategic studies?

Questions

1. Why is the concept of strategic culture inadequate to investigate conflict and violence in the non-Western world?
2. What does ethnocentrism mean in strategic studies and what are some examples?
3. Why is the concept of national security that lies at the heart of strategic studies unsuitable for analysing security issues in the Third World? What are the main sources of insecurity in these countries?
4. What is human security and what are the possible solutions to the problem of human security in conflict zones?

5. In your opinion, should the concept of security be broadened? What are the trade-offs?
6. What are the key challenges of the global power shift for strategic studies? Whose concept of strategy and security will matter more or most with the rise of emerging powers?
7. What are the main features of a multiplex world?
8. What are the historical sources of strategic culture of China and India and how do they influence their modern strategic thinking?
9. What are the sources of non-Western contributions to IR theory in general and strategic studies in particular?
10. What is Global IR and what does it aim to do?

Further Reading

A. Acharya, ***The End of American World Order*** **(Cambridge Polity Press, 2014)** foresees the emergence of a 'multiplex' world that is less centralized but more pluralistic than the current American-led liberal world order.

A. Acharya, ***Rethinking Power, Institutions and Ideas in World Politics: Whose IR*** **(New York: Routledge, 2014)** critically investigates the narrow meaning currently attached to some of the key concepts and ideas in IR theories, and calls for alternative and broader understandings of them.

K. Bajpai, **S. Basit**, ***and*** **V. Krishnappa (eds.),** ***India's Grand Strategy: History, Theory, Cases*** **(New Delhi: Routledge India, 2014)** explores the rich tradition of Indian strategic thought and its contributions to strategic theory and practice.

F. Georg ***and*** **B. K. Coldewijk (eds.),** ***Human Security and International Insecurity*** **(Wageningen: Wageningen Academic Publisher, 2007)** examines challenges human security faces in the world and the relationship between human security and international (in)security.

A. I. Johnston, ***Cultural Realism: Strategic Culture and Grand Strategy in Chinese History*** **(Princeton, NJ: Princeton University Press, 1995)** offers an in-depth study of premodern Chinese strategic thought that has important implications for contemporary IR theory.

J. S. Lantis, (ed.), ***Strategic Cultures and Security Policies in the Asia-Pacific*** **(New York: Routledge, 2015)** explains how strategic culture shapes the origins and implications of difficult security issues in the Asia-Pacific.

A. Scobell, ***China's Use of Military Force: Beyond the Great Wall and the Long March***, **1st edn (Cambridge: Cambridge University Press, 2003)** examines the impact of Chinese strategic culture, civil-military culture, and military organizational culture on decisions to employ armed force at home and abroad.

Web Links

Africa Center for Strategic Studies **http://africacenter.org/** provides practical, evidence-based analysis that will help readers to better understand the complexities of African security.

Strategic Asia, from The National Bureau of Asian Research **http://nbr.org/research/initiative.aspx?id=b14bf671-686d-4f30-859e-681b7d927b58** provides data and analysis on Asia's evolving strategic environment.

Strategic Studies Institute, The US Army War College **https://ssi.armywarcollege.edu/** provides analysis on pressing global and regional strategic issues.

20

Strategic Studies and its Critics

COLUMBA PEOPLES

Chapter Contents

Introduction 348
Strategy and its Critics in the 'Golden Age' 349
Strategic Studies Strikes Back 352
Critical Approaches to Strategic Studies 355
A Continuing Debate? 362
Conclusion 364

Reader's Guide

This chapter introduces readers to the criticism levelled at strategic studies, from the 'Golden Age' of nuclear strategy through to contemporary critiques. It begins by reviewing prominent critical appraisals of deterrence theory in the 1960s, a time when several fundamental criticisms of strategic studies were made. The chapter then outlines how these critiques were subsequently addressed by strategic theorists. As strategic studies has evolved and changed, however, so too have the arguments made against it. Critical approaches to the study of security have, largely in opposition to strategic studies, developed multifaceted critiques that encompass issues ranging from the use of gendered terminology to an alleged Western-centric bias. The chapter assesses the current status of the relationship between strategic studies and its critics, and the important role that critical engagement might play in the future development of strategic studies.

Introduction

For as long as the activity of theorizing conflict has existed, there have been those who have endeavoured to render its purpose irrelevant. Just as modern strategic studies can be said to have its prehistory in the broader study of how to fight and win wars, encompassing thinkers such as Sun Tzu, Machiavelli, and Clausewitz, there is an oppositional history of thinkers such as Immanuel Kant and the Abbé de Saint Pierre that have endeavoured to theorize the conditions in which war might itself become outdated and obsolete as an activity (see Waltz 1962: 331; Dunn 1991: 59). This latter tradition of attempting to identify the possibilities for 'perpetual peace' (as Kant would have it) was at odds with the basic assumption made by classical strategists: that war is an inevitable occurrence, which in turn necessitates sustained

reflection on its purpose and effective conduct. These parallel traditions of 'thinking war' on the one hand and 'thinking peace' on the other remained largely independent, albeit related, intellectual activities.

Modern strategic studies has been marked by a more direct engagement between proponents of strategic theory and those who criticize its purpose and existence. The dawn of the 'nuclear age' and the exponential rise of strategic studies as a subdiscipline of international relations during the cold war gave rise to extensive criticism of strategic studies. With the advent of nuclear weapons and, by the 1960s, the condition of 'mutual assured destruction' (MAD), many began to criticize strategic studies as contributing to (rather than diminishing) the prospect of nuclear conflict. The study of nuclear strategy was variously decried by critics as unethical, unscholarly, and uncritical of the status quo in world politics. As Hedley Bull noted in his seminal 1968 article 'Strategic Studies and its Critics', 'civilian strategic analysts . . . have from the first been subject to criticism that has called into question the validity of their methods, their utility to society, and even their integrity of purpose' (Bull 1968: 593).

Yet the relationship between strategic studies and its critics is more complex than is presented by a picture of nuclear strategists under siege from their opponents. In response to criticism, proponents of strategic studies have often articulated trenchant defences of the study of strategy, and strategic studies has also been subjected to internal critiques that have fostered its development. In addition, although some of the original criticism of nuclear strategy identified by Bull persists, the nature and range of critical assessments of strategic studies have diversified beyond many of these initial concerns.

This chapter draws together key themes in critiques of the study of strategy to heighten awareness of how strategic studies has developed into its current form. Even if certain disputes between proponents and critics of strategic studies remain seemingly irresolvable, reviewing this debate provides a more holistic picture of the state of strategic studies and the prospects for its future development.

Strategy and its Critics in the 'Golden Age'

The period running from the aftermath of the Second World War through to the end of the 1960s is often referred to as the 'Golden Age' of strategic studies (Gray 1982a; Wæver and Buzan 2010: 467–70). During this period, a new breed of strategic thinker rose to prominence: the so-called 'civilian strategist' (Jervis 1979; Williams 1993: 104). Whereas previously issues of strategy had largely been the preserve of military practitioners, a 'second wave' of non-military academics such as Bernard Brodie, Herman Kahn, Thomas Schelling, and Albert Wohlstetter became the dominant voices of strategy in the new, nuclear age (Freedman 1986). The academic study of strategy also grew exponentially, as did its prominence and influence on policy through academic think tanks such as the RAND corporation (Kaplan 1983).

The role of these civilian strategists was, as the title of Herman Kahn's (1962) work famously put it, *Thinking about the Unthinkable*; the world had, mercifully, only witnessed the use of nuclear weapons in conflict on two occasions, Hiroshima and Nagasaki. However, limited experience with these revolutionary weapons meant that military practitioners had only marginally greater claim to expertise on the question of nuclear warfare than non-military experts. Additionally, the vast destructive power of atomic weapons convinced many in government

that strategy *really was* too important a matter to be left to the generals. Given the relative paucity of experience of use of nuclear weapons in conflict, Kahn and other civilian strategists consequently argued that 'scientific' methods such as game theory and systems analysis were necessary additions to the strategist's intellectual armoury. They looked to theoretical innovations drawn from fields such as economics and mathematics to better think through possible paths to nuclear conflict and the means by which to prevent it. Mathematical demonstrations of the vulnerability of American missile silos to a Soviet nuclear strike, for instance, were argued to provide meaningful constructions of the 'unthinkable' scenario of nuclear conflict (Barkawi 1998: 172). As Wæver and Buzan note, the US government actively fostered the growth of deterrence theory in this phase as the theories produced and promised 'ever new and ever more complex' frameworks for attempting to understand the nuclear dimension of the cold war, and 'all this seemed highly useful because the theories actually produced their own reality of abstractions, the world of "secure second strike capability," "extended deterrence," and "escalation dominance" ' (Wæver and Buzan 2010: 468).

The magnitude of the task taken on by the civilian strategists ensured that these 'Wizards of Armageddon' (Kaplan 1983) had a high political—and public—profile. For example, well-informed viewers of Stanley Kubrick's (1964) film *Dr. Strangelove: Or how I learned to stop worrying and love the Bomb* could easily recognize the parody of Herman Kahn in the figure of the film's eponymous central character, Dr Strangelove, and his blasé proposals on how a select band of elites might survive a nuclear conflict and its aftermath in facilities deep underground. Elements of Strangelove's dialogue were virtually paraphrased from Kahn's *On Thermonuclear War* (Kahn 1960). The Strangelove character—and indeed the film's central narrative plot, in which the United States accidentally begins an all-out nuclear war—though fictional, provides a window into a particular view of nuclear strategy that began to emerge in the 1960s: that the new 'science' of theorizing nuclear conflict was an incomprehensible activity that was at best morally questionable and at worst bordered on the absurd.

Strategy and Conscience: The Moral Foundation of Criticism of Strategic Studies

This critical view of nuclear strategy was most notably articulated in the work of Anatol Rapoport (1964) and Philip Green (1966). Green himself noted that his own critique of nuclear strategy was inspired by 'a feeling of strangeness induced by a lengthy study of the literature of nuclear deterrence' (Green 1966: 5), and both Rapoport and Green found it difficult to fathom the idea that otherwise well-educated scholars could countenance the idea of building theories about the possibility of nuclear war. At issue for these critics of the civilian strategists was a perceived evasion of a fundamental moral and ethical question: namely, whether it was ethical to encourage the planning and study of nuclear warfare.

The most prominent text in this line of criticism was Rapoport's *Strategy and Conscience*, which, as described in its preface by Karl Deutsch, was 'written as a protest against a glib and shallow fashion of contemporary thought [nuclear strategy] that embodies and enhances man's inhumanity to man' (Rapoport 1964: vii). Rapoport argued that scholarly proponents of nuclear deterrence had overlooked basic questions of conscience. While Kahn and others speculated about the possibilities of surviving and prevailing in nuclear conflict, Rapoport wondered how those engaged in such thinking could live with themselves in the first place.

Rapoport and Green both argued that the study of nuclear strategy, and its pretensions to scholarly and scientific rigour, essentially neglected key moral questions. For Green, euphemisms associated with deterrence theory such as 'delicate balance of terror', 'rational' responses to a nuclear strike, and 'making the unthinkable thinkable' obfuscated the moral reality of nuclear war and the unavoidable fact that whole populations could be wiped out in a nuclear holocaust (Green 1966: xi). Green argued that nuclear strategy, rather than operating in a moral vacuum, actually contained 'a hidden ethical stance' (1966: 226). The civilian strategists had erroneously convinced themselves, Green believed, that questions of nuclear deterrence were scientific rather than moral issues: 'The real error in all theorising of this type', Green asserted, 'lies in the attempt to somehow separate the "analytical" components of a policy problem from the political and moral ones' (Green 1966: 239). Green believed that strategists could never remove themselves entirely from their own values and attitudes, in spite of their pretensions to 'scientific' objectivity. These calculations, construed in abstract terms, could eventually produce consequences that would make Hiroshima and Nagasaki seem like minor events.

The Dangerous Games of Strategy

The critics of the civilian strategists did not, however, limit themselves to statements of moral outrage. The protests of anti-war and anti-nuclear protestors had long fallen on deaf ears in the strategic studies community of the post-war era. The civilian strategists perceived themselves to be involved in the business of protecting the United States and its Western allies from an obdurate, nuclear-armed opponent, and calls for nuclear disarmament were consequently dismissed as a dangerous form of idealism. Hence, Rapoport and Green both took the view that a more sustained critique of deterrence theory's claims to scientific rigour was required. Rapoport, for example, was motivated by a genuine abhorrence of what he perceived to be the callousness of strategic thought when it came to discussing nuclear conflict. Because he believed that moral critiques of strategy tended to be dismissed, Rapoport argued that the moral force of criticism needed to be supplemented by a critique of the civilian strategists' pride in the 'rationality' of nuclear deterrence. He made a plea to 'come to grips with these issues instead of playing games of strategy for enormous and unrecoverable stakes' (Rapoport 1964: xxiii).

Rapoport noted the tendency of the civilian strategist to portray himself as a 'master of a new science, whose principles are spelt out in abstract, often mathematical, terms' (1964: xviii). *Strategy and Conscience* thus attempted to engage strategic studies on its own terrain: that of systems analysis and, in particular, game theory as employed in the work of Kahn, Thomas Schelling, and Glenn Snyder. Rapoport, himself eminently qualified in the fields of mathematical theories of social interaction and game theory, argued that the adoption of game theoretic models (such as the prisoner's dilemma and the chicken game—see Web Links for a brief introduction) into nuclear strategy encouraged oversimplification of the realities of the cold war stand-off. Rapoport questioned the assumption of rational actors—with similar interests—that operated at the heart of game theory. In his view, this assumption lacked any relation to reality. His critique of the nuclear strategists described the actual differences between American and Soviet ideologies in practice as a means of countering the argument that 'players' in game scenarios could be regarded as holding

equivalent interests. Green was likewise critical of systems analysis, ideas for civil defence, and game theory. He argued:

> All that a reference to game theory can possibly do is provide an algebraical illustration of a verbal argument that one has already made. The illustration can be no better than the verbal argument; in most of the cases . . . it is actually worse.
>
> Green (1966: 125)

Ultimately, Green argued of deterrence theorists, 'their air of authority was and is completely spurious' (Green 1966: xi).

Key Points

- The 'Golden Age' of strategic studies between the mid-1950s and mid-1960s saw the rise of a new breed of 'second wave' civilian strategists that favoured the incorporation of game theory and systems analysis into the study of nuclear strategy and deterrence.
- The rise of deterrence theory generated strident moral critiques that questioned the ethical foundations of the activity of theorizing nuclear war.
- These moral critiques were accompanied by attacks on deterrence theorists' pretensions to scientific objectivity and on the application of abstract mathematical and economic models as the basis for thinking about nuclear war and formulating US nuclear policy.

Strategic Studies Strikes Back

The most prominent response to Rapoport and Green's critiques came in Hedley Bull's 1968 article 'Strategic Studies and its Critics', which provides not only a comprehensive overview of these critics' arguments but also a staunch rebuttal of most of their criticism. Bull was sympathetic to some elements of Rapoport and Green's critiques, agreeing that strategic studies had become prone to abstract and technical analysis. Nevertheless, Bull largely refuted the charges levelled at strategic studies and argued that the suggestion that strategists were either immoral or amoral was misguided. Strategists did operate according to a moral calculus in his view: that of protecting the national interest (Bull 1968: 596). The purpose of deterrence, Bull also noted, was primarily to *prevent* the outbreak of nuclear war, ultimately a moral goal. Bull believed that strategic studies was a largely positive force in the post-war era. Strategists, he argued (and this would become a common refrain of later defences of strategic studies), dealt with the realities of world politics, the threat of nuclear war included. They 'take for granted the existence of military force', he argued, as a means of establishing greater knowledge about its dynamics and how it might be controlled (Bull 1968: 600). Strategic studies was thus more realistic than proposals for the abolition of either nuclear weapons or the use of military force in its entirety. Moreover, Bull argued that proposals for disarmament were in themselves based on a particular form of strategic reasoning because they make a claim about the relationship between military force and the possible ends of policy and in this sense are 'not a statement about [strategic studies] from outside' (Bull 1968: 605).

Defenders of strategic studies attempted a series of responses to Rapoport, arguing, for example, that he overstated the influence of game theory in American strategic thought of the 1960s. Many in strategic studies, however, were also beginning to recognize the ill effects of game theory and pretensions to scientific objectivity. Bull, for example, though ultimately a defender of strategic studies, lamented the general absence of analysis of historical context and reference to concrete cases from strategic studies in the 1960s. Similarly, Bernard Brodie, who had initially encouraged the incorporation of economic theories into strategic studies in the late 1940s, also came to regret the level of abstraction encouraged by the use of various types of formal analysis by nuclear strategists (see Betts 1997: 16).

As strategic studies evolved and attempted to redress these perceived failings, Rapoport's critique increasingly appeared to be tied to the Golden Age of strategic thinking. His critique of strategy as a 'mode of thought', as Rapoport himself acknowledged, centred on the issue of 'rationality' as understood and prized by second wave strategists such as Kahn, Snyder, and Schelling—those whom Rapoport referred to as 'abstractionists' (Rapoport 1964: 177). Yet, as a new generation of strategic thinkers—described as 'neo-traditionalists' by Rapoport—began to question these same issues, the substantive part of Rapoport's critique became somewhat anachronistic (Rapoport 1964: 180).

Critique and Reconstruction: 'Third Wave' Strategic Studies

By the 1980s a 'third wave' of strategists had emerged (Jervis 1979; Williams 1993: 293–324). These strategic thinkers saw themselves as engaged in a *reconstructive* critique of strategy: that is, a form of critique intended to rectify perceived flaws in the 'second wave' thinking that was so heavily criticized by Rapoport and Green. This third wave differed markedly from Rapoport and Green, however, because most of the thinkers associated with it distanced themselves from these radical moral critiques of strategic studies. Instead, critique was now seen as a means of revitalizing, rather than vilifying, strategic studies. As Colin S. Gray, one of the foremost thinkers in the third wave, argued: 'An important distinction should be drawn between friendly, as opposed to unfriendly, critics of strategic studies' (Gray 1982b: 44) (see Box 20.1).

'Friendly' critics included Bull as well as Gray himself. Building on the analysis offered by Bull, Gray dismissed the kind of radical opposition to strategic studies offered by Rapoport and Green. Gray argued that the failings of 'abstractionist' second wave strategic thinking should not be construed as a failure of strategic studies per se; it was, he argued, 'more sensible to criticize what may be termed the vulgarization of strategic thinking in the second half of the 1960s, and the near cessation of innovative strategic thinking in that period and later' (Gray 1982b: 19). The advent of game theory and systems analysis was indeed, in Gray's view, a retrograde step with regard to nuclear strategy. Nevertheless, he saw 'little merit in many of the criticisms voiced from the left of the political spectrum' (Gray 1982b: 5). In common with Bull, Gray argued that proponents of disarmament and alternative world orders had as yet failed to illustrate the validity of such options (Gray 1982b: 41–2) and that strategic studies remained a necessity of the nuclear age.

Yet Gray himself admitted to being 'far from uncritical of contemporary strategic studies' (Gray 1982b: 5). Those associated with the third wave—including, most prominently, Gray and Robert Jervis—challenged prior assumptions of deterrence theory, especially the concept of rational deterrence itself. In opposition to the abstract nature of game theory and systems analysis, the

third wave of theorizing 'stressed the need for inductive methodologies and called for concrete historical evidence to counter and correct the misconceptions which, it argued, had resulted from the abstract rationalism and deductive reasoning of second wave strategy' (Williams 1993: 105).

One strand that emerged from this reassessment of strategic studies replaced prior abstract rationalism with a focus on political and strategic culture as a factor in particular 'national styles' (Gray 1986) of different states with regard to nuclear strategy. Ken Booth had previously charged strategic studies with 'ethnocentrism': the phenomenon by which 'societies look at the world with their own group as the centre, and they perceive and interpret other societies within their own frames of reference' (Booth 1979: 13). Booth noted that the deterrence theorists of the Golden Age failed to anticipate that there might be other ways of thinking about strategy. They assumed their own standards of rationality to be universally applicable and consequently believed that strategic thinking that deviated from it must be inferior. This assumption of a universal rationality created a serious risk of misperception, in particular misperception of Soviet strategic thinking and intentions by US strategic planners (Snyder 1977). This was a theme also picked up by Robert Jervis' (1976) *Perception and Misperception in International Politics*, in which Jervis sought to investigate the psychological dimension of deterrence, which was largely absent from second wave thinking.

BOX 20.1 Key Perspectives

Strategists Respond to the Critics

To be blunt, deterrence theory justifies the indiscriminate killing of innocent persons under certain circumstances . . . Pseudo-science such as that of deterrence theorists . . . constitutes a disservice not only to the scholarly community, but ultimately to the democratic political process as well.

Green (1966: 225, 276)

Strategic thinking has produced thus far at best something like 'The Intelligent Robot's Guide to International Politics'.

Karl Deutsch (in the preface to Rapoport 1964: xiv–xv)

Strategists as a class, it seems to me, are neither any less nor any more sensitive to moral considerations than are other intelligent and educated persons in the West . . . What critics take to be the strategists' insensitivity to moral considerations is in most cases the strategists' greater sense of the moral stature of the American and Western political objectives for which war and the risk of war must be undertaken.

Bull (1968: 596–7)

The strategic approach to international relations is rooted in [the] consciousness of the vulnerability of the cultural and political base from which the political scientist operates. He may need the soldier and the policeman to create a favourable environment in which he can discover how to dispense with their services.

Howard (1976b: 69)

Strategists are just as attracted to conditions of permanent peace as others, but they insist upon proper identification of the problems of political transition. They resent quite vehemently the charge, or intimation, that ***they*** themselves comprise an important part of the problem.

Gray (1982b: 8–9)

The more controversial aspect to emerge from this third wave critique, however, was Gray's claim that 'American strategic studies is remarkably thin at the level of operational analysis . . . civilian scholars have almost totally neglected the question of how we fight a nuclear war and for what objectives—if deterrence fails' (Gray 1982b: 12). The advent of the Ronald Reagan era in the United States—and with it the onset of the so-called 'second cold war'—saw this question gain a new degree of prominence and notoriety. Gray and Keith Payne considered possible scenarios in which deterrence mechanisms might be inadequate (Gray and Payne 1980). They also countenanced the possibility of fighting and prevailing in a nuclear conflict with the Soviet Union should deterrence fail. Gray and Payne argued that this position was morally preferable to sole reliance on a theory in which both the US and the USSR risked mutual annihilation. The Reagan administration was seen to be sympathetic to this view, with Reagan himself commenting widely on his dissatisfaction with the continuing possibility of mutual assured destruction. Yet the idea of nuclear conflict remained to many unnerving, and theories for 'victory' in nuclear conflict represented 'a new and dangerous mythology about nuclear weapons' (Lawrence 1988: 4) that risked reversing the 'taboo' (Tannenwald 1999) on the use of nuclear weapons. As a result, the attempt to revitalize strategic studies associated with the third wave of strategic studies generated a new round of criticism from outside the strategic community.

Key Points

- Proponents of strategic studies in the 1970s defended its moral virtues on the grounds that the study of nuclear strategy and the prevention of nuclear war were more realistic than the idea of nuclear disarmament.
- Though they did not accept prior moral critiques of strategic studies, theorists associated with the 'third wave' of strategic studies acknowledged the level of abstraction associated with 'second wave' deterrence theory as problematic.
- Deterrence theorists such as Colin S. Gray and Robert Jervis also questioned deterrence theory's reliance on a monolithic notion of 'rationality'.
- Thinkers associated with the third wave attempted to redirect strategic studies back towards a focus on cultural particularity, history, and 'national styles' in the making of nuclear strategy.

Critical Approaches to Strategic Studies

From the early 1980s, a subtle but distinct shift in the criticism levelled at strategic studies emerged. The moral dimension of the critique still remained a feature. Indeed, the literature on the ethics of nuclear war and the ethics of strategic studies became more sophisticated (Nye 1988; Lee 1996). In reaction to the conditions of the 'second cold war', however, the type of moral outrage found in earlier critiques came to be associated more with a populist rather than a scholarly critique of strategic studies. Examples of the latter could still be found (Lawrence 1988); but moral objections to strategic studies increasingly came to be enveloped within a broader opposition to nuclear weapons in general (Schell 1982, 1984). As Lawrence noted, 'Paradoxically . . . the new security of the Reagan era made individuals feel less secure

and put defence issues into the centre of political debate' (1988: x). At a public level, this shift was manifest in the growth in popular anti-nuclear movements such as the Campaign for Nuclear Disarmament (CND) in Western Europe and the Nuclear Freeze movement in the United States.

With the end of the cold war, strategic studies came under increasing scrutiny. As Ken Booth and Eric Herring note, the importance of the military dimension of world politics is not in question in the post-cold war era; but:

> What is in question is the appropriate intellectual status of strategic studies in relation to the study of international politics as a whole, its relationship with other subfields (such as 'security studies'), the utility of the military factor in the contemporary world, and what an appropriate strategic studies syllabus looks like now that its forty-year politico-military context has disappeared.
>
> Booth and Herring (1994: 110)

As part of a broader 'critical' turn within the discipline of international relations (see Smith, Booth, and Zalewski 1996), several scholars began to question not only the dominance of strategic studies as a mode of approaching world politics, but also the impact of its once privileged place within the discipline. What were the implications, critical scholars now questioned, of viewing the world through the lenses of strategic studies?

The attempts to address this question are grouped here under the heading of 'Critical Approaches to Strategic Studies'. The phrase is used as shorthand to denote understandings of strategic studies that are not necessarily overtly polemical (even though they may sometimes be so), but draw on 'critical' theories (such as poststructuralism, postcolonial studies, feminist approaches, and variants of Marxian theory among others) to question the place and effects of strategic studies (see Peoples 2007; Peoples and Vaughan-Williams 2014). The development of these types of critiques can be linked to the so-called post-positivist turn in international relations theory (Smith, Booth, and Zalewski 1996) and the emergence of 'critical security studies' (see Krause and Williams 1997; Booth 2005). The latter development, critical security studies, is predicated on a critique of 'traditional' security studies (effectively a synonym for strategic studies), so it is unsurprising that we find a range of critiques of strategic studies here.

The World According to Strategic Studies

Typical of this critical move against strategic studies is Bradley S. Klein's *Strategic Studies and World Order: The Global Politics of Deterrence*. Klein argues:

> Questions of war and peace are too important to leave to students of Strategic Studies. Or to put it another way, insights from social and political theory can help us enhance our appreciation of such social constructs as 'the balance of power', 'alliances', 'security' and 'deterrence'. Each of these is, after all, a social practice, not a primordial given.
>
> Klein (1994: 3)

Klein's argument, and its emphasis on 'social construction', identifies a fundamental difference between strategic studies and those critical approaches that seek to question it. Defenders of strategic studies such as Bull and Gray claimed that study of strategy took conflict and

violence to be a given feature of world politics on a pragmatic basis. In other words, strategic theorists defended their position on the basis that they were simply attempting to theorize practices in the world 'out there', where military force is frequently and invariably used to achieve political ends.

Klein, like many others who adopt a critical approach to strategic studies, attempts to unsettle this logic. 'The ability of strategic violence to reconcile itself with liberal discourse and modern civil society is possible', Klein argues, 'only because that violence draws upon a variety of discursive resources that are themselves constructed as rational, plausible, and acceptable' (Klein 1994: 5). Strategic studies does not simply acknowledge the existence of violence in world politics; it also prescribes and precludes the use of violence in certain ways and for certain purposes. Similarly, Ken Booth, extending the logic of his earlier reflections on ethnocentrism, declares:

> What gradually dawned was that what purported to be rational and objective strategic theory was often a rationalization of national prejudice, and that strategic practice was best understood as applied ethics—a continuation of (moral) philosophy with an admixture of firepower. Strategic theory helped to constitute the strategic world, and then strategic studies helped to explain it—self-reverentially and tautologically.
>
> Booth (1997: 96)

From this point of view, strategic studies is not simply an objective attempt, taking place at a scholarly distance, to understand the use of force. Instead, it is part of the broader legitimation of strategic violence for the purposes of maintaining a particular vision of world order, and this vision reflects the geographical–political context in which the disciplinary study of strategy evolved in the twentieth century (that is, primarily in Britain and the United States). Strategic studies has, Klein argues, provided a map of the world in which Western society has always ended up on the 'good' side (Klein 1994: 5) and has thus been a complicit and pivotal part in the making of the 'modern west' (Klein 1994: 16). In a similar vein, Barkawi and Laffey (2006: 335–8) argue that strategic studies is indelibly marked by its Anglo-American origins and, they contend, a persistent tendency towards 'Orientalism' in which non-Western states and subjects are rendered as passive objects. Western states and values are those that have most often been implicitly and explicitly defended and operative within strategic studies according to Klein: thus 'Strategic studies today . . . is an essential component in the articulation of the world order in terms that create and perpetuate a global political vision in which Western values, institutions, and political economies are valorized' (Klein 1994: 41).

This Western-centric view, Klein argues, applies not only to deterrence theory's focus on the survival and maintenance of the Western alliance during the cold war, but also to concerns over the spread of nuclear weapons to non-Western states (see also Mutimer 2000). Additionally, Klein points to the work of pre-nuclear strategists such as Alfred Thayer Mahan as indicative of a broader but largely unacknowledged linkage between geopolitics and geoeconomics in Western strategic studies (for a related argument, see O'Tuathail 1996). During the cold war, deterrence not only fended off major power conflict; it was also, Klein argues, 'a part of the ongoing making and remaking of a post-war order in which sovereign states have been integrated, at times forcefully, within a global market system' (Klein 1994: 80). Strategic studies, for Klein, played a pivotal part in justifying institutional integration and alliances

(such as the North Atlantic Treaty Organization) during the cold war, but equally obscured the economic and cultural dimensions of this integration. By concentrating attention on the military stand-off between non-communist West and communist East, strategic studies during the cold war helped to draw focus away from Western economic and military intervention in the global 'South', a legacy that it has yet to shake off entirely. For Klein, 'Strategic Studies represents a reification of the politics of Western culture, enshrined in a geopolitical, statist representation of the sovereign spaces within which that culture may legitimately pursue its projects' (1994: 125).

The Ends of Strategy and the Role of Defence Intellectuals

If strategic studies as a discipline stands charged with constructing a particular vision of world order that historically privileges a Western set of values and geopolitical vision, then its proponents are, from a critical perspective, equally culpable. Cold war strategists 'found their vocation', Tarak Barkawi argues, 'in meaningful constructions of the conflict, of the nature of the Western "self" to be secured and the Communist "other" it was to be secured from' (Barkawi 1998: 161; see also Barkawi and Laffey 2006). In doing so, strategists and defence intellectuals, critics argue, contributed to a political project—the construction and maintenance of Western superiority—even when they conceived themselves simply to be adding to an objective field of study (Garnett 1987: 22–3), or benignly contributing to the defence of liberal democratic values (Howard 1976b: 75).

Many strategic theorists have long been aware of this critique. Indeed, some have seen it as a virtue of the profession. Hedley Bull argued that post-war strategists were motivated by a 'greater sense of the moral stature of the American and Western political objectives for which war and the risk of war must be undertaken' (Bull 1968: 597). Likewise, Michael Howard candidly declared:

> I myself am one of those fortunate people for whom the existing order is tolerable, and I want to maintain it . . . If the existing framework of international order is to be preserved, a deterrent capacity must be maintained against those, whatever their ideological persuasion, whose resentment at its injustices tempts them to use armed force to overthrow and remould it.
>
> Cited in Klein (1994: 99)

This debate about scholarly support to Western foreign and defence policy raises the issue of the role of the 'defence intellectual', and the relationship between strategic theory and policy. Although contemporary strategists may not have the same access to government circles enjoyed by the civilian strategists of the 1960s, strategic studies still aspires to the status of a 'policy science' (Barkawi 1998: 160) and aims to be relevant to policymakers—even if practitioners are not always convinced that the academic world can produce ideas that are of practical relevance (see Chapter 23).

From a critical perspective, this aspiration to provide direct advice to government officials is problematic for several reasons. First, there is the unresolved issue of identifying the proper relationship between academics and practitioners. This is not an issue that is exclusive to strategic studies, nor is it an entirely novel question, although it is often depicted as ethically problematic given the perceived relationship between 'strategy and slaughter' (Gray 1982a; Wallace 1996; Shaw 2003: 269).

Second, Marxist and other critically oriented scholars have also often charged Anglo-American strategic studies as being complicit in the perpetuation of the 'military–industrial complex' (Wright 1956; Sarkesian 1972), whereby strategic studies is seen as the legitimating academic arm of the 'war industry' (Wæver and Buzan 2010: 468).

Third, critics argue that the aspiration towards the status of 'policy science' has encouraged strategists to concentrate on the means rather than the ends of military force (Barkawi 1998: 160; Wyn Jones 1999: 131). Since strategists tend to assume that the 'national interest' is there to be served, they consequently focus on identifying the best means available to achieve those ends. This focus on the means, not the ends of strategy, critics argue, is why proponents of strategic studies had such an overt preoccupation with missile numbers and weapons' characteristics during the cold war, and hence their continuing emphasis on the study of technological innovation and the effects of the so-called 'revolution in military affairs' today. Richard Wyn Jones, for instance, asserts that '[s]trategy has tended to be the preserve of the bean counters and those whose parameters extend little further than a detailed knowledge of the latest weapons system' (Wyn Jones 1999: 131). Against the self-image of the subdiscipline, Wyn Jones charges that strategic studies is consequently much less Clausewitzian—in taking account of the *relationship* between means and ends—than its exponents often claim. This tendency towards 'means-fetishism', as Wyn Jones terms it, leads him to suggest that strategic studies is not necessarily immoral but rather amoral. Concentration on the means and techniques by which the practice of strategy is to be pursued leads to what he (drawing on the critical theory of the Frankfurt School) identifies as a form of 'instrumental rationality' in strategic studies, a form of study that is more concerned with the instruments of violence than the ends they are used to achieve (Wyn Jones 1999; Booth 2005: 267–8) and the ethical and political consequences associated with those ends.

Sex, Death, and the Language of Strategic Studies

Critics often focus on the language and terminology employed in strategic studies, in particular the use of euphemisms, metaphors, and technical jargon to describe the instruments and activity of war. This critique has antecedents in the criticism levelled at US cold war strategic planners and deterrence theorists. The activity of 'thinking about the unthinkable', as Herman Kahn had called it, led theorists of nuclear war to imagine scenarios of nuclear conflict and develop terminology to articulate those scenarios. Hence deterrence theory came to be suffused with terms such as 'MIRVing', 'throw-weights', and 'penetration aids' as well as the copious use of acronyms (J. Green 1986). Critics argued that this not only rendered the study of nuclear strategy arcane and inaccessible to non-specialists, but that the tendency towards euphemism and metaphor, by introducing a level of technical abstraction into the language of strategy, helped to distance strategic theorists and planners from the human consequences of nuclear conflict. Philip Green wrote in 1966:

> More than any other aspect of the thought of deterrence theorists, perhaps this reliance on euphemism reveals the deep problem of ethical justification which is central to their writings . . . Perhaps they are unwilling to face those questions directly.
>
> P. Green (1966: 223)

This idea that strategists shirk from accurately describing their subject of study has more recently been restated by several critical approaches to strategy. These approaches place crucial emphasis on the role of social construction. That is, whereas most strategists have tended to assume that we can make objective claims about the world and the place of conflict in it, these critical approaches to strategy assume that the ways in which we interpret and discursively construct the world through language in itself has major significance. According to Carol Cohn, strategic studies has a 'specialized language', which she terms as 'technostrategic' in order to denote the 'intertwined, inextricable nature of technological and nuclear thinking' (Cohn 1987: 690). Cohn, on attending a workshop on nuclear weapons taught by defence academics in the mid-1980s, was struck by the fact that 'there seems to be no graphic reality behind the words, as they speak of "first strikes", "counter-force exchanges", and "limited nuclear war", or as they debate the comparative values of a "minimum deterrent posture" versus a "nuclear war-fighting capability" '. She comes to the conclusion that 'language both reflects and shapes the nature of the American nuclear strategic project, that it plays a central role in allowing defence intellectuals to think and act as they do' (Cohn 1987: 690).

Beginning from a feminist perspective, Cohn was struck by the gendered and sexual connotations of much of the terminology used in the male-dominated field of strategic studies:

> Lectures were filled with discussion of vertical erector launchers, thrust-to-weight ratios, soft lay downs, deep penetration, and the comparative advantages of protracted spasm attacks . . . Sanitized sexual abstraction and sexual and patriarchal imagery, even if disturbing, seemed to fit easily into the masculinist world of nuclear war planning.
>
> Cohn (1987: 692, 687; 1993)

Yet Cohn warns that we should avoid the 'uncomfortably reductionist' temptation to conflate the motivations behind strategic planning too easily with notions of male sexual desire or underlying psychological dynamics (see Caldicott 1986). What is most conspicuous about the language of strategy, Cohn argues, is its 'domesticated' nature: that is, the extent to which modern strategic terminology denotes means and methods of destruction with familiar domestic images (the 'Christmas tree farm' cited by Cohn—see Box 20.2—is a prime example). As a result, the terms used to describe nuclear conflict are:

> racy, sexy, snappy. You can throw them around in rapid-fire succession. They are quick, clean, light; they trip off the tongue. You can reel off dozens of them in seconds, forgetting about how one might just interfere with the next, not to mention with the lives beneath them.
>
> Cohn (1987: 704)

Cohn argues that theorists and practitioners can think and act as they do by articulating the 'unthinkable' via familiar words and imagery. Even though Cohn's critical assessment of strategic studies derives from the cold war context, its analysis remains highly relevant, given that contemporary warfare increasingly relies on complex technology. With conflict mediated via technological means, and nuclear and conventional simulations of conflict scenarios now the norm when it comes to the formulation of military strategy (for advanced Western militaries at least), the prevalence of technostrategic language in strategic studies is even

Box 20.2 Key Perspectives

Sex and Death in the World of Nuclear Strategy

> On a Trident submarine, which carries twenty-four multiple warhead nuclear missiles, crew members call the part of the submarine where the missiles are lined up in their silos ready for launching 'the Christmas tree farm'. What could be more bucolic—farms, silos, Christmas trees? In the ever-friendly, ever-romantic world of nuclear weaponry, enemies 'exchange' warheads; one missile 'takes out' another; 'coupling' is sometimes used to refer to the wiring between mechanisms of warning and response . . . nuclear explosives are not dropped; a 'bus' 'delivers' them . . . nuclear bombs are not referred to as bombs or even warheads; they are referred to as 'reentry vehicles', a term far more bland and benign, which is then shortened to 'RVs,' a term not only totally abstract and removed from the reality of a bomb but also resonant with the image of recreational vehicles of the ideal family vacation.
>
> Cohn (1987: 698)

more apparent. 'Information warfare', 'network-centric warfare', 'smart bombs' are just a few examples of techno-speak common in the language of contemporary strategic studies. In addition, the rising use of armed unmanned drones as a feature of early twenty-first-century warfare—particularly by, though not limited to, the US military in contexts including Afghanistan, Pakistan, and Iraq—attests to the continuing trend of 'remote warfare' in which 'kinetic force' (another euphemism) is authorized and enacted at a distance from the use and effects of such weapons. What Cohn, Klein, and Wyn Jones seek to alert us to is the risk that the familiar and 'snappy' nature of strategic language can create a corresponding conceptual distance between the process of theorizing strategic violence and its actual effects. The potential problem in Cohn's eyes is not that the language of strategy is inaccessible, but that, once learned, it is all *too* accessible, making it too easy to reduce human conflict to a series of sanitized euphemisms and abstractions.

Key Points

- Recent critical approaches to strategic studies have focused on its role in constructing a particular Western-centric vision of world order, the relationship between strategic theory and policymaking, and the language of strategic studies.
- Strategic studies has been accused of promoting a vision of world order that has legitimated and justified Western dominance, particularly during the cold war when strategic studies' concern with the superpower rivalry obscured increased Western intervention in the non-Western world.
- Critical approaches to strategic studies have questioned strategists' aspirations to the status of a 'policy science', arguing that an unquestioning focus on serving the national interest has led to an overly technical and instrumental approach.
- The role of social construction and the language of strategic studies have also come under scrutiny. Feminist scholars have argued that strategic studies has tended to employ gendered terminology, and uses words and images that lead to a sanitized, domesticated, and ultimately more permissive view of military force.

A Continuing Debate?

There has been little recent direct engagement between contemporary proponents and critics of strategic studies. In part, this is due to a growing degree of incommensurability between the two camps: that is, because proponents and critics of strategic studies tend to begin from increasingly divergent assumptions, dialogue and substantive engagement between the two has been relatively sparse. Additionally, most scholars operating from critical perspectives are not seeking to create a 'better' form of strategic studies, but looking for alternatives to that enterprise. Rather than seeking to regenerate strategic studies, critical approaches to strategic studies have contributed to a more expansive conception of security studies that encompasses multiple non-military issues, such as economics, the environment, health, and migration. These new approaches tend to depict strategic studies as their more traditional and restricted alter ego.

This process has been accelerated by the alleged inadequacy of strategic studies for dealing with post-cold war issues. Indeed, those operating from critical approaches have been prominent in questioning the relevance of strategic studies in the contemporary world. Although some proponents of strategic studies continue to espouse its 'timeless' principles, critics argue that strategic studies is outdated and anachronistic (see Box 20.3 and Critical Thinking).

One of the strongest criticisms mounted against strategic studies in the post-cold war era is that it no longer offers appropriate tools to study major issues, even conflict, in world politics. Whereas strategic studies tended in the past to focus on state and superpower rivalries, the 'new wars' of the post-cold war era have mainly tended to be intra-state conflicts (Kaldor 1999). Because military threats, particularly those related to global terrorism, are non-state in character, some critics have predicted the 'gradual supercession' of strategic studies (Shaw 2003).

It is this issue of relevance that has produced the greatest reaction among proponents of strategic studies (see Critical Thinking). They have generally recognized the need for further evolution from the types of studies that preoccupied them during the cold war. Many have acknowledged that strategic studies may have been 'too dominant' (Betts 1997: 32; Baylis 2001: 1) in the study of world politics during the cold war, and that during that period 'the political framework ha[d] been taken too much for granted and strategic studies ha[d] become infatuated with the microscopic analysis of military technology and the acquisition of equipment by the forces of both

Box 20.3 Key Perspectives

Contending Perspectives on the Continuing Relevance of Strategic Studies

> Whether humans navigate by the stars or via the satellites of the US Global Positioning System (GPS), and whether they communicate by smoke signals or via space vehicles, matters not at all for the permanent nature of strategy.
>
> Gray (1999b: 182)

> In the historical military sense preferred by Gray, [strategy] faces not rapid redundancy but gradual supercession . . . The demand for justice in war has, of course, facilitated a limited rehabilitation of military power . . . However . . . it hardly provides sufficient scope for a general rehabilitation of strategic thinking about force.
>
> Shaw (2003: 276–7)

sides' (Freedman cited in Barkawi 1998: 181; see also Chapter 23). Conversely, some have claimed that critical approaches to the study of security, in assuming 'traditional' strategic studies as their intellectual 'Other', have been too preoccupied with 'widening' their scope of vision to include non-military issues. Since war remains an endemic feature of modern politics, what is instead required—scholars such as Tarak Barkawi (2011) have argued—is a hybrid form of 'critical war studies' that retains a central focus on organized violence as a social phenomenon but employs a wider range of critical theoretical resources than traditional strategic studies.

Critical Thinking Virtues exist in a 'strategic approach' to the study of war

For

- ***Identification of timeless principles.*** Strategic studies seeks to classify, characterize, and better understand aspects of international relations—particularly those related to armed conflict—that remain constant over time.
- ***Armed conflict is an endemic feature of political life.*** Though regrettable, war is a recurrent feature of political life and requires a dedicated body of knowledge to prevent and mitigate its worst effects.
- ***Protection from the threat of war.*** In the contemporary era, war has become so potentially destructive that we need a strategic approach to ensure its avoidance.
- ***Providing a guide for action.*** Strategic studies can 'speak truth to power': it can advise policymakers on how best to avoid war where possible, and how to prevail in war when necessary.

Against

- ***A static and inflexible approach.*** Scholars in strategic studies too often assume that political life is a realm of recurrence and repetition, dominated by states as key actors and legitimating the current status quo.
- ***By assuming conflict, strategists accept it as inevitable.*** Strategists claim to focus on how the world 'is' rather than how it 'ought to be', but in doing so they tend to shift the focus away from how conflicts might be resolved or overcome.
- ***Preparations for war create further insecurities.*** The Latin adage of 'If you want peace, prepare for war' is outdated in the age of contemporary warfare and especially in the context of the potential for nuclear conflict, which would render the political ends of strategy self-defeating.
- ***Uncritical acceptance of existing power relations.*** Strategists too often assume the virtues of serving power-holders as a kind of vocation, whereas a more critical outlook would question the extent to which existing power relations create and are based on forms of inequality.

Questions:

1. What are the virtues of a 'strategic approach' to the study of war, and to what extent does such an approach involve political and ethical dilemmas?
2. Is it possible to identify timeless principles of war, or does the study of conflict necessarily need to take account of historical and social contexts?
3. What role should students and scholars of contemporary strategic studies seek to play in the formulation of policy?

Key Points

- The continuing relevance of strategic studies has been called into question in the post-cold war era.
- Critical approaches to security studies challenge traditional and foundational assumptions of strategic studies.
- Within the study of strategy there has been general recognition of the need for that study to evolve to take account of the changing nature of conflict.
- This itself provides a key point for reflection on the extent to which strategic studies should be concerned with the identification of 'timeless principles' of warfare, and for critical thinking on the potential virtues and dilemmas of a 'strategic approach' to the study of conflict more generally.

Conclusion

Viewed from the perspective of its critics, strategic studies is ripe for an overhaul in the twenty-first century and, as many of the contributions to this volume attest, it has already begun to address a much wider range of issues relevant to the contemporary world. Contemporary strategic studies is clearly more than simply the study of nuclear war and nuclear weapons, even as this remains a central concern. There will always be those who view strategic studies, pejoratively, as nothing more than the 'conjectural art of butchering one's neighbour' (Danchev 1999: 313), and strategy simply as an accomplice of 'slaughter' (Shaw 2003). Yet those who oppose the purpose and existence of strategic studies need to mount sustained and viable critiques of a field of study that is attempting to evolve away from its cold war incarnation. The extent to which strategic studies can do so, and its ability to address the critiques reviewed here, should be the source of critical analysis in the future. Critique, friendly or even unfriendly, can still play a major role in this regard by questioning the assumptions of contemporary strategic studies and by holding up a critical mirror to its development.

Questions

1. Why did strategists seek to apply game theory to the study of nuclear deterrence, and what are the main criticisms of this application?
2. How convincing are moral critiques of strategic studies? Are strategy and ethics compatible?
3. Is it possible to achieve scientific objectivity in the study of strategy?
4. What are the main differences between 'second wave' and 'third wave' strategic thinking?
5. Why do critical approaches to strategic studies emphasize the role of social construction?
6. Does strategic studies have an inherent Western bias?
7. Why is the relationship between strategic studies and policymaking potentially problematic according to critics?
8. What are the main foundations of feminist critiques of strategic studies?
9. Do critical approaches to the study of strategy have anything to contribute to the development of strategic studies?
10. Is strategic studies still relevant to the study of contemporary conflict?

Further Reading

R. K. Betts, 'Should Strategic Studies Survive?' *World Politics* 50(1) (October 1997): 7–33 gives a qualified but robust defence of the relevance of strategic studies in the post-cold war era.

H. Bull, 'Strategic Studies and its Critics', *World Politics* 20(4) (July 1968): 593–605 is the seminal riposte to the criticisms levelled at strategic studies and the 'civilian strategists' during the 1960s.

C. Cohn, 'Sex and Death in the Rational World of Defense Intellectuals', *Signs* 12(4) (Summer 1987): 687–718 offers a feminist critique of strategic studies and deterrence theory.

C. S. Gray, ***Strategic Studies: A Critical Assessment* (London: Aldwych Press, 1982)** is a spirited if 'friendly' critique of the study of strategy as it developed in the post-war era.

B. S. Klein, ***Strategic Studies and World Order: The Global Politics of Deterrence* (Cambridge: Cambridge University Press, 1994)** gives a broadly poststructuralist assessment of the role of strategic studies in constructing the modern West.

M. Shaw, 'Strategy and Slaughter', *Review of International Studies* 29(2) (2003): 269–77 offers an ardent critique of Colin S. Gray's argument for the timeless wisdom of strategy.

R. Wyn Jones, ***Security, Strategy and Critical Theory* (Boulder, CO: Lynne Rienner, 1999)** draws on the critical theory of the Frankfurt School and Antonio Gramsci to critique the foundational assumptions of 'traditional' strategic studies and outline a 'critical' alternative.

Web Links

The Concise Encyclopaedia of Economics **http://www.econlib.org/library/Enc/GameTheory.html** offers for the uninitiated a brief introduction to game theory, as employed during the 'Golden Age' of strategic studies.

The Campaign for Nuclear Disarmament (CND) **http://www.cnduk.org** maintains the moral arguments for nuclear disarmament that continue to counter the focus on the strategic use of nuclear weapons in strategic studies.

The Nuclear Age Peace Foundation **http://www.wagingpeace.org** also maintains a staunch critique against the possession of nuclear weapons.

The Nuclear Security Project **http://www.nuclearsecurityproject.org** was founded by a group of four former US 'cold warriors'—former Secretary of State George P. Schultz, former Secretary of Defense William J. Perry, former Secretary of State Henry A. Kissinger, and former Senator Sam Nunn—and argues that nuclear weapons are a source of strategic instability in the post-cold war context.

A New Agenda for Security and Strategy?

JAMES J. WIRTZ

Chapter Contents

Introduction 366
The Need for a Conceptual Framework 368
Population: The Demographics of Global Politics 370
Commons Issues 373
Direct Environmental Damage 375
Disease 378
Sensitivities and Vulnerabilities 381
Conclusion 382

Reader's Guide

This chapter explores several issues that have not been included traditionally on national security agendas or considered to be within the purview of strategy. Unlike most assessments of non-traditional security issues, it does not define a specific problem as a threat to national security simply because it creates the possibility of casualties, damage to property, or threatens economic prosperity. Rather, it develops a utilitarian assessment of environmental, resource, and population issues to discover if strategy, military force, or existing strategic literature can usefully address these problems. If strategy, strategists, or military force can address a specific problem, or if it can be determined that they are a cause of a particular problem, or if they can be forced to change in response to some transnational trend, then the issue should be a subject for strategy and strategists. Nevertheless, non-traditional security issues are beginning to influence national security considerations in ways that were not fully anticipated by proponents of a new agenda for security and strategy.

Introduction

During the cold war, high politics dominated national security agendas. Issues of war and peace, nuclear deterrence and crisis management, summit diplomacy, arms control, and alliance politics preoccupied those people with a professional or personal interest in world politics or military strategy. By contrast, low politics—the environment, the management of scarce resources, or efforts to constrain population growth—were often perceived as

a source of trouble, but rarely as a threat to national security. Occasionally, issues of low politics managed to reach national security agendas. Fallout from nuclear testing in the atmosphere prompted a growing awareness of the environmental consequences of the nuclear arms race, leading to the Partial Test Ban Treaty (1963). The oil shocks of the 1970s made Americans aware of their dependence on foreign oil and the important role conservation could play in preserving US economic prosperity and diplomatic leverage. However, for the most part, high and low politics were treated as separate issues by policymakers and scholars alike.

Starting in the late 1980s, some scholars came to believe that the hierarchy between high and low politics had been reversed. They suggested that non-traditional issues should be placed at the top of national security agendas. Several theories of international relations can explain the rise to prominence, so to speak, of low politics. Realists, for example, might suggest that, as the overarching preoccupation with the cold war evaporated, issues once considered 'lesser included threats' could be expected to appear more important. They would also note that with the collapse of the cold war divide, management of these global issues might become increasingly possible, especially if the United States, the lone superpower, used its diplomatic, economic, and military leverage to good effect. Neo-institutionalists would probably add that new forms of transnational management are increasingly important in world affairs. They might point to the prominent role played by international governmental organizations (IGOs, e.g. the United Nations), international non-governmental organizations (INGOs, e.g. the Carnegie Endowment for International Peace or Greenpeace), or even a plethora of grass-roots movements in tackling tough issues that transcend international boundaries. These local organizations and movements not only push global issues—women's rights, ozone depletion, the acquired immune deficiency syndrome (AIDS) epidemic—onto national agendas, they also help initiate and coordinate international responses to transnational problems. Scholars who focus on the way the communications revolution is changing human interaction often highlight the fact that groups of people scattered across the globe can now orchestrate political or informational campaigns using the Internet. Grass-roots organizations now monitor deforestation in the Amazon or search for unauthorized development along the California coast. Individuals, educated and empowered by new communication technologies, are increasingly aware of the suffering of others in distant lands. There is a growing awareness that international boundaries are a weak barrier to the problems that afflict the poorest parts of the planet.

At the dawn of the new century, however, perspectives about the relative importance of low and high politics again changed when the darkest side of the information revolution became apparent. Al-Qaeda and its supporters have exploited modern communication and transportation systems to launch terrorist attacks against innocent civilians in New York, London, Madrid, Bali, and Paris. The Islamic State took things one step further by exploiting new forms of social media to recruit young people by encouraging them to leave their overbearing parents for a life of adventure. The debate about the relative importance of high and low politics seems to have come full circle. The low politics of the information revolution, globalization, and environmental change are now the stuff of high politics, influencing national security and homeland defence agendas around the world.

The Need for a Conceptual Framework

To say that low politics are perceived as more important in the aftermath of the cold war is beyond dispute. Major research projects had already been undertaken in the 1990s by Thomas Homer-Dixon and his colleagues at the University of Toronto, and by the International Peace Research Institute, Oslo (PRIO), to demonstrate a link between resource scarcity and the outbreak of war or other forms of violence (Homer-Dixon 1991). Other researchers have noted that damage to the environment should be considered as a threat to national security because it can cause casualties or even kill. Marc Levy, for instance, has suggested that damage to the Earth's ozone layer should be considered to be a security threat because it causes cancer, blindness, and even death (Levy 1995). However, to say that environmental damage or resource scarcity should now be considered as national security issues raises a host of problems, especially for those who are concerned with the development of military strategy. It is not exactly clear, for instance, how military forces can help reduce the build-up of greenhouse gases in the atmosphere to prevent global warming. Similarly, it is not clear how military action could help stop the Ebola epidemic that swept through the West African countries of Liberia, Sierra Leone, and Guinea in 2014. Non-traditional threats to national security clearly exist, but it is difficult to discern how military formations, strategy, or strategists can respond constructively to these matters. Further complicating the issue is the fact that low and high politics are interacting in complex ways; issues of low politics are not completely divorced from grand strategy. For example, the possibility that Tehran might acquire nuclear weapons does not pose an immediate threat to Middle East energy reserves, but it could have a global economic impact if it causes the price of oil to rise in tight energy markets. Low politics, while not posing direct security threats themselves, are shaping and are in turn being shaped by traditional strategic concerns.

Those who suggest that environmental or global issues are a national security threat often resort to Malthusian scenarios to justify their judgements (Orme 1997). Resource scarcity, or the disorder produced by overpopulation or rapid depopulation, for instance, are identified as causes of war, but these Malthusian scenarios are not entirely plausible, and recent studies have even suggested that moderate amounts of resource scarcity can create incentives that facilitate international collaboration (Dinar and Dinar 2017). Malthusian scenarios seem to suggest that the military should prepare to contain the symptoms of nagging transnational problems before they burst into some sort of cataclysmic fury. One might also hope that educational, technical, or social action could be taken before environmental, resource, or population pressures produce wars that literally involve battles for human survival. The British and French governments, for instance, announced in the summer of 2017 that sales of new diesel and petrol cars would end by 2040 as part of an international effort to reduce emissions and fight climate change. It is unlikely that negative trends will continue indefinitely into the future and produce raging resource wars (see Box 21.1).

Already, there are positive signs on the horizon. Population growth rates, which reached a peak of 2 per cent per year in the 1960s, are declining, and will continue to do so just as long as people grow healthier, wealthier, and better educated.

Defining some transnational issues as national security threats can create a new set of problems. Often military forces are the only units available that possess the logistical capabilities or able-bodied and disciplined workforce needed to cope with the aftermath of natural or

BOX 21.1 Key Concepts

Thomas Robert Malthus

Malthus was born on 13 February 1766. He graduated from Jesus College, Cambridge in 1788, worked for a time as a minister, and returned to Cambridge as a fellow in 1793, the year Louis XVI was guillotined by revolutionaries. Malthus took a dim view of utopian philosophies advanced by William Godwin and M. Condorcet. In response, in 1798 he published *An Essay on the Principle of Population as It Affects the Future Improvement of Society*. Using data supplied by none other than Benjamin Franklin on the population growth rates of American villages, Malthus offered a startling observation: populations grow in a geometric fashion while food supplies only increase by an arithmetic ratio. In other words, if current trends continued, the human race would inevitably outpace the food supply, leading to cataclysmic social collapse. Two factors might hold off this day of reckoning: efforts to reduce birth rates, which Malthus termed 'preventive measures'; and war, disease, and starvation, developments described by the misnomer 'positive measures'. Luckily, Malthus' predictions proved incorrect. He failed to account for the fact that trends rarely continue indefinitely into the future. In fact, the amount of raw materials used per unit of economic output has actually been decreasing over the last century, while available resources have been increasing. Once adjusted for inflation, *The Economist*'s index of prices of industrial raw materials has dropped 80 per cent since 1845.

political disasters. As the effort to provide disaster relief to victims of the 2004 tsunami demonstrated, military and naval forces drawn from 19 countries and non-governmental organizations worked together to provide food, shelter, and medical supplies, especially to people left isolated by the effects of the tidal wave. Regardless of circumstances or initial intentions, however, the introduction of military forces risks making things worse by turning a public health crisis or police problem into an armed conflict. The UN intervention in Somalia, for instance, quickly deteriorated from an effort to prevent mass starvation into a particularly nasty form of warfare: urban combat. Launching a *war* on drugs inevitably leads to casualties among innocent bystanders, disruption of peasant life, increased rural poverty, and armed resistance. Soldiers also complain that humanitarian operations, peacekeeping duties, or conducting border patrols divert resources and training away from their primary responsibility: preparing to engage in conventional combat and win the nation's wars. Although military forces will continue to play a critical role in responding to natural disasters, simply defining environmental, resource, or population problems as security issues is not without costs or risks.

Instead of becoming mired in the debate about the gravity of today's environmental problems or what constitutes an appropriate mission for military units, it would be better to assess this new security agenda to determine if and how strategy can respond to these issues. This utilitarian assessment would unfold along three dimensions. First, if military units can take some action that addresses a particular problem or issue in a useful way, then the subject is of importance to strategy and strategists. However, if the threat of force, the use of force, or even the logistical or technical assistance that can be supplied by military units does little to respond to a given problem, it is probably best not to treat the specific issue as a security threat. Secondly, if military action somehow produces environmental, resource, or demographic consequences, then these issues are of interest to strategists. The time has arrived to measure the cost of conflict by using more than just the immediate losses of blood and treasure. A global perspective requires strategists to consider the long-term environmental

consequences of war and preparations for war. Thirdly, low politics are of strategic interest when they create effects that are likely to shape the way force is used in the future. In other words, will low politics create changes in the international security environment that will force a significant transformation of strategy, military force structure, or doctrine? This utilitarian assessment stands in contrast to typical discussions of environmental or resource issues, because it defines security threats in terms of what constitutes an appropriate response (i.e. use of force), rather than the potential of an issue to threaten a nation's or an individual's well-being (i.e. scarcity of potable water).

Is there a new agenda for security and strategy? The answer might in fact be yes: especially if strategy, strategists, or military force can address a specific problem, can be the cause of a specific problem, or can be forced to change in response to some transnational trend. What follows is a brief survey of the relationship of strategy to several transnational issues that are said to make up a new agenda for security and strategy.

Key Points

- Scholars debate whether to include non-traditional issues—pollution, threats to biodiversity, disease—on national security agendas.
- Malthusian scenarios remain popular as a justification for treating environmental issues as security problems.
- Defining social or environmental issues as national security problems is not without costs and risks.
- A utilitarian assessment may be useful to determine if there is a new agenda for security and strategy.

Population: The Demographics of Global Politics

Nearly every problem identified in this chapter is rooted in the population explosion that occurred in the twentieth century. Since the mid-century, the number of people living on the planet has grown by 3.5 billion; over 6 billion people were alive at the start of the twenty-first century. With luck, total population should stabilize somewhere between 9 and 10 billion people by 2050. Fertility rates are decreasing not just in developed countries, but also in urban areas in the developing world, as women gain more access to education, health care, and job opportunities. Estimates seem to agree that the rate of global population has been slowing for several decades; global population will actually *start declining sometime between 2050 and 2100* (United Nations 2011).

Although the news about the world's population problem is not all bad, three caveats are often raised about these positive trends that paint a somewhat darker picture of both our immediate and medium-term future. First, most of the population growth in the years ahead will occur in the poorest countries that are already strained to the limit when it comes to feeding, housing, and educating their existing populations. By contrast, in the developed world, population growth rates in many cases have dipped below 'replacement levels', creating a different sort of crisis. Too few people of working age will be available to contribute to pay-as-you-go pension systems, creating the possibility of a systemic social crisis. Secondly, most of the population growth is taking place in urban areas. By 2030, 41 megacities with populations

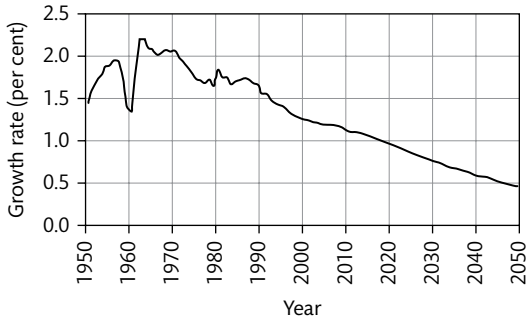


Figure 21.1 World Population Growth Rates: 1950–2050

Source: US Census Bureau, International Data Base, December 2013 update.

exceeding 10 million (up from about 30 in 2017) will probably exist, and by 2050, 75 per cent of the world's people will probably live in urban areas, up from just over 50 per cent in 2017 (National Intelligence Council 2017). Urban planners, government officials, and military officers are concerned that megacities will tax social and basic services well beyond their limits, leaving millions of people to live in urban squalor and chaos. Megacities in the developing world can also erupt into spontaneous violence following some local insult or even a sporting event. Even cities in the developed world can burst into violence: thousands of armed gang members can plunge sections of Los Angeles into chaos and looting for days before police and national guard units are able to restore order. Thirdly, most of this additional population will be very young, leading observers to note that, in parts of the developing world, it will be some time before population growth rates peak (see Figure 21.1).

Although strategists find little to dispute in the observation that overpopulation creates enormous social, resource, and environmental strains, they are most interested in exploring the divergent demographic trends at the heart of the population problem (see Critical Thinking). In other words, what are the strategic implications of an ageing and shrinking Western population on the one hand, and an explosion in the number of young people in the developing world on the other? For the developing world, the concern is that the inability to provide employment and basic services to this surging population will produce poverty, chaos, and hopelessness. Some observers believe that young people, concentrated by the millions in megacities, will fall under the sway of a virulent nationalism, messianic leaders, or millenarian movements, leading to waves of local violence or international terrorism. Most major revolutions have been accompanied by a so-called 'youth bulge', while scholars have also noted that youth bulges are associated with the outbreak of small conflicts (Goldstone 2002). Young men with little prospect of a traditional home, family, or occupation might find an outlet for their ambitions in war. By contrast, the slow or even negative population growth in the West will make it increasingly difficult to fill the ranks of the armed forces, forcing militaries to rely on technology to compensate for an absence of volunteers. The demands for health care and the high pension costs created by an ageing population will also make it difficult for industrialized nations to afford large defence budgets.

These population demographics constitute a strategic issue because they will force changes in future defence policies and strategy. Differences in population growth create trends that influence military strategy and defence policy. Exactly how will demographics transform this strategic

setting? Martin van Creveld (1991) and Stephen Cimbala (1997) offer a pessimistic view of these trends. They believe that nation states are losing their monopoly on the use of force as urban mobs and transnational movements take matters into their own hands. Violence is becoming less politically organized; the world is descending into chaos and warlordism. By contrast, some observers would predict that these population demographics are already producing different attitudes towards the death and destruction of war. In the West, a rising aversion to casualties is already shaping national strategies. In some countries in the developing world, warrior cultures glorify war, swelling the ranks of millenarian, fundamentalist, or anarchist movements with thousands of untrained and lightly armed volunteers. It is probably not a coincidence that most of the terrorists who participate in al-Qaeda suicide attacks are unmarried males. It is probably wrong, however, to suggest that warrior culture offers a superior approach to the conventional battlefield than the combined arms attack that can be unleashed by military professionals. No amount of élan will save units caught in the open by a well-timed artillery barrage or an air strike using fuel-air explosives, although basic infantry tactics, such as the use of cover, can help mitigate the lethality of modern weaponry (Biddle 2003). On a more positive note, some observers have suggested that as birth rates decline, people everywhere will be less willing to see what may be their only child sacrificed in some dubious military adventure, and if democracy continues to spread, they would have the means of making these feelings known to their elected officials.

Key Points

- Although population growth rates are slowing, total world population will continue to increase for the next 30 years.
- Future population increases will be centred in the developing world, leading to a concentration of young people in megacities.
- Because they influence the context of diplomatic and military policy, divergent demographic trends will shape strategy and strategic thinking.

Critical Thinking Demographic change will bring peace

Youthful countries—those with populations with a median age of 25 years or less—have accounted for nearly 80 per cent of armed civil and ethnic conflicts since the 1970s. Except for sub-Saharan Africa, however, the median age of societies is increasing. Countries, especially in the West, are ageing rapidly.

For

- ***Reprioritization of resources.*** As nations struggle to meet the demands of an ageing, and less productive, population, they will be forced to devote increasing resources to social services and fewer resources to military endeavours and foreign escapades. Interest in using force to achieve national objectives will decline.
- ***Lack of human capital.*** Because of their productivity and relative scarcity, young people will be seen as too valuable to be engaged in 'non-productive' activities, such as war. Militaries will shrink, and the use of force will decline, simply due to the lack of available participants.

Critical Thinking: (*continued*)

- ***Pensioners are risk averse.*** Ambitious, energetic, and romantic, youthful populations are easily excited and misled by ideologues and revolutionaries who promise various forms of wealth, glory, and power, but in the end only deliver chaos, anarchy, and war. Older populations are wiser and more pacific—they will choose peace over war.

Against

- ***Other trends spell trouble.*** Global warming, resource scarcity, or food and water shortages will create new sources of conflict as states attempt to secure supplies for their ageing populations. Regardless of how old they are, people like to eat.
- ***Demographic asymmetries will create domestic instability.*** To compensate for ageing populations, developed countries will increasingly rely on youthful immigrant populations as a workforce, leading to ethnic or religious turmoil as newcomers clash with established societies.
- ***The strategist's view.*** The future will be determined by the way ageing and rich countries *interact* with more youthful and poorer developing states. Just because one party in a potential conflict prefers peace does not guarantee that the outcome will be peaceful. A looming face-off between old rich nations and young poor nations is not exactly a recipe for peace.

Questions:

1. Will the end result of demographic change be a more peaceful world?
2. Will the future be determined by the way ageing and rich countries *interact* with more youthful and poorer developing states?
3. Will domestic instability spill over into international conflict?

Commons Issues

Issues that transcend international boundaries are often referred to as commons problems. Although some countries can contribute more or less to a specific commons problem, efforts to stop the tragedy of the commons, to borrow Garrett Hardin's famous phrase, require some form of collective action on the part of most members of the international community. Most low politics problems could be classified as commons issues, but environmental and resource issues generally come to mind when policymakers and scholars think about transnational issues.

Air pollution, especially the release of carbon dioxide from motor vehicles and coal-fired electric plants, destruction of the ozone layer through the release of chlorofluorocarbons, and global warming produced by greenhouse gases are all quintessential commons problems.

In other words, it would be impossible for a single state or a group of states to slow the destruction of the ozone layer—for example, by banning the manufacture of chlorofluorocarbons—if other states continued to release these substances into the atmosphere. Water pollution, depletion of underground aquifers, and the protection of migratory species (e.g.

fish) are often depicted as commons problems, although their effects are generally confined to specific regions. Depletion of aquifers and fish stocks, however, can create local economic catastrophes when farmers lose the water needed to irrigate their crops and fishers are forced to abandon traditional livelihoods.

Threats to biodiversity, especially deforestation of tropical rainforests, occur on specific national territories, but they are slowly destroying the 'common heritage of humankind'. Deforestation destroys habitats needed by the planet's non-human inhabitants: tropical rainforests are home to half of the world's known species. Deforestation can also have regional climatic effects because trees are a key link in the evapotranspiration cycle between soil and the atmosphere. Trees also help to protect delicate topsoil by providing erosion control against landslides and flooding. Forests help to slow global warming because trees act as a major sink of carbon dioxide in the atmosphere. Global or regional environmental problems can sometimes have acute local consequences (see Box 21.2).

By contrast, local environmental damage can produce global environmental consequences. Sometimes commons problems are created when the effects of localized insults to the environment have a global impact, and sometimes they are created when millions of small and relatively innocuous events have a cumulative effect that produces global consequences or local disasters. The distinguishing characteristic of all of these issues, however, is the fact that either their causes or their effects are beyond the reach of any one state.

BOX 21.2 Key Concepts

The Tragedy of the Commons

Imagine you lived near the west coast of the United States and every spring you had the opportunity to go salmon fishing. The fish were plentiful and it was easy for you to catch a couple of dozen fish in a single morning. In any event, there were plenty of fish in the sea, and no matter how full you loaded up your boat, you could never make much of a dent in the salmon population. There would always be fish willing to take your bait. Now imagine if thousands of your neighbours up and down the coast went fishing too and proceeded to fill their boats with fish. Even though no one wanted it to happen and no one individual would be responsible, it would not be long before salmon became extremely scarce, producing a tragedy of the commons.

The tragedy of the commons is an example of the tyranny of small decisions, a situation in which unintended and negative consequences are produced by individuals following their reasonable, albeit narrow, self-interest. Each fisher, rationally acting to fulfil his or her self-interest, gains the extra benefit of a large catch, while the entire community bears the cost of depleting the fishery. Even if individuals refrain from filling their boats, it would only make it safe for others to 'free-ride' on their self-restraint. In other words, collective action is needed to capture the externalities involved in exploiting the fishery (i.e. getting fishers to pay the full cost of their catch) and to prevent free-riding. When a commons problem occurs within national boundaries, it is easy for the state to capture these externalities and to corral free-riders. When fisheries are open, for example, the State of California limits salmon catches to two fish per day by licensed fishers. Fish have to be longer than 24 inches, and it is illegal to take protected salmon species (e.g. Coho salmon). However, when the commons crosses international borders, capturing externalities and corralling free-riders requires international collaboration.

Although commons issues pose an existential threat to all humanity, at times they do shape decisions about war and peace. Concerns about access to oil supplies (one natural resource that remains key to modern industrial economies) was a clear motivation behind the formation of a US-led international coalition to oust Iraq from Kuwait in the early 1990s. By contrast, concern about disrupting tight oil markets moderated the international response to an apparent Iranian effort to create a nuclear weapons industry. Shots have also been exchanged in fishing disputes as boats and crews are seized for poaching in waters claimed by a specific state. Therefore, as a proximate cause of war, commons issues should be a concern to strategists; but, so far at least, with the exception of the Gulf War, shots have been exchanged only in a limited way.

By contrast, most commons problems are probably beyond the reach of strategy. It is difficult to imagine how military action might resolve many transnational problems. For instance, the existence of strategists, strategy, and military infrastructure did little to deplete aquifers; it is difficult to see how they can help conserve or replenish these underground water supplies. Moreover, because war is a state activity undertaken to achieve political objectives, there is little political motivation to undertake military action in response to commons issues. In other words, few would suggest that wars should be launched to stop individuals in other states from killing tigers, from practising slash-and-burn agriculture, or from constructing coal-fired electric power plants. Even if it were possible to use military force to solve a commons problem, it would be highly unlikely that any single state would launch this type of military endeavour. By definition, the benefits gained from using military force to resolve commons problems are outweighed by the costs of action. Everyone would benefit, but the state taking action would bear all of the costs. This is the very dilemma that lies at the heart of the tragedy of the commons. Collective action is needed to capture the externalities (the unpaid costs that are inevitably involved in all human activity) that lie at the heart of most commons problems. Strategists might contribute to the effort to devise a collective response to commons issues, but it would probably be better if this response were based on enlightened self-interest, not point-of-the-gun environmentalism. Although commons issues might someday force military action or shape military strategies (e.g. military action to protect oil supplies), it is probably best not to treat commons issues as military problems.

Key Points

- The tragedy of the commons is generally produced by an international failure to undertake collective protection of the environment or to conserve resources.
- Globalization is increasing the number and severity of commons issues.
- The resolution of commons issues probably lies beyond the realm of strategy.

Direct Environmental Damage

Military action or the manufacturing of military weapons can result in significant environmental damage, although these insults to the environment probably fall short of constituting a commons problem. Sometimes the impact of military activity is limited or unknown. For

example, military aircraft often jettison fuel in an emergency, but it is unclear if much environmental damage occurs in peacetime from this practice. As British MP Archie Hamilton noted in 1992:

> RN (Royal Navy) and RAF (Royal Air Force) pilots are instructed to jettison fuel under carefully controlled conditions which ensure that the great majority of fuel evaporates before it reaches the ground. There is, therefore, minimal environmental impact at ground or sea level. The evaporated fuel is widely dispersed. Most of it is biodegradable and that which remains has no known effects on the atmosphere. There are no products in military aviation jet fuel known to cause greenhouse effects, damage to the ozone layer, or air pollution in the lower atmosphere.

Hamilton is probably correct that dumping jet fuel in the atmosphere does not pose much of a problem in peacetime: British flyers were only forced to jettison fuel on average about twice a month in the 1980s. However, in wartime, mission requirements might cause enormous amounts of fuel to be jettisoned. If this happened over a relatively small area, would it have an environmental impact?

An issue that often bedevils assessments of the environmental impact of military activity is the effort to use 'green' arguments to derail programmes for political purposes. A case in point is the alleged negative environmental and long-term health consequences produced by the use of depleted uranium (DU) in heavy tank armour, antitank munitions, and even as counterweights in commercial aircraft. DU is used primarily as a kinetic-kill projectile because it is very heavy and dense: no nuclear reaction occurs when a DU projectile strikes a tank, for example. Depending upon the type of impact, small amounts of DU may be released in the form of tiny, relatively insoluble particles of uranium oxide or even as larger pieces of metallic uranium. There is little scientific data on the health effects of DU, although studies exist about the health effects of uranium, a similar material. Based on studies undertaken on uranium workers, no negative health effects have been established following exposure to radiation through ingestion and inhalation of DU particles or through wounds contaminated by DU. Nevertheless, many media reports and Internet campaigns decry the environmental and health impact of the use of DU on the battlefield.

Some military weapons can potentially produce catastrophic damage to the environment and extremely significant health risks, even if they are not used in battle. The cost of dismantling and destroying these weapons is staggering and involves scientific and engineering capabilities that are far more advanced than the original efforts to make the weapons themselves. However, successful programmes are possible. For example, in November 2000, after nearly ten years of operation, the Johnston Atoll Chemical Agent Disposal System (JACADS) finally eliminated the remnants of the US chemical weapons stockpile (see Table 21.1). JACADS was the world's first full-scale facility built to destroy chemical weapons. Johnston Atoll, located 717 nautical miles southwest of Oahu, is one of the most isolated atolls in the world. Remaining off-limits for the indefinite future, Johnston Atoll is now a wildlife refuge.

Other facilities, especially those involved in nuclear weapons programmes, are not as isolated. In the mid-1990s, the US Department of Energy estimated that it would cost at least 160 billion dollars to clean up facilities once involved in the manufacture of nuclear materials at Hanford Reservation, Savannah River, Oak Ridge, Idaho National Engineering and Environmental Laboratory, and Rocky Flats. Progress has been made, but in 2017 the US Department

Table 21.1 US Stockpile Destroyed by JACADS

Agent	Item	Quantity	Pounds
HD-blister	155mm projectiles	5,670	66,339.0
HD-blister	105mm projectiles	46	136.6
HD-blister	M60 projectiles	45,108	133,970.7
HD-blister	4.2 mortars	43,600	261,600.0
HD-blister	Ton containers	68	116,294.0
GB-nerve	M55 rockets	58,353	624,377.1
GB-nerve	155mm projectiles	107,197	696,780.5
GB-nerve	105mm projectiles	49,360	80,456.8
GB-nerve	8in. projectiles	13,020	188,790.0
GB-nerve	MC-1 bombs	3,047	670,340.0
GB-nerve	MK 94 bombs	2,570	277,560.0
GB-nerve	Ton containers	66	101,158.0
VX-nerve	M55 rockets	13,889	141,769.8
VX-nerve	155mm projectiles	42,682	256,092.0
VX-nerve	8in. projectiles	14,519	210,525.5
VX-nerve	Land mines	13,302	139,671.0
VX-nerve	Ton containers	66	97,360.0

of Energy is still cleaning up over 100 sites that cover an area equal to the states of Rhode Island and Delaware.

The environmental problems facing Russia are also severe. Scores of old nuclear-powered submarines lie rusting at their berths throughout the Russian north and far east, and Russian spent fuel storage facilities are nearly full. A lack of resources makes it nearly impossible for the Russians to undertake a complicated clean-up process. The submarine must be retired from active status; its missiles must be removed. Spent nuclear fuel must be extracted, making it safe to disconnect its reactor and reactor circuits. Spent fuel can then be transported for reprocessing and low- and high-level waste collected for storage. The reactor compartment can then be cut away from the rest of the hull so that it can be sealed for long-term storage.

In hindsight, it is clear that many weapons programmes were undertaken with little thought given to environmental remediation after programme termination. The lesson is clear: strategists and policymakers need to take into account the environmental impact of yesterday's and today's defence policies. Of course, at the time, these costs paled in significance when compared to perceived military threats, leaving contemporary strategists and policymakers to deal with the lasting legacy of nuclear, chemical, and biological weapons manufacturing and disposal. Full disclosure of these 'hidden' costs might cause those who seek to develop a robust nuclear arsenal—here Indian, Pakistani, or Chinese leaders come to mind—to think about the potential consequences of their defence industrial policy.

Key Points

- Military action can result in direct environmental damage.
- Surplus or lost munitions, as well as industrial processes related to military activity, can create enduring environmental hazards.
- Military operations often entail 'hidden' costs that sometimes only become apparent many years after weapons production or hostilities cease.

Disease

Although disease has been a scourge throughout human existence, public health initiatives (providing people with clean water and proper sanitation), vaccination, quarantine, and the discovery of antibiotic drugs in the mid-twentieth century, helped to reduce the outbreak of communicable disease, at least in the industrial world. Today, public health officials in the West focus on modifying people's lifestyles to reduce the incidence of cancer (caused by smoking) and cardiovascular disease (accelerated by modern diets and a lack of exercise). The human genome project also holds out the prospect of new treatments for all types of illnesses, especially those linked to genetic disorders. Life expectancies have increased steadily over the last century. More people survived infancy because of prenatal care, public health, and vaccination against childhood diseases, and treatments emerged to arrest, if not completely cure, disorders (cardiovascular disease, cancers) that killed previous generations by the time they reached their seventieth birthday. Progress was even achieved on a global scale: ask your grandparents to show you their smallpox vaccination (see Table 21.2).

If one takes a global perspective, however, the news is not so encouraging. Public health officials are bracing themselves for a long overdue outbreak of a deadly strain of influenza. They fear the outbreak of new diseases that are resistant to existing treatments and drugs. They worry that unknown bacteria or viruses that have lain dormant deep within tropical rainforests will soon be disturbed by encroaching humans, producing new epidemics of dangerous diseases.

World Health Organization officials also warn that the seven infectious diseases that caused the highest number of deaths at the turn of the century will remain serious threats for decades to come.

Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS)

In 2017, about 37 million people across the globe were living with HIV/AIDS. Infection and death rates have slowed in the West due to preventive measures and expensive multi-drug treatments. The pandemic continues, with about 1.6 million new infections in 2016 (down from 3.1 million in 2001). Sub-Saharan Africa is the centre of the AIDS epidemic: 5 per cent of the adults in the region are infected with the disease. The social and economic costs of the disease

Table 21.2 Pathogenic Microbes Identified since 1973 and the Diseases they Cause

Year	Microbe	Type	Disease
1973	Rotavirus	Virus	Infantile diarrhoea
1977	Ebola virus	Virus	Acute haemorrhagic fever
1977	*Legionella pneumophila*	Bacterium	Legionnaires' disease
1980	Human T-lymphotrophic virus	Virus	T-cell lymphoma
1981	*Staphylococcus aureus*	Bacterium	Toxic shock syndrome
1982	*Escherichia coli* 0157:H7	Bacterium	Haemorrhagic colitis
1982	*Borrelia burgdorferi*	Bacterium	Lyme disease
1983	Human immune deficiency virus	Virus	Acquired immune deficiency syndrome (AIDS)
1983	*Helicobacter pylori*	Bacterium	Peptic ulcer disease
1989	Hepatitis C	Virus	Parentally transmitted non-A, non-B liver infection
1992	*Vibrio cholerae 0139*	Bacterium	New strain/epidemic cholera
1993	Hantavirus	Virus	Adult respiratory distress syndrome
1994	Cryptosporidium	Protozoa	Enteric disease
1995	Ehrlichiosis	Bacterium	Severe arthritis
1996	NvCJD	Prion	New variant Creutzfeldt–Jakob disease
1997	HVN1	Virus	Influenza
1999	Nipah	Virus	Severe encephalitis

are staggering. Countries that suffer high HIV/AIDS infection rates experience a decline in gross domestic product (GDP), and entire generations of children have become AIDS orphans.

Tuberculosis (TB)

Once thought to be controlled in the developing world by public health efforts and drug treatments, TB is increasing in Russia, India, South East Asia, sub-Saharan Africa, and parts of Latin America. Particularly disturbing is the emergence of a drug-resistant form of TB. Up to 50 per cent of the people infected with drug-resistant TB will die, despite treatment. Many TB infections occur in conjunction with HIV/AIDS. By 2020, TB will probably rank second behind HIV/AIDS as a leading cause of death by infectious disease.

Malaria

Once thought to be coming under control by public health measures and prophylaxis treatments, malaria is a tropical disease that is on the rise. In sub-Saharan Africa, infection rates have jumped 40 per cent over the last 30 years, and new drug-resistant strains of the disease are emerging. One potential consequence of climatic change could be an increase in malaria's geographic range.

Hepatitis B and C

World-wide, about 330 million people are chronic carriers of these viruses. Up to 25 per cent of the people infected with the virus will develop cirrhosis of the liver or liver cancer. There is no vaccine against hepatitis C, but for those who can afford it, a drug regime is now available that can cure the disease.

Influenza and Respiratory Infections

Airborne viruses pose an increasing threat in an age of air travel. Coronaviruses that can be spread by person-to-person contact (e.g. coughing or sneezing) are difficult to contain. In February 2003, an outbreak of severe acute respiratory syndrome (SARS) in Asia quickly spread to more than 24 countries around the world. Over 8,000 people became infected, and about 700 of those infected died. Fears have also emerged about avian influenza, especially the strain H5N1. In humans, the disease has generally been contracted by individuals who have come into close contact with infected birds, but transmission from person to person has been recorded. The virus has not completely jumped the species barrier, but because viruses can change quickly, scientists fear that H5N1 could someday easily infect humans, a species with little natural immunity to this virus. H5N1 might be capable of producing a lethality rate in excess of 50 per cent in humans.

Diarrhoeal Diseases

Infection with *Escherichia coli* is the most common cause of this disease, but dysentery and rotaviral diarrhoea occur throughout the developing world and are now beginning to affect parts of the former Soviet Union. Contaminated food and water spread the disease. In 1996, for the first time in a century, there was also a major outbreak of cholera in Latin America. Most of the victims of diarrhoeal diseases are children under the age of 5 in the developing world.

Measles

Ready for some good news? When our first edition was published in 2002, about half a million people (mostly children under the age of 5) died each year from measles. Since then, the world has been getting the upper hand on the disease. In 2016, 85 per cent of the world's children received one dose of measles vaccine before their first birthday, and measles deaths fell below 100,000 per year for the first time, ever.

Several developments are responsible for the increasing threat of infectious diseases. First, refugee movements caused by political and natural disasters subject millions of refugees to primitive living conditions that breed and spread disease. Ethnic conflict, civil wars, and famine spread disease quickly as refugees move across borders. Secondly, unprotected sex with multiple partners and intravenous drug use are largely responsible for the spread of AIDS. Thirdly, modern technology and production practices are not foolproof. Imported food produced by non-hygienic practices can spread pathogens and bacteria (*Cyclospora* ssp, *Escherichia coli*, and *Salmonella*) quickly across national borders. Modern food production practices have also created problems in the food supply. Bovine spongiform encephalopathy (mad cow

disease), for example, was spread by the practice of including mammalian tissues in animal feed intended for cows and other ruminants. Fourthly, land use practices, even efforts to restore natural habitats, can breed and spread disease. For example, reforestation in the United States and Europe is responsible for an increase in Lyme disease as deer ticks have more opportunities to find human hosts. Encroachment on rainforests also brings people into close contact with animals carrying malaria, yellow fever, leishmaniasis, or even previously unknown and potentially dangerous diseases. Fifthly, international travel and commerce can spread viruses, pathogens, and bacteria faster than the incubation period of the diseases they cause. Today's cross-border movement of over 2 million people per day guarantees that disease outbreaks will be difficult to contain. Sixthly, the widespread use of antibiotics in livestock production and the overuse and misuse of antibiotics by people have accelerated the evolution of a variety of strains of drug-resistant microbes. An expanding number of strains of TB, malaria, and influenza are virtually impossible to treat, and HIV also displays a high rate of adaptation to drug treatments.

War and civil strife can lead to disease outbreaks by creating refugee disasters and a breakdown in public health care. Throughout history, war has often been accompanied by disease. Soldiers have spread disease in the field and have brought it back with them when they returned home. The so-called 'Gulf War Syndrome'—a strange mix of debilitating symptoms—is said to occur among US soldiers who returned otherwise unhurt from the 1991 Coalition victory against Iraq. Military forces can be enlisted to help fight the spread of disease through efforts to quarantine affected populations, to move supplies into regions stricken by epidemics, or to use field medical facilities to treat local populations. From a strategic perspective, infectious diseases continue to shape military strategy because disease can create casualties just as easily as enemy fire. In fact, throughout most of history, disease killed far more soldiers than enemy action. Although military forces are at best a third- or fourth-order defence against the spread of disease (and are just as likely to help spread disease as to contain it), infectious disease shapes the security environment and should be included on the new security agenda.

Key Points

- A variety of factors are causing the spread of infectious diseases, especially in the developing world.
- New strains of drug-resistant diseases are emerging.
- The measles vaccine is one of the best buys in public health.

Sensitivities and Vulnerabilities

Although talk of increasing globalization and interdependence is clichéd, non-traditional security issues have begun to influence strategy and defence priorities in ways that were not fully anticipated by advocates of the new agenda for security in the early 1990s. Malthusian scenarios have not materialized, but low politics are having an impact on real-world conflicts and are shaping national security strategies. Some countries are increasingly sensitive or even vulnerable to developments in the realm of low politics.

Sensitivity and vulnerability are terms drawn from Robert Keohane and Joseph Nye's work on complex interdependence (Keohane and Nye 2001). Sensitivity refers to the ability of developments outside national boundaries to influence domestic events in other countries. The 2014 Ebola outbreak, for example, led officials in the United States to alert domestic public health officials to monitor hospital admissions for patients who might be exhibiting signs of the disease. Such a precautionary measure entailed some costs and produced political controversy, but it did not pose a fundamental disruption to life in the United States. By contrast, vulnerabilities can cause significant disruption to domestic economic, social, or political activity. The emergence and spread of SARS in 2003, for example, crossed the line from sensitivity to vulnerability because it significantly affected international travel and Asian economies.

Sensitivities and vulnerabilities now seem endemic across a whole range of issue areas, produced by complex global systems and relationships that are not well understood. The 2008 economic crisis rocked global credit and equity markets as policymakers and investors alike learned too late about the 'risks' that were buried deeply inside their portfolios. National economies were highly coupled in unexpected ways, producing a global economic downturn. The world economy is also dependent on a global energy market to move petroleum and natural gas from producers to consumers, but scholars worry that that market might collapse in the face of 'peak oil': a situation where oil demand outstrips production. They worry that a market mechanism might be slow to create alternative energy sources and might not build needed production capacity in slow economic times, which would lead to wild and politically destabilizing swings in price during an economic upturn. They also worry about the potential for the militarization of energy security, especially if some governments lose faith in the market mechanism to supply the energy they need. The stability of the energy market itself, not necessarily the price or location of energy resources, thus becomes an issue of national strategic interest and subject of concern to strategists.

Key Points

- Although they have not risen to the top of national security agendas, issues of low politics are beginning to interact with local political and military events to produce global consequences.
- Countries are beginning to exhibit sensitivities and vulnerabilities to issues of low politics.
- Complex social, political, and economic relationships are emerging that can threaten regional and global stability, often in unanticipated ways.

Conclusion

Those who advocate including resource, environmental, or population issues on national security agendas might suggest that this chapter ignores a critical point: many of these global developments threaten the health and welfare of both individuals and states, and therefore should be considered as threats to security. They might suggest that the fact that military forces or strategists are ill-equipped to deal with emerging problems demonstrates that traditional

ways of thinking about security are simply not up to the challenge of dealing with emerging twenty-first-century security issues. A decision not to treat the emergence of a drug-resistant strain of TB as a threat to national security, for example, would thus be viewed as an effort to minimize the importance of the issue, but the fact that something is a threat to health and welfare does not make it a security problem in the sense that strategy or military force can minimize it. Hundreds of thousands of people every year are killed in road accidents, but no one would suggest that military force should somehow be used to improve highway safety.

By contrast, the purpose of this chapter was not to dismiss these global trends and transnational issues as threats to national or individual security, or to minimize the gravity of the challenges created by environmental damage, disease, or population growth in the developing world. Instead, it offered a mixed assessment of the ability of strategy or military force to respond to global issues. On balance, there was a significant and growing interaction between strategy and many of the items on the new agenda for national security. While not security issues per se, demographics and global warming are interacting with other trends to shape the global security environment and influence strategy. The complexity of energy and financial markets can also act as a wild card, making it hard for strategists to gauge the impact of events on distant shores and across disparate issue areas. The spread of infectious disease might also play a greater part in the making of strategy and defence policy in the years ahead. Environmental damage caused by the manufacture, maintenance, and disposal of weaponry is also an issue of concern to strategists. Indeed, the issues that appear to be beyond the reach of strategy are the environmental, resource, and commons problems that generated interest in a new concept of security in the first place. Those who see these issues as important should be relieved by the assessment presented in this chapter. Defining these issues as engineering, public health, or educational problems is far more constructive than somehow trying to resolve them by the threat or use of force. In an increasingly globalized and complex world, issues of low politics appear to be capable not of creating conflict, but of exacerbating the effects of political and military disputes.

Questions

1. Why are low politics now given priority by policymakers and scholars?
2. Why would globalization help to slow population growth rates in the developing world?
3. Although energy resources are vital, why is it that states have only recently fought over oil?
4. Can you think of a way to threaten or use force to resolve commons issues?
5. What would be the social or political consequences of attempting to use military units to enforce a disease quarantine?
6. Do you think it is realistic to expect that countries currently building a nuclear infrastructure would want to do so in a way that protects the environment?
7. What are the emerging points of interaction between low and high politics today?
8. Will people pay attention to environmental issues if they are not defined as threats to national security?
9. Is the process of globalization increasing the relevance of low politics on national security agendas?
10. Do you think that demographic trends will inevitably lead to decades of violence and instability?

Further Reading

P. F. Diehl and N. P. Gleditsch, *Environmental Conflict: An Anthology* (Boulder, CO: Westview, 2000) presents an overview of research on the relationship between the environment and security.

N. P. Gleditsch, 'Whither the Weather? Climate Change and Conflict' *Journal of Peace Research* (2012) 49(1): 3–9 is a selection from a special issue of the *Journal of Peace Research* that finds only a modest relationship between climate change and the occurrence of conflict.

R. O. Keohane and J. S. Nye, *Power and Interdependence*, 3rd edn (New York: Longman, 2001) addresses the theoretical implications of the differences between high and low politics.

R. A. Matthew, J. Barnett, B. McDonald, and K. L. O'Brien (eds), *Global Environmental Change and Human Security* (Cambridge, MA: MIT Press, 2010) assesses the impact of environmental change on human security.

D. Moran and J. A. Russell (eds), *Energy Security and Global Politics: The Militarization of Resource Management* (New York: Routledge, 2009) discusses energy markets and the prospects that the search for energy supplies could produce conflict.

S. I. Schwartz, *Atomic Audit: The Costs and Consequences of US Nuclear Weapons since 1940* (Washington, DC: Brookings Institution, 1998) is an effort to assess overall costs of the US nuclear programme.

Web Links

National Intelligence Council **https://www.dni.gov/index.php/global-trends-home** provides information about global trends and what they portend for the future.

Overpopulation **http://www.overpopulation.org** provides data and analysis about negative consequences of demographic change.

US Centers for Disease Control and Prevention **http://www.cdc.gov** provides information about disease outbreaks; US Food and Drug Administration **http://www.fda.gov/default.htm** provides public health information.

US Census Bureau **http://www.census.gov/popclock/** provides data and analysis of US and international demographics.

Woodrow Wilson Center **http://www.wilsoncenter.org** runs the Environmental Change and Security Project (ECSP), which publishes an annual report that contains articles, reviews, conference reports, and contact information for a host of issues and projects related to the new national security agenda; ECSP can be contacted by email at ecspwwic@wwic.si.edu

The Practice of Strategy

COLIN S. GRAY AND JEANNIE L. JOHNSON

Chapter Contents

Introduction: Strategic Expertise 385
Improving a Strategic Education 386
The General Theory of Strategy 391
A Call for Consummate (Re)Assessing 400
Conclusion 401

Reader's Guide

This chapter defines the requirements of good strategy making. It begins by explaining why good strategists are hard to find and then identifies the deficits of contemporary strategic education: insufficient attention to strategic classics and strategic history, and a pronounced bias towards American-centric topics and perspectives. A lack of universal theory is identified as critical. A remedy is offered: The General Theory of Strategy. The chapter closes with a call for the regular reassessment of strategic plans and engagements, and with a strong reminder that strategy is a practical subject and knowledge from its study must be communicated to those who need it.

Introduction: Strategic Expertise

Strategic geniuses are born rather than made. It is exceedingly difficult to 'do' strategy competently. Happily, however, one need not be a strategic genius to succeed, just better than the enemy's strategist. A strategist needs to be, simply, 'good enough'. That said, modern strategic studies has not performed well as an educator of strategic minds. The evidence in support of this harsh judgement lies both in what is absent from the literature and in the quality of official performance. This chapter outlines the qualities a good strategist needs to be effective and the obstacles to competent strategic performance.

Strategic expertise is rare for at least three reasons: the position of strategist is ill-defined; the education currently on offer for would-be strategists suffers chronic, debilitating gaps and biases; and the profession has yet to come to terms with a general theory of strategy which binds together the discipline and provides structure for action.

There are professional politicians, policymakers, and soldiers, but there are no truly professional strategists. Strategists have to be a mixture of theorist, planner, leader, and commander, and these in the right balance for any particular time and place. One might suggest that general staffs do strategy as operational plans, but their mandates do not typically extend across

the strategy bridge to the political realm—the realm which establishes the 'so what' behind military planning.

Improving a Strategic Education

Even the most promising students of strategy remain hampered by a faulty education: one which slights the classics of strategy and strategic history, and remains unbalanced in favour of American tasks and priorities (see Critical Thinking). In our opinion, the understudied classics are located in the works of nine authors written over the course of 2,500 years: Sun Tzu, Thucydides, Niccolò Machiavelli, Carl von Clausewitz, Baron Antoine-Henri de Jomini, Basil H. Liddell Hart, J. C. Wylie, Edward N. Luttwak, and Bernard Brodie.

There are three divisions in the canon of classic strategic theory. The first has three entries.

1. Carl von Clausewitz, *On War*. This is the most profound book on the theory of war and strategy ever written. It is long, philosophical, and something of a nightmare in organization. It was written between 1816 and 1831, and its argument reflects major shifts in the author's understanding, sometimes imperfectly transcribed into the text. Nonetheless, *On War* is the richest mine of strategic wisdom available.
2. Sun Tzu, *The Art of War*. As cryptic, indeed axiomatic, in style as Clausewitz is philosophical and wordy, Sun Tzu's is a brilliant, terse treatise. It could be an ancient Chinese PowerPoint briefing. Unlike Clausewitz, Sun Tzu offers direct advice to help his reader be victorious in war. Also unlike Clausewitz, Sun Tzu writes not just narrowly about war, but rather about broad relationships among war, strategy, and statecraft.
3. Thucydides, *The Peloponnesian War*. This is best studied in the version, *The Landmark Thucydides: A Comprehensive Guide to 'The Peloponnesian War'*. Thucydides did not set out to write a general theory of strategy. *The Peloponnesian War*, however, contains some of the finest literary examples of grand strategic reasoning ever committed to paper, as well as richly detailed cases of military strategy. The reader receives a general strategic education from the superb description and analysis in historical context.

The second division of classical strategists has five members.

4. Niccolò Machiavelli, *The Prince*. This classic work explains tersely and with consummate honesty what war is all about and why states wage it—because of clashing political interests as the fuel for armed conflict. Politics, after all, is the womb in which war develops, as Clausewitz later insists.
5. Baron Antoine-Henri de Jomini, *The Art of War*. Jomini is undervalued today, so far has his mantle of authority slipped from his paramount position in the middle of the nineteenth century. He was probably the most perceptive interpreter of Napoleon's way of warfare. Although his *The Art of War* is flawed and certainly dated in much of its detailed advice, it is nonetheless populated with significant insights into war as a whole, warfare, strategy, operational art, tactics, technology, and logistics. It deserves to be read, albeit with care, by strategists today.

6. Basil H. Liddell Hart, *Strategy: The Indirect Approach*. This volume is a work of great breadth and depth, marred principally by the author's determination to sell the 'indirect approach' as the magical elixir that will deliver success. Despite defying easy definition, the indirect approach is a valid and important idea. However, since it can have no meaning other than being whatever the enemy does not expect (i.e. the direct approach), it cannot serve as the all-context key to victory as its prophet claims; its logic is fatally circular.
7. Edward N. Luttwak, *Strategy: The Logic of War and Peace*. This book is very recent, but it has undeniable classic features. The author treats the several levels of war systematically, emphasizing the pervasiveness of paradox and irony as inherent features of strategy. Furthermore, Luttwak's insight that there is no natural harmony among policy, strategy, operations, and tactics, though hardly original, is nonetheless both profound and of huge practical significance.
8. J. C. Wylie, *Military Strategy: A General Theory of Power Control*. This is probably the most competent, and, notwithstanding its wonderful brevity, the deepest work on The General Theory of Strategy written in the twentieth century. Following Clausewitz, Wylie wisely insists that the primary task of a strategist is to control the enemy, a vital idea that is often missed.

The third division has only one entry.

9. Bernard Brodie, *Strategy in the Missile Age* and *War and Politics*. These two books reveal that Brodie deserves inclusion as a member of the highly exclusive category of great theorists of strategy. Although nearly all of the Brodie canon was focused on American defence problems in the emerging nuclear and missile ages, his strategic theoretical range was extensive and his judgements were profound. We predict that he will merit reading a century from now, a judgement that confers at least candidate classic status among the great strategic thinkers.

A study of the strategic classics must be married to a study of strategic history. History, which begins today if one is looking backwards, is the only evidence we have; all else is speculation. The history-averse 'presentist' is likely to discover that his own life experience provides unduly thin pickings as an education for action. Napoleon said there are two sources of education for a general: his own experience and the experience of other generals (Chandler 1988: 81). Since we cannot know anything in detail about the future, and the present is inherently transient, we need to extract whatever is extractable from our all too rich strategic history. Contexts change their character, but our 'present' has a plethora of antecedents. The Romans knew about counterinsurgency operations and counterterrorism, and so did Alexander.

The dangers of an ahistorical mindset are worthy of emphasis. Ignorant of history, the strategist will see the ever-changing present as a succession of surprises, even though strategic history is a truly grand narrative showing more continuities than discontinuities. It is poor history that leads people to invent allegedly great discontinuities: the nuclear age, the cold war, post 9/11, and now 'the return of geopolitics' or 'power politics' (as if there could be any other kind!) A mind without stores of historical past will fail to see patterns and will be tempted to treat current events as singular, or unprecedented, or to pin the cause of modern happenings on particular national traits.

History's 'ages', 'eras', 'turning points', 'tipping points', 'revolutions', 'strategic moments', and the like, are generally scholars' inventions, leaving a strategist who fails to earn his own studied interpretation of history easy prey for half-baked ideas and dodgy history (e.g. 'fourth-generation warfare', 'the Pentagon's new map', 'effects-based operations') (Hammes 2004; Barnett 2004; Anderson 2009: 78–81). The three leading thrust points of modern strategic studies—deterrence, limited war, and arms control—were all promoted, though not invented, in the mid to late 1950s by brilliant minds undisturbed by much grasp of history. Modern strategic theory was designed as a potent exercise in rational choice. Much of the contestably arrogant theory developed in the 1950s and 1960s was dangerously wrong, in substantial part because it could not accommodate the abundant evidence supplied by history concerning the role of contingency, especially human contingency.

Ideally, the good strategist must be a *shrewd* historian. Although history is the only strategic evidence we have, the merits and credibility of its recorders are eminently arguable. History cannot teach us anything, it is not an agent with a will. The challenge is to allow historical education to provide the perspective we need in order to make prudent policy now. Historical perspective is desirable, but it is not virus-free. Historical analogies can be misleading, and hindsight tempts us to interpret events from our own perspective rather than a perspective which faithfully reflects the thinking of those who lived through them. We in the twenty-first century now know that the cold war was a 'long peace', but in the 1950s and 1960s those of us who were there did not know that. Were the 1930s 'the path to war'? Well, obviously yes, but they did not seem that way to a lot of people at the time. The more historical evidence one acquires, the better one will become in drawing useful historical parallels and avoiding the pitfalls of oversimplification or retrospective mirror imaging.

Ahistoricism is made all the more dangerous when combined with national bias. Modern strategic studies have been largely Western, most especially American, in source, focus, and therefore outlook. The American character of these studies has been inevitable and unstoppable, even had anyone wanted to stop it. Strategic pondering needs problems to ponder and, unsurprisingly for a superpower, the United States has had more ponder-worthy strategic problems than have most polities. In addition, the openness of American society and the constitutionally mandated decentralization of the federal government have provided a wealth of opportunities for armchair strategists. US officialdom is willing to share its secrets with scholars who show promise of being helpful. By contrast, Britain is more like the former USSR in this regard, as are nearly all other polities.

There are fundamentally practical reasons for the continuing US domination of strategic studies. These include monetary and career incentives and the opportunity for influence. It is a minor paradox: you can only really 'do' strategic studies professionally in the United States, because only there can you float, career-wise, among academia, think tank, industry, and government while holding a security clearance—the ticket that allows access to the inner circles of government. However, to be a player you must address current US issues as defined by US officials, which may well limit the integrity of your scholarship, including an overemphasis on some issues to the neglect of others. For instance, for most of the modern period, irregular warfare was not regarded by the profession's leaders, or their US government, as serious business. Nuclear proliferation, counterinsurgency, and counterterrorism

were marginal concerns to the nuclear-focused folk who did the 'big important stuff'. Ironically, as history's revenge, in official estimation today it is nuclear matters (except the essentially hopeless quest for nuclear non-proliferation) that are marginal to the strategic studies profession. On a more macro scale, some matters of general theory continue to receive insufficient attention, including analyses of military doctrine, command, logistics, and civil–military relations.

Perhaps more seriously, the US-coloured thread which weaves through the bulk of the strategic literature results in a distinct ethnocentrism. America is an amazingly open society and government structure, but its strategic studies are essentially impregnable to alien strategic worldviews. There is nothing wrong per se with a focus on the leading global player, but the relentlessly American character of modern and contemporary strategic studies all but mandates that we do a poor job of understanding other cultures and traditions. Even if we only want to kill opponents, as opposed to bending their will by persuasion, a lack of understanding is apt to be a major handicap. Most polities in the world have strategic narratives of their own that are different from the American-centred view of the world (see Box 22.1). A strategic studies profession largely owned or rented by the United States cannot help but be poorly equipped to cope with events shaped in large part by the beliefs and choices of those socialized by profoundly un-American experiences.

BOX 22.1 Key Perspectives

Alternate Strategic Narratives

The Russian worldview has been largely shaped by its 'geography, by a long history of "tribal" conflicts under the Mongols, [by] the expansion and rule of a multiethnic empire, and by a deep authoritarianism' (Ermarth 2009: 86–7). Fritz Ermarth argues that this helps explain Russians' comfort with martial values and their emphasis on mass in defence matters. Technological advances, he argues, are sought after as 'mass multipliers', rather than as a means of fighting well with fewer men.

Sarah Chayes describes aspects of identity and warfare practised in Afghanistan:

> It is a state founded not on a set of thoughts held in common and articulated through texts and institutions, but rather a state founded on the strategic nature of its territory—the crux between empires. It is a state founded on a fluid and tenuous interaction between collective structures, structures of nation, of tribe, of family, and a highly developed sense of freedom, a violent aversion to submission.
>
> (Chayes 2007: 101)

Chayes argues that Afghans grudgingly gather into a nation from time to time, but tribal ties never lose their pre-eminence. Therefore, when the national government comes under attack, Afghans are quick to dissolve it 'and run like water between the fingers of their would-be conquerors' (Chayes 2007: 68).

Greg Giles outlines aspects of Iranian strategic perspective that would be alien to most Western observers:

> Shi'a attitudes toward war are less goal-oriented than western concepts. As evidenced by Khomeini's conduct of the 8-year war with Iraq, struggle and adversity are to be endured as a sign of commitment to the true faith. Defeat is not necessarily equated with failure. This emphasis on continuing the struggle against oppression and injustice rather than on achieving 'victory' is seen as producing a high tolerance of pain in Iran.
>
> (Giles 2003: 147)

Key Points

- Competent professional strategists are hard to come by.
- The position of strategist is ill-defined and daunting.
- Modern strategic studies has done a poor job of educating those interested in the trade. Its deficits include insufficient attention to the classics and strategic history as well as a pronounced bias towards American issues and security concerns.

Critical Thinking We can train successful strategists

For

- ***Strategic success is relative.*** Although strategic genius tends to be possessed by '[o]nly the most mentally stable, physically robust, best broadly educated, technically sound, and naturally intuitively gifted people' (Gray 2010a: 64), a *successful* strategist does not need to be one of these, he needs only to be better in some political or economic contest than the adversary's strategist.
- ***When without genius, educate.*** All warring factions have only the human condition from which to select strategic thinkers. Genius is rare, which places premium on the best trained, best educated thinkers in the business.
- ***Vicarious experience is valuable and available.*** History offers a wealth of relevant lived experience. For those willing to invest in it, study of the strategic past offers specific insight into how military and political problems have been addressed across thousands of years of belligerent history. A historically shrewd strategist faces nothing new under the sun.
- ***Institutionalization is key.*** It is not strategic talent, but rather the institutionalization of strategic roles which is lacking. Polities that are willing to formalize and reward the occupation of national strategist will inspire increased rigour in relevant educational structures and be positioned to attract the best and brightest to strategic professional ranks.

Against

- ***Strategic wisdom will be trumped by strategic palatability.*** The best educated among strategists will sustain a position within policy circles only by exercising the level of self-restraint in logic and imagination required for their messages to be palatable to their political masters. Strategic education cannot substitute for political will.
- ***Strategic studies are irretrievably lost to American parochial concerns.*** American interests, bound by geopolitical context, the limits of American cultural imagination, and American national politics, will continue to be the interests which drive the discipline of strategic studies so long as the US remains the primary national power offering funding, access, and career opportunities to strategic thinkers.
- ***Strategists are hostage to their own contexts.*** The lessons of historic experience may be learned by students of strategy but prove inadmissible to their time and place. No matter how talented, well educated, or steeped in history, strategists will remain hostage to their own domestic political, social, cultural, and economic contexts. These value-laden or material contextual constraints, along with chance and human contingency, may render irrelevant the best training and vicariously acquired historical experience.

Critical Thinking: (*continued*)

- ***Democracy gets in the way.*** The split in civil–military relations necessary to modern democracies will ensure that a formalized post of strategist is never realized. An effective grand strategist must have significant influence over both military operations and, more importantly, the political ends which inspire them. Because these lie in separate military and civilian spheres of influence in democracies, a unitary position of strategist will not be trained toward and institutionalized.

Questions:

1. Is it possible to train successful strategists?
2. When is domestic and/or political culture likely to yield to sound, but perhaps culturally unpalatable, strategic advice? When not?
3. Which important strategic lessons are missed when the exclusive focus is the American experience? What is added by studying Russian strategic history?

The General Theory of Strategy

Perhaps the most important gap in the current state of a strategic education, and the most serious hindrance to achieving comprehensive strategic effect, is the lack of a general theory of strategy. Because the human race has an eternal strategic history—a history shaped, or at the least influenced, by force—there will always be a demand for strategic study. A country or other security community may either decide not, or be unable, to 'do' strategy. Such a country, however, will perform strategically, regardless of its ability to do strategy purposefully. Often polities decide on policy, then decide on action, but neglect to tie the two realms together. The purpose of the strategist is to bridge this gap by being well armed with The General Theory of Strategy. Modern strategic studies must make a convincing case to would-be strategists that their plans and conduct as planners and commanders depend on a general theory of strategy and that military doctrines about contemporary 'best practice' should derive from that theory.

A single general theory of strategy must pertain to all periods, types of warfare, technologies, and belligerents. The central assumption of a general theory of strategy is that the core components of strategy *writ large* remain constant. Each core component must be considered in the process of creating individual strategies adapted to the needs of a particular time and place. In sum: sound strategies will claim universal strategic theory as one parent, and the particular demands of the contemporary military and political context as the other. The core components of The General Theory of Strategy are outlined in Box 22.2 and then described in detail (Gray 1999b, 2010a).

Understanding the Nature and Character of Strategy

Defining Strategic Terms

A conversation about strategic theory cannot begin without some agreement on the use of terms. As described earlier, strategy is here assumed to have a constant nature. Strategies,

BOX 22.2 Case Study

The General Theory of Strategy

Understanding the nature and character of strategy

- Defining strategic terms: grand strategy, military strategy, strategy bridge
- Strategy is a political instrument
- Strategy is adversarial
- Strategy is subject to the human condition
- Strategy may produce ironic effects

Making strategies: seven contexts

- Political
- Sociocultural
- Economic
- Technological
- Military
- Geographical
- Historical

Executing strategies

- Difficulties and friction
- Time
- Logistics
- Information and intelligence
- Military doctrine
- Strategists and the strategy bridge

on the other hand, have been variously labelled as direct or indirect, sequential or cumulative, attritional or manoeuvrist-annihilating, persisting or raiding (expeditionary), coercive or brute force, offensive or defensive, symmetrical or asymmetrical, or a complex combination of other asserted labels (Gray 2010a: 65).

Other terms in frequent use include *grand strategy*: the orchestration and employment of any or all the assets of a security community (a wide, rather comprehensive list), including its military instrument, for political purposes. *Military strategy* comprises the direction and use made of force and the threat of force for political purposes. Implicit in these two definitions is the assumption that someone, a professional strategist we advocate, must consciously and competently bind the coercive elements of the state to its contemporary political purposes. This engineer of strategy must build and maintain a *strategy bridge* that connects the realm of military power to that of political statecraft (Gray 2010a: 28–9). As we go on to describe, this bridge is trafficked by persons with institutional ties of distinctive variety and preferences.

Being able to communicate effectively with each of them and march them to common cause presents the would-be strategist with a heroic challenge.

Strategy is a Political Instrument

Military institutions fight, but political institutions declare war. Strategies function with, if not principally for, political consequences. Therefore, strategy should be made with an eye steadily fixed on political considerations. Today's wars are scrutinized through moral, cultural, and legal public lenses in ways that were absent prior to the mid-nineteenth century. The result is that even sound military strategies risk failure if not backed by strong domestic political support.

Strategy is Adversarial

The immediate purpose of strategy is to constrict an enemy's choices and exploit them for political purposes. There is no point in constructing strategies without an extant adversary. Without an obvious foe, strategists must select from among plausible adversaries and treat these as sentient, wilful actors in a contest of domination. Too often, imagined adversaries are treated as static entities, likely to respond along rational and predictable pathways. A strategist would do well to keep in mind paradoxical and ironic aspects of strategy: what works well today frequently does not work well tomorrow—and it does not work well tomorrow in good part because it worked well today. Nimble adversaries will make sure of this.

Strategy is Subject to the Human Condition

Strategies are made and carried out by *people*. The well-educated strategist will consider human nature—the instincts, spirit, and limitations of the mortal frame shared by humans as a species—as well as the individual idiosyncrasies of great men and women who may play pivotal roles in the shaping of history. Strategists have personalities that are the products of their biology and life experience. When adversarial actors are treated as rational choice automatons, the planner is also likely to underrate the role of contingency. Eccentric action is always possible.

Strategy May Produce Ironic Effects

History provides us with a long legacy of strategies that resulted in unintended consequences—explicit ironies of the political aims intended. Strategic annals are likely to recount that the US invading Iraq in the name of defeating terrorism may have had the opposite effect—inspiring and even enabling Islamist terrorism to reach new heights. There is good reason that prudence is regarded as the cardinal virtue in statecraft and strategy; it mandates concern for the consequences of decisions.

Making Strategies: Seven Contexts

The General Theory of Strategy makes clear that the particular details of each newly crafted strategy are *derived from* and must be attentively *executed within* each of seven contexts (Gray

2010a: 38–9). Humans, with all of their idiosyncrasies and foibles, add an extra dose of contingency into each contextual category.

Political

'Politics' is a handy label for the often complex process of negotiation and dialogue between and among a strategy's stakeholders, both civilian and military, domestic and allied. Strategy is inescapably a negotiated product consistently revised by changing circumstances on the home front or developments on the battlefield. A political context stretches the breadth of the security-related decision-making process: the internal machinations of relevant bureaucracies, their negotiations with relevant policymakers, the input and influence of pressure groups and popular opinion, the political conditions of the adversary, and the myriad political pressures external to the state.

Keeping the strategy bridge in good repair requires that the strategist have a nuanced understanding of each key political player and be able to induce cooperative, complementary behaviour towards the nation's political ends. This coordination challenge on the home front is likely to prove more difficult than direct military defeat of an adversary. Without conscious strategic coordination, however, a politico-military quest may remain rudderless, riding waves of immediate institutional interest and short-term tactical advantage—a strategic style that has produced many of history's ironic, even disastrous, strategic effects.

Sociocultural

Sociocultural dynamics influence the strategists who craft policy and the national populace to whom they must answer; it is an essential and vastly understudied component in the orchestration of war. Culture is admittedly complex and difficult to capture in theory and even more in practice. Polities as well as individuals may possess multiple cultures. That said, to function in a less than chaotic way, national or subnational groups must agree on a baseline of acceptable and unacceptable activities (an ethical code), usually supported by a sense of group identity and a set of beliefs about how the world works.

Even the most talented strategists may not be able to change strategically unhelpful cultural inclinations at home, but an understanding of these vulnerabilities may allow the strategist to hedge against them and play to strengths. Conversely, understanding the culturally nuanced habits (customs) of an adversary does not guarantee predictive power over his next move, but may help the strategist narrow the field of most likely behaviours and help him anticipate strategic vulnerabilities born of cultural preference.

A serious study of culture and society has not typically been the forte of modern strategic studies. Recent counterinsurgency efforts have highlighted this deficit. Success in people-centric warfare requires a sound knowledge of social structure and culture. Advantage in any sort of conflict is aided by an understanding of the locus of social authority, how it is established and communicated, and what can be done to undermine the popular legitimacy of a society's war-making institutions (see Box 22.3).

Strategy is formed and executed in a social, value-laden environment. Perhaps because ethics and values are so deeply internalized, this aspect of the sociocultural context is

Box 22.3 Key Perspectives

Strategic Choice

> [W]hen security communities exercise strategic choice they do so not with a completely open, or blank, mind on strategic ideas, but rather with values, attitudes and preferences through which they filter new data, and in terms of which they judge among alternative courses of action.
>
> Gray (1999a: 29)

conspicuously missing from classic discussions of warfare. Only when group ethics are compromised, as in the Abu Ghraib scandal, do communities tend to verbalize, or perhaps even recognize, their ethical statutes. It is moral beings, however, who construct strategy and their respective value sets cannot be omitted from consideration. Evaluation of the effectiveness of strategies will be subjected to value-laden assessments of the conflict by participants, domestic and global observers, and the adversary. Exposure of ethical violations is near certain to reduce morale among troops and diminish support for the war effort at home.

Economic

The genius of the strategist will always be bounded by the amount of resources at hand. Economics and logistics may be the tedium of warfare, but those who plan without a keen eye to either will pay a heavy price. Indeed, historian Sir Michael Howard offers the opinion that '[t]he strategy adopted is always more likely to be dictated more by the availability of means than by the nature of ends' (Howard 1991b: 32).

Technological

The technology possessed by the belligerents involved may not directly determine the outcome, but neither can it be dismissed as an unimportant element for strategy. Technology may award one side strong logistical advantage. The human requirement is unarguably 'different for the warrior who must dispatch his enemy within arm's length, as extended by an edged or pointed weapon, and the "warrior" who "wields" a keyboard to dispatch an unmanned cruise missile to its target' (Gray 1999a: 37). Technological advantage can prove decisive, but it may also backfire. A superpower sitting on technological superiority may underinvest in raw human cleverness. History has demonstrated that strategies devised by a technologically disadvantaged, but strategically cunning, foe can win the day. The morale of troops is more likely to prove decisive than the quality of their weaponry, which is not to deny that the latter can harm the former.

Military

Military administrations recruit, train, and arm forces—transforming society's resources into military instruments. Since the war for which you are best prepared tends to be the one

you would prefer to fight, military administrations may press for particular warfare strategies, whether or not these are the right fit for the current threat environment. The clever strategist must be acutely aware of the embedded preferences of distinct service cultures and the impact these will have on the execution of security policy.

Political and military command can be devastating when incompetent, or can be the decisive factor in victory. Leadership in war has dominated the literature on military history. Our modern fascination with—and often overdeveloped confidence in—technology, however, threatens to diminish an emphasis on the skills of the leaders behind the weapons, as well as the willingness of troops to fight and risk death and injury.

Geographical

The geography of war has expanded beyond the traditional domains of land and sea. Today's theatres include air and space and the ever-increasing reach of cyber connections. The role played by terrain, climate, and distance may be determined by the extent to which they can be trumped by technology. Military might, however, is never as fungible as its wielders would like. Long-range weapon systems that can traverse thousands of miles and strike with surgical accuracy may not, in fact, diminish the salience of geography. These long-range stand-off weapons may be irrelevant when conflicts are waged in urban settings, tribal lands, or any other setting in which nominally powerful weapons are either ethically or practically unfit for battle.

Any geography—land, space, cyberspace, sea, or air—that presents a vulnerability to the adversary is likely to be exploited. At the end of the day, however, the advantage gained there must answer to an essential element of ground truth: 'Every specific strategy, no matter how particular to armed forces, specialized for, say, air or space warfare, has to contribute to a total strategic effect upon the land, the only geography suitable for human habitation' (Gray 2010a: 40).

Historical

Fate assigns a strategy's historical context in the stream of time. Battlefield wisdom derived from recent experience, combined with hindsight notions of the nation's proudest military moments, tends to produce what is believed to be the range of admissible strategic choices. A strategist cannot help but be influenced by the tenor of the time in which he lives, but can manage wider perspective and surer footing by acquiring a deeper foundation of strategic history than that possessed by his counterparts.

Executing Strategies

Difficulties and Friction

Key to strategy is a sound understanding that friction, chance, and uncertainty (Clausewitz 1976: 85–6) inevitably play a significant role. Untimely rainfall, plans falling into the hands of the enemy, or cultural missteps that inspire a local blood feud may strip away the fortunes of an otherwise successful contender. All rational choice, planning, and training are subject to

the dynamics of a battlespace rife with uncertainty. Once the enemy is engaged, the foreseeable future is discovered not to be so. The inevitability of friction, however, should not inhibit a strategist from careful and multivariate planning. Friction should be treated as an assumed variable, contingency plans put in place, and flexible response considered the norm.

Time

Because humans tend to assume that time is even-handed to all parties, it is often ignored as a component of strategy; but time is not even-handed. Lengthy wars may advantage irregular forces and enervate professional militaries that are hostage to budget cycles and impatient domestic opinion. Western societies who define success through results-oriented metrics and deadlines are vulnerable to opponents who do not. Time, to reinforce the cliché, may cost advanced militaries inordinate amounts of money and nothing less than political defeat.

Logistics

Scholars often forget that the process of applying elegant strategic ideas is unromantically bureaucratic. When theorists debate strategic concepts, they are prone to assume logistical feasibility. This may be a vast assumption. If a fighting force cannot be effectively supplied and moved, it cannot fight. It cannot prevail. The organization of strategic initiatives includes staffing and coordinating, costing and reviewing, overseeing and providing feedback. This requires a military administration that aspires to, and attains, logistical excellence.

Information and Intelligence

The value of information and intelligence is weighed largely by its contribution to achieving strategic surprise. It is a curious feature of strategic history that, given the substantial effort applied to crafting deception strategies aimed at surprising the enemy, rather little attention is devoted to the subject of how, precisely, one *benefits* from surprise and wields it to full strategic advantage.

In this area as well as others the information and intelligence front has a spotty record. Recent Western engagement in irregular conflicts, where populations variously hide, abet, or oust militants from their midst, has inspired a rededication to refining intelligence gathered through human and technological means and improving what have traditionally been simplistic and ineffective information campaigns. Western militaries have not been very good at recording and building on lessons learned in the information aspect of warfare, and thus force themselves to learn from raw experience lessons their predecessors could supply from the past.

Military Doctrine

Civilian and military scholars write strategic theory. These ideas are transformed by military administrations into doctrine, the purpose of which is to identify best current practice concerning 'what to think and how to do it'. When constructed top-down in this fashion, doctrine

may prove an unreliable guide for actual military behaviour, serving rather as an icon, an idealized version of how the organization aims to perform, or representing an administrative attempt to move an otherwise tradition-bound institution in a new direction.

In ideal form, strategic ideas and the attendant doctrine are objectively tied to security realities. In practice, military doctrine, often distinct to the particular services, is more often than not a detailed legitimization of a preferred way of fighting. Jointness (cross-service cooperation) often loses in this battle—with doctrine being crafted and pursued for the purposes and futures of individual services rather than as an attempt to operate in complementary strategic fashion.

Given these realities, it may be that the most important role played by a strategist in the formation of doctrine is not recommending the particulars of operational or tactical approach, but rather orchestrating and streamlining the *process* of strategic planning, ensuring that players are not working at cross purposes, and coordinating their efforts for comprehensive strategic effect. In an orderly, if fictional to this point, strategic universe, The General Theory of Strategy would educate the writers of doctrine and inspire the pens of disparate security institutions to scribe complementary means towards common ends. In the non-fictional universe it is as well to understand that the doctrine that is followed is the doctrine that is believed, not necessarily the one that is written and taught officially.

Strategists and the Strategy Bridge

The last point of The General Theory of Strategy risks stating the obvious: strategy must be planned and coordinated by a competent strategist. At the risk of redundancy, we emphasize again: the task of a strategist is formidable in the extreme. Even a sound education may bring only partial success. Strategy is an art, not a science, requiring physical and moral fortitude, exceptionally good judgement, and more than one's share of luck—little of which is likely to be much enhanced by formal education. Training and command experience fare no better as preparatory ground. Each can prove a false friend when confidently misapplied to the next war. Given the awesome challenges to sound strategic conduct, it is not hard to see why few people can qualify as competent strategists. That said, it may be worth sounding a hopeful note: Box 22.4 highlights five strategists worthy of acclaim.

A strategist's maintenance of the strategy bridge requires a personality that can tolerate, if not connect to, lead players on both sides of the river. The character traits that make a successful politician may pose incompatible contrasts to those that define a soldier's soldier. The potential for friction is enormous. Not only must an adept strategist be able to manage a set of strong and conflicting personalities, he must be able to carry communications effectively between them.

Frictions of personality may be compounded by deficits in strategic understanding. Strategic studies cannot hold itself hostage to official clients who may not 'get it', who may not really understand what it means to 'do strategy'. More often than not, policymakers will be insufficiently educated in The General Theory of Strategy to recognize good strategy from bad. The truth is, the pragmatic clients of strategic studies are not interested in the nature of war—they need to know what to do *now*. Scholarly students of strategy usually do work irrelevant to the immediate needs of the state, which means that their products have to be placed in a current context before they can contribute to security *now*. The now is always moving; the longer-term view of the scholar never arrives. Policymakers and soldiers live in the immediate

BOX 22.4 Case Study

Five Good (Enough) Strategists

Strategic competence, even genius, reveals itself on a spectrum of better to worse, not simply in two categories, 'good' and 'bad'. Even superior strategists had days of poor performance; a highly gifted strategist can be defeated by a yet more highly gifted strategist in the enemy's camp. Circumstances and contexts contribute hugely to the ability of the strategist to demonstrate his gifts. A strategist as planner or commander needs only to be good enough, not perfect; and many a poor strategist has been rescued by the willingness of his troops to fight.

Given the heavy focus in this chapter on the strategist as conceptualizer, it might be helpful to balance the account by citing five outstanding examples of planners and commanders—individuals who clearly were 'good enough' strategists.

Alexander, rightly termed the Great (356–323 BC), was probably the finest strategist of all time. He was obliged by culture and circumstance to play all strategic roles personally: head of state and policymaker, heroic leader/warrior (a role required of a Macedonian head of state), grand strategist, and military strategist. Alexander's vast empire was acquired and briefly secured not only on the battlefield, but also by prudent grand strategy, wise military choices, cunning diplomacy, and intensely personal leadership of all kinds. He was never defeated in the course of his short, bloody career (Lonsdale 2007).

Ulysses S. Grant (1822–85) and *Robert E. Lee* (1807–70), respectively by 1864 the commanders-in-chief of the Union and Confederate armies in America, were both outstanding strategists. The battlefield generalship of both has been controversial among scholars. Both have been criticized for their willingness to accept eye-wateringly heavy casualties, often suffered in frontal assaults against the recently improved small arms and somewhat modernized artillery of the day. As matters of sound strategic judgement, Grant and Lee had no superior option other than to seek decision by battle. Both waged an offensive style of warfare brilliantly: Lee to compensate for material and human shortages; Grant for the purpose of exploiting the Union's human and logistical advantages (Keegan 1987; Reid 2005; Glatthaar 2008).

In its war with the Irish Republican Army (IRA) from 1919–21, Britain was both fortunate and unfortunate in the person of the leader of its enemy, *Michael Collins* (1890–1922). Collins, nominally only the IRA's Director of Intelligence, proved a formidable foe. A graduate of a British internment camp as a consequence of his participation in the strategically absurd, though spiritually uplifting, 1916 Dublin Rising, Collins decided that he would try to win a war for Irish independence, not simply make the traditional futile blood sacrifice (e.g. 1916). He largely taught himself by hard experience how to wage the only kind of warfare that the outnumbered and outgunned IRA could win, that of an irregular kind (guerrilla and terroristic). Collins proved a master strategist for irregular conflict. For most of the war he out-generalled the British by a wide margin, even though by mid-1921 he was in effect defeated militarily. He understood that above all else terrorism and guerrilla warfare were political theatre. Collins waged a struggle against British political will by challenging British values. When he judged that the gun had won all that it could win, he made peace with a British government that was seeking an exit from most of Ireland. The British were fortunate in having to deal with so pragmatic and far-sighted an Irish leader and military leader-commander as Collins. Many Irishmen were not as realistic as Collins in his willingness to accept a compromise settlement in 1921 (Townshend 1975; Foy 2006).

Field Marshal *Sir Alan Brooke* [usually Alanbrooke] (1883–1963) was Britain's Chief of the Imperial General Staff (CIGS) from December 1941 until 1946. His statue outside the British Ministry of Defence proclaims on its plinth, 'Master of Strategy'. Following a distinguished, if brief, record of senior battlefield command (most especially as commander of II Corps in the Dunkirk Campaign of 1940), Alanbrooke rose to head the Army and then to chair the British Chiefs of Staff Committee. Perhaps even more important than the high quality of most of his own strategic judgements on the conduct of the war, his primary duties were to hold a daily running dialogue—frequently animated—with his charismatic and forceful political master, Winston Churchill. He also managed grand strategic relations with Britain's US ally. Given that the British strategic, and therefore political, hand became weaker and weaker vis-à-vis the US as well as the USSR from 1942 to 1945, Alanbrooke needed all his gifts and education as a master of strategy (Roberts 2008).

context, and a professional strategic advisor or executive must learn how to deliver his advice in a way that answers the questions sitting in their inboxes. If strategic advice is not accessible and immediately relevant it cannot be useful.

These components, or dimensions, of a universal theory of strategy are not rank ordered in relative importance, nor are they meant to be mutually exclusive. They overlap and influence one another. Moreover, the significance of each must vary from historical context to context. The purposes of defining the essential components of strategy are to put defensible parameters around the strategist's field, and to identify a knowledge base that can be converted into practical advice for the problems of the day. General strategic theory hitches contemporary strategic issues to a common post, and supplies reins to the strategist who may otherwise ride from one conflict to the next without direction or basic understanding of the nature of war.

Key Points

- Due to the inevitability of conflict between human societies, the need for strategy is permanent. Polities that fail to construct and follow a deliberate strategy will nonetheless act to strategic effect.
- Strategic studies must provide would-be strategists with a general theory of strategy. This construct defines the field of a strategist and identifies the inherent and enduring components of strategy, regardless of type of conflict. A comprehensive understanding of The General Theory of Strategy illuminates the daunting nature of the challenge that the strategist strives to meet.
- The elements of strategic theory proffered here are not listed by priority or importance. Contemporary strategies should draw on The General Theory of Strategy as one parent and the current socio-political, military context as the other. The aspect of strategy that requires the most attention and resource will be dictated by the specific contexts of the day.
- Strategic competence has been achieved, as manifested by five sound strategists highlighted here.
- Policymakers are not often attuned to the theory or practice of strategy. It is the job of a professional strategist to explain the utility of the chosen strategy to those who must enact it.

A Call for Consummate (Re)Assessing

Given the limits of human wisdom and the role of contingency, no contemporary strategy, no matter how tightly married to a sound understanding of general theory, will achieve a perfect score in strategic effect. A good strategist is obliged consistently to reassess her strategies, processes, strategic education, and traffic management on the strategy bridge in order to increase strategic prowess.

Assessment of any particular modern or historical strategy presents its own challenges. Every assessment is a judgement-set made by particularly encultured persons *today*. Despite inherent subjectivity, consistent reassessment of our own and others' strategies has value. There is a chance that it may improve self-awareness of bias, identify errors, allow suggestions for improvement, and educate the strategist with knowledge for its own sake. After all, the strategist is a scholar; one of his or her roles is to search for truth.

With that in mind we suggest that an educated strategist needs to be armed with nine fundamental questions:

1. What is it all about (i.e. what are the stakes at hand)?
2. What strategic effect are we having?
3. Is the selected strategy tailored to meet our political objectives?
4. What are the probable limits of our power as a basket of complementary agencies of influence, and in our endeavour to control the enemy's will?
5. How might the enemy strive to thwart us?
6. What are our alternative courses of action or inaction? What are their prospective costs and benefits?
7. How robust is our home front?
8. Does the strategy we prefer today draw prudently and honestly on the strategic education that history provides?
9. What have we overlooked? (Crowl 1987: 39–48; Gray 2010a: 16–17)

The good strategist needs to be a sceptic, not a cynic, though the latter attitude would often be excusable. He has to be ready to question official arguments, demands, decisions, and performance. Above all else, he has to remember at all times the core of his duties. The good strategist is locked into an adversarial project in which the enemy always has a vote. This the strategist must counter by delivering the compound of consequences that we know as 'strategic effect' from the world of operations and tactics, and thereby secure some control over the will and ability of the enemy to resist. This, in the proverbial nutshell, is what strategy and the strategist's duty is all about.

Key Points

- Strategic reassessment will always suffer from the cultural and time-driven bias of the reassessor, but must be conducted despite its flaws if we hope to identify errors and improve performance.
- The questions that drive a reassessment should examine the extent to which our strategy has enabled, and will continue to enable, achievement of political objectives. This assessment must include the likely moves of the adversary as well as the disposition of our domestic population.
- The essential role of the strategist is to deliver the sort of strategic effect that will collapse the enemy's will to resist.

Conclusion

Even the most accomplished strategist is likely to perform in ways that are context-bound and rendered imperfect by bias as well as by ignorance. It does not follow, however, that strategic studies are harmful or unnecessary. Rather, they are essential, even though they can only be performed by flawed people working through somewhat dysfunctional institutions. This is who we are and how we have to work—period.

The only way forward is to continue to practise the virtues of good strategic studies, to take seriously the application of universal theory, and to require more rigour and breadth in the studies we produce. Our trade has timeless relevance, but statesmen can choose, and have, from time to time and place to place, chosen to ignore it. Should the position of professional strategist ever emerge within the polities of power, that rank will have been earned by virtue of a sound understanding of the belligerent past and the ability to make its lessons practicable to those crafting the future.

Questions

1. What factors inhibit the rise of professional strategists?
2. Where is current strategic education most in need of improvement?
3. What cautions ought to be kept in mind when reading strategic history? Are records of ancient conflicts relevant to military matters today?
4. Why are 'modern strategic studies' and 'American strategic studies' nearly synonymous?
5. What are the dangers posed by an overwhelmingly American perspective in strategic studies?
6. What is the purpose of a universal theory of strategy? What issues must it address?
7. What material, political, organizational, geographical, or even accidental factors may inhibit strategic genius? How does human contingency play a role?
8. Why might the talents of some of the most gifted strategists in history be lost on the casual observer? What are the most pronounced achievements of Alexander? How does he compare with a modern strategist like Collins?
9. Describe the bridge a strategist must build between the political and military worlds. What are the difficulties in doing so? What tasks must be performed? What skills are required?
10. What are the objectives of a rigorous reassessment of strategy? What factors must be considered?

Further Reading

B. Brodie, *War and Politics* (New York: Macmillan, 1973) is a late-career work (he died in 1978) that is all about the practice of strategy through the twentieth century. Because Brodie's career began before 1945, his writings had a personal historical depth that most of his professional peers lacked.

C. von Clausewitz, *On War*, translated and edited by M. Howard and P. Paret (Princeton, NJ: Princeton University Press, 1976) is the foundation text for the conceptual education necessary if one is to understand, let alone practise, war and strategy.

C. S. Gray, *The Strategy Bridge* (Oxford: Oxford University Press, 2010) explains that the sole purpose, and therefore value, of strategic theory is to assist strategic practice. The 'good enough' practising strategist needs to be an educated strategist.

A. H. de Jomini, *The Art of War* (1838; London: Greenhill Books, 1992) is a valuable complement, and occasional corrective, to Clausewitz, particularly in Jomini's detailed treatment of doing strategy and operations. The details are dated, of course, but most of the concerns generically are not.

B. H. Liddell Hart, *Strategy: The Indirect Approach* (1941; London: Faber and Faber, 1967) provides important insight into why and how strategy has been practised, set usefully in the context of historical experience, though admittedly an experience contestably interpreted.

E. N. Luttwak, *Strategy: The Logic of War and Peace*, revised edn (Cambridge, MA: Harvard University Press, 2001) offers insights on the nature of strategy that are quite original, if not always sound (e.g. he mistakes irony for paradox). His argument is powerful and obliges the reader to grapple with the practical implications of the nature and structure of strategy (with its different levels).

J. A. Olsen, and C. S. Gray (eds), *The Practice of Strategy: From Alexander the Great to the Present* (Oxford: Oxford University Press, 2011) show from historical experience how the theory and practice of strategy have always been interdependent.

Sun Tzu, *The Art of War*, edited and translated by R. D. Sawyer (c.490 BC; Boulder, CO: Westview Press, 1994) offers direct advice for all time on the practice of statecraft and strategy, as well as on the qualities needed for competent generalship.

Thucydides, *The Landmark Thucydides: A Comprehensive Guide to 'The Peloponnesian War'*, edited by R. B. Strassler, revised from translation by R. Crawley (c.400 BC; New York: The Free Press, 1996) tells the story of a very great war, but also, indirectly, his narrative offers a masterclass on the practice of grand strategy.

J. C. Wylie, *Military Strategy: A General Theory of Power Control* (1967; Annapolis, MD: Naval Institute Press, 1989) uses theory to make sense of the practice and malpractice of modern strategy. He is terse, clear, and anchored firmly in experience, some of it his own.

Web Links

US Department of Defense **http://www.defense.gov** offers links to each of the US armed services, providing some insight into their distinctive roles and perceptions of the current threat environment.

The Clausewitz home page **http://www.clausewitz.com/index.htm** introduces students to the writings of the Great Prussian himself and provides links to the most recent scholarly work on Clausewitzian topics.

Sun Tzu's Art of War page **http://suntzusaid.com** provides students with a translation of Sun Tzu's work, as well as a paragraph-by-paragraph commentary.

Muir S. Fairchild Research Information Center **http://www.au.af.mil/au/aul/bibs/great/great.htm** provides bibliographies on great warriors, thinkers, and leaders. Available on their list are resources for Clausewitz, Jomini, Sun Tzu, Liddell Hart, Brodie, Ulysses S. Grant, and Robert E. Lee.

Does Strategic Studies Have a Future?

LAWRENCE FREEDMAN

Chapter Contents

Introduction: The Development of Strategic Studies 404
In and Out of the Cold War 406
Strategy and the Crisis in Social Science 409
The Academic and Policy Worlds 411
Realism: Old and New 415
The Study of Armed Force 416
Conclusion: Does Strategic Studies Have a Future? 418

Reader's Guide

Strategic studies developed in universities and think tanks as traditional military patterns of thought appeared inadequate in the thermonuclear age. By the end of the cold war, it had become a broad field of enquiry, drawing on a range of expertise. Since then it has been caught between the scholarly disciplines that dominate the universities and the inherently interdisciplinary pressures of strategic practice. Realism, the intellectual basis of strategic studies, was also challenged for disregarding domestic and transnational factors, and a preoccupation with armed force to the exclusion of peaceful means of exerting influence and resolving disputes. One way forward recognizes that the course of history can be altered by the choices made by individuals, groups, and governments. These choices are not only about the use of armed force, but armed forces provide the starkest choices to be confronted and so present a natural starting point for any attempt to create a general theory of strategy. Organized violence will continue to pose a series of challenges that deserves special study.

Introduction: The Development of Strategic Studies

Initially strategic studies developed outside the universities. Before the cold war there were military theorists and commentators, such as John 'Boney' Fuller and Basil Liddell Hart in Britain, who often had substantial practical experience of the subject but who wrote largely for a popular and a professional audience rather than an academic one. Their subject matter was similar to that of later strategic studies, and those who survived into the nuclear age fitted in perfectly well with the new milieu. There was some pioneering activity in the universities after

the First World War with the moves to establish the scientific study of international affairs as a contribution to the avoidance of future wars. Many of those in this field had an interest in military matters although few claimed expertise in how best to fight wars, and, as we will discuss, the bias in the discipline was to some extent anti-strategic.

The special flavour of strategic studies after the Second World War came from those who had been working in the physical sciences and engineering rather than the social sciences and humanities, many with their consciences stung and their policy interest engaged through the Manhattan Project. Those who had worked on operational problems from convoy protection to choosing targets for air raids also had firm views about how the conduct of war could no longer be left to what they often took to be the rather primitive, intuitive forms of reasoning of the professional military. The conviction that civilians had critical contributions to make to strategic policy grew as traditional military patterns of thought appeared to be quite inadequate in the thermonuclear age. The combination of the arms race and the cold war created the conditions for the growth of a substantial research-led policy community outside the universities—new government agencies, congressional committees, think tanks, and 'beltway bandits'.

The Golden Age

This created a market for professionally trained civilian strategists that university departments could attempt to fill, but it also meant that academics struggled to impose a scholarly framework for the subject that could independently survive shifts in the policy framework. Few really tried to do so. From the start it was the salience of the policy issues rather than intellectual curiosity that led to the growth of the strategic studies community. The universities were certainly not hostile to policy-led research. The cold war coincided with the expansion of the universities throughout the Western world—not only in size but also in the range of their activities. They took in subjects that were often practical in nature and moved well beyond the established disciplinary boundaries. If gender and the media could become appropriate subjects for university departments, then it would have been surprising if questions of armed force had escaped the net. More seriously, those making the case for higher education were pleased to have examples of contributions to national strength. When the universities went to the US Congress for more funds after the Soviet Union had apparently rushed ahead in the technological race in October 1957 with the launch of the world's first artificial satellite (Sputnik 1), their case was made in the name of national security. Many academics thrilled to a potential role in a wider public debate, even if this meant enduring snide remarks about abstract theorizing removed from real life, and certainty that their weightier tomes would be left unread while their short, snappy opinion pieces might reach presidents and prime ministers. Academic exponents of strategic studies might have had much more training in the use of evidence and sophisticated forms of analysis, but they could still drift easily into advocacy, preferring popular and professional audiences to the dustier academic conferences.

Little attempt was made to use the cold war opportunities to establish strategic studies as an academic subject. No core curriculum was developed, and there was probably only a brief period in the early 1960s, the end of what was later described as the 'golden age', when there was a serious body of literature with which everyone in the field was reasonably familiar. There was not even a consensus on how academic work in this area should be described. The

policy influence was always apparent. 'Military studies' appeared too technical and narrow, redolent of map-reading and staff exercises, and contradicted the factors that had shaped the civilian role in strategic policy: the prejudice against professional military thought; the democratic conviction that at any rate the military sphere should be subordinated to the civil; and the Clausewitzian presumption that if, as the master insisted, war is concerned with the pursuit of politics by other means, then military means could only be properly understood by reference to political purposes.

In and Out of the Cold War

But what political purposes? As the ends of policy seemed somewhat fixed during the cold war, at least at the governmental level, the focus was very much on means. The contest between liberal capitalist and state socialist forms of government was inescapable and was not seriously up for debate in Western countries. The central problem of policy was about how, if at all, political benefit might be extracted from a nuclear arsenal without triggering a cataclysmic conflagration. Any benefit would have to be one of deterrence because once the weapons were used the consequences were bound to be catastrophic. But if use led to catastrophe, then how could nuclear threats be made to work for the sake of deterrence, and what options would be available should deterrence fail? How could credibility be injected into preposterous posturing? The conundrums and paradoxes of nuclear deterrence drew in academic interest. This could be done not only by exploring ways of reinforcing deterrence, thereby avoiding war, but also by evaluating the other policy instruments that might reduce dependence on this high-risk approach. They became interested in particular in arms control as a form of cooperative management of the strategic relationship between the two superpowers. Over time this had an important consequence in that it encouraged a perspective that went beyond the purely national to the systemic. If rational Soviet policies were as important as rational American policies, then American policy should be designed to coax out of Moscow a more rational Soviet policy.

A Changing Political Context

The changes in the character and tempo of the cold war naturally influenced strategic studies. After the Berlin and Cuban crises of the early 1960s, further development of the purer theories of deterrence seemed less important. Academics began to find a role in questioning official policy and warning of the limits to deterrence, the distorting effects of domestic and organizational politics on crisis management, and the perils of misperception. Second-order technical studies sought to offer ways out of practical difficulties experienced in arms control negotiations. A further development came as it was recognized that too much of the 'golden age' literature had taken the political context for granted, or had at least failed to appreciate the dynamic consequences of the upheavals in the Third World. After Vietnam these aspects of strategy were much harder to ignore. To understand the conditions in which armed forces might be used, or at least threatened, it was necessary

to delve into a diverse range of regions. It seemed more important to draw attention to the complexities of the Middle East or Central America than to think up fancy but safe ways to threaten Armageddon. Furthermore, as even official deterrence policies moved to reduce their nuclear bias and strengthen their conventional elements, professional military knowledge and experience appeared much more relevant. So, well before the end of the cold war, the field of strategic studies (now often known as security studies) had become much more diffuse. There was no recognized academic discipline, only a broad area of study coming under a variety of headings (peace, war, defence, security, strategy, arms control). The only unifying factor was that the interest lay beyond practical matters concerned with the actual employment of armed force, with the political purposes for which it might be employed and the political measures that might be adopted either to prevent this employment or to bring it to an end.

In these circumstances it was inevitable that those working in the universities would have to follow the shifts in focus in the wider policy debate. Given the sort of upheavals associated with the end of the cold war and its aftermath, this was no small matter. When the policy issues of the day moved from such topics as great power confrontation and nuclear arms control to at first intra-state wars and humanitarian intervention and later on to terrorism and counterinsurgency, then quite different skills might be needed. To deal with the old agenda one might hope for scholars with a grasp of traditional statecraft, a knowledge of the political thinking at the highest levels of the world's key capitals, sensitivity to alliance relations, and a technical understanding of the properties of the critical weapons systems and how they might be employed. Add in such questions as the management of defence budgets and the intricacies of arms control negotiations and it can soon be seen that during the cold war years strategic studies had to draw on a great variety of types of expertise.

Then out goes the cold war and in comes ethnic conflict, carrying with it vast quantities of anthropological and sociological literature, combined with a necessity to follow political developments in small and weak states (whose leading lights are not themselves plugged in to the international policy circuit), dirty little militia wars and microscopic terrorist cells, problems of humanitarian intervention and social and economic reconstruction as ways of preventing, resolving, and recovering from conflicts, and then even larger issues of forms of Islam and whether Western democracy can be exported. Some argued for an even more complete shift away from the traditional agenda, insisting that the staples of conflict and violence must give way to, or at least accommodate, the vital factors of environment and economics. A hypothetical university department set up to address strategic studies during the cold war would find that the original interdisciplinary requirements—polymathic enough—were suddenly expanded to absurd lengths.

Not surprisingly, academics often appeared to be as uncertain about the future of the international system and how to handle the new agenda as were the policymakers. It became even more difficult to give confident advice in the form of three crisp bullet points. Policymakers became impatient with those qualities that academics believe to be the most valuable: long-term thinking, stretching the bounds of the possible, and taking complexity as a challenge rather than an excuse for not going into too much detail. Academics in the strategic/security studies field could see their funding in decline and

their best work crowded out by partisan clamour, parochial agency interest, and the more sensationalist fare on offer.

Between the Worlds of Policy and Scholarship

While the pull from the policy world was to go for the simple, the snappy, and the short-term, the push from the academic world was almost exactly in the opposite direction. The study of international relations, established to address the problem of war, sought to gain respectability by acquiring all the attributes of a proper discipline, including a preoccupation with theory and methodology. Academic advancement had come to depend on 'conspicuous scholarship'—publishing in the right journals, linking relatively innocuous case studies to great theoretical issues and, through extensive footnotes, demonstrating a capacity to reference (though not necessarily to read) all potentially relevant literature. To those for whom language itself had become an ideological battlefield, and all empiricism suspect, policy relevance signified the antithesis of sound scholarship, and certainly not its highest aspiration.

As the empirical side of the business became much more challenging and the professional imperatives more theoretical, academic strategic studies lacked replenishment. Young academics were discouraged from entering into the increasingly time-consuming business of making sense of contemporary affairs—getting to know foreign countries, exploring their history, establishing networks of contacts, and following the intricate twists and turns of policy debates and military decisions. Often filling the gap were journalists, reflecting their professional inclination to seek out unique sources and interview the key players, and a lack of interest in theory. For example, journalists rather than academics wrote most of the memorable, and reliable, accounts of the Iraq and Afghanistan Wars. At the same time, those less interested in telling stories and more concerned with influencing policy, possibly by becoming policymakers themselves, gravitated to the think tanks, where they could produce serious and often quite technical studies addressing critical issues. Think tanks, however, had their own problems, such as the need to satisfy funders through constant attention to the news agenda or else the promotion of a particular worldview. Without the continuity provided by teaching programmes, and the recruitment opportunities that come with doctoral students and postdoctoral fellows, critical mass could be hard to sustain.

The problem, therefore, notably but not uniquely in the United States, was that the challenge of making sense of contemporary international conflict and the determination to turn international relations into either a pseudo-science or a critical discourse led the universities to opt out of strategic studies. In their different ways journalists and think-tankers could fill some of the gaps, but their interests and contributions were likely to be more fleeting. Their roles overlapped with that of the universities but they were not the same. At their best, universities could offer durable departments with their own intellectual traditions, opportunities for independent research, a tolerance of the sort of eccentricity and playfulness that could lead to real innovation, a capacity to see the bigger picture, an ability to draw on wider theories, and the constant refreshment that comes from encounters with fresh generations of students.

Key Points

- Cold war strategy was relatively simple, focusing particularly on the requirements of deterrence.
- Even before 1991, the field of strategic studies had become more diffuse as the political context of international relations changed.
- The opening of a new era of ethnic conflict in the 1990s and terrorism in the 2000s presented strategists with a more complex international environment, that required a wide range of new expertise.
- In the post-cold war period, uncertainty predominated and policymakers became less interested in what academic strategists had to say, while many scholars turned their attention to what was regarded as the academically more respectable pursuit of high theory.

Strategy and the Crisis in Social Science

In Praise of Choice

The study of strategy posed a further and particular challenge to the social sciences. It tended to adopt the perspective of individual actors within the system, as they try to make sense of their environment and shape it to their needs as best they can. Much social science theorizing necessarily seeks to reduce the importance of human agency—by looking for patterns and regularities in areas which we might have thought in our naivety to be governed by choice. Deliberate political change is still inadequately studied in political theory except in a rather cynical way. There is no point in studying strategy unless one believes that the course of history can be altered by the choices made by individuals, even if not always in the ways they would wish. Those who believe that the analysis of politics and international relations requires attempts to identify long historical cycles, or universal laws of political life, or invariable patterns of behaviour, or structural determinants of actions that leave little scope for local decision are unlikely to find strategy particularly interesting or even relevant. Instead of finding anomalous behaviour intriguing, they may find it irritating because it undermines the predictive power of their models.

Strategy is important only if it is believed that individuals, groups, and governments face real choices and that the reasoning which informs these choices is worthy of careful examination. By focusing on actors within the system and their sense of their own interests and aspirations, strategic studies must be seditious. It encourages the analysis of situations where order is absent, or alternatively where disorder is encouraged by those who believe that it will be to the advantage of those on whose behalf they are acting.

This appreciation—almost celebration—of choice is essential to the study of strategy. Strategy is undertaken in the conviction that it is possible to manipulate and shape one's environment rather than simply become the victim of forces beyond one's control. For this reason, students of strategy are naturally political voyeurs, observing the choices of others with a discerning eye, whether or not they have sympathy with their ultimate aims.

Therefore it might be argued that there is no reason in principle why strategic studies, defined as an intellectual approach to certain types of problems rather than a field of study,

could not become more prominent in academic life. Indeed we know this to be the case. There are now far more courses about strategy in management departments than in international relations departments, although unfortunately this development has encouraged the rather loose view of strategy as being concerned with more visionary planning or the management of large organizations in uncertain environments. Nonetheless, the classical military strategists—Sun Tzu more than Clausewitz—loom large in the management literature, far larger than the business strategists loom in the military literature. Furthermore, many of the more formal methodologies, of which the most famous remains game theory, developed in the late 1950s with nuclear deterrence in mind, have become even more influential in economics and management studies (see Box 23.1).

This has returned to political science departments as rational choice theory, although in a form that often appears to confirm the old jibe that political science is an area of study that, in failing to achieve science, avoids that dangerous subject, politics. It offers undoubted analytical rigour, a shared starting point for numerous lines of enquiry, and considerable theoretical promise. The problem is that the methodology can be off-putting and restrictive, readily and usefully applied to only a limited number of types of choices. It copes poorly with complexity, as well as requiring bold assumptions about what it means to be rational. This is especially disconcerting when studying armed conflict, famed for its tendency to irrationality and the imperfection of available information (pushed by Clausewitz to the centre of his theory with his stress on friction and the fog of war). Game theory provided an important means of thinking through the alternative options that presented themselves to policymakers in the nuclear age, and in particular the need to recognize the incentives for cooperation in the midst of antagonism, but it could never capture the range of factors that would shape the critical decisions. Moreover, even in economics, where rational choice theory has a much more natural home, there has been a move, in

BOX 23.1 Key Perspectives

Similarities and Differences between the Ideas of Clausewitz and Sun Tzu

The extent of the cultural and historical gaps separating Sun Tzu's *The Art of War* and Clausewitz's *On War*, not to mention the apparently contradictory nature of their most well-known dicta, has encouraged the a priori assumption that Sun Tzu and Clausewitz espouse essentially antagonistic theories. However, closer scrutiny reveals that while a number of differences exist, so do many similarities and complementary ideas.

The main points on which Sun Tzu and Clausewitz disagree concern the value of intelligence, the utility of deception, the feasibility of surprise attack, and the possibility of reliably forecasting and controlling the course of events on the battlefield. On the qualities requisite for a military commander, though, they agree in principle but differ in emphasis: Sun Tzu relies chiefly on the master of war's skill in making calculated, rational choices, while Clausewitz considers the military genius's artistic intuition to be the critical factor. Finally they hold similar views on the primacy of politics in war; the need to preserve the professional autonomy of the military in action; the overall importance of numerical superiority; and the folly of not securing victory as rapidly and decisively as possible once war has become inevitable.

Handel (1996)

behavioural economics, towards integrating the insights from psychology and accepting that rationality is always bounded and that individual actions can rarely be understood outside their social context.

Key Points

- Strategic studies, with its focus on the importance of deliberate political choice, poses problems for the social sciences, which emphasize wider patterns of behaviour and the limited opportunities for achieving change.
- Strategists are 'voyeurs', scrutinizing the choices made by others concerned with difficult decisions about the role of armed force.
- Strategic studies can be seen as an intellectual approach to specific problems rather than a distinct field of study.

The Academic and Policy Worlds

The challenge is therefore more than how to re-engage with the policy world. The relationship between academics and policymakers is bound to be fraught with ethical and practical difficulties. The need for access and the desire for influence must be balanced against the risk that critical faculties might be blunted and intellectual integrity corrupted in the search for preferment. The academic should be under no obligation to become a practitioner. In terms of defining a field of study, the vantage point of a student of strategy is quite different from that of a practitioner. When the former tries to second-guess the latter in an effort to display some superior wisdom, then they might well deserve to be treated with contempt. The most helpful role remains that which can be properly described as 'academic' (even though in the policy world this is all too often synonymous with irrelevant). Unless the academic has special and relevant expertise, for example in the politics of a particular region, then the main task may be to conceptualize and contextualize rather than provide specific guidance. If it is done well the practitioner should be able to recognize the relevance for whatever may be the problem at hand (see Critical Thinking).

The Practitioner Perspective

The stressed and busy practitioner might complain that, however subtle the analysis, academic work is unlikely to be addressing the current crisis or the next policy priority in the form in which it is being faced. Compared with academic specialists, the practitioner must range far and wide because of the nature of the judgements to be made, often in a hurry. It may be necessary to address the efficiency of various forms of coercion as well as inducements, and in so doing to draw on views about human nature under stress, problems of organization of large groups of people on the move, negotiating techniques, visions of a good

society, and standards of ethical conduct. Consider a general entering into battle. He (and now possibly she) must consider:

- politics (how best to define the goal of the campaign, the importance of keeping allies close, what the people back home will stand);
- engineering (how well the weapons work, or are likely to work in practice, possible modifications to suit local conditions, ensuring that they are properly maintained);
- sociology (the likely cohesion of forces under fire);
- psychology (how to motivate troops under fire);
- geography (the possible impact of terrain on particular tactics);
- history (what other generals got away with in similar circumstances);
- economics (the rate at which material can be expended in the light of the likely length of the conflict).

Note that all these considerations apply only to getting the best out of one's own side. Add the need to think about an enemy and even more types of issue have to be factored into the strategic deliberations.

Furthermore, practitioners expect to be judged by results. They will therefore tend to rely on what they have found works for them. This may be intuition and hunch, or lessons drawn from searing experience or remembered bits of history. These may be relied on in preference to excellent information sources and exemplary staff work. When matters are finely balanced but a decision still has to be taken, a feeling about the issue may be as good a guide as any. This may strike an academic as being wholly inappropriate or based on disgracefully exaggerated generalizations. Certainly the results from such approaches can be very poor, but whether a proper academic methodology would do any better is a moot point when there is no time for long projects and there can be little tolerance of too many caveats. Wise strategists may research their decisions as much as possible, but time often precludes further deliberation. When a general is wondering whether an enemy formation might break in the face of a sudden attack, he is not going to be impressed if he is told that more research is needed or that his working hypothesis is inherently untestable. Once a fateful decision has been taken, an open mind becomes a luxury, because any reappraisal may result in confused orders and demoralization.

Strategic practice, as opposed to the theory, demands acting on behalf of a wider constituency, normally putting at risk the lives of service personnel and possibly whole societies, and this brings with it certain responsibilities. It involves mobilizing human and material resources according to a developed plan against anticipated opposition and in pursuit of stated objectives. If the objectives are misplaced, the plan misconceived, or the resources unavailable or poorly mobilized, then the strategy will fail and this will be the strategist's responsibility. It is this sense of being tested by practice and judged by results that gives strategic reasoning its edge. The unaccountable academic should properly feel a degree of humility when advising on such matters. To a far greater sense than academics might like to admit, the practice of strategy may depend more on character and political acumen than research.

A Challenge for Academics

This may help explain why the study of strategy is accommodated only with difficulty in academic life. As practice it provides opportunity for chance and irrationality to hold sway. The purist might be appalled at the arbitrary mixture of politics, sociology, economics, psychology, and history that regularly influence decisions in crisis and combat, never mind the great contributions made by intuition and hunch. Yet the fact that reality rarely shows respect for disciplinary boundaries might give the academic pause for thought, as might evidence of the extent to which carefully qualified propositions, excessively crafted formulations, and a reluctance to pronounce until all possible avenues of research have been exhausted can get in the way of clear thinking.

Effective policy outside academia draws on a range of considerations that within academia are each confined to their own disciplinary box. In the universities, intellectual progress is assumed to depend on commonly accepted methodologies being rigorously applied within a known conceptual framework to produce results that can withstand peer review. The process is watched over sternly by professional associations and journal editors—the 'gatekeepers'. They ensure that standards are maintained so that progress can be measured. Without the disciplinary boxes it could well be that teaching and research would become unmanageable. Nonetheless, disciplinary boundaries are often artificial, and sustained through jargon that excludes the uninitiated. Indeed, academics often develop particular strategies to sustain these disciplinary boundaries and to fight off intellectual intruders. Yet many of the most important academic cleavages cut across these boundaries. Fads and fashions—from rational actor theory to deconstructionism—migrate easily. Often the most innovative and influential figures are those who refuse to be confined by the established boundaries, but are happy to borrow from others. The closer one gets to particular decisions, the more complex and multifaceted they appear. Practical problems can rarely be encapsulated in the terms of a single discipline. Life is interdisciplinary.

Key Points

- Tensions inevitably exist between the academic and policy worlds with their different responsibilities.
- Practitioners often complain about the irrelevance of academic studies to immediate problems they face.
- Strategic reality is wide-ranging and interdisciplinary, and does not fit neatly into the narrow focus of most university departments.

Critical Thinking Should academics advise governments on national security policy?

For

- ***Academics have a responsibility to share their knowledge.*** Those who have the resources and time to study matters relevant to vital areas of policy have a duty to share their findings, even if they may not get much response and their findings may be rejected. While it can be difficult for academics to second-guess particular decisions, they can still enrich a policy debate.

(*continued . . .*)

Critical Thinking: (*continued*)

- ***Policymakers need critical friends.*** There are risks in cosying up too close to the centres of power, but it is possible to retain academic independence and professional integrity so long as there is confidence in the underlying research and analysis. The best policymakers know that outside advice is not helpful if it just echoes established views. They can cope with challenge and unorthodox ideas.
- ***Academics may be of greatest value when contributing to a wider public debate***. Rather than speaking truth to power directly, academics might do better as commentators on policy and participants in a continuing conversation. With social networking sites, there are now few barriers to academics' expression. They can provide context by explaining the background to a regional crisis or the limits of policy instruments such as sanctions, while unpacking concepts such as 'hearts and minds', 'soft power', and 'pre-emption' to reveal the ideas that lie behind them and the problems they raise.
- ***Engaging in such debates benefits academic research.*** Dispensing with some of the theoretical packaging and methodological caveats requires academics to expose their underlying assumptions and core arguments to scrutiny. To the extent that they do get close to policymaking, they can develop a keener appreciation of the workings of government and the practical management of international affairs.

Against

- ***Academics have less to offer than they recognize.*** Academics should take care when they present themselves as speaking 'truth' to power. They may be independent of government but they still have their own biases and agendas that affect how they view issues. Research prompted by a particular policy issue may take years to complete, by which time the debate has moved on. The methods of academic research and the language in which it is presented tend not to be appreciated in policy circles.
- ***Just because advice is offered doesn't mean it will be accepted.*** Policy will reflect many factors that have little to do with reason and analysis. Policymakers are fallible and subject to influence from multiple sources. They also have to worry about getting support elsewhere in government, winning votes in Parliament or Congress, presenting it to the public, and then perhaps gaining Alliance or Security Council support.
- ***Academics have to compromise to gain a hearing.*** Policymakers tend to ignore academics perceived to be outside the mainstream and known for eccentric, maverick, or ideologically suspect views. To gain access, therefore, they must present themselves as respectable and sound, even though that may mean playing down the real significance of their research and staying quiet on issues that matter to them. Dissenting views on the American role, the value of interventions, or nuclear deterrence may struggle to get a hearing.
- ***Once academics become part of a policymaking process****, they become invested in the policy*. There is always a risk of co-option. Becoming associated with a particular policy, perhaps by being cited by the government as a supporting expert, means that the academic will become invested, and strain to justify it, however controversial and however unfortunate its effects in practice.

Questions:

1. Do you think academics should try to influence policy debates?
2. What strategies might academics have to adopt to get a hearing in policy circles?
3. Can you think of a particular national security policy you would like to see changed? What would be your strongest argument?

Realism: Old and New

Criticizing Realism

A starting point for a revival of strategy might be to return to the realist tradition. Contemporary students of politics and international relations often criticize this tradition as being simplistic and obsolescent, bound up with the assumption that the only choices that matter are those that states make about military power. There are three aspects to the critique: an epistemological challenge to what is taken to be exaggerated claims for objectivity as if this is the only true reflection of 'reality'; the disregard of domestic and transnational factors; and the preoccupation with armed force to the exclusion of peaceful means of exerting influence and resolving disputes. This latter complaint can be taken further and developed into a charge that the realists legitimize armed force as an acceptable instrument of policy. This charge at the level of basic morality is directly related to the first, apparently more scholastic, complaint about objectivity. The realists might claim that they do no more than attempt to make sense of the world as they find it, while their critics suggest that the very language and concepts they use encourage a very particular and dangerous view of the world. In recent years this critique has become more subdued as many leading realists have warned about the dangers of imprudent commitments in support of idealistic objectives to promote freedom and democracy while neglecting questions of order and stability. Realism tends to be conservative, not neo-conservative.

A defence of strategic studies does not require a defence of realism, however much the two have been linked in the past. There are, however, elements of the realist tradition that are worth preserving, while other aspects need updating. An approach to political analysis that prided itself on coming to terms with the world as it was rather than as idealists would like it to be is now supposed to depend on a dubious claim that key international events can largely be explained by the structurally defined means by which states must safeguard their security. There is room for a non-dogmatic realism that would acknowledge the significance of non-state actors, the impact of social, economic, cultural, and local political factors on state behaviour, the importance of values and mental constructs, and that can be sensitive to the epistemological issues raised by presumptions of objectivity. If practitioners of international politics now talk regularly about issues of identity, norms, and globalization, then these are part of international reality. To be powerful was often described in the realist tradition in terms of possessing substantial assets—so much wealth or military capabilities. Yet poor strategy can see these squandered or trivialized, while good strategy can extract substantial political effects from meagre resources. In this sense strategy is essentially an art, less about applying power and more about creating it in the first place. This requires a much more subtle view of power, as existing only within political relationships, manifest as actors are able to alter the behaviour of others according to their own preferences.

Constructivism

The constructivist position, which is now emerging as a safe haven for those troubled by structural realism while leery about following postmodernist theory into a deconstructed, relativist mire, stresses the importance of the interaction between the way we describe the world and how we act within it. This can represent a real advance on the tendency in the realist tradition

to think of power as a measurable resource. This leads to a view of strategy as no more than a mechanical matter of expending these resources in the pursuit of clearly defined objectives. Put this way, it can appear as almost a science, opening up possibilities for prediction. The practical strategist is more likely, however, to be, perhaps unwittingly, something of a constructivist. Effective strategy requires a clear sense of the dynamic relationship between ends and means, knowing that how ends are defined in the first place is critical to whether the available means will be adequate. The ability to emerge victorious out of a conflict may depend on sensitivity as to what opponents may think are their vulnerabilities or what your side can be persuaded is an area of comparative advantage. Vital judgements—such as finding the optimum balance among broadening a coalition to maximize the isolation of the opponent, the limited time available for coalition formation, the goals that will have to be dropped to bring in the most reluctant, the extra obligations that might have to be accepted, the otherwise neutral opinions that might be offended—turn on the way we understand the workings of our own and other political systems.

Key Points

- Despite critiques of realism, there are elements of this school of thought that remain very useful in the study of strategy, while there are other elements that can be brought up to date.
- A case can be made for a non-dogmatic realism, which provides a more subtle approach to the role of power in international politics than the neo-realist approach, which emphasizes the structural constraints on state behaviour.
- Newer constructivist approaches also help to focus attention on the important dynamic relationship between ends and means, which is crucial in the outcome of any conflict.

The Study of Armed Force

The Role of Violence

A new realism should therefore have no trouble looking beyond what makes states secure and more towards what makes individuals and particular groups secure. It must also admit that the business of states, once almost completely bound up with security, now takes in a wide range of economic, social, and environmental issues. From this it follows that the course and character of all conflicts, and the role to be played by armed force, must be reappraised. Strong rates of economic growth and forms of interdependence may well reduce tensions between states and create a stake in peaceful coexistence. Equally, financial crises can create intense forms of stress and reignite nationalist urges. Environmental disasters can undermine the credibility of the state apparatus so that it becomes vulnerable to other types of challenges. Changes in family structures and social mores may affect attitudes to violence, and so on. As has become painfully apparent over the past two decades, proposals to discard the traditional focus on organized violence turned out to be premature. But when governments are determined to resort to force it is as well that they understand their chosen instrument.

Strategy is more ubiquitous than violence. It is present wherever there is politics, which is in all human institutions, evident in any move to mobilize support, sideline opponents, and so on. The study of strategy does not depend on the possibility of a violent aspect to human affairs. Nonetheless it can still be argued that this possibility can have an important impact on attempts to develop general theories of strategy, capable of addressing all manner of political situations. If strategy is about choice then armed force provides some of the most perplexing and starkest choices that can be confronted. At these points of choice can be observed clashes between conflicting interests and values, the rough impact of brute force, and the more subtle effects achieved by guile and wiles. It is the case that most political objectives can be met without the use or threatened use of violence. There are other sources of power. However, physical violence is the ultimate source of power and, if available, can overwhelm all others. The threat posed is one that no individual, group, or state can ignore because it challenges their whole existence. It is one that is only likely to be made when basic values are at stake. Situations involving the purposive use of violence are likely to stand out from the run of the mill activities at both the national and international levels. By their nature, they concentrate minds on the fundamentals. Ethically and politically they require exceptional justification. For all these reasons they provide a natural starting point for any attempt to build up a general theory of strategy.

War as Metaphor

This is not the same, however, as arguing that formulations developed with armed force in mind can serve a variety of purposes. For example, politicians may dramatize the more troublesome social problems by calling for 'wars' against them (on drugs, cancer, etc.) and suggest that strong generalship is needed for them to be defeated. This is perhaps what happened with the 'war on terror', when a rhetorical device urging a determined effort to deal with an undoubted scourge was taken too literally. The unreflective application of the war analogy can hinder understanding by attempting to squeeze quite different types of issues into an inappropriate conceptual framework geared to military threats. In the case of drugs, for example, it may have some relevance to confrontations with Third World drug cartels but is less relevant to attempts to make sense of patterns of consumption. Equally, the notions of 'economic security' can encourage a confrontational approach to trade policy, and 'environmental security' a search for explanations based on hostile actions rather than natural causes or everyday economic activity. Even more difficult is a term such as 'internal security', which might once have referred to the ability of states to deny armed groups, whether criminal or political, the ability to challenge their authority, but which now takes in anything to do with the control of borders, including economic migration or the smuggling of contraband. This has become particularly evident with the 'war on terror'. Treating it as a traditional war, against an implacable enemy determined to use every means at its disposal, has encouraged a 'whatever it takes' attitude, aimed at eliminating the enemy, and has discouraged more political approaches designed to marginalize radicals.

A different approach would be to acknowledge that the characters and competencies of states have been subject to many changes while asserting that an enduring feature remains the aspiration to define and dominate the means of legitimate violence within territorial

borders. The challenges can come from other states, or from within states in the form of secessionists or revolutionaries or elitist conspirators, or from non-state actors in the form of drug cartels and gangsters, religious sects, and minority political movements. This continues to provide a relatively sharp focus for strategic studies and provides some compensation for an unavoidably wide context.

There is no reason in principle why the strategic imagination should not be directed towards improving the human condition through finding ways to restrict and progressively reduce the role of armed force. Much strategic studies activity has been about the peaceful settlement of disputes, arms control, and generally supporting the work of the United Nations. Major international negotiations require as much of a strategic sensibility as do major wars. Yet, and this may only be a matter of temperament, there does tend to be a dark side to the strategic imagination that picks up intimations of disorder at times of stability, that senses the fragility of human institutions even while striving to reinforce them, that cannot stop thinking of war while promoting peace. This dark side may explain the accusations of allowing armed force far more prominence than it deserves. The defence is that constant consideration of the potential for instability and conflict can help prevent it from being realized. Moreover, if the strategic imagination fails to be able to generate scenarios for war, except by combining in an unlikely and tenuous fashion a series of gloomy hypotheses, then that itself is a positive sign.

Key Points

- A new realism requires a broader focus than in the past to understand the nature of present-day conflicts, but care must be taken not to overlook the traditional role of armed force.
- Strategy is present wherever there is politics, and although political ends can be met without violence, force often remains the ultimate arbiter of political disputes.
- Despite attempts to apply the 'war' analogy ever more widely, strategic studies remains a subject that focuses on the role of armed force both in peacetime and in war.

Conclusion: Does Strategic Studies Have a Future?

Karl Marx once observed that men make their own history but not in the circumstances of their own choosing. The study of strategy should help with the understanding of how individuals and groups go about history making and in so doing reshape the circumstances that they face. These circumstances include many others, also engaged in their own history making. I have argued that this activist view, with its stress on choice and power, is distinctive and cannot be confined within the boundaries of a specific academic discipline. It needs to be asserted against those who are more determinist in their outlook, or transfixed by patterns and cycles in human behaviour, or see the exercise of power as a failure of social institutions rather than part of their natural condition. I have also argued that the study of strategy can benefit from being pushed to extremes, by looking at those circumstances in which the

prospect or actuality of organized violence looms large. There is a further benefit, in that as we have not yet succeeded in banishing armed force from human affairs there are many extreme situations to be faced.

These extreme situations provide an agenda for policymakers that students of strategy may feel well placed to address. On this may depend the future of strategic studies in terms of academic organization. This will be testing in a number of respects. Firstly, they will only be able to sustain any claim of relevance if they have kept in touch with the range of possible situations that might tend to extremes. This range has expanded, as it has taken in the many problems of weak states and the challenges posed by radical Islamist movements, but at the same time the most extreme situations, that is, major wars among the great powers, still appear unlikely. The conflicts of the 2000s have demonstrated the need for an approach that combines general understanding of strategic behaviour with the specifics of a set of conflicts which are individually complicated. Secondly, with an agenda that is becoming both more diffuse and in certain respects less pressing, there may be less coherence to strategic studies. Thirdly, there will remain a need for caution and humility. There is an enormous gulf between offering advice and taking responsibility for decisions with potentially severe consequences, normally taken in imperfect conditions in terms of what is known and the time for deliberation. Fourthly, for all these reasons it must never be forgotten that strategy is an art and not a science.

Questions

1. What were the implications of the early development of strategic studies?
2. What role does realism play in strategic studies?
3. What is meant by the term 'the golden age of strategic studies'?
4. How did the cold war affect the development of the study of strategy?
5. To what extent did the end of the cold war alter the agenda of strategic studies?
6. Can the academic study of strategy help the 'practitioner' of strategy?
7. What challenges does strategic studies pose for the social sciences?
8. Does strategic studies have to be bound to the 'realist tradition' in the study of politics?
9. What is the future of strategic studies according to the author?
10. Do you agree with this view?

Further Reading

L. Freedman, *The Evolution of Nuclear Strategy*, 3rd edn (New York: St Martin's Press, 2004) deals with the history of all aspects of nuclear strategy.

L. Freedman, *Strategy: A History (Oxford: Oxford University Press, 2013)* covers recent debates.

C. Gray, *Modern Strategy (Oxford: Oxford University Press, 1999)* offers a modern Clausewitzian approach.

M. I. Handel, *Masters of War: Classical Strategic Thought* (London: Frank Cass, 1996) covers Clausewitz and Sun Tzu.

B. Heuser, *The Evolution of Strategy: Thinking War from Antiquity to the Present* (Cambridge: Cambridge University Press, 2010) is an impressive history of the development of strategic thought.

P. Paret (ed.), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986) provides the best overall coverage of strategic studies.

Web Links

International Institute for Strategic Studies **http://www.iiss.org** provides political–military strategic assessments through expert commentary, strategic dossiers, a database on armed conflict, and publications such as the journal *Survival* and *The Military Balance*, a comprehensive annual review of defence capabilities and developments.

Royal United Service Institute **http://www.rusi.org** is a London-based think tank offering defence and security-focused commentary and analysis.

United States Army War College, Strategic Studies Institute **http://www.strategicstudiesinstitute.army.mil** provides strategic research and analysis for the United States military, particularly the Army, and a broader community of strategic analysts.

Institute for Security Studies **https://issafrica.org/** is a think tank working on security issues in Africa, with a particular focus on conflict and human security.

War on the Rocks **http://www.warontherocks.com** is a platform for analysis, commentary, debate, and multimedia content on foreign policy and national security issues through a realist lens.

Bibliography

Acharya, A. (2004) 'How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism', *International Organization* 58(2): 239–75.

Acharya, A. (2014a) *The End of American World Order*. Cambridge: Polity Press.

Acharya, A. (2014b) *Rethinking Power, Institutions and Ideas in World Politics: Whose IR*. New York: Routledge.

Acharya, A. (2016) 'American Primacy in a Multiplex World', *The National Interest*, 27 September. Available at http://nationalinterest.org/feature/american-primacy-multiplex-world-17841?page=show

Acharya, A. (2017) 'Donald Trump as President: Does it Mark a Rise of Illiberal Globalism?', *YaleGlobal*, 22 January. Available at https://yaleglobal.yale.edu/content/donald-trump-president-does-it-mark-rise-illiberal-globalism

Adamsky, D. (2010) *Culture of Military Innovation: The Impact of Cultural Factors on the Revolution in Military Affairs in Russia, the US, and Israel*. Palo Alto, CA: Stanford University Press.

Addington, L. H. (1994) *The Patterns of War since the Eighteenth Century*, 2nd edn. Bloomington, IN: Indiana University Press.

Adefuye, A. (1992) *Culture and Foreign Policy: The Nigerian Example*. Lagos: Nigerian Institute of International Affairs.

Adelman, J. R. and C. Shih (1993) *Symbolic War: The Chinese Use of Force, 1840–1980*. Taipei: The National Chengchi University Press.

Agnew, J. (2003) *Geopolitics: Re-visioning World Politics*, 2nd edn. London: Routledge.

al-Zawahiri, A. (2005) 'Letter from al-Zawahiri to Zarqawi', translated by the Foreign Broadcast Information Service, October.

Almond, G. and S. Verba (1965) *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Boston, MA: Little, Brown & Co.

Alterman, J. F. (2013) *Statement for the U.S.-China Economic and Security Review Commission: China in the Middle East*. Washington, DC: Center for Strategic and International Studies.

Anderlini, J. (2013) 'Xi Strikes Strident Tone on Foreign Policy', *Financial Times*, 29 January.

Anderson, W. F. (2009) 'Effects-based Operations: Combat Proven', *Joint Force Quarterly* 52 (1st quarter): 78–81.

Anthony, I. and A. D. Rotfeld (eds) (2001) *A Future Arms Control Agenda*. Oxford: Oxford University Press.

Archer, C., J. Ferris, H. Herwig, and T. Travers (2002) *A World History of Warfare*. Lincoln, NE: University of Nebraska Press.

Ardrey, R. (1966) *The Territorial Imperative*. New York: Atheneum.

Arend, A. C. and R. J. Beck (1993) *International Law and the Use of Force: Beyond the Charter Paradigm*. London: Routledge.

Aron, R. (1966) *Peace and War: A Theory of International Relations*. New York: Doubleday.

Arquilla, J. and D. Ronfeldt (eds) (1997) *In Athena's Camp: Preparing for Conflict in the Information Age*. Santa Monica, CA: RAND.

Autesserre, S. (2014) *Peaceland: Conflict Resolution and the Everyday Politics of International Intervention*. Cambridge: Cambridge University Press.

Ayoob, M. (1984) 'Security in the Third World: The Worm About to Turn', *International Affairs* 60(1): 41–51.

Ayoob, M. (1986) 'Regional Security and the Third World'. In M. Ayoob (ed.), *Regional Security in the Third World: Case Studies from Southeast Asia and the Middle East*. London: Croom Helm.

Ayoob, M. (1988) 'The Third World and International Security: Rethinking the International Studies Agenda', unpublished paper. Singapore: Institute of Southeast Asian Studies.

Ayoob, M. (1991) 'The Security Problematique of the Third World', *World Politics* 43(2): 257–83.

Azar, E. and C. Moon (1984) 'Third World National Security: Towards a New Conceptual Framework', *International Interactions* 11(2): 103–35.

Azar, E. and C. Moon (1988) *National Security in the Third World: The Management of Internal and External Threats*. Northampton: Edward Elgar.

Bacevich, A. J. (1986) *The Pentomic Era: The US Army between Korea and Vietnam*. Washington, DC: National Defense University Press.

Bajpai, K. (2014) 'Indian Grand Strategy: Six Schools of Thought'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Delhi: Routledge India.

Bajpai, K., S. Basit, and V. Krishnappa (2014a) 'Introduction: India's Grand Strategic Thought and Practice'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Delhi: Routledge India.

Bajpai, K., S. Basit, and V. Krishnappa (eds) (2014b) *India's Grand Strategy: History, Theory, Cases*. New Delhi: Routledge India.

Barkawi, T. (1998) 'Strategy as a Vocation: Weber, Morgenthau and Modern Strategic Studies', *Review of International Studies* 24: 159–84.

Barkawi, T. (2011) 'From War to Security: Security Studies, the Wider Agenda and the Fate of the Study of War', *Millennium: Journal of International Studies* 39(3): 701–16.

Barkawi, T. and M. Laffey (2006) 'The Postcolonial Moment in Security Studies', *Review of International Studies* 32(4): 329–52.

Barnaby, F. (2004) *How to Build a Nuclear Bomb: And Other Weapons of Mass Destruction*. New York: Nation Books.

Barnes, R. (2005) 'Of Vanishing Points and Paradoxes: Terrorism and International Humanitarian Law'. In R. Burchill, N. D. White, and J. Morris (eds) *International Conflict and Security Law: Essays in Memory of Hilaire McCoubery*. Cambridge: Cambridge University Press.

Barnett, M., S. Fang, and C. Zurcher (2014) 'Compromised Peacebuilding', *International Studies Quarterly* 58: 608–20.

Barnett, T. P. M. (2004) *The Pentagon's New Map: War and Peace in the Twenty-first Century*. New York: Berkeley Books.

Barnett, T. P. M. (2011) 'Globoglobalization glossary: Grand Strategy', available at http://thomaspmbarnett.com/glossary/

Baylis, J. (2001) 'The Continuing Relevance of Strategic Studies in the Post-Cold War Era', *Defence Studies* 1(2): 1–14.

Beaufre, A. (1965a) *An Introduction to Strategy*. London: Faber & Faber.

Beaufre, A. (1965b) *Deterrence and Strategy*. London: Faber & Faber.

Begue, E. (2017) 'Australian Strategic Culture: A Case Study', *Honors Research Projects* 509, available at http://ideaexchange.uakron.edu/honors_research_projects/509

Belissa, M. and P. Leclerq (2001) 'The Revolutionary Period, 1789–1802'. In A. Hartmann and B. Heuser (eds) *War, Peace and World Orders from Antiquity until the* 20th *Century*. London: Routledge.

Bellamy, A. J. (2009) *The Responsibility to Protect*. Cambridge: Polity Press.

Bellamy, A. J. and P. D. Williams (2011) 'The New Politics of Protection? Cote d'Ivoire, Libya, and the Responsibility to Protect', *International Affairs* 87(4): 825–50.

Bellamy, A. J., P. Williams, and S. Griffin (2010) *Understanding Peacekeeping*, 2nd edn. Cambridge: Polity.

Benedict, R. (1946) *The Chrysanthemum and the Sword*. Boston, MA: Houghton Mifflin.

Bergen, J. D. (1986) *Military Communications: A Test for Technology*. Washington, DC: Center of Military History.

Berger, T. U. (1998) *Cultures of Antimilitarism: National Security in Germany and Japan*. Baltimore, MD: Johns Hopkins University Press.

Bernstein, P. (2008) *International Partnerships to Combat Weapons of Mass Destruction*, Occasional Papers 6. Washington, DC: National Defense University Center for the Study of Weapons of Mass Destruction.

Best, G. (1982) *War and Society in Revolutionary Europe, 1770–1870*. London: Fontana.

Betts, R. K. (1997) 'Should Strategic Studies Survive?', *World Politics* 50(1) (October): 7–33.

Betts, R. K. (1998) 'The New Threat of Mass Destruction', *Foreign Affairs* 77(1): 30–1.

Betts, R. K. (2007) *Enemies of Intelligence: Knowledge and Power in American National Security*. New York: Columbia University Press.

Betz, D. J. and T. C. Stevens (2012) *Cyberspace and the State: Towards a Strategy for Cyberpower*. Abingdon: Routledge.

Beyerchen, A. (1996) 'From Radio to Radar: Interwar Military Adaptation to Technological Change in Germany, the United Kingdom, and the United States'. In W. Murray and A. R. Millett (eds) *Military Innovation in the Interwar Period*. Cambridge: Cambridge University Press.

Biddle, S. (2003) 'Afghanistan and the Future of Warfare', *Foreign Affairs* 82(2): 31–46.

Biddle, S. (2004) *Military Power: Explaining Victory and Defeat in Modern Battle*. Princeton, NJ: Princeton University Press.

Booth, K. (1979) *Strategy and Ethnocentrism*. London: Croom Helm.

Booth, K. (1981) *Strategy and Ethnocentrism*. New York: Holmes and Meier.

Booth, K. (1997) 'Security and Self: Reflections of a Fallen Realist'. In K. Krause and M. C. Williams (eds) *Critical Security Studies: Concepts and Cases*. London: UCL Press.

Booth, K. (2005) 'Beyond Critical Security Studies'. In K. Booth (ed.) *Critical Security Studies and World Politics*. Boulder, CO: Lynne Rienner.

Booth, K. and E. Herring (1994) *Keyguide to Information Sources in Strategic Studies*. London: Mansell.

Booth, K. and R. Trood (eds) (1999) *Strategic Culture in the Asia-Pacific*. New York: Macmillan.

Boulding, K. (1956) *The Image*. Ann Arbor, MI: University of Michigan Press.

Bove, V. and A. Ruggieri (2016) 'Kinds of Blue: Diversity in UN Peacekeeping Missions and Civilian Protection', *British Journal of Political Science* 46(3): 681–700.

Bracken, P. B. (2012) *The Second Nuclear Age: Strategy, Danger, and the New Power Politics*. New York: Times Books.

Brands, H. (2014) *What Good is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Ithaca, NY: Cornell University Press.

Brenner, S. W. (2009) *Cyberthreats: The Emerging Fault Lines of the Nation State*. New York: Oxford University Press.

Breuning, M. (1997) 'Culture, History, Role: Belgian and Dutch Axioms and Foreign Assistance Policy'. In V. M. Hudson (ed.) *Culture and Foreign Policy*. Boulder, CO: Lynne Rienner.

Brodie, B. (1973) *War and Politics*. London: Cassell; New York: Macmillan.

Brownlie, I. (1963) *International Law and the Use of Force by States*. Oxford: Clarendon Press.

Brownlie, I. (1990) *Principles of Public International Law*. Oxford: Oxford University Press.

Brunt, P. A. (1965a) 'Spartan Policy and Strategy in the Archidamian War', *Phoenix* 19(4) (Winter): 255–80.

Brunt, P. A. (1965b) 'The Aims of Alexander', *Greece & Rome* 12: 205–15.

Brzezinski, Z. (1997) *The Grand Chessboard: American Primacy and its Geostrategic Imperatives*. New York: Basic Books.

Bull, H. (1961) *The Control of the Arms Race*. London: Weidenfeld & Nicolson.

Bull, H. (1968) 'Strategic Studies and its Critics', *World Politics* 20(4): 593–605.

Bull, H. (1977) *The Anarchical Society: A Study of Order in World Politics*. London: Macmillan.

Busmiller, E. (2011) 'Videos From Bin Laden's Hide-out Released', *New York Times*, 7 May. Available at https://www.nytimes.com/2011/05/08/world/asia/08intel.html

Butcher, M. (2003) *What Wrongs Our Arms May Do: The Role of Nuclear Weapons in Counterproliferation*. Washington, DC: Physicians for Social Responsibility.

Butterfield, H. (1952) *History and Human Relations*. London: Collins.

Butterfield, H. and M. Wight (1966) *Diplomatic Investigations*. London: Allen & Unwin.

Buzan, B. (2007) *People, State and Fear: An Agenda for International Security Studies in the Post-Cold War Era*, 2nd edn. Colchester: ECPR Press.

Buzan, B. and L. Hansen (2009) *The Evolution of International Security Studies*. Cambridge: Cambridge University Press.

Buzan, B. and E. Herring (1998) *The Arms Dynamic in World Politics*. London: Lynne Rienner.

Byers, M. (ed.) (2000) *The Role of Law in International Politics: Essays in International Relations and International Law*. Oxford: Oxford University Press.

Byman, D. A. and M. C. Waxman (2000) 'Kosovo and the Great Air Power Debate', *International Security* 24(4) (Spring): 14.

Caldicott, H. (1986) *Missile Envy: The Arms Race and Nuclear War*. Toronto: Bantam.

Calvert, J. (2004) 'The Mythic Foundations of Radical Islam', *Orbis* 48 (Winter): 29–41.

Carr, E. H. (1942) *Conditions of Peace*. London: Macmillan & Co.

Carr, J. (2010) *Inside Cyber Warfare*. Sebastopol, CA: O'Reilly Media.

Carrans, M. E. (2016) *India–Pakistan Nuclear Diplomacy: Constructivism and the Prospects for Nuclear Arms Control and Disarmament in South Asia*. London: Rowman and Littlefield.

Cartwright, Gen. J. E., USMC (n.d.) 'Memorandum for Chiefs of the Military Services, Commanders of the Combatant Commands, Directors of the Joint Staff Directorates. Subject: Joint Terminology for Cyberspace Operations.' Washington, DC: The Vice-Chairman of the Joint Chiefs of Staff.

Carvin, S. (2008) 'Linking Purpose and Tactics: America and the Reconsideration of the Laws of War During the 1990s', *International Studies Perspective* 9(2): 128–43.

Cashman, G. (1993) *What Causes War? An Introduction to Conflict*. New York: Lexington Books.

Cénat, Jean-Philippe (2010): *Le roi stratège: Louis XIV et la direction de la guerre, 1661–1715*. Rennes: Presses Universitaires.

Center for the Study of Intelligence (2004) *Intelligence and Policy: The Evolving Relationship*, Roundtable Report, 10 November. Washington, DC: Georgetown University.

Cha, V. D. (2000) 'Globalization and the Study of International Security', *Journal of Peace Research* 37(3): 391–403.

Chandler, D. G. (ed.) (1988) *The Military Maxims of Napoleon*, translated by G. C. D'Aguilar. New York: Macmillan.

Chayes, S. (2007) *The Punishment of Virtue*. London: Portobello Books.

Churchill, W. (1926) *The World Crisis, 1911–1914*. New York: Charles Scribner's Sons.

Cimbala, S. J. (1997) *The Politics of Warfare: The Great Powers in the Twentieth Century*. University Park, PA: Pennsylvania State University Press.

Clapham, C. (1998) 'Being Peacekept'. In O. Furley and R. May (eds) *Peacekeeping in Africa*. Aldershot: Ashgate.

Clarke, A. C. (1970) 'Superiority'. In A. C. Clarke, *Expedition to Earth*. New York: Harcourt, Brace & World.

Clarke, R. A. and R. K. Knake (2010) *Cyber War: The Next Threat to National Security and What to Do About It*. New York: Ecco.

Claude, I. L. (1962) *Power and International Relations*. New York: Random House.

Clausewitz, C. von (1976) *On War*, translated and edited by M. Howard and P. Paret. Princeton, NJ: Princeton University Press.

Clausewitz, C. von (1982) *On War*. Harmondsworth: Penguin.

Clausewitz, C. von (1989) *On War*, edited and translated by M. Howard and P. Paret. Princeton, NJ: Princeton University Press.

Clausewitz, C. von (1993) *On War*, edited and translated by M. Howard and P. Paret. London: Everyman's Library.

Clinton, W. J. (1992) cited in: '*The New York Times*, The 1992 Campaign: Excerpts from Speech by Clinton on US Role', published 2 October, available at http://www.nytimes.com/1992/10/02/us/the-1992-campaign-excerpts-from-speech-by-clinton-on-us-role.html

Coats, D. R. (2017) *Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community*. Senate Select Committee on Intelligence (May 11). Washington, DC: Director of National Intelligence.

Cohen, D. K. (2013) 'Explaining Rape During Civil War: Cross-National Evidence (1980–2009)', *American Political Science Review* 107(3): 461–77.

Cohen, D. K. (2016) *Rape During Civil War*. Ithaca, NY: Cornell University Press.

Cohen, E. A. (2002) *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime*. New York: Free Press.

Cohn, C. (1987) 'Sex and Death in the Rational World of Defense Intellectuals', *Signs: Journal of Women in Culture and Society* 12(4): 687–718.

Cohn, C. (1993) 'Wars, Wimps, and Women: Talking Gender and Thinking War'. In M. Cooke and A. Woollacott (eds) *Gendering War Talk*. Princeton, NJ: Princeton University Press.

Collier, P. (2004) *Development and Conflict*, Centre for the Study of African Economies, Department of Economics, University of Oxford, available at http://www.un.org/esa/documents/Development.and.Conflict2.pdf

Contamine, P. (1986) *La Guerre au Moyen Age*, 2nd revised edn. Paris: Presses Universitaires de France; English translation of the first edition (1984) *War in the Middle Ages* translated by M. Jones. Oxford: Blackwell.

Cooper, H. (2017) 'Trump Give Military New Freedom But with That Comes Danger', *The New York Times* (April 5).

Cornish, P. and G. Edwards (2001) 'Beyond the EU/NATO Dichotomy: The Beginnings of a European Strategic Culture', *International Affairs* 77(3): 587.

Crawford, K., J. Lebovic, and J. Macdonald (2015) 'Explaining the Variation in Gender Composition of Personnel Contributions to UN Peacekeeping Operations', *Armed Forces and Society* 41(2): 257–81.

Creveld, M. van (1989) *Technology and War from 2000 B.C. to the Present*. New York: Free Press.

Creveld, M. van (1991) *The Transformation of War*. New York: Free Press.

Croft, S. (1996) *Strategies of Arms Control: A History and Typology*. Manchester: Manchester University Press.

Cronin, A. K. (2009) *How Terrorism Ends*. Princeton, NJ: Princeton University Press.

Crowl, P. A. (1987) 'The Strategist's Short Catechism: Six Questions without Answers'. In G. E. Thibault (ed.) *Dimensions of Military Strategy*. Washington, DC: US Government Printing Office for National Defense University.

Cruz, C. (2000) 'Identity and Persuasion: How Nations Remember their Pasts and Make their Futures', *World Politics* 52(3): 275–312.

Daalder, I. and T. Terry (eds) (1993) *Rethinking the Unthinkable: New Directions in Nuclear Arms Control*. London: Frank Cass.

Danchev, A. (1999) 'Liddell Hart and the Direct Approach', *The Journal of Military History* 63(2): 313–37.

Davis, Z. S. (1994) *US Counterproliferation Policy: Issues for Congress*. CRS Report for Congress. Washington, DC: Congressional Research Service.

Dawkins, R. (1976) *The Selfish Gene*. Oxford: Oxford University Press.

De Castro, R. C. (2014) 'Philippine Strategic Culture: Continuity in the Face of Changing Regional Dynamics', *Contemporary Security Policy* 35(2): 249–69.

Debray, R. (1968) *Revolution in the Revolution?: Armed Struggle and Political Struggle in Latin America*. London: Pelican.

Demchak, C. C. (2011) *Wars of Disruption and Resilience: Cybered Conflict, Power, and National Security*. Athens, GA: The University of Georgia Press.

Denning, D. (1999) *Information Warfare and Security*. New York: ACM Press.

Department of Defense Directive 3000.07 (2008) *Irregular Warfare* (IW).

Diehl, P. F. and N. P. Gleditsch (2000) *Environmental Conflict: An Anthology*. Boulder, CO: Westview.

Dinar, S. and A. Dinar (2017) *International Water Scarcity and Variability: Managing Resource Use Across Political Boundaries*. Oakland: University of California Press.

Dombrowski, P. and S. Reich (2017) 'Does Donald Trump have a Grand Strategy?', *International Affairs* 93(5): 1013–37.

Dorn, A. W. (2011) *Keeping Watch: Monitoring, Technology, and Innovation in UN Peace Operations*. Tokyo: UN University Press.

Douhet, G. (1983) *The Command of the Air*, translated by D. Ferrari. Washington, DC: Office of Air Force History; previously published New York: Coward-McCann, 1942.

Doyle, M. W. (1983) 'Kant, Liberal Legacies and Foreign Affairs', *Philosophy and Public Affairs* 12: 205–35.

Doyle, M. W. (1986) 'Liberalism and World Politics', *American Political Science Review* 80: 1151–69.

Duffield, J. S. (1999) *World Power Forsaken: Political Culture, International Institutions and German Security Policy after Unification*. Stanford, CA: Stanford University Press.

Duffy, H. (2005) *The 'War on Terror' and the Framework of International Law*. Cambridge: Cambridge University Press.

Dunn, D. J. (1991) 'Peace Research Versus Strategic Studies'. In K. Booth (ed.) *New Thinking About Strategy and International Security*. London: Harper Collins.

Earle, E. (1943) *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*. Princeton, NJ: Princeton University Press.

Ebel, R. H., R. Taras, and J. D. Cochrane (1991) *Political Culture and Foreign Policy in Latin America: Case Studies from the Circum-Caribbean*. Albany, NY: State University of New York.

Eckstein, H. (1998) 'A Culturalist Theory of Political Change', *American Political Science Review* 82: 790–802.

Eden, L. (2004) *Whole World on Fire: Organizations, Knowledge, and Nuclear Weapons Devastation*. Ithaca, NY: Cornell University Press.

Encyclopaedia Britannica (2017) *Kautilya: Indian Statesman and Philosopher*, available at https://www.britannica.com/biography/Kautilya

Enthoven, A. C. and K. W. Smith (2005) *How Much is Enough? Shaping the Defense Program, 1961–1969*. Santa Monica, CA: RAND.

Ermarth, F. (2009) 'Russian Strategic Culture in Flux: Back to the Future?' In J. L. Johnson, K. M. Kartchner, and J. A. Larsen (eds) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. London: Palgrave Macmillan.

Esdaile, C. (2008) 'De-constructing the French Wars: Napoleon as anti-Strategist', *Journal of Strategic Studies* V 31(4): 512–52.

European Union (2003) *A Secure Europe in a Better World: European Security Strategy*, available at https://www.cvce.eu/en/obj/european_security_strategy_a_secure_europe_in_a_better_world_brussels_12_december_2003-en-1df262f2-260c-486f-b414-dbf8dc112b6b.html

Fall, B. B. (1998) 'The Theory and Practice of Insurgency and Counterinsurgency', *Naval War College Review* 15(1): 46–57.

Farrell, T. and T. Terriff (eds) (2001) *The Sources of Military Change: Culture, Politics, Technology*. Boulder, CO: Lynne Rienner.

Feldman, S. (1982) 'The Bombing of Osiraq—Revisited', *International Security* 7(2) (Autumn): 114–42.

Feng, H. (2009) 'A Dragon on Defense: Explaining China's Strategic Culture'. In J. L. Johnson, K. M. Kartchner, and J. A. Larsen (eds) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. London: Palgrave Macmillan.

Fingar, T. (2011) *Reducing Uncertainty: Intelligence and National Security*. Stanford, CA: Stanford University Press.

Fischer, D. H. (1970) *Historians' Fallacies: Toward a Logic of Historical Thought*. New York: Harper and Row.

Fleck, D. (ed.) (2013) *The Handbook of International Humanitarian Law*, 3rd edn. Oxford: Oxford University Press.

Flynn, M., M. Pottinger, and P. Batchelor et al. (2010) *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*. Washington, DC: Center for New American Security, January. Available at https://www.cnas.org/publications/reports/fixing-intel-a-blueprint-for-making-intelligence-relevant

Forester, C. S. (1943) *The Ship*. Boston, MA: Little, Brown & Co.

Forsythe, D. (2008) 'The United States and International Humanitarian Law', *Journal of Human Rights* 7(1) (Spring): 25–33.

Fortna, V. P. (2003) 'Inside and Out: Peacekeeping and the Duration of Peace after Civil and Interstate Wars', *International Studies Review* 5(4): 97–114.

Fortna, V. P. (2008) *Does Peacekeeping Work? Shaping Belligerents' Choices After Civil War*. Princeton, NJ: Princeton University Press.

Fortna, V. P. and L. M. Howard (2008) 'Pitfalls and Prospects in the Peacekeeping Literature', *Annual Review of Political Science* 11: 283–301.

Foy, M. T. (2006) *Michael Collins' Intelligence War: The Struggle between the British and the IRA, 1919–1921*. Stroud: Sutton Publishing.

Franck, T. M. (1990) *The Power of Legitimacy Among Nations*. Oxford: Oxford University Press.

Freedman, L. (1986) 'The First Two Generations of Nuclear Strategists'. In P. Paret (ed.) *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Oxford: Clarendon Press.

Freedman, L. (2004a) *Deterrence*. Cambridge: Polity Press.

Freedman, L. (2004b) *The Evolution of Nuclear Strategy*, 3rd edn. New York: Palgrave MacMillan.

Freedman, L. (2013) *Strategy: A History*. Oxford: Oxford University Press.

Freud, S. (1932) 'Why War?'. In *The Standard Edition of the Complete Psychological Writings of Sigmund Freud, xxii, 197–215*. London: Hogarth Press.

Friedman, N. (2000) *Seapower and Space: From the Dawn of the Missile Age to Net-Centric Warfare*. Annapolis, MD: Naval Institute Press.

Frühling, S. (2014) *Defence Planning and Uncertainty: Preparing for the Next Asia-Pacific War*. Abingdon: Routledge.

Fukuyama, F. (1999) 'Second Thoughts', *The National Interest* 56 (Summer): 16–33.

Fuller, J. F. C. (1926) *The Foundations of the Science of War*. London: Hutchinson.

Fuller, J. F. C. (1932) *The Dragon's Teeth: A Study of War and Peace*. London: Constable.

Fuller, J. F. C. (1942) *Machine Warfare: An Enquiry into the Influences of Mechanics on the Art of War*. London: Hutchinson.

Fuller, J. F. C. (1945) *Armament and History: A Study of the Influence of Armament on History from the Dawn of Classical Warfare to the Second World War*. New York: Charles Scribner's Sons.

Futter, A. (2015) *The Politics of Nuclear Weapons*. London: Sage.

Gaddis, J. L. (1986) 'The Long Peace: Elements of Stability in the Postwar International System', *International Security* 10(4): 99–142.

Gaddis, J. L. (2002) *The Landscape of History: How Historians Map the Past*. Oxford: Oxford University Press.

Galula, D. (1964) *Counterinsurgency Warfare*. New York: Praeger.

Garcia Fitz, F. (1998) '¿Hube estrategia en la edad media? A propósito de las relaciones castellano-musulmanas durante la segunda mitad del siglo XIII', in *Revista da Faculdade de Lettras*, Series II 15(2): 837–54.

Garnett, J. C. (1987) 'Strategic Studies and its Assumptions'. In J. Baylis, K. Booth, J. Garnett, and P. Williams, *Contemporary Strategy: Theories and Policies*, 2nd edn. London: Croom Helm.

Gat, A. (1993) *Clausewitz and the Enlightenment: The Origins of Modern Military Thought*. Oxford: Oxford University Press.

Gates, D. (2003) *Sky Wars: A History of Military Aerospace Power*. London: Reaktion Books.

Gates, R. M. (2014) *Duty: Memoirs of a Secretary at War*. London: W. H. Allen.

Geertz, C. (1973) *The Interpretation of Cultures*. New York: Basic Books.

Gellman, B. and G. Miller (2013) '"Black Budget" Summary Details Spy Network's Successes, Failures, and Objectives', *The Washington Post*, 29 August.

Gelpi, C., P. Feaver, and J. Reifler (2009) *Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts*. Princeton, NJ: Princeton University Press.

Georg, F. and B. K. Coldewijk (eds) (2007) *Human Security and International Insecurity*. Wageningen: Wageningen Academic Publisher.

George, R. Z. and J. Bruce (eds) (2013) *Analyzing Intelligence: National Security Practitioners' Perspectives*, 2nd edn. Washington, DC: Georgetown University Press.

Gibson, W. (1984) *Neuromancer*. New York: Ace Books.

Giles, G. F. (2003) 'The Crucible of Radical Islam: Iran's Leaders and Strategic Culture'. In B. R. Schneider and J. M. Post (eds) *Know Thy Enemy: Profiles of Adversary Leaders and Their Strategic Cultures*. Alabama, GA: US Air Force Counterproliferation Center.

Gillingham, J. (1992) 'War and Chivalry in the History of William the Marshal', reprinted in M. Strickland (ed.) *Anglo-Saxon Warfare: Studies in Late Anglo-Saxon and Anglo-Norman Military Organisation and Warfare*. Woodbridge: Boydell Press.

Gilpin, R. (1981) *War and Change in World Politics*. Cambridge: Cambridge University Press.

Gladwell, M. (2010) 'Small Change: Why the Revolution Will Not be Tweeted', *The New Yorker*, 4 October.

Glatthaar, J. T. (2008) *General Lee's Army: From Victory to Collapse*. New York: The Free Press.

Gleditsch, N. P. (2012) 'Whither the Weather? Climate Change and Conflict', *Journal of Peace Research* 49(1): 3–9.

Glenn, J. (2009) 'Realism versus Strategic Culture: Competition and Collaboration?' *International Studies Review* 11: 523–51.

Glenn, J., D. Howlett, and S. Poore (eds) (2004) *Neorealism versus Strategic Culture*. Aldershot: Ashgate.

Goldman, E. O. (2003) 'Introduction: Security in the Information Age'. In E. O. Goldman (ed.) 'National Security in the Information Age', special issue, *Contemporary Security Policy* 24(1): 1.

Goldstone, J. A. (2002) 'Population and Security: How Demographic Change can Lead to Violent Conflict', *Journal of International Affairs* 56(1): 3–22.

Goldsworthy, A. (2001) *The Punic Wars*. London: Cassell.

Goodrich, L. M. and E. Hambro (1949) *Charter of the United Nations: Commentary and Documents*. Boston, MA: World Peace Foundation.

Gordon, M. (1990) 'Generals Favor "No Holds Barred" by U.S. if Iraq Attacks the Saudis', *The New York Times*, 25 August.

Gorman, S. (2009) 'Electricity Grid in U.S. Penetrated by Spies', *Wall Street Journal*, 8 April.

Gowans, A. L. (1914) *Selections from Treitschke's Lectures on Politics*. London and Glasgow: Gowans & Gray.

Graeger, N. and H. Leira (2005) 'Norwegian Strategic Culture after World War II: From a Local to a Global Perspective', *Cooperation and Conflict* 40(1): 45–66.

Gray, C. (2008) *International Law and the Use of Force*, 3rd edn. Oxford: Oxford University Press.

Gray, C. S. (1981) 'National Style in Strategy: The American Example', *International Security* 6(2) (Fall): 35–7.

Gray, C. S. (1982a) *Strategic Studies and Public Policy: The American Experience*. Lexington, KY: The University Press of Kentucky.

Gray, C. S. (1982b) *Strategic Studies: A Critical Assessment*. London: Aldwych Press.

Gray, C. S. (1986) *Nuclear Strategy and National Style*. Lanham, MD: Hamilton Press.

Gray, C. S. (1992) *House of Cards: Why Arms Control Must Fail*. Ithaca, NY: Cornell University Press.

Gray, C. S. (1999a) *Modern Strategy*. Oxford: Oxford University Press.

Gray, C. S. (1999b) *The Second Nuclear Age*. Boulder, CO: Lynne Rienner.

Gray, C. S. (2002) *Strategy for Chaos: Revolutions in Military Affairs and the Evidence of History*. London: Frank Cass.

Gray, C. S. (2010a) *The Strategy Bridge*. Oxford: Oxford University Press.

Gray, C. S. (2010b) 'Strategic Thoughts for Defence Planners', *Survival* 52(3): 159–78.

Gray, C. S. (2013) *Perspectives on Strategy*. Oxford: Oxford University Press.

Gray, C. S. (2014) *Strategy and Defence Planning: Meeting the Challenge of Uncertainty*. Oxford: Oxford University Press.

Gray, C. S. (2015) *The Future of Strategy*. Cambridge: Polity.

Gray, C. S. and K. B. Payne (1980) 'Victory is Possible', *Foreign Policy* 39: 14–27.

Gray, C. S. and G. Sloan (1999) *Geopolitics, Geography, and Strategy*. London: Routledge.

Green, J. (1986) *The A–Z of Nuclear Jargon*. New York: Routledge.

Green, P. (1966) *Deadly Logic: The Theory of Nuclear Deterrence*. Columbus, OH: Ohio State University Press.

Greig, J. M. and P. F. Diehl (2005) 'The Peacekeeping–Peacemaking Dilemma', *International Studies Quarterly* 49(4): 621–45.

Grygiel, J. J. (2006) *Great Powers and Geopolitical Change*. Baltimore, MD: Johns Hopkins University Press.

Grygiel, J. J. (2013) 'Educating for National Security', *Orbis* 57(2): 201–16.

Guevara, C. (1997) *Guerrilla Warfare*, 3rd edn. Wilmington, DE: Scholarly Resources.

Guibert, C. (texts of 1772 and 1790) in B. Heuser, translator and ed. (2010) *The Strategy Makers: Thoughts on War and Society from Machiavelli to Clausewitz*. Santa Barbara, CA: Praeger-ABC Clio.

Gusterson, H. (1999) 'Nuclear Weapons and the Other in the Western Imagination', *Cultural Anthropology* 14(1): 111–43.

Gwynn, C. W. (1934) *Imperial Policing*. London: Macmillan & Co.

Hammes, T. X. (2004) *The Sling and the Stone: On War in the 21st Century*. St Paul, MI: Zenith Press.

Handel, M. I. (1996) *Masters of War: Classical Strategic Thought*. London: Frank Cass.

Handel, M. I. (2001) *Masters of War: Classical Strategic Thought*, 3rd edn. London: Frank Cass.

Hanson, V. D. (2001) *Carnage and Culture: Landmark Battles in the Rise of Western Power*. New York: Anchor Books.

Harris, B. F. (2014) 'United States Strategic Culture and Asia-Pacific Security', *Contemporary Security Policy* 35(2): 290–309.

Hartmann, A. and B. Heuser (eds) (2001) *War, Peace and World Orders from Antiquity until the 20th Century*. London: Routledge.

Haushofer K. (1942) 'Why Geopolitik?' In G. Ó. Tuathail, S. Dalby, and P. Routledge (eds) (2006) *The Geopolitics Reader*. London: Routledge.

Hays, P. L., B. J. Vallance, and A. R. Van Tassell (eds) (2000) *Spacepower for a New Millennium: Space and US National Security*. New York: McGraw-Hill.

Hehir. A. (2013) 'The Permanence of Inconsistency: Libya, the Security Council, and the Responsibility to Protect', *International Security* 38(1): 137–59.

Heikka, H. (2005) 'Republican Realism: Finnish Strategic Culture in Historical Perspective', *Cooperation and Conflict* 40(1): 91–119.

Henkin, L. (1968) *How Nations Behave: Law and Foreign Policy*. New York: Columbia University Press.

Herring, E. (ed.) (2000) *Preventing the Use of Weapons of Mass Destruction*. London: Frank Cass.

Herzog, A. (1963) *The War-Peace Establishment*. London: Harper & Row.

Heuer, R. (1999) *Psychology of Intelligence Analysis*. Washington, DC: Center for the Study of Intelligence.

Heuser, B. (2010a) *The Evolution of Strategy: Thinking War from Antiquity to the Present*. Cambridge: Cambridge University Press.

Heuser, B. (2010b) *The Strategy-Makers: Thoughts on War and Society from Machiavelli to Clausewitz*. Santa Barbara, CA: ABC-Clio.

Heuser, B. (2012) 'A National Security Strategy for England: Matthew Sutcliffe, the Earl of Essex, and the Cadiz Expedition of 1596'. In O. R. Morales (ed.) *Redes y espacios de poder de la comunidad irlandesa en España y la América española, 1600–1825*. Valencia: Albatros Ediciones.

Heuser, B. (2018) *Strategy before Clausewitz: Linking Warfare and Statecraft, 1400–1830*. Abingdon: Routledge.

Hoffer, E. (1952) *The True Believer: Thoughts on the Nature of Mass Movements*. London: Secker & Warburg.

Hoffmann, S. (1985) 'Thoughts on the Concept of Common Security'. In Stockholm International Peace Research Institute (ed.) *Policies for Common Security*. London: Taylor and Francis.

Holbrooke, R. (1999) 'No Media—No War', *Index on Censorship* 28(3): 20.

Homer-Dixon, T. F. (1991) 'On the Threshold: Environmental Changes as Causes of Acute Conflict', *International Security* 16(2) (Fall): 76–116.

Honig, J. W. (2012) 'Reappraising Late Medieval Strategy: The Example of the 1415 Agincourt', *War in History* 19(2): 123–51.

Hosmer, S. (1985) *Constraints on U.S. Strategy in Third World Conflicts*. Santa Monica: Rand Corporation.

Howard, M. (1976a) *War in European History*. Oxford: Oxford University Press.

Howard, M. (1976b) 'The Strategic Approach to International Relations', *British Journal of International Studies* 2(1): 67–75.

Howard, M. (1983) *The Causes of Wars*. London: Counterpoint.

Howard, M. (1991a) *The Lessons of History*. New Haven, CT: Yale University Press.

Howard, M. (1991b) 'British Grand Strategy in World War 1'. In P. Kennedy (ed.) *Grand Strategies in War and Peace*. New Haven, CT: Yale University Press.

Howard, M. (1991c) 'Clausewitz, Man of the Year', *New York Times*, 28 January.

Hudson, V. M. (ed.) (1997) *Culture and Foreign Policy*. Boulder, CO: Lynne Rienner.

Hughes, C. W. (2004) *Japan's Re-emergence as a 'Normal' Military Power*, Adelphi Papers no. 44. London: International Institute for Strategic Studies.

Hughes, W. (1986) *Fleet Tactics: Theory and Practice*. Annapolis, MD: Naval Institute Press.

Hurd, I. (1999) 'Legitimacy and Authority in International Politics', *International Organization* 53(2): 379–408.

Hymans, J. E. C. (2006) *The Psychology of Nuclear Proliferation: Identity, Emotions, and Foreign Policy*. Cambridge: Cambridge University Press.

ICRC (1949) Geneva Conventions I–IV, Geneva, 12 August 1949, 75 UNTS 31, 85, 135, and 287. Available at https://www.icrc.org/en/war-and-law/treaties-customary-law/geneva-conventions

IHS Jane's Defense & Security Intelligence & Analysis (various publications).

International Energy Agency (2017) 'World Energy Outlook 2017'. Available at https://www.iea.org/media/weowebsite/2017/Chap1_WEO2017.pdf

International Institute for Strategic Studies (2017) *The Military Balance*. London: IISS and Routledge.

Iraqi WMD Commission (2005) Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, Report to the President, 31 March.

Isaacson, W. (1999) 'Madeleine's War', *Time*, 17 May.

Jackson, R. H. (1993) *Quasi-States: Sovereignty, International Relations and the Third World*. Cambridge: Cambridge University Press.

Janda, L. (1995) Shutting the Gates of Mercy: The American Origins of Total War, 1860–1880', *Journal of Military History* 59(1): 15.

Jansen, J. (1997) *The Dual Nature of Islamic Fundamentalism*. Ithaca, NY: Cornell University Press.

Jervis, R. (1976) *Perception and Misperception in International Politics*. Princeton, NJ: Princeton University Press.

Jervis, R. (1979) 'Deterrence Theory Revisited', *World Politics* 31(2): 289–324.

Jervis, R. (2010) *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War*. Ithaca, NY: Cornell University Press.

Johnson, J. L., K. M. Kartchner, and J. A. Larsen (eds) (2009) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. London: Palgrave Macmillan.

Johnson, L. and J. Wirtz (2014) *Intelligence: The Secret World of Spies: An Anthology*. Oxford: Oxford University Press.

Johnson, R. A. (2014) 'Predicting Future War', *The US Army War College Quarterly, Parameters* 44(1): 65–76.

Johnston, A. I. (1995) *Cultural Realism: Strategic Culture and Grand Strategy in Chinese History*. Princeton, NJ: Princeton University Press.

Jomini, de, A.-H ([1838] 1992) *The Art of War*. London: Greenhill Books.

Jones, A. (1987) *The Art of War in the Western World*. Chicago, IL: University of Illinois Press.

Joseph, R. G. and J. F. Reichart (1995) *Deterrence and Defense in a Nuclear, Biological, and Chemical Environment*. Occasional Paper of the Center for Counterproliferation Research. Washington, DC: National Defense University.

Juperman, A. J. (2000) 'Rwanda in Retrospect', *Foreign Affairs* 79(1) (January/February): 94–113.

Kagan, K. (2006) 'Redefining Roman Grand Strategy', *The Journal of Military History* 70(2): 333–62.

Kahn, H. (1960) *On Thermonuclear War*. Princeton, NJ: Princeton University Press.

Kahn, H. (1962) *Thinking About the Unthinkable*. New York: Horizon Press.

Kak, K. (2008) 'Revolution in Military Affairs: An Appraisal', *Strategic Analysis* 24(1): 5–16.

Kaldor, M. (1999) *New and Old Wars: Organized Violence in a Global Era*. Cambridge: Polity Press.

Kalyanaraman, S. (2014) 'Nehru's Advocacy of Internationalism and Indian Foreign Policy'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Delhi: Routledge India.

Kaplan, F. (1983) *The Wizards of Armageddon*. Stanford, CA: Stanford University Press.

Karim S. and K. Beardsley (2017) *Equal Opportunity Peacekeeping: Women, Peace, and Security in Post-Conflict States*. Oxford: Oxford University Press.

Karlsrud, A. and F. Rosen (2013) 'In the Eye of the Beholder? The UN and the Use of Drones to Protect Civilians' Stability', *International Journal of Security & Development* 2: 1–10.

Karnad, B. (2014) 'An Elephant with a Small "Footprint": The Realist Roots of India's Strategic Thought and Policies'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Delhi: Routledge India.

Kartchner, K. M. (2009) 'Strategic Culture and WMD Decision Making'. In J. L. Johnson, K. M. Kartchner, and J. Larsen (eds) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. New York: Palgrave Macmillan.

Katzenbach, E. L. and G. Z. Hanrahan (1955) 'The Revolutionary Strategy of Mao Tse-Tung', *Political Science Quarterly* 70(3): 321–40.

Katzenstein, P. J. (ed.) (1996) *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press.

Keegan, J. (1987) *The Mask of Command*. New York: Viking Penguin.

Keegan, J. (1993) *A History of Warfare*. New York: Knopf.

Kennan, G. F. (1947) 'The Sources of Soviet Conduct', *Foreign Affairs* 25: 576–82.

Kennedy, P. (1988) *The Rise And Fall Of The Great Powers: Economic Change and Military Conflict*. London: Unwin Hyman.

Kennedy, P. (ed.) (1991) *Grand Strategies in War and Peace*. New Haven: Yale University Press.

Kenyon, I. and J. Simpson (eds) (2006) *Deterrence in the New Global Security Environment*. London: Routledge.

Keohane, R. O. (1989) *International Institutions and State Power: Essays in International Relations Theory*. Boulder, CO: Westview Press.

Keohane, R. O. and J. S. Nye (2001) *Power and Interdependence*, 3rd edn. New York: Longman; originally Reading, MA: Addison-Wesley, 1989.

Kerr, R., T. Wolfe, R. Donegan, and A. Pappas (2005) 'Collection and Analysis on Iraq: Issues for the Intelligence Community', *Studies in Intelligence* 49(3): 152–61.

Kier, E. (1995) 'Culture and Military Doctrine: France between the Wars', *International Security* 19(14): 65–94.

Kim, S. C. and M. D. Cohen (eds) (2017) *North Korea and Nuclear Weapons: Entering the New Era of Deterrence*. Washington, DC: Georgetown University Press.

Kipp, J., L. Grau, K. Prinslow, and Captain D. Smith (2006) 'The Human Terrain System: A CORDS for the 21st Century', *Military Review* (September/October): 8–15.

Kiras, J. D. (2005) 'Terrorism and Globalization'. In J. Baylis, S. Smith, and P. Owens (eds) *The Globalization of World Politics: An Introduction to International Relations*, 5th edn. Oxford: Oxford University Press.

Kissinger, H. A. (1957) *Nuclear Weapons and Foreign Policy*. New York: Harper & Row.

Kissinger, H. (2014) *World Order*. New York: Penguin Books.

Kitson, F. (1977) *Bunch of Five*. London: Faber & Faber.

Klein, B. S. (1994) *Strategic Studies and World Order: The Global Politics of Deterrence*. Cambridge: Cambridge University Press.

Knopf, J. (2010) 'The Fourth Wave in Deterrence Research', *Contemporary Security Policy* 31(1): 1–33.

Knorr, K. (ed.) (1976) *Historical Dimensions of National Security Problems*. Lawrence, KS: University Press of Kansas.

Koops, J. et al. (2015) *Oxford Handbook of United Nations Peacekeeping Operations*. Oxford: Oxford University Press.

Kramer, F. D., S. H. Starr, and L. K. Wentz (eds) (2009) *Cyberpower and National Security*. Washington, DC: Potomac Books.

Krasner, S. (2010) 'An Orienting Principle for Foreign Policy: The Deficiencies of "Grand Strategy"', *Policy Review* 163: 5.

Krause, K. and M. Williams (1997) 'From Strategy to Security: Foundations of Critical Security Studies'. In Krause, K. and M. C. Williams (eds), *Critical Security Studies: Concepts and Cases*. London: UCL Press.

Krepon M. (2012) 'South Asia's Distinctive Arms Race', *Arms Control Today* (November).

Kritsiotis, D. (2004) 'Arguments of Mass Confusion', *European Journal of International Law* 15(2): 233–78.

Kuehl, D. T. (2009) 'From Cyberspace to Cyberpower: Defining the Problem'. In F. D. Kramer, S. H. Starr, and L. K. Wentz (eds) *Cyberpower and National Security*. Washington, DC: Potomac Books.

Kuhn, K. (1987) 'Responsibility for Military Conduct and Respect for International Humanitarian Law', Dissemination, ICRC.

Kuo, M. A. (2016) 'The End of American World Order: Insights from Amitav Acharya', *The Diplomat* (10 November). Available at http://thediplomat.com/2016/11/the-end-of-american-world-order/

Kupchan, C. (1994) *The Case for Collective Security*. Ann Arbor, MI: University of Michigan Press.

Ladis, N. (2003) 'Assessing Greek Strategic Thought and Practice: Insights from the Strategic Culture Approach'. Doctoral dissertation, University of Southampton.

Langewiesche, W. (2007) *The Atomic Bazaar: The Rise of the Nuclear Poor*. New York: Farrar, Straus and Giroux.

Langholtz, H., B. Kondoch, and A. Wells (eds) (ongoing) *International Peacekeeping: Yearbook of International Peace Operations*. Leiden: Brill.

Lantis, J. S. (2002) *Strategic Dilemmas and the Evolution of German Foreign Policy since Unification*. Westport, CN: Praeger.

Lantis, J. S. (2005) 'American Strategic Culture and Transatlantic Security Ties'. In K. Longhurst and M. Zaborowski, *Old Europe, New Europe and the Transatlantic Security Agenda*. London: Routledge.

Lantis, J. S. (ed.) (2014) 'Strategic Cultures and Security Policies in the Asia-Pacific', *Contemporary Security Policy* 35(2): 166–86.

Lantis, J. S. (ed.) (2015) *Strategic Cultures and Security Policies in the Asia-Pacific*. New York: Routledge.

Larsen, J. A. and J. J. Wirtz (eds) (2009) *Arms Control and Cooperative Security*. London: Lynne Rienner.

Lasswell, H. D. (1936) *Politics: Who Gets What, When, How*. New York: McGraw-Hill.

Laub, Z. and J. McBride (2017) 'The Group of Seven (G7)', Council on Foreign Relations Backgrounder, available at https://www.cfr.org/backgrounder/group-seven-g7

Lauterpacht, H. (1952) 'The Revision of the Law of War', *British Yearbook of International Law* 29: 360–82.

Lavoy, P., S. Sagan, and J. Wirtz (eds) (2000) *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*. Ithaca, NY: Cornell University Press.

Lawrence, P. (1988) *Preparing for Armageddon: A Critique of Western Strategy*. Brighton: Wheatsheaf.

Lawrence, T. E. (1920) 'The Evolution of a Revolt', *The Army Quarterly* 1(1): 55–69.

Lawrence, T. E. (1935) *Seven Pillars of Wisdom: A Triumph*. London: Jonathan Cape.

Le Bohec, Y. (2014) *La Guerre romaine*. Paris: Tallandier.

Le Bon, G. (1897) *The Crowd: A Study of the Popular Mind*, 2nd edn. London: Fisher Unwin.

Lee, S. P. (1996) *Morality, Prudence, and Nuclear Weapons*. Cambridge: Cambridge University Press.

Leo VI ([*c.*900] 2010) *Taktika*, translated and edited by G. Dennis, *The Taktika of Leo VI*. Washington, DC: Dumbarton Oaks.

Levy, J. S. and W. R. Thompson (2010) *The Causes of War*. Chichester: Wiley-Blackwell.

Levy, M. (1995) 'Is the Environment a National Security Issue?', *International Security* 20(2): 35–62.

Lewis, K., K. Gray, and J. Meierhenrich (2014) 'The Structure of Online Activism', *Sociological Science* 1: 1–9.

Libicki, M. C. (2007) *Conquest in Cyberspace: National Security and Information Warfare*. Cambridge: Cambridge University Press.

Liddell Hart, B. H. (1929) *The Decisive Wars of History: A Study in Strategy*. London: G. Bell.

Liddell Hart, B. H. (1932) *The British Way in Warfare*. London: Faber & Faber.

Liddell Hart, B.H. (1935) *When Britain Goes to War*. London: Faber & Faber.

Liddell Hart, B. H. ([1941] 1967) *Strategy: The Indirect Approach*. London: Faber & Faber.

Lindblom, C. E. (1959) 'The Science of "Muddling Through" ', *Public Administration Review* 19(2): 79–88.

Lindley-French, J. (2002) 'In the Shade of Locarno? Why European Defence is Failing', *International Affairs* 78(4): 789–811.

Lipson, C. (1984) 'International Cooperation in Economic and Security Affairs', *World Politics* 37(1): 1–23.

Liu, T. (2014) 'Chinese Strategic Culture and the Use of Force: Moral and Political Perspectives', *Journal of Contemporary China* 23(87): 556–74.

Lo, P. (2015) 'Three Synoptic Views of China's "People's Liberation Army" on Military Ethics and Justified War'. In G. Lucas (ed.) *Routledge Handbook of Military Ethics*. New York: Routledge.

Lock, E. (2010) 'Refining Strategic Culture: Return of the Second Generation', *Review of International Studies* 36(1): 685–708.

Long, J. M. (2009) 'Strategic Culture, Al-Qaeda, and Weapons of Mass Destruction'. In J. L. Johnson, K. M. Kartchner, and J. A. Larsen (eds) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. London: Palgrave Macmillan.

Lonsdale, D. J. (2004) *The Nature of War in the Information Age: Clausewitzian Future*. London: Frank Cass.

Lonsdale, D. J. (2007) *Alexander the Great: Lessons in Strategy*. Abingdon: Routledge.

Lorenz, K. (1976) *On Aggression*. New York: Bantam.

Lowenthal, M. (2017) *Intelligence: From Secrets to Policy*, 7th edn. Washington, DC: CQ Press.

Luttwak, E. (1976, reprinted 1999) *The Grand Strategy of the Roman Empire: From the First Century A.D. to the Third*. London: Weidenfeld & Nicolson.

Luttwak, E. (2001) *Strategy: The Logic of War and Peace*, revised and enlarged edn. Cambridge, MA: Belknap Press.

Luttwak, E. (2009) *The Grand Strategy of the Byzantine Empire*. Cambridge, MA: Belknap Press.

Lyngaas, S. (2015) 'Inside the CIA's New Digital Directorate', *FCW: The Business of Federal Technology* (1 October).

Lynn, J. (1999) *The Wars of Louis XIV, 1667–1714*. Harlow: Pearson Education.

Lynn, J. (2003) *Battle: A History of Combat and Culture*. Boulder, CO: Westview Press.

McConnell, M. (2010) 'To win the cyber-war, look to the Cold War', *The Washington Post*, 28 February. Available at http://www.washingtonpost.com/wp-dyn/content/article/2010/02/25/AR2010022502493.html

McCoubrey, H. (1998) *International Humanitarian Law*, 2nd edn. Aldershot: Dartmouth.

MacKenzie, D. (1990) *Inventing Accuracy: An Historical Sociology of Nuclear Missile Guidance*. Cambridge, MA: MIT University Press.

Mackinder, H. J. (1904) 'The Geographical Pivot of History (Read at the Royal Geographical Society, 25 January 1904)', *The Geographical Journal* 23: 421–37.

Mackinder, H. J. (1919) *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*. London: Henry Holt.

McNeil, W. H. (1982) *The Pursuit of Power*. Oxford: Basil Blackwell.

Mahnken, T. G. (2009) 'US Strategic and Organizational Subcultures'. In J. L. Johnson, K. M. Kartchner, and J. A. Larsen (eds) *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*. London: Palgrave Macmillan.

Mahnken, T. G. (2012) *Competitive Strategies for the 21st Century: Theory, History and Practice*. Palo Alto, CA: Stanford University Press.

Mahnken, T. G. and J. A. Maiolo (2014) *Strategic Studies: A Reader*, 2nd edn. Abingdon: Routledge.

Malkasian, C. (2013) *War Comes to Garmser*. Oxford: Oxford University Press.

Mao Tse-Tung (1961) *Mao Tse-Tung on Guerrilla Warfare*. New York: Praeger.

Mao Tse-Tung (1966) *Selected Military Writings of Mao Tse-Tung*. Peking: Foreign Languages Press.

Mao Tse-Tung (1967) *Selected Military Writings of Mao Tse-Tung*, 2nd edn. Peking: Foreign Languages Press.

Marighella, C. (1969) 'Minimanual of the Urban Guerrilla' [mimeograph; no publisher].

Marks, J. H. (2017) 'Which Will Trump: Human Rights and Professional Ethics, or Torture Redux?', *Medicine, Conflict and Survival* 33(1): 4–17.

Marshall, G. (ed.) (1994) *The Concise Oxford Dictionary of Sociology*. Oxford: Oxford University Press.

Mathews, J. T. (1989) 'Redefining Security', *Foreign Affairs* 68(2): 162–77.

Mattern, J. B. (2005) *Ordering International Politics: Identity, Crisis, and Representational Force*. London: Routledge.

Matthew, R. A., J. Barnett, B. McDonald, and K. L. O'Brien (eds) (2010) *Global Environmental Change and Human Security*. Cambridge, MA: MIT Press.

Mead Earle, E. (ed.) (1943) *Makers of Modern Strategy: From Machiavelli to Hitler*. Princeton, NJ: Princeton University Press.

Mearsheimer, J. J. (2014) *The Tragedy of Great Power Politics*, 2nd edn. New York: Norton.

Meron, T. (2006) *The Humanization of International Law*. Leiden: Martinus Nijhoff.

Messenger, C. (1976) *The Art of Blitzkrieg*. London: Ian Allan.

Metcalfe, V., A. Giffen, and S. Elhawary (2011) *UN Integration and Humanitarian Space*. London: Overseas Development Institute.

Metz, S. (2008) *Iraq and the Evolution of American Strategy*. Washington, DC: Potomac Books.

Meyer, C. O. (2004) *Theorising European Strategic Culture: Between Convergence and the Persistence of National Diversity*. Centre for European Policy Studies, Working Document 204 (June). Available at https://www.ceps.eu/publications/theorising-european-strategic-culture-between-convergence-and-persistence-national

Meyer, C. O. (2007) *The Quest for a European Strategic Culture: Changing Norms on Security and Defence in the European Union*. London: Palgrave Macmillan.

Milevski, L. (2014) 'Strategy Versus Statecraft in Crimea', *The US Army War College Quarterly, Parameters* 44(2): 23–33.

Miller, G. (2014) 'Germany Orders CIA Station Chief to Leave Over Spying Allegations', *Washington Post*, 10 July. Available at http://www.washingtonpost.com/world/europe/germany-expels-us-intelligence-station-chief-over-spying-allegations/2014/07/10/dc60b1f0-083c-11e4-8a6a-19355c7e870a_story.html

Milliken, J. (1999) 'The Study of Discourse in International Relations', *European Journal of International Relations* 5(2): 225–54.

Ministry of Defence (2010) *British Army Field Manual Volume 1, Part 10: Countering Insurgency*. London: Ministry of Defence.

Ministry of Foreign Affairs of the People's Republic of China (2002) *China's Position Paper on the New Security Concept* (31 July), available at http://www.fmprc.gov.cn/mfa_eng/wjb_663304/zzjg_663340/gjs_665170/gjzzyhy_665174/2612_665212/2614_665216/t15319.shtml

Miskimmon, A. (2004) 'Continuity in the Face of Upheaval—British Strategic Culture and the Impact of the Blair Government', *European Security* 13(3): 273–99.

Moir, L. (2002) *The Law of Internal Armed Conflict*. Oxford: Oxford University Press.

Moore, A. (2013) *Peacebuilding in Practice: Local Experience in Two Bosnian Towns*. Ithaca, NY: Cornell University Press.

Moran, D. and J. A. Russell (eds) (2009) *Energy Security and Global Politics: The Militarization of Resource Management*. New York: Routledge.

Morris, J. (2013) 'Libya and Syria: R2P and the spectre of the swinging pendulum', *International Affairs* 89(5): 1265–83.

Morris, J. C. (2005) 'Normative Innovation and the Great Powers'. In A. Bellamy (ed.) *International Society and its Critics*. Oxford: Oxford University Press.

Moskos, C. C., J. A. Williams, and D. R. Segal (eds) (2000) *The Postmodern Military: Armed Forces after the Cold War*. New York: Oxford University Press.

Müller, H. and M. Reiss (1995) 'Counterproliferation: Putting Old Wine in New Bottles', *Washington Quarterly* 18(2) (Spring): 145–9.

Müller, H., D. Fisher, and W. Kötter (1994) *Nuclear Non-Proliferation and Global Order*. New York: Oxford University Press.

Munkler, H. (2005) *The New Wars*. Cambridge: Polity Press.

Murray, W. (1997) 'Thinking about Revolutions in Military Affairs', *Joint Force Quarterly* 16: 69–76.

Murray, W. (2011) *Military Adaptation in War: With Fear of Change*. Cambridge: Cambridge University Press.

Murray, W., M. Knox, and A. Bernstein (eds) (1994) *The Making of Strategy: Rulers, States, and War*. Cambridge: Cambridge University Press.

Murray, W., R. H. Sinnreich, and J. Lacey (eds) (2011) *The Shaping of Grand Strategy: Policy, Diplomacy, and War*. Cambridge: Cambridge University Press.

Mutimer, D. (2000) *The Weapons State: Proliferation and the Framing of Security*. Boulder, CO: Lynne Rienner.

Nathan, A. J. and A. Scobell (2012) 'How China Sees America: The Sum of Beijing's Fears', *Foreign Affairs* 91(5): 32–47.

National Intelligence Council (2017) *Global Trends: Paradox of Progress*. Washington, DC: Government Printing Office.

Nelson, K. L. and S. C. Olin, Jr (1979) *Why War?: Ideology, Theory, and History*. Berkeley and Los Angeles, CA: University of California Press.

Neustadt, R. E. and E. R. May (eds) (1986) *Thinking in Time: The Uses of History for Decision Makers*. New York: Free Press.

Niebuhr, R. (1932) *Moral Man and Immoral Society: A Study in Ethics and Politics*. New York and London: Charles Scribner's Sons.

Nietzsche, E. (1966) *The Philosophy of Nietzsche*. New York: New American Library.

Nofi, A. A. (1982) 'Clausewitz on War', *Strategy and Tactics* 91: 16.

Nye,, J. S. Jr (1988) *Nuclear Ethics*. New York: Free Press.

Nye, J. S. Jr (2011) *The Future of Power*. New York: Public Affairs.

Nye, J. S. Jr (2015) 'The World Needs an Arms Control Treaty for Cybersecurity', *The Washington Post*, 1 October.

Nye, J. S. and S. M. Lynn-Jones (1988) 'International Security Studies: A Report of a Conference on the State of the Field', *International Security* 12(4): 5–27.

OECD (2010) *Perspectives on Global Development 2010: Shifting Wealth*. Paris: OECD. Available at http://www.oecd.org/dev/pgd/45451514.pdf

Office of the Director of National Intelligence (2014) *The National Intelligence Strategy of the United States*. Washington, DC: Director of National Intelligence. Available at http://www.dni.gov/files/documents/2014_NIS_Publication.pdf

O'Hanlon, M. E. (2009) *The Science of War Defense Budgeting, Military Technology, Logistics, and Combat Outcomes*. Princeton, NJ: Princeton University Press.

O'Hanlon, M. E. (2015) *The Future of Land Warfare*. Washington, DC: Brookings Institution Press.

Olsen, J. A. and C. S Gray (eds) (2011) *The Practice of Strategy: From Alexander the Great to the Present*. Oxford: Oxford University Press.

O'Neill, B. (1990) *Insurgency and Terrorism: Inside Modern Revolutionary Warfare*. Washington, DC: Brassey's.

Orme, J. (1997) 'The Utility of Force in a World of Scarcity', *International Security* 22(3): 136–67.

Oros, A. (2014) 'Japanese Strategic Culture and Security Identity in a Fourth Modern Incarnation?', *Contemporary Security Policy* 35(2): 227–48.

Ott, D. E. (1975) *Field Artillery, 1954–1973*, Vietnam Studies. Washington DC: Department of the Army.

O'Tuathail, G. (1996) *Critical Geopolitics: The Politics of Writing Global Space*. London: Routledge.

Owens, W. A. and E. Offley (2000) *Lifting the Fog of War*. New York: Farrar, Straus, & Giroux.

Owens, W. A., K. W. Dam, and H. S. Lin (eds) (2009) *Technology, Policy, Law, and Ethics Regarding US Acquisition and Use of Cyberattack Capabilities*. Washington, DC: The National Academies Press.

Paddon, E. (2011) 'Partnering for Peace: Implications and Dilemmas', *International Peacekeeping* 18(5): 518–35.

Paddon, E. (2016) *Taking Sides in Peacekeeping: Impartiality and the Future of the United Nations*. Oxford: Oxford University Press.

Paret, P. (ed.) (1986) *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton, NJ: Princeton University Press.

Paris, R. (2004) *At War's End: Building Peace After Civil Conflict*. Cambridge: Cambridge University Press.

Parker, G. (1988) *The Military Revolution: Military Innovation and the Rise of the West 1500–1800*. Cambridge: Cambridge University Press.

Parker, G. (1998) *The Grand Strategy of Philip II*. New Haven, CT: Yale University Press.

Parsons, T. (1951) *The Social System*. London: Routledge and Kegan Paul.

Paul, C., C. Clarke, and B. Grill (2010) *Victory Has a Thousand Fathers: Detailed Counterinsurgency Case Studies*. Santa Monica, CA: RAND Corporation.

Payne, K. B. (2007) 'Deterring Iran: The Values at Stake and the Acceptable Risks'. In P. Clawson and M. Eisenstadt (eds) *Deterring the Ayatollahs: Complications in Applying Cold War Strategy to Iran*. Policy Focus No. 72. Washington, DC: The Washington Institute for Near East Policy.

Peoples, C. (2007) 'Technology and Politics in the Missile Defence Debate: Traditional, Radical, and Critical Approaches', *Global Change, Peace and Security* 19(3): 265–80.

Peoples, C. and N. Vaughan-Williams (2014) *Critical Security Studies: An Introduction*. Abingdon: Routledge.

Perkovich, G., J. T. Matthews, J. Cirincione, R. Gottemoeller, and J. B. Wolfsthal (2005) *Universal Compliance: A Strategy for Nuclear Security*. Washington, DC: Carnegie Endowment for International Peace.

Perlroth, N. and D. Sanger. (2017) 'Hackers Hit Dozens of Countries Exploiting Stolen NSA Tool', *The New York Times*, 12 May.

Petroski, H. (1982) *To Engineer is Human: The Role of Failure in Successful Design*. New York: Random House.

Pettersson, T. and P. Wallensteen (2015) 'Armed Conflicts, 1946–2014', *Journal of Peace Research* 52(4): 536–50.

Pillalamarri, A. (2015) 'Chanakya: India's Truly Radical Machiavelli', *The National Interest*, 29 January. Available at http://nationalinterest.org/feature/chanakya-indias-truly-radical-machiavelli-12146

Pillar, P. (2006) 'Intelligence, Policy, and the War in Iraq', *Foreign Affairs* 85(2) (March/April): 15–27.

Pillar, P. (2011) *Intelligence and US Foreign Policy: Iraq, 9/11 and Misguided Reform*. New York: Columbia University Press.

Poore, S. (2004) 'Strategic Culture'. In J. Glenn, D. Howlett, and S. Poore, *Neorealism versus Strategic Culture*. Aldershot: Ashgate.

Porch, D ([2000] 2001) *Wars of Empire*. London: Cassell.

Porter, P. (2009) *Military Orientalism: Eastern War Through Western Eyes*. London: Hurst.

Pouligny, B. (2006) *Peace Operations Seen From Below: UN Missions and Local People*. Bloomfield, CT: Kumarian.

President's Review Group on Intelligence and Communications Technologies (2013) *Liberty and Security in a Changing World*, Report and Recommendations, 12 December. Available at https://obamawhitehouse.archives.gov/sites/default/files/docs/2013-12-12_rg_final_report.pdf

Preston, R. A. and S. F. Wise (1970) *Men in Arms: A History of Warfare and its Interrelationship with Western Society*, 2nd edn. New York: Praeger.

Price Waterhouse Cooper (2015) *The World in 2050: Will the Shift in Global Economic Power Continue?* Available at http://www.pwc.com/gx/en/issues/economy/the-world-in-2050.html

Quade, E. S. and W. I. Boucher (eds) (1968) *Systems Analysis and Policy Planning: Applications in Defense*. New York: American Elsevier.

Quester, G. (1977) *Offense and Defense in the International System*. New York: John Wiley and Sons.

Rajagopalan, S. (2014) '"Grand Strategic Thought" in the Ramayana and Mahabharata'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Dehli: Routledge India.

Ralph, J. (2007) *Defending the Society of States: Why America Opposes the International Criminal Court and its Vision of World Society*. Oxford: Oxford University Press.

Rapoport, A. (1964) *Strategy and Conscience*. New York: Schocken Books/Harper & Row.

Rapoport, A. (1965) 'The Sources of Anguish', *Bulletin of Atomic Scientists* 21(10) (December): 25–36.

Rattray, G. J. (2001) *Strategic Warfare in Cyberspace*. Cambridge, MA: MIT Press.

Rattray, G. J. (2002) 'The Cyberterrorism Threat'. In R. D. Howard and R. L. Sawyer (eds) *Terrorism and Counterterrorism: Understanding the New Security Environment*. Guildford, CT: McGraw-Hill.

Raudzens, G. (1990) 'War-Winning Weapons: The Measurement of Technological Determinism in Military History', *Journal of Military History* 54 (October): 403–33.

Reich, S. and P. Dombrowski (2018) *The End of Grand Strategy: US Maritime Operations in the 21st Century*. Ithaca, NY: Cornell University Press.

Reid, B. H. (2005) *Robert E. Lee, Icon for a Nation*. London: Weidenfeld and Nicolson.

Reiter, D. (2003) 'Exploring the Bargaining Model of War', *Perspectives on Politics* 1(1) (March): 27–43.

Reus-Smit, C. (2004) *The Politics of International Law*. Cambridge: Cambridge University Press.

Reus-Smit, C. (2007) 'International Crises of Legitimacy', *International Politics* 44(2/3): 157–74.

Rid, T. (2013) *Cyber War Will Not Take Place*. New York: Oxford University Press.

Rink, M. (1999) *Vom 'Partheygänger' zum Partisanen: Die Konzeption des kleinen Krieges in Preußen, 1740–1813*. Frankfurt/Main: Peter Lang.

Roberts, A. (2008) *Masters and Commanders: How Roosevelt, Churchill, Marshall, and Alanbrooke Won the War in the West*. London: Allen Lane.

Roberts, A. and D. Zaum (2008) *Selective Security: War and the United Nations Security Council Since 1945*. London: International Institute for Strategic Studies.

Roberts, M. (1956) *The Military Revolution, 1560–1660*. Belfast: Marjory Boyd.

Robertson, S. (2000) 'Experimentation and Innovation in the Canadian Armed Forces', *Canadian Military Journal* 1(2): 63–9.

Robinson, L. (2008) *Tell Me How this Ends: General David Petraeus and the Search for a Way Out of Iraq*. New York: Public Affairs.

Robinson, P., N. de Lee, and D. Carrick (eds) (2008) *Ethics Education in the Military*. Aldershot: Ashgate.

Rogers, C. J. (2000) *War Cruel and Sharp: English Strategy under Edward III, 1327–1360*. Woodbridge: Boydell Press.

Rogers, C. J. (2002) 'The Vegetian "Science of Warfare" in the Middle Ages', *Journal of Medieval Military History* 1: 1–19.

Rosen, S. (2005) *War and Human Nature*. Princeton, NJ: Princeton University Press.

Rubinstein, R. (1994) 'Collective Violence and Common Security'. In T. Ingold (ed.) *Companion Encyclopedia to Anthropology*. London: Routledge.

Ruggieri, A., H. Dorussen, and T.-I. Gizelis (2017) 'Winning the Peace Locally: UN Peacekeeping and Local Conflict', *International Organization* 71(1):163–85.

Rumsfeld, D. (2011) *Known and Unknown: A Memoir*. New York: Sentinel.

Russell, R. B. (1958) *A History of the United Nations Charter*. Washington DC: Brookings Institute.

Rynning, S. (2003) 'The European Union: Towards a Strategic Culture?', *Security Dialogue* 34(4) (December): 479–96.

Sagan, S. D. and K. N. Waltz (2012) *The Spread of Nuclear Weapons: A Debate Renewed*, 3rd edn. New York: W. W. Norton.

Samore, G. (2003) 'The Korean Nuclear Crisis', *Survival* 45(1): 8–9.

Sandler, T. (2017) 'International Peacekeeping Operations: Burden Sharing and Effectiveness', *Journal of Conflict Resolution* 61(9):1875–97.

Sarkesian, S. C. (ed.) (1972) *The Military-Industrial Complex: A Reassessment*. Beverly Hills, CA: Sage.

Sassòli, M. (2004) 'The Status of Persons Held in Guantanamo under International Humanitarian Law', *Journal of International Criminal Justice* 2(1) (March): 96–106.

Sayigh, Y. (1990) *Confronting the 1990s: Security in the Developing Countries*, Adelphi Papers no. 251. London: International Institute for Strategic Studies.

Schabas, W. A. (2017) *An Introduction to the International Criminal Court*, 5th edn. Cambridge: Cambridge University Press.

Schell, J. (1982) *The Fate of the Earth*. London: Picador.

Schell, J. (1984) *The Abolition*. New York: Knopf.

Schelling, T. C. (1963) *Strategy of Conflict*. New York: Oxford University Press.

Schelling, T. C. and M. Halperin (1985) *Strategy and Arms Control*. Washington, DC: Pergamon-Brassey's.

Schimmelfennig, F. (2000) 'NATO's Enlargement to the East: An Analysis of Collective Decision-making', EAPC-NATO Individual Fellowship Report 1998–2000, available at https://www.nato.int/acad/fellow/98-00/schimmelfennig.pdf

Schmidt, P. and B. S. Zyla (eds) (2013) *European Security Policy and Strategic Culture*. London: Routledge.

Schmitt, B., D. Howlett, J. Simpson, H. Müller, and B. Tertrais (2005) *Effective Non-Proliferation: The European Union and the* 2005 *NTPT Review Conference*, Chaillot Paper 77. Brussels: EU Institute for Security Studies.

Schwartau, W. (1996) *Information Warfare*, 2nd edn. New York: Thunder's Mouth Press.

Schwartz, S. I. (1998) *Atomic Audit: The Costs and Consequences of US Nuclear Weapons since 1940*. Washington, DC: Brookings Institution.

Schweller, M. and X. Pu (2011) 'After Polarity: Emerging Powers in the Age of Disorder', *Global Governance* 17(3): 285–97.

Scobell, A. (2002) *China and Strategic Culture*. Carlisle, PA: US Army War College, Strategic Studies Institute.

Scobell, A. (2003) *China's Use of Military Force: Beyond the Great Wall and the Long March*. Cambridge: Cambridge University Press.

Scobell, A. (2014) 'China's Real Strategic Culture: A Great Wall of the Imagination', *Contemporary Security Policy* 35(2): 211–26.

Seffers, G. (2013) 'Big Data in Demand for Intelligence Community', *SIGNAL Magazine*, 4 January. Available at https://www.afcea.org/content/?q=node/10510

Shaw, M. (2003) 'Strategy and Slaughter', *Review of International Studies* 29(2): 269–77.

Sheldon, J. B. (2011) 'Stuxnet and Cyberpower in War', *World Politics Review*. Available at http://www.worldpoliticsreview.com/articles/8570/stuxnet-and-cyberpower-in-war

Simpson, E. (2018) *War from the Ground Up*. New York: Oxford University Press.

Singer, P. W. (2009) *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin.

Singer, P. W. and A. Friedman (2014) *Cybersecurity and Cyberwar: What Everyone Needs to Know*. New York: Oxford University Press.

Small Wars and Insurgencies (2014) Special issue: *The Origins and Diversity of Small Wars* 25(4).

Smith, H. (2005) *On Clausewitz: A Study of Military and Political Ideas*. New York: Palgrave Macmillan.

Smith, Sir R. (2006) *The Utility of Force: The Art of War in the Modern World*. London: Penguin.

Smith, S., K. Booth, and M. Zalewski (eds) (1996) *International Theory: Positivism and Beyond*. Cambridge: Cambridge University Press.

Snyder, J. (1977) *The Soviet Strategic Culture: Implications for Nuclear Options*, R-2154-AF. Santa Monica, CA: RAND Corporation.

Soedjatmoko (1985) 'Patterns of Armed Conflict in the Third World', *Alternatives* 10(4): 477–93.

Sokolski, H. (2001) *Best of Intentions: America's Campaign Against Strategic Weapons Proliferation*. London: Praeger.

Spanier, J. W. and J. L. Nogee (1962) *The Politics of Disarmament: A Study of Soviet-American Gamesmanship*. New York: Praeger.

Spykman N. ([1942] 1970) *America's Strategy in World Politics: The United States and the Balance of Power*. Hamden, CT: Archon.

Stavridis, J. (2017) 'The United States Is Not Ready for a Cyber Pearl Harbor', *Foreign Policy*, 15 May.

Stedman, S. J. (1997) 'Spoiler Problems in Peace Processes', *International Security* 22(2) (Fall): 5–53.

Stein, J. G. (1985) 'Detection and Defection: Security "Regimes" and the Management of International Conflict', *International Journal* 40(4): 599–627.

Stewart, R. (2011) 'What Can Afghanistan and Bosnia Teach Us About Libya?' *The Guardian*, 7 October. Available at http://www.guardian.co.uk/world/2011/oct/08/libya-intervention-rory-stewart

Stolfi, R. H. S. (1970) 'Equipment for Victory in France in 1940', *History* 55(183): 1–20.

Stout, M., J. Huckabey, J. Schindler, and J. Lacey (2008) *The Terrorist Perspectives Project: Strategic*

and Operational Views of Al Qaida and Associated Movements. Annapolis, MD: Naval Institute Press.

Strachan, H. (1988) *European Armies and the Conduct of War*. London: Routledge.

Strachan, H. (2011) 'Strategy and Contingency', *International Affairs* 87(6): 1281–96.

Strong, J. (2015) 'Why Parliament Now Decides on War: Tracing the Growth of the Parliamentary Prerogative through Syria, Libya and Iraq', *British Journal of Politics and International Relations* 17(4): 604–22, first published online on 14 June 2014 at http://onlinelibrary.wiley.com/doi/10.1111/1467-856X.12055/pdf

Subhramanyam, K. (1993) 'Export Controls and the North-South Controversy', *Washington Quarterly* 16(2): 135–44.

Suganami, H. (1996) *On the Causes of War*. Oxford: Clarendon Press.

Sun Tzu (1963) *The Art of War*, translated by S. B. Griffith. Oxford: Oxford University Press.

Sun Tzu (1993) *The Art of War*, translated by R. Ames. New York: Ballantine Books.

Sun Tzu (1994) *The Art of War* (*c.*490 BC), edited and translated by R. D. Sawyer. Boulder CO, Westview Press.

Sutcliffe, M. (1593) *The Practice, Proceedings and Lawes of Armes*. London: Deputies of C. Barker.

Swidler, A. (1986) 'Culture in Action: Symbols and Strategies', *American Sociological Review* 51(2): 273–86.

Taber, R. (1970) *The War of the Flea: Guerrilla Warfare Theory and Practice*. London: Paladin.

Taber, R. (1972) *The War of the Flea: Guerrilla Warfare Theory and Practice*. London: Paladin.

Taleb, N. N. (2010) *The Black Swan: The Impact of the Highly Improbable*. New York: Random House.

Taleb, N. N. and M. Blyth (2011) 'The Black Swan of Cairo: How Suppressing Volatility Makes the World Less Predictable and More Dangerous', *Foreign Affairs* 90(3): 33–47.

Tannenwald, N. (1999) 'The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use', *International Organization* 53(3): 83–114.

Tharoor, S. (1995-6) 'Should United Nations Peacekeeping Go "Back to Basics"?', *Survival* 37(4) (Winter): 52–64.

Thomas, C. (1987) *In Search of Security: The Third World in International Relations*. Brighton: Wheatsheaf Books.

Thomas, C. (1991) 'New Directions in Thinking about Security in the Third World'. In K. Booth (ed.) *New Thinking about Strategy and International Security*. London: HarperCollins Academic.

Thompson, R. (1966) *Defeating Communist Insurgency: Experiences from Malaya and Vietnam*. London: Chatto & Windus.

Thucydides ([*c.*400 BC] 1996) *The Landmark Thucydides: A Comprehensive Guide to 'The Peloponnesian War'*, edited by R. B. Strassler, revised from translation by R. Crawley. New York: The Free Press.

Tilford, Earl H. Jr (1995) *The Revolution in Military Affairs: Prospects and Cautions*. Carlisle Barracks: Strategic Studies Institute, United States Army War College. Available at https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=238

Till, G. (2004) *Seapower: A Guide for the Twenty-First Century*. London: Frank Cass.

Tilly, C. (1975) *The Formation of National States in Western Europe*. Princeton, NJ: Princeton University Press.

Townshend, C. (1975) *The British Campaign in Ireland, 1919–1921: The Development of Political and Military Policies*. Oxford: Oxford University Press.

Traina, G. (2014) 'La guerre mondiale des Romains', *L'Histoire* 405 (November): 76–81.

United Nations (1945) *Charter of the United Nations*. New York: United Nations. Available at http://www.un.org/en/documents/charter

United Nations (2011) 'World Population to reach 10 Billion by 2100 if Fertility in all Countries Converges to Replacement Level', 3 May, United Nations Press Release. Available at http://www.ciesin.org/binaries/web/global/news/2011/pressrelease-worldpopproj.pdf

United Nations (2016) 'United Nations Peacekeeping'. Available at https://peacekeeping.un.org/sites/default/files/un_peacekeeping_brochure.pdf

United Nations (2017) 'General Assembly Approves Appropriation of $6.8 Billion for 14 Peacekeeping Operations in 2017/18'. Available at https://www.un.org/press/en/2017/ga11927.doc.htm

United Nations (ongoing) Blue Book Series. New York: United Nations.

United Nations Development Program (2013) *Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World*. New York: United Nations Development Program.

United Nations General Assembly and Security Council (2000) *Report of the Panel on United Nations Peace Operations* (A/55/305-S/2000/809—'Brahimi Report'). New York: UN. Available at http://www.un.org/en/ga/search/view_doc.asp?symbol=A/55/305

United Nations Security Council (UNSC) (2011) Resolution 1973. Available at https://www.nato.int/nato_static/assets/pdf/pdf_2011_03/20110927_110311-UNSCR-1973.pdf

United States White House (2002) *The National Security Strategy of the United States of America*. Available at https://georgewbush-whitehouse.archives.gov/nsc/nss/2002/

US Department of the Army (2014) *Insurgencies and Countering Insurgencies*, FM 3-24/MCWP 3-33.5. Fort Eustis, VA: US Army Training and Doctrine Command.

US Department of State (2014) Remarks by Rose Gottemoeller, Acting Under Secretary for Arms Control and International Security, 'Arms Control Priorities in 2014 and Beyond', 14 February.

US Energy Information Administration (2017) *International Energy Outlook 2017*, available at https://www.eia.gov/outlooks/ieo/

US Joint Chiefs of Staff (2004) *Joint Doctrine for Combating Weapons of Mass Destruction*. Washington, DC: Department of Defense.

US Joint Chiefs of Staff (2011) *The National Military Strategy of the United States of America: Redefining America's Military Leadership*. Washington, DC: Joint Chiefs of Staff.

US Joint Forces Command (2008) *The Joint Operating Environment: Challenges and Implications for the Future Force*. Suffolk, VA: US Joint Forces Command.

Van Evera, S. (1990-1) 'Primed for Peace: Europe after the Cold War', *International Security* 15(3): 7–57.

Van Evera, S. (2009) *The Causes of War*. Ithaca, NY: Cornell University Press.

Vasconcelos, A. D. (2009) *What Ambitions for European Defence in 2020?* Paris: European Union Institute for Security Studies.

Vasquez, J. (1993) *The War Puzzle*. Cambridge: Cambridge University Press.

Vaughn, J. and T. Dunne (2015) 'Leading from the Front: America, Libya and the Localisation of R2P', *Cooperation and Conflict* 50(1): 29–49.

Vayrynen, R. (1990) 'Towards a Comprehensive Definition of Security: Pitfalls and Promises'. Paper prepared at the 31st Annual Convention of the International Studies Association, Washington, DC (10-14 April).

Vivekanandan, J. (2014) 'Strategy, Legitimacy and the Imperium: Framing the Mughal Strategic Discourse'. In K. Bajpai, S. Basit, and V. Krishnappa (eds) *India's Grand Strategy: History, Theory, Cases*. New Dehli: Routledge India.

von Hippel, K. (2000) *Democracy by Force: US Military Intervention in the Post-Cold War World*. Cambridge: Cambridge University Press.

Wæver, O. and B. Buzan (2010) 'After the Return to Theory: The Past, Present, and Future of Security Studies'. In A. Collins (ed.) *Contemporary Security Studies*. Oxford: Oxford University Press.

Waldman, P. (2014) 'Latest NSA Revelations Show Global Reach of U.S. Surveillance', *Washington Post*, 1 July.

Walker, W. (2011) *A Perpetual Menace: Nuclear Weapons and International Order*. London: Routledge.

Wallace, W. (1996) 'Truth and Power, Monks and Technocrats: Theory and Practice in International Relations', *Review of International Studies* 22(3): 301–21.

Walt, S. M. (1991) 'The Renaissance of Security Studies', *International Studies Quarterly* 35: 211–39.

Waltz, K. (1964) 'The Stability of the Bipolar World', *Daedalus* 93(3): 881–909.

Waltz, K. (1979) *Theory of International Politics*. Reading: Addison Wesley.

Waltz, K. N. (1959) *Man, the State, and War*. New York: Columbia University Press.

Waltz, K. N. (1962) 'Kant, Liberalism and War', *American Political Science Review* 56(2): 331–40.

Walzer, M. (1978) *Just and Unjust Wars*. London: Allen Lane.

Weigley, R. (1960) *The American Way of War*. Bloomington, IN: Indiana University Press.

Weigley, R. (1988) 'Political and Strategic Dimensions to Military Effectiveness'. In A. R. Millett and W. Murray (eds) *Military Effectiveness*, *vol. 3*: *The Second World War*. Boston, MA: Allen & Unwin.

Weigley, R. (1991) *The Age of Battles: The Quest for Decisive Warfare*. Bloomington, IN: Indiana University Press.

Weinberger, S. (2008) 'The Pentagon's Culture Wars', *Nature* 455(2): 583–5.

Weller, M. (2010) *Iraq and the Use of Force in International Law*. Oxford: Oxford University Press.

Wells, H. G. (1908) 'Wings', *The Pall Mall Magazine*.

Welsh, J. (ed.) (2004) *Humanitarian Intervention and International Relations*. Oxford: Oxford University Press.

Welsh, J. (2014) 'Implementing the "Responsibility to Protect": Catalyzing Debate and Building Capacity'. In A. Betts and P. Orchard (eds) *Implementation in World Politics: How Norms Change Practice*. Oxford: Oxford University Press.

Wendt, A. (1992) 'Anarchy is what States Make of it: The Social Construction of Power Politics', *International Organization* 46(2): 391–426.

Wendt, A. (1995) 'Constructing International Politics', *International Security* 20(1): 73–4.

Wheeler, N. J. (2000) *Saving Strangers: Humanitarian Intervention in International Society*. Oxford: Oxford University Press.

White House (2002) *National Strategy to Combat Weapons of Mass Destruction*. Washington, DC: Government Printing Office.

Williams, K. B. (2017) 'Pompeo Would Absolutely Not Obey Torture Order from Trump', *The Hill*, 12 January.

Williams, M. (1993) 'Neorealism and the Future of Strategy', *Review of International Studies* 19(2): 103–21.

Williams, M. (2007) *Military Organizational Cultures: Culture and Security: Symbolic Power and the Politics of International Security*. New York: Routledge.

Wills, S. (2009) *Protecting Civilians: The Obligations of Peacekeepers*. Oxford: Oxford University Press.

Wilson, E. O. (1978) *On Human Nature*. Cambridge, MA: Harvard University Press.

Wilson, H. W. (1928) *The War Guilt*. London: Sampson Low.

Wilson, R. W. (2000) 'The Many Voices of Political Culture: Assessing Different Approaches', *World Politics* 52(2): 246–73.

Wirtz, J. J. (2017) 'Life in the "Gray Zone": Observations for Contemporary Strategists', *Defense & Security Analysis* 33(2) 106–114.

Wong, K. (2017) 'Trump: Mattis's View on Torture Will "Override" ', *The Hill*, 27 January.

Woolsey, J. (1998) Testimony to the Committee on National Security, US House of Representatives, 12 February.

Wright, G. (1968) *The Ordeal of Total War 1939–1945*. New York: Harper & Row.

Wright, M. C. (1956) *The Power Elite*. London: Oxford University Press.

Wylie, J. (1989) *Military Strategy: A General Theory of Power Control*. Annapolis, MD: Naval Institute Press.

Wyn Jones, R. (1999) *Security, Strategy and Critical Theory*. Boulder, CO: Lynne Rienner.

Yarger, H. R. (2008) *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*. Westport, CT: Praeger Security International.

Yin, T. (2011) '"Anything But Bush?": The Obama Administration and Guantanamo Bay', *Harvard Journal of Law and Public Policy* 34(2): 453–92.

Yuan, J. (1999) 'Culture Matters: Chinese Approaches to Arms Control and Disarmament'. In K. Krause (ed) *Culture and Security: Multilateralism, Arms Control and Security Building*. London; Portland: Frank Cass.

Zaborowski, M. (2004) *From America's Protégé to Constructive European: Polish Security Policy in the Twenty-first Century*, Occasional Paper No. 56. Paris: European Union Institute for Security Studies.

Zawahiri, A. (2008) 'Knights Under The Prophet's Banner'. In M. Perry and H. E. Negrin (eds) *The Theory and Practice of Islamic Terrorism*. New York: Palgrave Macmillan.

Zenko, M. (2011) 'Libya: "Justifications" for Involvement', website of the Council on Foreign Relations, posted 24 June, available at http://blogs.cfr.org/zenko/2011/06/24/libya-justifications-for-intervention/

Zhang, S. (1999) 'China: Traditional and Revolutionary Heritage'. In K. Booth and R. Trood (eds) *Strategic Cultures in the Asia-Pacific Region*. New York: St Martin's Press.

Zhang, T. (2002) 'Chinese Strategic Culture: Traditional and Present Features', *Comparative Strategy* 21(2): 73–90.

Index

Note: in Arabic terms, 'al-' is ignored in filing order. Tables, figures, and boxes are indicated by an italic *t*, *f*, and *b* following the page number.

A

Abe, Shinzo 97*b*
absolute war 30*b*
abstractionists 353, 354
Abu Ghraib prison 60, 395
academia
  development of strategic studies 349, 404–15
  future of strategic studies 418
academic approach in strategic studies 6
Acharya, Amitav 95
adaptability, in defence planning 177
Adefuye, Ade 105
adversarial nature of strategy 393
Afghanistan
  humanitarian issues 81
  intelligence 149, 157–8
  irregular warfare 187, 188, 189–90, 194
  peace operations 277, 286–7
  power 245, 251
  September 11 attacks 65
  Soviet invasion 51, 155, 187
  strategic culture 100*b*
  strategic narrative 389*b*
  strategic studies 334
African Union (AU) 277, 282*b*
Agnew, John 310*b*
aid agencies 284
Aideed, General Mohammed Farah 57, 284
AIDS 378–9, 380
air warfare
  evolution of modern warfare 46, 49
  geography and strategy 256, 264–7
  peace operations 285–6, 286*b*
  power 239, 244–5, 246*b*, 248–9
  revolution in military affairs 243–4
  technology 135
  USA 286*b*
aircraft carriers 49
Alanbrooke, Field Marshal Sir 399*b*
Albright, Madeline 59–60
Alexander the Great 21–2, 399*b*
Almond, Gabriel 91*b*, 91
Alterman, Jon 317
Amarna system 345
American Anthropological Association 102*b*
American Civil War 41, 42
American War of Independence 30, 59
amnesty 195
Amnesty International 122
amphibious operations 49
anarchy
  classical realist tradition 7
  Hobbesian 84
Ancient Greece 20–2, 239
Ancient Rome 22–3
animal behaviourism 77
Annan, Kofi 276*b*
anthrax 198
Anti-Ballistic Missile (ABM) Treaty 210, 211, 224
antimatter bombs 216
Antony, Mark 23
Arab–Israeli War (October War, Yom Kippur War) 51, 138–9
  geography and strategy 259
  nuclear weapons 215*b*
  strategic surprise 153, 155
Arab League 119
Arab Revolt 188
Arab Spring
  intelligence 158
  internal and inter-state conflicts 83
  power 251
Ardrey, Robert 76
Argentina
  Falklands war 79
  Great Paraguayan War 42
armies *see* land warfare
arms control 220–1, 231–5
  cold war 221–4
  contribution to increased international security 234–5*b*
  definitions 222*b*
  historical context 388
  post-cold war era 224–6
  treaties 213*b*
arms races
  as cause of war 75
  technology 135
Arthashastra 342, 343*b*
artificial intelligence 141
Asahara, Shoko 200
Asia-Pacific Economic Cooperation (APEC) 100*b*
Aspin, Les 227, 228*b*
al-Assad, Bashar 158, 232*b*, 280*b*
assertive disarmament 213, 214*b*
Atlantic Charter 191
attrition versus manoeuvre warfare 258*b*
Augustus 23
Aum Shinrikyo 198, 200
Australia
  power 247
  strategic culture 93, 105
Austro–Prussian War 41, 42
avian influenza 380
Ayoob, Mohammed 330–1, 332, 332n, 335, 336
Azar, Edward 337

B

al-Baghdadi, Abu Bakr 184
Baldwin, Stanley 265, 266
Balkanization 84
ballistic missile defences (BMD) 210–11, 212, 217–18, 223
ballistic missiles 205, 208*b*, 223
Ban Ki-Moon 277
al-Banna, Hasan 68*b*
bargaining model, causes of war 82
Baring, Sir Evelyn 80
Barkawi, Tarak 357, 358, 363
Barnett, Thomas P. 310*b*
Beaufre, André 4, 4*b*
Begue, Eric 105
Belarus, nuclear weapons 203*t*
Berenhorst, Georg Heinrich von 39
Berger, Thomas 97*b*
Bethmann-Hollweg, Theobald von 114
Betts, Richard K. 6, 13, 226, 227
  intelligence 155, 156*b*
Betz, David J. 294, 295*b*
Bharatiya Janata Party (BJP) 343
Biddle, Stephen 6
'big data' 161
Bin Laden, Osama
  elimination 149, 160–1
  intelligence 149, 160–1
  irregular warfare 190, 198

biodiversity, threats to 374
biological warfare 198, 224–5, 225*b*, 226
  see also weapons of mass destruction
Biological Weapons Convention (BWC)/Biological and Toxin Weapons Convention (BTWC) 223, 224–5, 225*b*
biotechnologies 141
blitzkrieg 47, 48*b*, 48, 259
blockade 261–2
Boko Haram 184
Bolivia, irregular warfare 189
bombs
  antimatter 216
  technology 135, 137
Booth, Ken 92*b*, 93, 330, 354, 356, 357
Bosnia
  peace operation 275, 276*b*, 277, 279–80, 283
    air power 286
    media 281
  technology 133
Boulding, Kenneth 78
bovine spongiform encephalopathy 380–1
Brahimi Report 276
Brands, H. 319
Brazil
  global power shift 339
  Great Paraguayan War 42
  irregular warfare 187, 190
Breuning, Marijke 94
bridge, strategy 392, 398–400
Brodie, Bernard 2, 5, 9, 349, 387
  and criticisms of 353
  intelligence 150
  strategic theory 5–6, 57
Brzezinski, Zbigniew 316, 322*b*
Budapest Memorandum 233
Bull, Hedley 86
  arms control and disarmament 222*b*
  and criticisms of 349, 352, 353, 354*b*, 356, 358
bureaucratization, and evolution of modern warfare 37
Bush, George H. W. 281
Bush, George W.
  geopolitics and grand strategy 324
  Guantanamo Bay 121
  intelligence 149, 154, 157
  September 11 terrorist attacks 154, 157
  strategic culture 97*b*
  WMDs 228*b*, 229n, 230, 232
Butcher, Martin 228*b*
Butterfield, Herbert 7, 80
Buzan, Barry 12, 335, 350

C

Caesar, Julius 23
Callwell, C. E. 42*b*
Calvert, John 94
Campaign for Nuclear Disarmament (CND) 356
Canada
  human security 334
  power 247
Cannae 22–3, 239
Carr, E. H. 73
Carr, Jeffrey 292*b*
Carter, Jimmy 223
Cartwright, General James E. 292*b*
Cashman, Greg 78
Castro, Fidel 187
causes of war 72–3, 86–8
  frustration explanations 77–8
  group explanations 80–2
  human nature explanations 76–83
  misperception explanations 78–80
censorship 47
Central African Republic, peace operations 277
centralization, and evolution of modern warfare 37
centre of gravity, enemy's 63
Cha, Victor 103
Chamberlain, Neville 79
character of strategy, understanding the 391–6
Chayes, Sarah 389*b*
Chechnya 137, 138, 188, 200, 278
chemical warfare 198, 224–5, 225*b*, 226
  power 275
  Syria 232*b*, 280*b*
  US stockpile, elimination of 376, 377*t*
  see also weapons of mass destruction
Chemical Weapons Convention (CWC) 224, 225*b*, 225, 232*b*
chequebook diplomacy 24
child soldiers 334
China
  army 248
  Belgrade embassy, bombing of 60, 285
  cyberpower 303
  geopolitics and grand strategy 308, 309, 316–17, 317*b*
  humanitarian intervention 279
  intelligence 161
  irregular warfare 189
  Korean War 63
  military expenditure 134, 248, 253*b*
  nuclear weapons 203, 203*t*, 204, 212, 218, 233–4
    arms control 222
    nuclear testing 222
  power 241, 242, 246*b*, 247, 248, 249, 250*b*, 250, 251, 253*b*
  revolution in military affairs 134
  South China Sea, assertiveness in the 317*b*, 317
  strategic culture 96, 97*b*, 99, 101*b*
  strategic studies
    global power shift 337–9, 340
    new security concept (NSC) 338–9
    strategic culture and grand strategy debates 340–2
    world order 345
  Syrian war 119
  UN Security Council 279
cholera 404
Churchill, Winston 79, 145
Cimbala, Stephen 372
civil wars
  causes 84–5, 85–6*b*
  evolution of modern warfare 51
civilian technologies 135, 136
civilians
  military human resources challenges 138
  peace operations 284
  as strategists 349–52, 413–14*b*
  targeting of 46, 47*b*, 48, 49
civilizations, conflicts between 81
Clarke, Richard 161
classical realist tradition 6–8
Clausewitz, Carl von 386
  absolute war 30*b*
  climate of war 176
  and criticisms of 359
  cyberwar 299, 304*b*
  dimensions of strategy 6
  evolution of modern warfare 37, 39, 40*b*, 45
  geography and strategy 255
  imperfect information 410
  intelligence 144–5, 154
  international law 115–16
  intra-state conflict 11
  irregular warfare 183, 184, 188, 197, 200
  Napoleonic Paradigm 32*b*, 32
  strategic culture 91, 95

strategic theory 56–7, 58–9, 60, 61–5, 66, 67, 69*b*, 69
strategy defined 4, 4*b*, 10
and Sun Tzu, ideas compared 66–7, 410, 410*b*
technology 133
war as political instrument 58*b*
climate, and strategic culture 93
Clinton, Bill
geopolitics and grand strategy 308, 321
humanitarian interventions 281
peace operations 275
WMDs 224, 227, 230
Clinton, Hillary 161
CNN effect, humanitarian intervention 281
Cochrane, James 96
coercive bombing 266–7
Cohen, Eliot 286*b*
Cohn, Carol 360, 361*b*, 361
cold war 50–1, 239–40
geopolitics and grand strategy 314–16, 318
high and low politics 366–7
humanitarian intervention 274
intelligence 150
nuclear weapons 75, 202–3, 205–7, 209, 210–11, 217
arms control 221–4, 231, 233–4
satellites 268
strategic culture 92, 93
strategic studies 2, 3, 332–3, 406–9
ethnocentrism 330
Collier, Paul 84–5, 85*b*
Collins, Michael 399*b*
Colomb, Admiral 44
colonial warfare 42*b*, 42
Columbia, insurgency 187
command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) 243, 245, 246
commercial technology, rise of 136
commons issues 373–5
communications
evolution of modern warfare 41
insurgency 260
low politics 367
power and warfare 245
compartmentation in intelligence 154
compass 27
Comprehensive Test Ban Treaty (CTBT) 224, 233
Condorcet, M. 369*b*
Confucian–Mencian paradigm 340–1
Confucius 77*b*
Congo, peacekeeping 274, 276
conscription 38, 46, 259
consent, and peace operations 278
Constantinople 23–4
constructivism 415
strategic culture 96–8
containment 315*b*, 315
Contamine, Philippe 25–6
contexts for strategy 393–6
contract law 109–10
Convention on the Prohibition of Anti-Personnel Landmines 122
Cooperative Threat Reduction Programme 232
Corbett, Sir Julian 44
Cornish, Paul 102–3
corps system, and evolution of modern warfare 38
Corrans, Marco 233
'Correlates of War' project 331
cosmopolitanism 98*b*
Costa Mendez, Dr Nicanor 79
counterespionage 146, 148, 149
counterforce threats 205
counterinsurgency and counterterrorism 191–7
geography and strategy 260
intelligence 154, 157–8
practice of strategy 388–9, 394
principles, prerequisites, and laws 192–3*b*
strategic culture 102*b*
counterintelligence 146, 148
counterproliferation 209, 212–15, 216, 226–8
challenges 229
emergence 228*b*
Counterproliferation Initiative (CPI) 227, 228*b*
counter-revolution 243–4
counterterrorism *see* counterinsurgency and counterterrorism
countervalue threats 205
covert action 149
credibility
cyber deterrence 301
nuclear weapons 206*b*
Creveld, Martin van 131, 372
Crimea 83, 98*b*, 152, 233
Crimean War 42, 130
critical security studies 356
criticisms of strategic studies 8–12, 348–9, 364–5
approaches 355–61
continuing debate? 362–4
'Golden Age' 349–52
strategists' responses 352–5, 354*b*
crowd psychology 81
cruise missiles 208*b*
Cruz, Consuelo 99
Cuban missile crisis
arms control 221, 222
strategic surprise 153, 155–6
Cuban revolution 187
culture, strategic *see* strategic culture
cyber deterrence 301
cyber security 299–301
cyber-attacks *see* cyberwar and cyber-attacks
cyberpower 291–2, 295–6, 306–7
attributes 297–8
definitions 292–6, 292*b*, 295*b*
new dimension for conflict 299–302
recasting of international politics 303
revolution in military affairs? 302–5
see also cyberspace; cyberwar and cyber-attacks
cyberspace 291, 295*b*, 306
characteristics 297
definitions 292*b*, 293–4, 295*b*, 295–6
geography and strategy 269–70
global commons 298
infosphere 296–7
layers 293*b*
revolution in military affairs? 302–3, 305
see also cyberpower; cyberwar and cyber-attacks
cyberwar and cyber-attacks 3, 141, 198–92, 269–70, 299–302, 306
Arab–Israeli conflict 139
arms control 234
challenges and unknowns 301–2
change in the character of war? 304–5
cyber security 299–301
definitions 294–6
intelligence 145, 161
possibility of 304*b*
strategic theory 68*b*
see also cyberpower; cyberspace
Cyprus 188

D

Dao, David 303
Darfur 277, 282
Daudet, Léon 30*b*
Dawkins, Richard 76

DDT 130
Debray, Régis 189*b*
decapitation strikes 208*b*
Decelian war 21
deception
  cyberpower 304
  intelligence 145, 148–9, 155, 156
  peace operations 284
  Sun Tzu 67
decolonization 239, 240
defence intellectuals 358, 360
defence organizations, and strategic culture 94
defence planning 165–6, 178–80
  approaches 172–5
  controversial propositions 169*b*
  future, problems with the 168–72
  guidance 175–8
  strategy and politics 166–8
defencism 98*b*
deforestation 374
Delbrück, Hans 21*b*
Demchak, Chris C. 295*b*, 295
democracy
  causes of war 81–2
  and demographics 372
  evolution of modern warfare 37
  nuclear weapons 209
  technology 136, 137
Democratic Republic of Congo 284
demographics of global politics 370–3
  and peace 372–3*b*
Denmark, strategic culture 98*b*
Denning, Dorothy 292*b*
denuclearization 208, 214
depleted uranium (DU) 376
desertion from armies 37
deterrence
  cyber 301
  historical context 388
  nuclear *see* nuclear deterrence
Deutsch, Karl 350, 354*b*
DF (sarin precursor) 232*b*
diarrhoeal diseases 380
diplomacy, WMDs 230–1
disarmament 221, 222*b*
  assertive 213, 214*b*
  denuclearization 208, 214
  see also arms control
disarming strikes 208*b*
disease 130, 378–81
  pathogenic microbes 379*t*
displacement 78
domino theory 315*b*
Douhet, Giulio 48, 265, 266*b*
Doyle, Michael 81–2
Dr Strangelove 350
'drones' 149, 158, 159–60*b*, 196–7*b*, 266
  peacekeeping operations 284
drugs, war on 369, 417
dynastic marriages 25
dysentery 380

E

Ebel, Roland 96
Ebola 368, 382
Eckstein, Harry 98
Economic Community of West African States Ceasefire Monitoring Group (ECOMOG) 277
economic costs of war 83, 244–5
  cyberpower 305
  great power war 318
economic sanctions 118
economic security 417
economic sensitivities and vulnerabilities 382
economic warfare 261–2, 262–3*b*
economics
  and the practice of strategy 395
  strategic studies 335–6
education, strategic 386–91
Edward III of England 25, 26
Edwards, Geoffrey 102–3
Egypt
  Arab–Israeli War 153, 155
  global power shift 339
  power 251
Einstein, Albert 76
Eisenhower, Dwight D. 145, 151, 283
electromagnetic spectrum (EMS) 294, 297
Electronic Numerical Integrator and Computer 291
'end of history' 3
energy security 382
England *see* United Kingdom/Great Britain/England
England, Gordon 292*b*
entente cordiale 85
environmental damage 368, 369–70, 373, 374, 375–8
environmental security 417
EOKA 188
eradication, irregular warfare 195–7
Ermarth, Fritz 98*b*, 389*b*
error tolerance, in defence planning 177
Esdaile, Charles 31
Estonia, Soviet war memorial 94–5
ethics *see* morality and ethics
ethnic conflict 12
  causes 82, 84
  focus of strategic studies 407
ethnocentrism 330–1
  criticisms of strategic studies 354
  practice of strategy 389
  strategic culture 93
European Security Strategy (ESS) 100*b*, 101*b*, 102–3
European Union (EU)
  'Brexit' 311*b*
  Iraq War 118
  strategic culture 100*b*, 101*b*, 102–3
evolution of modern warfare 36–7
  industrialization of war 40–3
  Napoleonic legacy 37–40
  naval warfare 43–5
  nuclear weapons and revolutionary warfare 50–2
  postmodern war 52–4
  total war 45–50
executing strategies 396–400

F

Fabius Maximus, Quintus 22
Falklands War 79
Fall, Bernard 186
fallout 208*b*
Farrell, Theo 95
Fearon, James 82
feminism 360
Feng, Huiyun 97*b*
Finland, strategic culture 93, 98*b*
First World War
  air warfare 265
  Cannae as German inspiration 23
  geopolitics and grand strategy 318
  international law 114
  land warfare 259
  naval warfare 44
  power 240*b*
  technology 135
  total warfare 45–6, 48, 49
fissile material 204, 205*b*
Fissile Materials Cut-off Treaty (FMCT) 233
flexibility, in defence planning 177
foco, theory of the 189, 189*b*
force, use of
  and international law 113–16
  in peace operations 275, 277, 278
Forester, C. S. 130
fossil fuel depletion, as potential cause of war 84

Foster, Gregory D. 4, 4*b*
France
  cars 368
  conscription 38, 259
  Early Modern Europe 28
  entente cordiale 85
  evolution of modern warfare 37–41, 42, 43
    industrialization 40–1, 42
    Napoleonic legacy 37–40
    naval warfare 43
  First World War 23
  geopolitics and grand strategy 312, 314
  humanitarian intervention 279
  imperial competition 312
  Libyan intervention 119
  Napoleonic Wars 31–2, 261, 262
  nuclear weapons 203, 203*t*, 209, 212
    arms control 222
    nuclear testing 222
  peace operations 284
  power 242, 246*b*, 247
  Revolutionary Wars 29, 30–1
  Second World War
    Cannae as German inspiration 23
    causes 79
    liberation 283
    total warfare 47
  strategic culture 96
  UN Security Council 279
Franco–Austrian War 42
Franco–Prussian War 41, 42
Franklin, Benjamin 369*b*
Frederick II of Prussia 28–9
Freedman, Lawrence 4*b*, 319
French and Indian War 28
Freud, Sigmund 76
friction 65, 68*b*
  and practice of strategy 396–7
frustration explanation of war 77–8
Fuerzas Armadas Revolucionarias de Colombia Ejército del Pueblo (FARC) 187
Fukuyama, Francis 3
full force protection 285
Fuller, Major General J. F. C. 127, 130, 404
future, and defence planning 168–72
future of strategic studies 404, 418–19
  academic and policy worlds 411–16
  armed force, study of 416–18
  cold war, in and out of the 406–9
  development of strategic studies 404–6
  realism 415
  social science, crisis in 409–11

G

Gaddafi, Muammar
  NATO's intervention in Libya 285*b*, 286
  overthrow 83
Galtieri, President 79
Galula, David 190, 192*b*
game theory 350, 351–2, 353, 410
García Fitz, Francisco 26
Garnett, J. C. 10*b*
Gaulle, Charles de 48*b*
Gaza, Israel–Hamas conflict (2008–9, 2013–14) 83, 251
Geertz, Clifford 91*b*
general theory of strategy 391–400, 416
  classics of 386–7
  components 392*b*
Geneva Conventions 120, 121*b*, 121
Geneva law 120, 121*b*
Geneva Protocol, biological weapons 225*b*
geography and strategy 255–6, 271–2
  air power 264–7
  cyberspace 269–70
  geopolitics *see* geopolitics
  irregular warfare 187–8, 189, 194
  land warfare 256–60
  maritime strategy 260–4
  practice of strategy 396
  space war 267–9
  strategic culture 93–4
geopolitics 308–14, 324–6
  cold war 314–16
  definitions 310*b*
  invention of 311–12
  rethinking 321–4
  Second World War 314
  today 316–18
Georgia, conflict with Russia (2008) 60, 83, 242, 279, 322*b*
Germany
  First World War 44, 45, 46
    Cannae as inspiration 23
    geography and strategy 259, 261–2
  geopolitics and grand strategy 312, 313, 314
  intelligence 149
  irregular warfare 189
  power 241, 247
  Second World War
    Cannae as inspiration 23
    causes 79, 80
    geography and strategy 259, 265
    total warfare 46–9
  strategic culture 99, 100, 101*b*
Giap, General Vo Nguyen 189
Gibson, William 293
Giles, Gregory 389*b*
Gillingham, John 26
Gilpin, Robert 174
global economic crisis
  geopolitics and grand strategy 309, 316, 318
  sensitivities and vulnerabilities 382
Global Initiative to Combat Nuclear Terrorism 232
Global international relations 344–6
Global Nuclear Energy Partnership 232
global positioning system 132
global power shift 337–40
global security 11
globalization, and strategic culture 103
Godwin, William 369*b*
Goethe, Johann Wolfgang von 39
goodwill *see* public opinion
Gorbachev, Mikhail 235*b*
Gottemoeller, Rose 235*b*
governments, strategists' advice for 9–10
grand strategy 5, 20, 308–14, 324–6, 392
  China 340–2
  in a complex world 319–21
  definitions 309–10*b*
  development of 314–16
  Early Modern Europe 27, 28
  India 340, 342–4
  rethinking 321–4
  today 316–18
Grant, Ulysses S. 399*b*
gravity, enemy's centre of 63
Gray, Colin S.
  and criticisms of 353, 354, 354*b*, 355, 356, 362*b*
  dimensions of strategy 6
  geopolitics 310*b*, 322
  Napoleonic warfare 39*b*
  practice of strategy 395*b*, 395, 396
  strategic culture 92–3
  strategic studies in the academy 10*b*
  strategy as universal 330

Great Britain *see* United Kingdom/England
Great Paraguayan War 42
Greece
  Ancient 20–2, 239
  strategic culture 95
greed vs grievance debate 84–5, 85–6*b*
Green, Philip 9, 350, 351, 352, 353, 354*b*, 359
Griffith, Brigadier General Samuel B. 191
Grimslay, Mark 4, 4*b*
Grivas-Dighenis, George 188
gross domestic product (GDP) 316, 337–8
group explanations of war 80–2
Group of Seven, GDP 316
Guantanamo Bay 121–2
Guderian, Heinz 48*b*
guerrilla warfare *see* irregular warfare
Guevara, Ernesto 'Che' 184, 190, 198
  foco, theory of the 189, 189*b*
Guibert, Jacques Antoine Hippolyte, Comte de 29, 31
Guinea, Ebola 368
Gulf Cooperation Council 277
Gulf War (Operation Desert Storm)
  causes 78–9
  geography and strategy 257
  humanitarian intervention 81
  Kurds 278
  media coverage 281
  oil 375
  strategic theory 63, 64
  technology 130, 132, 133, 135
  WMDs 226, 227
Gulf War Syndrome 381
gunboat diplomacy 244, 264*b*
gunpowder 26
Gusterson, Hugh 331
Gwynn, Charles W. 192*b*

H

Habr Gidr 57
hackers and hacktivism 294–5
Hague Conventions 120, 121*b*
Hague law 120, 121*b*
Haiti 279
Hamas
  conflict with Israel (Gaza 2008, 2014) 83
  power 251
Hamilton, Archie 376
Handel, M. I. 410*b*
Hannibal Barca 21*b*, 22–3
Hansen, L. 12
Hardin, Garrett 373
Harland, Gordon 7
Haushofer, Karl 310*b*
Hayden, Michael 159
Hegel, G. W. F. 73
hegemons 101*b*, 308
Henkin, Louis 109, 110
Henry IV 86
hepatitis B 380
hepatitis C 380
Heraclius 23–4
Herring, Eric 356
Heuer, Richards 155n
Heuser, B. 20
Highly Enriched Uranium (HEU) Purchase Agreement 235*b*
Hinduism 342–3
historian, strategist as shrewd 388
historical context, and practice of strategy 396
history
  and defence planning 173–4, 175, 176, 179*b*
  'end of' 3
  of practice of strategy 19–20, 32–5
    from American War of Independence to Napoleonic Wars 30–2
    Antiquity 20–4
    Early Modern Europe 26–30
    West European Middle Ages 24–6
Hitler, Adolf
  causes of Second World War 75, 79, 80, 82
  geopolitics 313
  intelligence 151
HIV 378–9, 381
Hizbullah
  conflict with Israel 83, 137
  irregular warfare 185
  power 250, 251
Hobbes, Thomas 7
  anarchy 84
Hoeffler, Anke 84–5
Hoffer, Eric 81
Hoffmann, Stanley 335
Homer-Dixon, Thomas 368
Honig, Jan Willem 26
Horner, Lieutenant General Charles A. 60
Hot Line Agreement 234*b*
Howard, Sir Michael 6, 354*b*, 358, 395
Hudson, Valerie 96
human intelligence (HUMINT) 146, 147*b*, 151
human nature 7
  explanations of war 74, 76–83
  practice of strategy 393
Human Rights Watch 122
human security 333–4
Human Security Report 2005 333
Human Terrain System (HTS) 102*b*
humanitarian intervention 81, 273–4, 289–90
  disease 381
  politics 278–82
  problems and prospects 287–8
  tsunami (2004) 264*b*, 369
humanitarian law, international (IHL) 120–4
Hundred Years' War 26
Hurd, Ian 111
Hutus 275–6
hybrid warfare 3, 13
Hymans, Jacques 99
hyperpower 241–2

I

identity narratives 311*b*, 322, 323
identity politics 53
imagery intelligence (IMINT) 147*b*
imagination, strategic 417
impartiality, and peace operations 278
imperial competition 311–12
imperial overstretch 310
improvised explosive devices (IEDs) 137
India
  conflict with Pakistan (2014) 333
  cyberpower 303
  Mumbai attacks (2008) 194, 199
  nuclear weapons 203, 203*t*, 204, 210*b*, 212, 218, 222, 224, 233
  power 241, 246*b*, 247, 249, 250*b*, 250, 253*b*
  strategic culture 96
  strategic studies
    global power shift 337–8, 339
    strategic culture and grand strategy debates 340, 342–4
Indo-China war 83
Indonesia, global power shift 339
industrialization of war 37, 40–3
influenza 378, 380, 381
information technology 136, 138, 140*b*
  intelligence 160–2
  irregular warfare 198–9
  see also cyberpower
infosphere 296–7
institutions
  classical realist tradition 7–8
  low politics 367

power 240*b*
preparation for war 394
insurgency 183–4, 199–201
counterinsurgency 191–7
definitions 184–5
geography and strategy 259–60
now and in the future 197–9
theory and practice 186–91
see also irregular warfare
intelligence 144–5, 162–4
analysis 147–8
Clausewitz 67
collection 146–7, 147ib
community, evolution 150–1
definitions 145–6
as enabler of US strategy 150–2
failures, inevitability of 155, 156*b*
Mao 67
nature of 145–50
peace operations 284
post-9/11 reforms 157–60
practice of strategy 397
space 268–9
special intelligence missions 148–9
strategic surprise 153–6
Sun Tzu 67–8
Intelligence Reform and Terrorism Prevention Act 2004 (IRTPA, USA) 157
intercontinental ballistic missiles (ICBMs) 205, 217
Intermediate Nuclear Force (INF) Agreement 223, 233, 235*b*
internal security 417
internal wars *see* civil wars
International Atomic Energy Agency (IAEA) 205*b*, 214, 225*b*, 226, 231
International Commission on Intervention and State Sovereignty (ICISS) 276–7
International Criminal Court (ICC) 122, 276, 334
international humanitarian law (IHL) 120–4
international law *see* law, international
International Peace Research Institute, Oslo (PRIO) 368
international relations 356, 408, 409, 410
Global 344–6
post-positivist turn 356
strategic culture 94
Internet 291
cyberspace war *see* cyberwar and cyber-attacks
intelligence 146–7, 159
low politics 367
Invisible Children 282*b*
Ionian war 21
Iran
geopolitics and grand strategy 317–18
global power shift 339
intelligence 148*b*, 161
invasion by Iraq (1980) 259
irregular warfare 190
new world order 241
nuclear weapons 148*b*, 208, 209, 211, 214*b*, 217, 233
assertive disarmament 214*b*
diplomatic option 230–1
Stuxnet attack 141, 158, 270, 299, 300*b*, 301
power 246*b*, 251
strategic narrative 389*b*
Iraq
Abu Ghraib prison 60, 395
army 59, 134
Ba'ath Party, overthrow and banning of 59, 64
invasion of Iran (1980) 259
invasion of Kuwait 64, 78, 259
international law 112–13
irregular warfare 63, 187, 190, 194, 195, 196
Kurds 278
new world order 241
power 251
strategic culture 100*b*
WMDs 212–13, 226, 227, 228*b*, 229
intelligence 148*b*, 156
see also Gulf War; Iraq War
Iraq War
causes 79
friction 65
geography and strategy 257
humanitarian issues 81, 286–7
intelligence 149, 157–8
failures 67
international law 118, 119
irregular warfare 59, 63, 188
media 139
power 245
strategic theory 64
technology 133, 137
unintended consequences 393
WMDs 228*b*, 232
ironic effects resulting from strategy 393
irregular warfare 183–4, 199–201
colonial warfare 42*b*
counterinsurgency and counterterrorism 191–7
definitions 184–5
Napoleonic legacy 31, 38
now and in the future 197–9
power 251
practice of strategy 388
technology 137
see also insurgency; terrorism
Islamic extremism
irregular warfare 184, 198
strategic theory 57
unintended consequences of strategy 393
see also al-Qaeda; Taliban
Islamic State in Iraq and Syria (ISIS)
cause of war 84
cyberpower 303
high and low politics 367
humanitarian issues 81, 287
irregular warfare 184, 187, 191, 195, 198, 199
strategic theory 57
Western journalists, execution of 282
isolation, irregular warfare 194–5
isopropanol 232*b*
Israel
Arab–Israeli War 153, 155
nuclear weapons 215*b*
cyberwar 300*b*, 301
geopolitics and grand strategy 324*b*
Hamas conflict (Gaza 2008–9, 2013–14) 83, 251
Hizbullah conflict 83, 137. 251
media 138–9
nuclear weapons 203, 203*t*, 212, 215*b*, 233
Osirak attack 229
power 240*b*, 242, 244, 250–1
strategic culture 93
Syrian nuclear reactor destroyed by 158
technology 128, 129*b*, 135, 137, 139, 139*b*, 140*b*
Italy, causes of Second World War 79

J

Jackson, Robert 115
Jansen, Johannes 184
Japan
geography and strategy 259, 265
geopolitics and grand strategy 317*b*
global power shift 338, 339
human security 334
power 241, 242, 245, 246*b*, 249, 250, 251, 253*b*
Second World War 48, 49, 50, 91, 265
strategic culture 91, 97*b*, 99, 100, 101*b*, 105

Jervis, Robert 78, 353, 354
jet engines 136
jet fuel, jettisoning of 376
Jeune École 43
jihadists 67
Johnson, Jeannie 90
Johnson, Robert 175
Johnston, Alastair Iain 92*b*, 96
Johnston Atoll Chemical Agent Disposal System (JACADS) 376, 377*t*
Joint Comprehensive Plan of Action (JCPOA) 214*b*, 231, 233, 235*b*
Joint Strike Fighters (JSFs) 128
joint warfare 256
Jomini, Baron Antoine-Henri de 32*b*, 32, 386
Jordan
  irregular warfare 189–90
  power 250
journalists, strategic studies 408
jus ad bellum 113, 114*b*, 114, 117–20
jus in bello 113–14, 114*b*, 116, 120–4, 121*b*
justice, pursuit of 87
Justinian I 23–4

K

Kagan, Kimberly 19, 20, 23, 24
Kahn, Herman 2, 5, 349–50
  and criticisms of 353, 359
  game theory 351
  intelligence 150
  moral issues 9
  parody 350
Kak, Kapil 53*b*
Kant, Immanuel 348
Kartchner, Kerry 90, 104, 105
Katzenstein, Peter J. 12
Kautilya, Vishnugupta Chanakya 95, 342, 343*b*
Kazakhstan, nuclear weapons 203*t*
Keegan, John 68*b*
Keen, David 85
Kellogg–Briand Pact 213*b*
Kende, Istvan 332
Kennan, George F. 150, 315*b*
Kennedy, John F. 153, 156
Kennedy, Paul 309, 309*b*, 318
Kent, Sherman 150, 155
Kenyon, Ian 104
Keohane, Robert 124, 382
Kerry, John 232*b*
Khan, A. Q. 208
Khattala, Ahmed 196
Khomeini, Ayatollah 389*b*
Kidron, Michael 332
Kiellen, Rudolph 313
Kier, Elizabeth 96
Kim Jong-un 82, 104, 214*b*, 230
Kipp, Jacob 102*b*
Kiras, James 103
Kissinger, Henry 2, 5, 343*b*
  geopolitics 316
  intelligence 152
  strategy 5
Kitchener, Lord 131
Kitson, Frank 192*b*
Klein, Bradley S. 12, 356, 357–8, 361
Knopf, Jeffrey 104
Kony, Joseph 282*b*, 287
Kony 2012 video 282, 282*b*
Korean War
  China's entry 63
  geography and strategy 257, 259
  limited warfare 50–1
  US losses 64
Kosovo War
  grand strategy 321
  humanitarian intervention 277, 278, 279
    air power 286
    public opinion 285
  strategic theory 59–60
  technology 133
Krepon, Michael 233
Kubrick, Stanley 350
Kuehl, Daniel T. 294, 295*b*
Kuhn, Colonel Klaus 116
Kupchan, Charles 100
Kuwait
  Iraqi invasion 64, 78, 259
    international law 112–13
  liberation 283

L

Laffey, M. 357
land warfare
  evolution of modern warfare
    industrialization of war 40–3
    Napoleonic legacy 37–40
  geography and strategy 256–60
  power 239, 245, 246–7, 246*b*, 248
  revolution in military affairs 244
language of strategic studies 359–61
Larsen, Jeffrey 90
Lauterpacht, Sir Hersch 109, 114, 123*b*
Lavrov, Sergey 232*b*
law, international 108, 124–6, 245
  breaches 112–13, 113*b*
  classical realist tradition 7–8
  coercion, self-interest, and legitimacy 110–12
  efficacy 108–10
  force, use of 113–16
  jus ad bellum 117–20
  jus in bello 120–4
  obedience, reasons for 110–13, 111*b*
  peace operations 276
  perception–reality gap 109–10, 109*t*
Lawrence, P. 355–6
Lawrence, T. E. 188
Le Bon, G. 81
League of Arab States 277
League of Nations 8
Lebanon, Israel vs Hizbullah conflict 83, 137, 251
Lebensraum ('living space') 313
Lee, Robert E. 399*b*
Lee, Steven P. 9
legitimacy, irregular warfare 190–1
Legro, Jeffrey 96
Leo VI, Emperor 19–20
Lévi-Strauss, Claude 91
Levy, J. S. 83
Levy, Marc 368
Liberation Tamil Tigers of Eelam (LTTE) 187
Liberia
  Ebola 368
  peace operations 277
Libicki, Martin C. 293, 293*b*
Libya
  Benghazi Consulate attack (2012) 196
  nuclear weapons 208
  war (2011)
    causes 83
    humanitarian intervention 277, 285*b*, 285
    international law 119
    power 242
Liddell Hart, Basil Henry 387, 404
  blitzkrieg 48*b*
  direct vs indirect strategic approach 21*b*
  grand strategy 309*b*, 314
  strategic culture 92
  strategic theory 66
  strategy defined 4, 4*b*, 20
  war as political instrument 58*b*
Lindley-French, Julian 103
Lisbon Treaty (2009) 102
location, irregular warfare 193–4
logistics, and the practice of strategy 395, 397
Long, Mark 103
longbows 131

Lord's Resistance Army 287
Lorenz, Konrad 76
Louis XIV of France 28, 29
Ludendorf, Erich 30*b*, 47*b*
Luttwak, Edward N. 23, 387
Lyautey, Marshal 195
Lyme disease 381
Lynn-Jones, Sean 332

M

McConnell, Vice-Admiral Mike 294
McCoubrey, Hilaire 109
Machiavelli, Niccolò 386
machine guns 41
Mackinder, Sir Halford 44, 310*b*, 312
  heartland theory 312–13, 313*f*, 314, 316
McNamara, Robert 176
mad cow disease 380–1
Mahabharata 342
Mahan, Alfred Thayer 43, 44, 261, 312, 357
Mahnken, Thomas 97*b*
making strategies 393–6
al-Malaki, Nouri 187
malaria 379, 381
Mali, peace operations 277
malicious software (malware) 300*b*, 302
  Stuxnet attack 141, 158, 199, 270, 299, 300*b*, 301
Malthus, Thomas Robert 368, 369*b*
management studies 410
Mandala system 369
Manning, Bradley 303
manoeuvre warfare versus attrition 258*b*
Mao Tse-tung
  irregular warfare 189, 190–1, 198
    stages of insurgency 186–7, 186*b*
    'Three Rules and Eight Remarks' 190
  strategic culture 341, 342*b*
  strategic theory 66, 67, 69*b*, 69
Marighella, Carlos 187, 188–9, 190–1
maritime strategy *see* naval warfare and maritime strategy
Marx, Karl 418
Marxist terrorist groups 189
Mathews, Jessica Tuchman 335
Mattis, James 160
May, Theresa 311*b*
MBFR Treaty 235*b*
Mead, Margaret 91
Mead Earle, Edward 58, 309*b*, 314
measles 380
media 83
  humanitarian intervention 281–2
  international law 122
  technology 138–9
megacities 370–1
metaphor, war as 417
Meyer, Christoph 103
Middle Ages, West European 24–6
Middle East War (Six-Day War) 153
military administrations, and practice of strategy 395–6
military balances 246–7
military culture 98*b*
military doctrine, and practice of strategy 397–8
military revolutions 53*b*
military science 6
military strategy 392
military studies 406
mindset problem, intelligence 154, 155
misperception explanations of war 78–80
Montecucolli, Raimondo de 257
Moon, Chung-in 337
morality and ethics
  classical realist tradition 7–9
  intelligence 158–9
  practice of strategy 394–5
  strategic studies 9
    criticisms 350–1, 355–6, 358, 359
Morgenthau, Hans 8
Morocco, irregular warfare 195
Moscow Treaty (Strategic Offensive Reductions Treaty, SORT) 213*b*, 225, 232
Müller, Harald 227, 230
multiple independently targetable re-entry vehicles (MIRVs) 205–6, 223, 233
multiplex world 340
Murray, Williamson 4, 4*b*, 53*b*, 177
  grand strategy 309*b*, 311, 319
muskets 130, 131
Mussolini, Benito 79
mutual assured destruction (MAD) 210–11, 217, 355
myths, and strategic culture 94, 95

N

Naji, Abu Bakr 68*b*
nanotechnologies 141, 160, 233
Napoleon Bonaparte 31–2, 33
  absolute war 30*b*
  evolution of modern warfare 37–40, 43
  experience, sources of 387
  intelligence 145
  technology 130
Napoleonic Paradigm 32*b*, 33
Napoleonic Wars 30*b*, 31–2, 261, 262
National Intelligence Estimates, USA 148*b*
national liberation, wars of 183
nationalism 37, 45
nation-building 94
NATO *see* North Atlantic Treaty Organization
nature of strategy, understanding the 391–6
naval warfare and maritime strategy
  evolution of modern warfare 43–5, 49
  geography and strategy 256, 260–4
  imperial competition 312
  power 239, 244–5, 246, 246*b*, 247, 248–9
  revolution in military affairs 243–4
navigational advances 27
Nehru, Jawaharlal 342, 343, 344*b*
neo-institutionalists 367
neo-traditionalists 353
Nero 23
net-speed 297
new agenda for security and strategy 366–7, 382–4
  commons issues 373–5
  conceptual framework 368–70
  cyberpower 299–302
  demographics of global politics 370–3
  disease 378–81
  environmental damage 375–8
  sensitivities and vulnerabilities 381–2
new security concept (NSC) 338–9
New START treaty 213*b*, 218, 232, 233, 235*b*
new world orders 239–41
Newman, J. R. 9
Niebuhr, Rheinhold
  causes of war 78, 81
  morality 8
Nietzsche, Friedrich 81
Nigeria
  Boko Haram 184
  global power shift 339
  strategic culture 105
Nixon, Richard 152, 316
Nogee, Joseph 222*b*
non-governmental organizations (NGOs)
  international law 122
  low politics 367

non-military threats 335–7
non-proliferation, nuclear weapons 212–15, 216, 222, 233
Non-Proliferation Treaty (NPT) 212–13, 222, 224, 225*b*, 230, 233, 234*b*, 235*b*
norms, and strategic culture 95
North Atlantic Treaty Organization (NATO)
  Afghanistan 286
  air power 286
  expansion plans 224
  geopolitics and grand strategy 321, 324*b*
  humanitarian intervention 277, 279, 286
    Kosovo 60, 285, 286
    Libya 285*b*, 285, 287
  Serbia 321
  strategic culture 101*b*
  strategic studies' role 358
North Korea
  brinksmanship with the US 82, 104, 230
  cyber-attack against Sony Corporation 198, 299
  intelligence 161
  nuclear weapons 158, 203*t*, 204, 207, 209, 211, 212, 213, 217, 230, 233, 234, 236
    assertive disarmament 214*b*
    diplomatic option 230
  peacekeeping 274
  power 242, 247, 250, 251
  strategic culture 97*b*, 99
Norway, strategic culture 93, 98*b*
novichok 233
nuclear deterrence 75, 203, 204–18
  criticisms of strategic studies 350–5, 357
  defence planning 170
  evolution of modern warfare 50, 52*b*
  focus of strategic studies 406–7
  language of strategic studies 359
  strategic culture 92–3, 104
Nuclear Freeze movement 356
nuclear powers, growth in the number of 203*t*
Nuclear Security Summit (2010) 232
nuclear taboo 215*b*, 216
nuclear weapons 202–4, 216–19, 225*b*, 225–6
  air warfare 265
  arms control 233–4
    treaties 213*b*
  cold war 221–4
  grand strategy 315
  residual role 224
  criticisms of strategic studies 349–56
  deterrence *see* nuclear deterrence
  development of strategic studies 2, 349–50
  diplomatic option 230–1
  environmental damage 376–7
  ethnocentrism 331
  evolution of modern warfare 48, 49, 50–2
  First Nuclear Age 204–6
  focus of strategic studies 406–7
  geopolitics and grand strategy 324*b*
  language of strategic studies 359–61
  power 251
  practice of strategy 388–9
  Second Nuclear Age
    adapting to the 211–16
    risks 206–11
  Stuxnet attack 141, 158, 270, 299, 300*b*, 301
  technology 132
  terminology 208*b*
  testing 222, 224
  Ukraine crisis 233
  unstable nuclear states 210*b*
  see also weapons of mass destruction
Nuremberg Tribunals 121
Nye, Joseph 9, 234, 295*b*, 332, 382

O

Obama, Barack
  arms control 236
  Guantanamo Bay 122
  humanitarian interventions 281
  intelligence 149, 158, 159
  peace operations 287
    Libya 285*b*, 285, 287
  'Pivot to Asia' 101*b*
  WMDs 230, 232*b*, 232
Octavian 23
October War *see* Arab–Israeli War
Ogarkov, Nikolai 133
oil 84, 321–2, 375
  peak 382
Open Skies agreement 221
open source intelligence (OPINT) 146–7, 147*b*
operational art 258–9
Organization for the Prohibition of Chemical Weapons (OPCW) 224, 225*b*, 232*b*
organizational culture 98*b*, 100
Oros, Andrew 105
Osgood, Robert 4, 4*b*
Ottawa Land Mine Treaty 334
Owens, Admiral William A. 133

P

Paixhans, General 43
Pakistan
  conflict with India (2014) 333
  nuclear weapons 203*t*, 204, 208, 210*b*, 212, 218, 224, 233
  power 247, 250
Panchsheel Treaty 342
parabellum paradigm 341
parachute operations 49
Paraguay 42
Parker, Geoffrey 27
Parsons, Talcott 91*b*, 91
Partial Test Ban Treaty 222, 234*b*, 235*b*, 367
Pauling, Linus 86
Payne, Keith 104, 355
peace 86–7
peace dividend 2
peace operations 273–8, 289–90
  military character 283–7
  problems and prospects 287–8
peacekeeping 274–8
Peloponnesian War 21
Pentagon attack *see* September 11 terrorist attacks
Persian Wars 20
Petroski, Henry 128
Philip II of Spain 27–8
Philippines
  geopolitics and grand strategy 317*b*
  irregular warfare 188
pillage 37, 38
planning, defence *see* defence planning
poison gas 46
Poland, strategic culture 105
policy advocacy by strategists 9–10, 358
policy goals, prudent 176–7
policy world 411–16
policymaking, and defence planning 167–8
political culture 91–2
political structure, and strategic culture 94
politics
  defence planning 166–8
  geopolitics *see* geopolitics
  high and low 366–8, 370, 382

of humanitarian intervention 278–82
land warfare 257–8
and practice of strategy 393, 394
recasting of international politics by cyberpower 303
strategic studies 409–10
Pompeo, Michael 160
population growth 368, 369*b*, 370–3, 371*f*
postmodern war 52–4
power and war 2, 238, 250–4
arms 246*b*, 248
arts of war 244–6
classical realist tradition 7
cyberpower *see* cyberpower
future of power relations 250*b*
history 238–9
and hyperpower 241–2
intricacies 240*b*
military balances 246–7
new world orders 239–41
revolution and counter-revolution 243–4
world on the scales 248–50
practice of strategy 385, 401–3
consummate (re) assessing 400–1
general theory 391–400
improving a strategic education 386–91
strategic expertise 385–6
precision-guided munitions (PGMs) 243, 245, 246
pre-emptive and preventive strategies 228*b*
prioritization, in defence planning 177
Proliferation Security Initiative (PSI) 213, 229, 232
propaganda
irregular warfare 194
power 241
total warfare 47
Prussia
evolution of modern warfare 39, 40, 41
Seven Years' War 28
psychological causes of war 78–9
psychological dimensions of military technology 131
psychological warfare 195
public opinion
humanitarian intervention 281–2
irregular warfare 188–9, 190–1
peace operations 284–6
Punic Wars 21*b*, 22–3
Putin, Vladimir 98*b*, 152, 233, 322*b*

Q

al-Qadhafi, Muammar
NATO's intervention in Libya 285*b*, 286
overthrow 83
al-Qaeda
demographics 372
high and low politics 367
intelligence 149, 160–1
irregular warfare 184, 190, 191, 195, 199, 200
strategic culture 103
strategic studies 12
strategic surprise 154
strategic theory 57, 65, 68*b*
WMDs 225
see also September 11 terrorist attacks
al-Quarashi, Abu' Ubayd 68*b*

R

radar 48
radio technology 130
radiological weapons *see* weapons of mass destruction
Raglan, Lord 130
railways
evolution of modern warfare 40–2
imperial competition 312
Rajagopalan, Swarna 342
Ramayana 342
RAND corporation 349
Rapoport, Anatol 10, 350–1, 352, 353
rational choice theory 410–11
Rattray, Gregory J. 292*b*
Ratzel, Friedrich 313
Reagan, Ronald
arms control 223
and criticisms of 355
intelligence 152
realism 2–3
classical realist tradition 6–8
geopolitics and grand strategy 311–12
international law 108, 110
low politics 367
old and new 415
realpolitik paradigm 341
reconstructive critique of strategy 353
Red Cross 121
refugees, and disease 380, 381
regime change 257
Reiss, Mitchell 227
Reiter, D. 82
religion
as cause of war 84
irregular warfare 198
see also Hinduism; Islamic extremism
remotely piloted aircraft (RPA) *see* unmanned airborne vehicles
reputational benefits of obeying the law 112
research and development 136
resources 321–2
practice of strategy 395
strategic culture 93, 94
respiratory infections 380
Revere, Paul 145
revolutionary warfare 50–2
revolutions in military affairs (RMAs) 53*b*, 53, 243–4
arts of war 244
criticisms of strategic studies 359
cyberpower 302–5
human security 334
technology and warfare 133–6
Rid, Thomas 295–6, 304*b*
rifled weapons 41, 42, 130
Robinson, Linda 63
robotics 141
Rodger, Nicholas 27
Rogers, Clifford J. 26
rogue states 227
roles, state 94
Rome, Ancient 22–3
Rosen, Steven Peter 96
Rote Armee Faktion 189
Rouhani, Hassan 230
Rousseau, Jean-Jacques 77*b*
Rubinstein, Robert 330
Rumsfeld, Donald 173*b*, 229n
Russia
Chechnya 137, 138, 188, 200, 278
Crimea 83, 98*b*, 152, 233
environmental problems 377
geopolitics and grand strategy 308, 312, 313, 317, 321, 322*b*
Georgia 60, 83, 242, 279, 322*b*
humanitarian intervention 279
imperial competition 312
intelligence 161
intervention in US 2016 election 152, 157, 161, 296
nuclear weapons 232–3, 235*b*
power 241, 242, 246*b*, 248, 249, 250, 251, 253*b*
Second World War 82
strategic culture 98*b*, 100*b*
Syrian war 119
technology 137

Russia (*Cont.*)
Ukraine conflict 83, 98*b*, 233, 242, 279, 317, 322*b*
UN Security Council 279
WMDs 233
worldview 389*b*
see also Soviet Union
Russo–Japanese War 42–3, 259
Rwanda 138, 275–6
Rwandan Patriotic Front (RPF) 276
Rynning, Sten 104

S

Sadat, Anwar 155
Saddam Hussein
causes of Gulf wars 78–9
government as hub of power 63
insurgency 59, 63
overthrow 64
WMD capabilities 148*b*, 156
sailing warships 261
Saint Pierre, Abbé de 348
St Petersburg Declaration 120
Samore, Gary 230
Saneyuki, Akiyama 44
sarin 232*b*
SARS 380, 382
satellites 268
civilian 136
navigation 132
Saudi Arabia
geopolitics and grand strategy 318
irregular warfare 196
power 251
Schelling, Thomas C. 2, 5, 104, 349
and criticisms of 353
game theory 351
Schiller, Johann Christoph Friedrich von 39
Schwartau, Winn 292*b*
Schwarzkopf, General Norman 283
science, and defence planning 173, 174
scientific approach in strategic studies 5–6, 9
scientific method, and evolution of modern warfare 37
Scobell, Andrew 97*b*
Second World War
air power 135, 265, 266*b*
Cannae as German inspiration 23
causes 75, 79, 80, 82
geography and strategy 259, 265, 266*b*
geopolitics and grand strategy 314, 318
intelligence 145, 153, 155
international law 116
irregular warfare 195
naval warfare 44
nuclear weapons 48, 49, 50, 204
Pearl Harbor attack 153
political culture 91
power 240*b*
strategic culture 96
strategic surprise 153, 155
technology 130, 135, 136, 138
total warfare 46–9
security studies 3, 329, 344, 407
critical 356
ethnocentrism 332
non-military threats 335, 336
and strategic studies, relationship between 12–14, 13*f*
Segal, Ronald 332
self-defence, anticipatory 117–18
sensitivities 381–2
September 11 terrorist attacks 3
grand strategy 320
international law 117
power and war 241
rational calculus of war 65
strategic culture 97*b*
strategic surprise 153, 154
Serbia 280, 321
Seven Years' War 28
severe acute respiratory syndrome (SARS) 380, 382
Severus, Septimius 23
Shaw, M. 362*b*
Sherman, General William Tecumseh 42
Sierra Leone 276, 283, 284, 368
signals intelligence (SIGINT) 146, 147*b*
Simpson, Emile 183
Simpson, John 104
Singapore, power 241, 242
'Sinjar' 160
Skripal, Sergei 233
Skripal, Yulia 233
smallpox 378
Smith, Hugh 61
Smith, General Sir Rupert 83
Snowden, Edward 149, 303
Snyder, Glenn 351, 353
Snyder, Jack 92, 92*b*, 93
Social Darwinism 314
social engineering 78
social psychology, causes of war 77–8, 81
social science
crisis in 409–11
and defence planning 173, 174
societal security 11
society, and practice of strategy 394–5
Somalia 57
hijacking of ships 185
humanitarian intervention 64, 275, 281, 283, 284, 369
irregular warfare 196, 200
Sony Corporation 198, 299
South Africa
global power shift 339
nuclear weapons 203, 203*t*, 208
South Korea
power 242, 249, 250, 251
strategic culture 93–4
South Sudan 278, 279, 281
Soviet Union
Afghanistan war 51, 155, 187
cold war 2, 50–1, 240
arms control 221–2, 223
arms race 75
nuclear weapons 202–3, 205, 207, 209, 210, 211, 213*b*, 315
satellites 268
strategic studies 330
collapse 2, 320
Cuban missile crisis 153, 155–6
geopolitics and grand strategy 314–16
intelligence 151–2, 155
nuclear weapons 202–3, 203*t*, 204–5, 207, 209, 210, 211, 212, 213*b*, 233–4
arms control 221–2, 223, 224
arsenal reduction 218
grand strategy 315
nuclear deterrence and strategic culture 92–3
power 240, 246*b*, 250
practice of strategy 388
technology 133
space-based sensing 136
space war 140–1, 267–9
Spain, Early Modern 27–8
Spanier, John 222*b*
Spanish Succession, War of the 28
Special Forces, power 245
special intelligence missions 148–9
Spykman, Nicholas 310*b*, 314
Sri Lanka
insurgency 187
peacekeeping 277
Stalin, Joseph 155, 314–15
state-centric approach to world politics 11
Stavridis, Admiral (ret.) James 161
stealth technology 129–30, 133
Stevens, Tim C. 294, 295*b*
Stockholm Accords 235*b*
Strachan, Hew 310*b*

Strategic Arms Limitation Treaties (SALT I and II) 223, 234*b*, 235*b*
Strategic Arms Reduction Talks (START I, II, and New START) 213*b*, 218, 223, 224, 232, 233, 235*b*
strategic culture 89–93, 105–7
  case studies 97–8*b*
  China 340–2
  constructivism 96–8
  continuity vs change 98–101
  definitions 92*b*
  India 340, 342–4
  irregular warfare 195, 197
  keepers of strategic culture 99–100
  non-state, state, and multi-state 101–3
  and nuclear deterrence 92–3, 209–10
  practice of strategy 394–5
  sources 93–5, 96*t*
  WMDs 103–5
strategic education 386–91, 390–1*b*
strategic imagination 417
strategic nuclear weapons 205
Strategic Offensive Reductions Treaty (SORT, Moscow Treaty) 213*b*, 225, 232
strategic preferences 66
strategic studies 2–6, 329, 346–7
  in the academy 9, 10*b*
  changing nature of conflict 333–4
  classical realist tradition 6–8
  cold war 332–3
  criticisms *see* criticisms of strategic studies
  development 404–6
  ethnocentrism 330–1
  future *see* future of strategic studies
  Global international relations 344–6
  global power shift 337–40
  'Golden Age' 349–52
  language of 359–61
  non-military threats 335–7
  relevance 362, 362*b*
  and security studies, relationship between 12–14, 13*f*
  strategic culture and grand strategy debates
    China 340–2
    India 340, 342–4
  world according to 356–8
strategic surprise *see* surprise, strategic
strategic terms, defining 391–3
strategic theory 56–7, 68–9*b*
  Clausewitz's *On War* 61–5
  enduring relevance of strategy 68–9*b*
  logic of strategy 57–61
  Sun Tzu and Mao 66–9
strategists *see* practice of strategy
strategy
  binary options 21*b*
  definitions 4, 4*b*, 19–20
  ends of 358–9
  enduring relevance 68–9*b*
  general theory *see* general theory of strategy
  logic 57–61
  practice *see* practice of strategy
strategy bridge 392, 398–400
  defence planning 166, 166*b*, 170, 171
Straw, Jack 229n
structured analytic techniques 155
Stuxnet attack 141, 158, 199, 270, 299, 300*b*, 301
Subhramanyam, K. 331
sublimation 78
submarine-launched ballistic missiles (SLBMs) 205, 217
submarines 44, 46, 48, 49, 262
Sudan
  irregular warfare 200
  peace operations 277
  see also South Sudan
Suez War 49
Suganami, Hidemi 74–5
sulphur mustard 232*b*
Sun Tzu 386
  barbarity, unnecessary 116
  and Clausewitz, ideas compared 66–7, 410, 410*b*
  intelligence 144, 162
  strategic culture 91, 95, 341, 341*b*
  strategic theory 56, 59, 66–7, 69*b*, 69
  war as political instrument 58*b*
Sundarji, General 226–7
supply issues
  for armies, and evolution of modern warfare 37–8, 40
  irregular warfare 194
support, irregular warfare 188–90
  popular *see* public opinion
al-Suri, Abu Musab 68–9*b*
surprise, strategic
  causes and correctives 153–6
  and peace operations 284
Sweden, strategic culture 98*b*
Swidler, Ann 91, 99
symbols, and strategic culture 94–5
Syria
  Arab–Israeli War 153
  causes of war 84
  chemical weapons 232*b*
  geopolitics and grand strategy 317
  humanitarian intervention 279, 280–1*b*, 281, 285, 287
  intelligence 158
  international law 119
  irregular warfare 190
  nuclear reactor 158
  nuclear weapons 209
  power 251
  technology 135
systems analysis 350, 351, 352, 353
systems integration 135, 140

T

Taber, Robert 183, 195
tactical nuclear weapons (TNWs) 205
tailored deterrence 104
Taiwan
  geopolitics and grand strategy 324*b*
  Haitian presidential inauguration 279
  power 247, 250, 251
Taliban
  irregular warfare 190, 198, 199
  technology 133
Tamil Tigers 187
tanks
  evolution of modern warfare 46, 47–8, 48*b*
  M1A2 and Merkava compared 128, 129*b*
  technology 128, 129*b*, 129, 130, 132
Taras, Raymond 96
Taylor, A. J. P. 79
technology and warfare 127, 139–40*b*, 141–3
  air warfare 265, 266
  asymmetric challenges 137–8
  challenges of the new technology 138–40
  cyberpower *see* cyberpower
  Early Modern Europe 26
  economics 245, 248
  evolution of modern warfare 37, 40, 41–2
    naval warfare 43–4
    total warfare 46, 48
  future 140–1
  geopolitics and grand strategy 314, 318
  human security 334
  intelligence 160–2
  irregular warfare 184, 195, 198

technology and warfare (*Cont.*)
language of strategic studies 360–1
mapping military technology 131–2
and power 249, 250*b*
practice of strategy 395
resource bases 321–2
revolution in military affairs 133–6, 243–4
strategic culture 94, 103
strategic theory 68*b*
technophiles and technophobes 127–8
ways of thinking about 128–31
telegraphs 41, 42
Terriff, Terry 95
terror, war on 417
terrorism 3, 183–4, 199–201
counterterrorism 191–7
definitions 184–5
now and in the future 197–9
theory and practice 186–91
see also irregular warfare
Thailand 334
Thatcher, Margaret 311*b*
thermal imaging devices 132
thermonuclear weapons 204
think tanks 349, 408
Thirty Years' War 28
Thomas, Caroline 335–6
Thompson, Robert 192*b*, 193
Thompson, W. R. 83
Thornton, E. P. 9
Thucydides 7, 21, 91, 95, 386
Tilford, Earl 53*b*
Tilly, Charles 26
time
irregular warfare 186–7
practice of strategy 397
torpedoes 43
torture 158–9
total war 30*b*, 45–50
tragedy of the commons 373, 374*b*, 375
Traina, Giusto 23
transformed forces 243, 244, 245
transistors 136
Trans-Pacific Partnership 100*b*
Treitschke, H. von 73
'trolls' 296
Trood, R. 92*b*
Trotsky, Leon 9
Trump, Donald
brinksmanship with North Korea 82, 104, 214*b*, 230
Guantanamo Bay 122
intelligence 151, 158, 159
Iran 231, 233, 235*b*
Joint Comprehensive Plan of Action 214*b*
military spending 323*b*
WMDs 230, 231, 232*b*, 233, 235*b*
tsunami (2004), humanitarian relief 264*b*, 369
tuberculosis 379, 381
Turkey
defence expenditure 134
power 245, 247, 251
Tutsis 275

U

Uganda 282*b*
Ukraine
Crimea 152, 233
hybrid warfare 13
nuclear weapons 203*t*
Russia conflict 83, 98*b*, 233, 242, 279, 317, 322*b*
understanding the nature and character of strategy 391–6
UNESCO, 'Peace Through Understanding' motto 80
unintended consequences of strategy 393
United Kingdom/Great Britain/England
American War of Independence 59
'Brexit' 311*b*
cars 368
Cyprus 188
Early Modern Europe 27, 28
entente cordiale 75
evolution of modern warfare
naval warfare 43, 44
total warfare 46, 48
Falklands War 79
First World War 46, 261–2
geography and strategy 261–2, 265
geopolitics and grand strategy 311*b*, 311, 312, 314, 316, 319, 323
Gulf War 78, 135
imperial competition 312
Iraq War 119
causes 79
irregular warfare 192*b*
island identity 311*b*, 311
Libyan intervention 119
Middle Ages 24, 25
Napoleonic Wars 261, 262
nuclear weapons 203, 203*t*, 209, 212, 324*b*
testing 222
peace operations 284
power 242, 246*b*, 247, 249
practice of strategy 388
Second World War
causes 79, 80
geography and strategy 259, 265
technology 138
total warfare 48, 49
technology 135, 138
United Nations Security Council 119
United Nations
Charter 191
jus ad bellum 117–20
classical realist tradition 8
humanitarian intervention 288
Security Council politics 279–81
new security concept 338
peace operations 274–8, 283, 288
Bosnia 275, 276*b*, 283
Libya 285*b*
Rwanda 275–6
Somalia 57, 275, 283, 369
Security Council (UNSC)
cold war 274
humanitarian intervention 279–81
international law 117–19
Libya 285*b*
peace operations 274, 276–7, 283, 284
Syrian chemical weapons 232*b*
support 417
WMDs
arms control 232
counterproliferation 229
Iraq 226
United States of America
Afghanistan
casualties 286–7
intelligence 157–8
technology 133
air power 286*b*
American-centric paradigm in strategic studies 389
American Civil War 41, 42
American War of Independence 59
Authorization for Use of Military Force (AUMF) 158
as benevolent hegemon 101*b*
brinksmanship with North Korea 82, 104, 230
Central Intelligence Agency (CIA) 146, 147, 148*b*, 149, 151, 152, 153, 157, 158–9, 161

chemical weapons stockpile destroyed 376, 377*t*
cold war 2, 50–1, 240
  arms control 221–2, 223
  arms race 75
  nuclear weapons 202–3, 205–6, 207, 209, 210, 211, 213*b*, 315
  satellites 268
  strategic studies 330, 332
cyberpower 298, 300*b*, 301
defence analysis 176–7
Defense Intelligence Agency 147, 152
Department of Homeland Security 151, 157
Digital Directorate of Intelligence (DDI) 161
Director of Central Intelligence 151
Director of National Intelligence 148*b*, 151, 157
environmental problems 376–7
geography and strategy
  air warfare 265
  land warfare 257, 260
  maritime strategy 263, 264*b*
  space war 268
geopolitics and grand strategy 308, 309, 312, 314–18, 319, 321–2, 323–4*b*, 324
  containment 315*b*, 315
  'Pivot to Asia' 317*b*
global power shift 338, 340
Guantanamo Bay 121–2
Gulf War
  causes 78
  geography and strategy 257
  strategic theory 63, 64
  technology 130, 132
hegemony 101*b*, 308
Human Terrain System (HTS) 102*b*
humanitarian intervention 281
  Bosnia 280
  Rwanda 276
  Somalia 64, 275, 281, 282, 284
intelligence and strategy 145–62
International Criminal Court 122
Iraq War
  casualties 286–7
  causes 79
  geography and strategy 257
  intelligence 157–8
  international law 118, 119
  strategic theory 64
  technology 133, 137
irregular warfare 190, 200
  counterterrorism measures 193*b*, 194, 195
Korean War 51, 64, 257
military expenditure 315, 317, 323*b*
National Counterterrorism Center 157
National Geospatial-Intelligence Agency 146
National Intelligence Estimates (NIEs) 148*b*
National Non-proliferation Center 157
National Reconnaissance Office 146
National Security Agency 146, 159, 161
navy 135, 312
nuclear weapons 202–3, 203*t*, 204–7, 209, 210, 211, 212, 213*b*, 216–17, 232–4, 235*b*
  arms control 221–2, 223, 224, 232–3
  arsenal reduction 218
  assertive disarmament 214*b*
  geopolitics 324*b*
  grand strategy 315, 324*b*
Office of Systems Analysis 176–7
peace operations 275
  Libya 119, 285*b*
power 241, 242, 248, 249, 250, 251, 253*b*
  arts of war 244–5
  military balances 246*b*, 247
  new world order 240, 241
  revolution in military affairs 243–4
practice of strategy 388–9
President's Daily Brief (PDB) 148*b*
revolution in military affairs 53, 243–4
Russian intervention in 2016 election 152, 157, 161, 296
Second World War 49
  geography and strategy 259, 265
  technology 138
strategic culture 92–3, 97*b*, 101*b*
strategic surprise 153–6
strategic theory 59–60
technology 128, 129*b*, 130, 132, 133–4, 137
  quality vs quantity 134
  speciation of weapons 135
United Nations Security Council 119
Vietnam War 51
  containment 315*b*
  defence planning 177
  geography and strategy 257, 258*b*
  strategic theory 59
  WMDs 226–31, 232*b*, 232
unmanned airborne vehicles (UAVs, 'drones') 149, 158, 159–60*b*, 196–7*b*, 266
  peacekeeping operations 284
Uppsala Conflict Data Project 333
uranium, depleted (UA) 376
urban warfare 245
utopian thinkers 2

V

Van Evera, Stephen 332n
Vasquez, J. 331
Vauban, Sébastien Le Prestre de 28
'Vault 7' 199
Verba, Sidney 91*b*, 91
Vietnam
  geopolitics and grand strategy 317*b*
  power 245
Vietnam War
  containment 315*b*
  defence planning 177
  geography and strategy 257, 258*b*
  intelligence 151–2
  irregular warfare 187–8, 189, 194, 195
  limited warfare 50–1
  strategic theory 59, 63
violence, role of 416
vitamin deficiency 86
Von Maltzen 44
Von Moltke, Field Marshal Count H. 4, 4*b*
Voß, Julius von 30
vulnerabilities 381–2

W

Wæver, O. 350
Walt, Stephen 335
Waltz, Kenneth 77*b*, 77, 330
Walzer, Michael 9
warfare
  air *see* air warfare
  biological *see* biological warfare
  causes *see* causes of war
  changing nature 333–4
  chemical *see* chemical warfare
  coming change in the character of? 304–5
  criticisms of strategic studies 11
  cyberspace *see* cyberwar and cyber-attacks
  economic 261–2, 262–3*b*

warfare (*Cont.*)
economic costs 83, 244–5
cyberpower 305
great power war 318
evolution *see* evolution of modern warfare
friction 65, 68*b*
geography *see* geography and strategy
international law 113–24
irregular *see* irregular warfare
joint 256
land *see* land warfare
limited vs unlimited 63–4, 388
as metaphor 417
nature of 62–3
naval *see* naval warfare and maritime strategy
nuclear *see* nuclear weapons
as political instrument 57–9, 58*b*
power *see* power and war
preparation for 395
rational calculus of 64–5
space war 140–1
strategic theory *see* strategic theory
study 73–5
difficulties 74–5
technology *see* technology and warfare
unconventional 259–60
virtues 73
'within' and 'beyond' states 83–6
warrior cultures 200, 372
Washington, George 145
water scarcity 374, 375
weak states 241–2
weapons
environmental damage 376–7
evolution of modern warfare 40, 41–2
land warfare 259
of mass destruction *see* weapons of mass destruction
nuclear *see* nuclear weapons
power 248
speciation 135
technology 129–31, 132, 133, 135
weapons of mass destruction (WMDs) 220–1, 236–7
arms control 231–5
cold war 221–4
definitions 222*b*
post-cold war era 224–6
counterproliferation 226–8
challenges 229
diplomatic option 230–1
international regimes 225*b*
irregular warfare 198, 200
and power 250, 251, 252
strategic culture 103–5
technology 137
see also biological warfare; chemical warfare; nuclear weapons
Weber, Max 91
Weigley, Russell F. 68*b*, 92
Wells, H. G. 265
Wendt, Alexander 95, 96
Wikileaks controversy 149
Wilson, Edward O. 76
Wilson, R. W. 99
Wilson, Woodrow 77*b*
Wohlstetter, Albert 2, 5, 349
Wohlstetter, Roberta 153
women, and evolution of modern warfare 46
Woolsey, James 226
World Trade Center attack *see* September 11 terrorist attacks
World War I *see* First World War
World War II *see* Second World War
Wylie, J. C. 4*b*, 387
Wyn Jones, Richard 359, 361

X

Xi Jinping 97*b*

Y

Yanukovich, Victor 322*b*
Yeltsin, Boris 224
Yemen
irregular warfare 196
power 251
USS Cole 264
Yom Kippur War *see* Arab–Israeli War
Yoshida Doctrine 97*b*
youth bulges 371
Yugoslavia, former
technology 135
tribunals 276

Z

Zaborowski, Marcin 105
al-Zawahiri, Ayman 60, 184
Zenko, Micah 285*b*