



Routledge Advances in International Relations and Global Politics

OPERATIONAL CODE ANALYSIS AND FOREIGN POLICY ROLES

CROSSING SIMON'S BRIDGE

Edited by Mark Schafer and Stephen G. Walker



ROUTLEDGE

“This is an indispensable volume to advance the study of political leaders and foreign policy. The chapters individually and collectively push theoretical, methodological, and empirical boundaries to showcase state-of-the-art work on operational codes. I am extremely impressed by the book’s rigor, its comparative perspective, and its relevance to significant foreign policy issues. I highly recommend ‘crossing Simon’s bridge’ with this volume that is chock-full of excellent research.”

Juliet Kaarbo, *University of Edinburgh*

“Occasionally, there is a ‘big picture’ book that brings together disparate strands of scholarship into a coherent whole that is much greater than the sum of its parts. This is one of those books. Built on decades of data gathering, methodological innovation and theoretical development, Walker, Schafer, and their colleagues skillfully illuminate the complex linkages among leader personality, belief systems, and foreign policy roles. This is a pathbreaking synthesis and a vital contribution to the field of foreign policy analysis.”

Paul Kowert, *University of Massachusetts Boston*

“This excellent volume has taken a huge step toward bridging the study of minds and international relations, showing with great clarity and rigor how leaders’ characteristics shape and shove foreign policies and strategic interactions. It represents a watershed moment in the study of agency in international relations, bringing together sophisticated methods and innovative theorising to clarify the role leaders play on the world stage.”

Ryan K Beasley, *University of St. Andrews*

“This major work of scholarship brings together an outstanding team to make advancements in application of operational code analysis to a wide range of leaders around the globe. Comparative case studies, statistical analysis of conflict processes involving the US in particular, and computational game-theoretic models of decision-making are brought together to produce impressive new findings. The theory and findings from this volume will be of great interest to many readers, notably specialists in foreign policy analysis and the policy-making community.”

Patrick James, *Dornsife Dean’s Professor of International Relations, University of Southern California*

“Walker, Schafer, and their contributors clear a new theoretical and empirical path between the study of foreign policy and international relations. The authors develop and fully explicate the means to bring behavioral science—through Operational Code—and social science—through Role Theory—together so that we understand the micro-foundations of IR and the meso-effects of the structure on decision-making units. This volume is a must read for students of foreign policy and international relations alike, for to understand our changing world, we must consider both decision-makers and the environments they create.”

Cooper Drury, *University of Missouri*



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Operational Code Analysis and Foreign Policy Roles

In this book, senior scholars and a new generation of analysts present different applications of recent advances linking beliefs and decision-making in the area of foreign policy analysis with strategic interactions in world politics.

Divided into five parts, **Part 1** identifies how the beliefs in the cognitive operational codes of individual leaders explain the political decisions of states. In **Part 2**, five chapters illustrate progress in comparing the operational codes of individual leaders, including Vladimir Putin of Russia, three US presidents, Bolivian President Evo Morales, Sri Lanka's President Chandrika Kumaratunga, and various leaders of terrorist organizations operating in the Middle East and North Africa. **Part 3** introduces a new Psychological Characteristics of Leaders (PsyCL) data set containing the operational codes of US presidents from the early 1800s to the present. In **Part 4**, the focus is on strategic interactions among dyads and evolutionary patterns among states in different regional and world systems. **Part 5** revisits whether the contents of the preceding chapters support the claims about the links between beliefs and foreign policy roles in world politics.

Richly illustrated and with comprehensive analysis *Operational Code Analysis and Foreign Policy Roles* will be of interest to specialists in foreign policy analysis, international relations theorists, graduate students, and national security analysts in the policy-making and intelligence communities.

Mark Schafer is a Professor of Political Psychology in the School of Politics, Security, and International Affairs at the University of Central Florida working primarily in the field of international relations. His research interests include groupthink, the operational code, and psychological correlates of foreign policy behavior. He has published his research in major journals such as *Journal of Politics*, *International Studies Quarterly*, and *Journal of Conflict Resolution*. He received the Erik Erikson Award for Early Career Achievement from the International Society of Political Psychology in

2003 and was honored with the Distinguished Scholar Award from the Foreign Policy Analysis Section of the International Studies Association in 2021.

Stephen G. Walker is Professor Emeritus in the School of Politics and Global Studies at Arizona State University. His research interests focus on conflict management and resolution, foreign policy analysis, and political psychology. His research articles have appeared in *Political Psychology*, *Journal of Conflict Resolution*, and *International Studies Quarterly*. He received the Foreign Policy Section's Distinguished Scholar Award from the International Studies Association in 2003.

Routledge Advances in International Relations and Global Politics

International Relations as Politics among People

Hannes Hansen-Magnusson

Mexico's Drug War and Criminal Networks

The Dark Side of Social Media

Nilda M. Garcia

Transnational Labor Migration, Livelihoods, and Agrarian Change in Nepal

The Remittance Village

Ramesh Sunam

A Middle East Free of Weapons of Mass Destruction

A New Approach to Nonproliferation

Seyed Hossein Mousavian and Emad Kiyaei

Weak States as Spheres of Great Power Competition

Hanna Samir Kassab

Understanding Mexico's Security Conundrum

Agustin Maciel-Padilla

Exploring Base Politics

How Host Countries Shape the Network of US Overseas Bases

Edited by Shinji Kawana and Minori Takahashi

United Nations Financial Sanctions

Edited by Sachiko Yoshimura

Operational Code Analysis and Foreign Policy Roles

Crossing Simon's Bridge

Edited by Mark Schafer and Stephen G. Walker

For information about the series: <https://www.routledge.com/Routledge-Advances-in-International-Relations-and-Global-Politics/book-series/IRGP>



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Operational Code Analysis and Foreign Policy Roles

Crossing Simon's Bridge

**Edited by Mark Schafer
Stephen G. Walker**

First published 2021
by Routledge
52 Vanderbilt Avenue, New York, NY 10017

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an Informa business

© 2021 selection and editorial matter, Mark Schafer and Stephen G. Walker; individual chapters, the contributors

The right of Mark Schafer and Stephen G. Walker to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with Sections 77 and 78 of the Copyright, Designs, and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data
A catalog record for this title has been requested

ISBN: 978-0-367-65090-2 (hbk)
ISBN: 978-1-003-13102-1 (ebk)

Typeset in Times New Roman
by KnowledgeWorks Global Ltd.

Dedication

We dedicate this book to the two most important people in our lives, our partners Joey and Jackie. They have been by our side for many years and it is impossible for us to say how much we cherish their support, companionship, encouragement, patience, friendship, and love.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Contents

<i>Preface</i>	xiv
<i>Contributors</i>	xvii
PART I	
Beliefs and Roles in World Politics	1
1 The Interface between Beliefs and Roles in World Politics	3
STEPHEN G. WALKER AND MARK SCHAFER	
2 The Development of Foreign Policy Roles: Beliefs and Complex Adaptive Systems	17
STEPHEN G. WALKER	
PART II	
The Operational Codes of World Leaders	43
3 Revisiting the Operational Code of Vladimir Putin	45
MARK SCHAFER, DIDARA NURMANOVA, AND STEPHEN G. WALKER	
4 Deciphering Deadly Minds in Their Native Language: The Operational Codes and Formation Patterns of Militant Organizations in the Middle East and North Africa	69
SERCAN CANBOLAT	
5 Operational Code Analysis and Civil Conflict Severity	93
GARY E. SMITH	

6	Policy Documents and the Beliefs of Foreign Policy Decision-Makers: A Next Step in Operational Code Analysis	111
	FEMKE E. BAKKER AND NIELS VAN WILLIGEN	
7	One Step Forward, Two Steps Back: The Steering Effects of Operational Code Beliefs in the Chilean-Bolivian Rivalry	129
	CONSUELO THIERS	
PART III		
	The Psychological Characteristics of US Presidents	149
8	Psychological Correlates and US Conflict Behavior: The PsyCL Data Set	151
	MARK SCHAFFER, STEPHEN G. WALKER, CLAYTON BESAW, PAUL GILL, AND GARY E. SMITH	
9	Operational Code Beliefs and Threat Perceptions by US Presidents	176
	COLLIN J. KAZAZIS	
10	Presidential Personalities and Operational Codes: Learning Effects and Midterm Congressional Election Results	196
	JOSHUA E. LAMBERT, MARK SCHAFFER, STEPHEN G. WALKER AND COLLIN KAZAZIS	
11	US Presidential Belief Systems and the Evolution of Peace in the International System	220
	STEPHEN G. WALKER, MARK SCHAFFER, GARY E. SMITH, AND COLLIN J. KAZAZIS	
PART IV		
	Computational Models of Foreign Policy Roles	243
12	Binary Role Theory and the Evolution of Cooperation in World Politics	245
	STEPHEN G. WALKER, KAI HE, AND HUIYUN FENG	

13	Binary Role Theory and the Operational Code Analysis of Grand Strategies: Can Balancing Work?	270
	B. GREGORY MARFLEET AND STEPHEN G. WALKER	
14	Operational Code Analysis: A Method for Measuring Strategic Culture	300
	SEYED HAMIDREZA SERRI	
15	An Operational Code Analysis of Foreign Policy Roles in US-Iran Strategic Dyads	339
	STEPHEN G. WALKER AND AKAN MALICI	
PART V		
	Beyond Beliefs in World Politics	371
16	Operational Codes and Foreign Policy Roles: Conceptual Insights and Empirical Results	373
	STEPHEN G. WALKER AND MARK SCHAFER	
	<i>Index</i>	386

Preface

The operational code research program is almost 70 years old, dating back to the study of the operational code of the Soviet Politburo by Nathan Leites and evolving over the years as an approach to studying the beliefs of political leaders about the effective exercise of power in the conduct of politics. The focus in this volume is on the results of efforts to expand the horizons of the research program in two directions from a focus on beliefs and actions regarding the exercise of power to include the origins of those beliefs and the consequences of those actions. In doing so, this book represents the current efforts by members of the operational code research program to “cross Simon’s bridge.” Herbert Simon had discussed bridging the gap between the sciences of the mind (psychology) and one of the social sciences (politics) as president of the American Political Science Association in his 1985 inaugural address, “Human Nature and Politics: The Dialogue of Psychology with Political Science.”

This volume is an example of subsequent research in the emerging trans-discipline of political psychology as the study of the interface between psychology and politics, which has evolved as both an area of inquiry and in the form of the International Society of Political Psychology as a professional organization of scholars from the disciplines of psychology and political science. Our efforts have been inspired and supported by membership in ISPP and by several individuals and other institutions over the past decade and a half. Psychologist Margaret Hermann’s NSF research training grant at Ohio State University investigated the links between individual cognitions and collective decisions and funded talented doctoral students from the disciplines of psychology and political science. A dissertation grant from this program helped train one of us and catalyzed the other one to focus more directly on this area of research into the cognitions of leaders and their foreign policy decisions.

We are inspired as well by the example and support of political scientists Alexander George and Ole Holsti, who led during their lives and careers

by example with pioneering investigations into the psychology of crisis decision-making, coercive diplomacy, and statecraft. These two scholars rescued the Leites concept of an operational code from relative obscurity and created the operational code research program as a “thing.” Michael Young and Robert Woyach at Social Science Automation developed the software for an automated version of the Verbs In Context System (VICS) in collaboration with the editors of this volume, which has been the primary instrument developed for the metrics used by authors in this volume (and many others elsewhere) to measure a leader’s cognitive operational code. We owe a large intellectual debt as well to Steven Brams for the game models from his *Theory of Moves* (Oxford, 1994), which we deploy as a binary role theory of world politics to specify different types of social operational codes.

Our own efforts to emulate the success of these pioneers have been supplemented by generations of our graduate students at Arizona State University, Louisiana State University, and the University of Central Florida who have become faculty members and researchers at various institutions around the country and around the world. In turn, they continue with their own scholarship to stimulate their students and build Simon’s bridge. Several of them are represented in this volume along with other younger scholars who employ these models and metrics. Our current role as editors has been to organize a sample of this research into a more or less coherent argument about the significance of the results and suggest how this research program may evolve into the future.

We are grateful to several institutional sources of support in getting this volume into print. They include the School of Politics and Global Studies at Arizona State University and the School of Politics, Security, and International Affairs at the University of Central Florida where many of the contributors were trained as researchers. We thank these institutions for travel and computer support in the pursuit of our research projects. Also crucial is the enthusiastic support of the editors at Routledge Press, especially Senior Editor for Politics Natalja Mortensen and Editorial Assistant Charlie Baker, who saw our vision of this project, provided guidance, and answered many questions along the path to completion.

Finally, we would be remiss if we did not recognize the role that our respective spouses have played in bringing this project across the finish line. They have endured (with a minimum of eye-rolling) arcane conversations between the editors in various venues about getting this volume organized and into print, ranging from car rides across New England to plane rides across the country and professional meetings around the world. They have also been good humored about our efforts to put the volume together while still carrying on the responsibilities of family life in a time of the COVID-19

virus. We have dedicated this volume to them, because we recognize that the project would probably not seem worth doing without their confident affirmation of us and the value of our work.

*Mark Schafer
Orlando, Florida
August 28, 2020*

*Stephen G. Walker
Flagstaff, Arizona
August 28, 2020*

List of Contributors

Femke E. Bakker is an Assistant Professor at the Institute of Political Science of Leiden University. Her research interests focus on microfoundations of IR theories, decision-making behavior, and political psychology. Her research articles have appeared in *Acta Politica*, *Perspectives on Political Science*, and *Political Research Exchange*. Her dissertation, *Hawks and Doves: Democratic Peace Theory Revisited*, received the *ECPR Jean Blondel Ph.D. Prize (2019)*, and an Honorary Mention from the *ISPP Dissertation Prize (2019)*.

Clayton Besaw is a Research Associate at the One Earth Future Foundation. His research interests focus on political violence, natural language processing, rare event forecasting, and machine learning development. His research articles have appeared in *Journal of Conflict Resolution*, *Conflict Management and Peace Science*, and the *Journal of Quantitative Criminology*.

Sercan Canbolat is a Ph.D. Candidate in Political Science at the University of Connecticut. His doctoral dissertation is on patterns of learning and political survival by beleaguered Middle Eastern leaders in the face of the post-2011 Arab Uprisings. His research articles have appeared in *International Studies Review*, *Political Research Quarterly*, and *Polity*. He and his coauthors received the *Polity Prize* in 2018 for the best research article published in the journal's previous volume.

Huiyun Feng is a Senior Lecturer in the School of Government and International Relations and Deputy Director of the Centre for Governance and Public Policy at Griffith University, Australia. Her publications have appeared in the *European Journal of International Relations*, *Security Studies*, *The Pacific Review*, *International Politics*, *Chinese Journal of International Politics*, and *Asian Perspective*. She is the author of *Chinese Strategic Culture and Foreign Policy Decision-making: Confucianism, Leadership and War* (2007), the coauthor of *Prospect Theory and Foreign Policy Analysis in the Asia-Pacific*, *How China Sees the World: Insights from China's International Relations*

Scholars, and a coeditor of *China's Challenges and International Order Transition: Beyond Thucydides's Trap*.

Paul Gill recently earned his M.A. at Georgetown University's Security Studies Program. His research interests focus on conflict studies, diplomacy, economics, and political psychology. Previously, he served as a research assistant for the University of Central Florida's Intelligence Community Center for Academic Excellence.

Kai He is a Professor of International Relations, Griffith Asia Institute and Center for Governance and Public Policy, Griffith University, Australia and a Visiting Chair Professor of International Relations at the Zhou Enlai School of Government, Nankai University, China. He is currently an Australian Research Council (ARC) Future Fellow (2017–2020). He is the author of *Institutional Balancing in the Asia Pacific: Economic Interdependence and China's Rise* and *China's Crisis Behavior: Political Survival and Foreign Policy; How China Sees the World: Insights from Chinese International Relations Scholars* (coauthored with Huiyun Feng and Xiaojun Li); and *China's Challenges and International Order Transition: Beyond "Thucydides's Trap"* (co-edited with Huiyun Feng).

Collin J. Kazazis is a recent graduate from the School of Politics, Security, and International Affairs at the University of Central Florida. His research interests focus on threat perception and political psychology. His honors thesis investigated the effect of leadership traits on cognitive constructions of threat perception.

Joshua E. Lambert is the NLP/Machine Learning Researcher for the University of Central Florida's National Center for Coastal Research. His research interests include leveraging GIS and machine learning tools to better understand environmental security, civil-military relations, conflict outcomes, and political psychology. His research has been published in *Small Wars and Insurgencies*, the nonprofit *One Earth Future*, as well as the popular commentary outlet *The Conversation*.

Akan Malici is a Professor of Political Science at Furman University. His scholarly interests are in the areas of foreign policy analysis and international security. Akan is the author of *When Leaders Learn and When They Don't* and *The Search for a Common European Foreign and Security Policy*; coauthor of *U.S. Presidents and Foreign Policy Mistakes*, and *Role Theory and Role Conflict in U.S.-Iran Relations: Enemies of Our Own Making*; coeditor of *Re-thinking Foreign Policy Analysis* and *Political Science Research in Practice*.

B. Gregory Marfleet is the Dorothy H. and Edward C. Congdon Professor of Political Science at Carleton College. His research interests are

in the areas of foreign policy analysis, elite foreign policy decision-making, complex systems, and agent-based modeling in politics. He has published articles in *Political Psychology* and *Foreign Policy Analysis*. His research awards include a Harry Frank Guggenheim Foundation Fellowship.

Didara Nurmanova is a Research Fellow in the School of Politics, Security, and International Affairs at the University of Central Florida. Her research interests primarily center on comparative political behavior, including protests, public opinion, and voting with a regional focus on Russia and post-Soviet Eurasia. Her broader research interests include ethnic politics, political psychology, and foreign policy analysis.

Mark Schafer is a Professor of Political Psychology in the School of Politics, Security, and International Affairs at the University of Central Florida working primarily in the field of international relations. His research interests include groupthink, the operational code, and psychological correlates of foreign policy behavior. He has published his research in major journals such as *Journal of Politics*, *International Studies Quarterly*, and *Journal of Conflict Resolution*. He received the Erik Erikson Award for Early Career Achievement from the International Society of Political Psychology in 2003 and was honored with the Distinguished Scholar Award from the Foreign Policy Analysis Section of the International Studies Association in 2021.

Seyed Hamidreza Serri is an Assistant Professor of Security Studies at the University of North Georgia. His research interests focus on American foreign policy, foreign policy analysis, and international security. His two upcoming works include “League of Nations: Strategic Preferences of the United States at the End of WWI,” in *America and World War I*, edited by Craig B. Greathouse and Austin Riede and “Security and Military Power,” in *Prospectus for The Basics of World Politics: Theory and Practice*, edited by Dlynn A. Williams and Raluca Viman Miller.

Gary E. Smith is a Research Fellow at the University of Central Florida where he also serves as an Academic Advisor for Undergraduate Advising Services in the School of Politics, Security, and International Affairs. Additionally, he is an Adjunct Professor of Political Science at Valencia College. His research interests focus on civil conflict studies, elite decision-making, and political psychology. His research articles have appeared in *African Affairs*, *Politics*, and *PS: Political Science & Politics*. He has also coauthored contributions to the *Oxford Encyclopedia of Foreign Policy Analysis* and the *Oxford Handbook of Behavioral Political Science* and received the Roberta Siegel Award for Best Paper by an Early Career Scholar from the International

Society of Political Psychology in 2016 for his research coauthored with Rebecca Schiel.

Consuelo Thiers is a Ph.D. Candidate in Politics and International Relations at the University of Edinburgh. Her research interests focus on political psychology, foreign policy analysis, enduring rivalries, and Latin America. She has coauthored “Coding in tongues: Developing non-English coding schemes for leadership profiling” in the *International Studies Review* and received the Politics and International Relations Career development Ph.D. scholarship granted by the University of Edinburgh (2016–2019) plus the Santander kick-start research funding granted by the Centre for Contemporary Latin American Studies, University of Edinburgh (2018).

Niels van Willigen is an Associate Professor of International Relations in the Institute of Political Science at Leiden University. His research interests focus on foreign policy analysis, security studies (more in particular peace operations, arms control, and European security) and international organizations. His research articles have appeared in *International Peacekeeping*, *East European Politics*, and *Evaluation: The International Journal of Theory, Research and Practice*, and he has published a monograph *Peacebuilding and International Administration*. He received a NATO/EAPC Fellowship for a research project on European security and defense and participated in the ERASMUS + Network on Research and Teaching in EU foreign affairs (NORTIA).

Stephen G. Walker is a Professor Emeritus in the School of Politics and Global Studies at Arizona State University. His research interests focus on conflict management and resolution, foreign policy analysis, and political psychology. His research articles have appeared in *Political Psychology*, *Journal of Conflict Resolution*, and *International Studies Quarterly*, and he has published *U.S. Presidents and Foreign Policy Mistakes* coauthored with Akan Malici; *Role Theory and the Cognitive Architecture of British Appeasement Decisions*, and *Role Theory and Role Conflict in U.S.-Iran Relations* coauthored with Akan Malici. He received the Foreign Policy Section’s Distinguished Scholar Award from the International Studies Association in 2003.

Part I

**Beliefs and Roles in
World Politics**



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

1 The Interface between Beliefs and Roles in World Politics

Stephen G. Walker and Mark Schafer

Introduction

Nobel Laureate Herbert Simon proposed over 30 years ago the desirability of bridging the sciences of the mind (psychology) and the social sciences (political science) with the concept of bounded rationality (Simon 1985; see also Simon 1957, 1969). Lupia, McCubbins, and Popkin (2000, 12) commented 15 years later that “the scientific advances of the last four decades give us an opportunity that Simon did not have when he forged the concept of bounded rationality—the opportunity to build Simon’s bridge.” They identified advances in computer simulations of human information processing and new game theory models of decision-making under uncertainty as analytical tools that were not available to Simon when he first advocated this bridge. We began to apply those tools in the operational code research program over the next 5 years and presented the initial results in an edited volume (Schafer and Walker 2006).

We employ those same tools in this volume and report further progress toward Simon’s goal in the form of results from the research of a mix of senior scholars and a new generation of analysts over the past decade and a half. The results show that advances in the metrics of operational code analysis together with advances in the models of binary role theory “cross Simon’s bridge.” These advances synthesize the psychological beliefs of leaders and the social roles of states in world politics via statistical indices of bounded rationality and computational models of role theory dynamics to explain collective interaction patterns of cooperation and conflict by agents in world politics. The chapters in this volume report the results of different applications linking personality traits, operational code beliefs, and foreign policy roles in the subfield of foreign policy analysis (FPA) within the field of international relations (IR).

In this chapter, we present an outline of our main argument that an alliance of operational code metrics and role theory models can provide the actor-specific, situation-generic, and abstract-theoretical levels of knowledge necessary to link the individual cognitions of leaders and the collective decisions of states within an agent-based theory of strategic

interactions in world politics (George 1993). The details that provide the context for our argument are elaborated in [Chapter 2](#) along with a brief conceptual history and two possible future trajectories for the research program in operational code analysis. The subsequent chapters in [Parts II, III, and IV](#) of the volume contain studies of the different levels of foreign policy knowledge identified by George (1993). A concluding chapter in [Part V](#) provides an appraisal of our argument with various criteria for assessing progress in scientific research programs (Kuhn 1962; Lakatos 1970; Laudan 1977; Walker 2003; Jackson 2011).

Main Argument

Our main argument is made possible because of recent advances in operational code analysis and binary role theory (Walker, Malici, and Schafer 2011; Walker 2013, 2016; Malici and Walker 2017). The theoretical advances show how personality traits and operational code beliefs steer foreign policy decisions and evolve as larger patterns of foreign policy roles enacted by states as complex adaptive systems (CAS) in world politics. The methodological advances include the expansion of automated content analysis capabilities for retrieving operational code beliefs to include dictionaries in Spanish and Arabic as well as in English, the construction of new indices to measure operational code beliefs, and the disaggregation of belief indices to allow the targeted operational code analyses of strategic interaction patterns within different issue areas between role dyads plus facilitate the longitudinal analysis of belief changes (learning) and the evolution of roles in world politics.

The methodological advances accompany the collection, archiving, and coding of bigger data sets covering years, decades, and generations of statements and documents attributed to US leaders and presidential administrations, as well as other states and agents in world politics. The effects of these developments in instrumentation and data sets join with theoretical advances to extend the substantive advances in operational code analysis beyond the analysis of decisions by individual leaders. The scope of analysis extends to larger decision units such as single groups, bureaucratic organizations, and institutions within states plus the strategic interactions among dyads, triads, and larger ensembles of states, including other agents such as alliances, rivalries, terrorist networks, and international organizations in world politics.

The shift from the study of the belief systems of leaders as decision units to include states and other agents as decision units has led to a focus on role theory to organize and illuminate this expansion in the levels of analysis. Accompanying this expansion is a move to unify the study of FPA and IR as a hierarchy of CAS inspired by the earlier work of Simon (1969), Axelrod (1984), Jervis (1997), and Axelrod and Cohen (1999). FPA in this account focuses on subsystems of states as agents who interact within an

overarching regional, functional, or global system and which are themselves constituted internally as subsystems of institutions, organizations, groups, and leaders. While recognizing that these agents are entangled as a single overarching system, the nature of their hierarchical organization also makes them “nearly decomposable,” i.e., the interactions within agents as subsystems are stronger than the interactions between those agents as members of the larger system (Simon 1969, 99–103).

The implications of this feature as an organizing principle for unifying FPA and IR are illustrated below with the following brief examples from the study of American domestic politics and US foreign policy. The US political system’s three main branches of government, Executive, Congress, and Judiciary, have stronger interactions among organizations within each branch than between each branch. Each branch constitutes a subsystem within the larger US political system. Their horizontal organization as coequal branches is based on the separation of powers between them and locates them at the apex of the vertical organization defined by the federal division of power in the US political system between Washington, DC, and the 50 state political systems. These separation and division patterns in the “span of control” (Simon 1969, 89) characterize different subsystems as levels of analysis in American politics. Nevertheless, they are also levels in a hierarchical political system that is “nearly decomposable” while remaining connected as a larger complex system by the exercise of social power both within and between the agents that compose it.

Similarly, the organizational features of “near decomposability” and “complex connectivity” enable FPA and IR to retain their identities as a subfield and field, respectively, while communicating and coordinating research efforts across levels of analysis in the study of US foreign policy. FPA scholars can analyze interactions among American institutions of government that make US foreign policy decisions to exercise social power in world politics, while IR scholars can study the United States as a member of regional or functional subsystems as agents within the larger global system of world politics.

Role Theory

Is it possible to move beyond this division of labor between FPA and IR to communicate and coordinate research efforts within the context of an effective theory of foreign policy that also interfaces with a unifying theory of world politics (Hudson and Day 2020, 209–215)? Role theory offers the promise of fulfilling this possibility in the study of world politics (Walker 1987, 241–259; Thies 2010; Walker, Malici, and Schafer 2011, 245–282; Walker 2013, 186–194; Walker 2016). Role theory is both a psychological and a social theory of human behavior. These two features make it especially suitable for the task of analyzing and synthesizing different levels of world politics ranging from the psychological

characteristics and actions of individual world leaders to the social exercise of power among leaders, single groups, and coalitions of agents that constitute the states and subsystems in the global system of world politics.

Role theory as an empirical theory of IR has an underlying logical structure with the ability to generate different models of cooperation and conflict in world politics at multiple levels of analysis: system-oriented models of incentives and role demands, actor-centered models of role conceptions and expectations, and action-focused models of cues and role enactment. An emphasis at each of these levels of analysis on strategic interaction positions role theory as a theory of IR between Ego and Alter as well as a theory of their respective foreign policy decisions (Walker 2016; Malici and Walker 2017). However, previous assessments of role theory applications to FPA and IR have characterized the first and second waves of role theory studies as conceptually rich but methodologically poor (Walker 1987, 2016, 2; Thies 2010; Breuning 2011).

With some significant exceptions, the concepts of role theory were used initially for framing historical narratives that provided “thick descriptions” (Geertz 1973) of single cases to identify the role conceptions of leaders in the first wave or the role demands on states in the second wave. These applications of role theory focused on agent-centered foreign policy decisions rather than on the interactions within and among agents. Therefore, they did not employ or emphasize the concepts of role conflict, role competition, role contestation, role transition, and role evolution in role theory, which could have expanded the application of role theory from FPA to the analysis of IR. More recently, a third wave of role theory applications to world politics has begun to address the social dynamics of IR as well as the psychological dynamics of foreign policy decision-making (Walker 2016; see also Thies 2013; Walker 2013; Cantir and Kaarbo 2016; Malici and Walker 2017; Thies and Nieman 2017).

We position the binary role theory in our edited volume within this third wave of role theory scholarship. An alliance of operational code metrics and role theory concepts offers a way for role theory to analyze systematically the complex connections linking the microlevel, individual cognitions of leaders with the meso-level, collective decisions by states and ultimately to the macro-level, systemic outcomes generated by their strategic interactions. The metrics of operational code beliefs provide role theory with the building blocks for “crossing Simon’s bridge,” the project advocated by Nobel Laureate Herbert Simon to link “the sciences of the mind and the social sciences such as economics and political science” (Lupia, McCubbins, and Popkin 2000, 12; see also Simon 1969).

Bounded Rationality

Simon (1985) suggested “bounded rationality” as the basic concept for bridging the gap between individual cognitions that are the focus of the

sciences of the mind and collective decisions that are the focus of political science. Operational code analysis employs several mechanisms in the elaboration of bounded rationality as the basis for a psychological explanation of human decision-making. Cognitive, emotional, and motivational elements of human nature interact as psychological mechanisms that receive and process information. They limit an organism's response to the environment by functioning "as *internal* boundaries on the organism's ability to make rational choices within the *external* boundaries that constrain the possibilities for taking actions to protect or achieve goals" (Walker 2013, 117).

The architecture for how these elements interact to generate decisions by individual leaders as a state's decision unit in a social system is diagrammed in Figure 1.1. Neuroscientists have identified the neural networks of cognition, emotion, and motivation, respectively, which influence an individual's decisions (Ledoux 2002). They specify information about what the individual knows (cognition), feels (emotion), and wants (motivation) regarding the exercise of power by the self toward others in a social environment (Schafer and Walker 2006, 27–30). Simon (1985) distinguishes decisions based on feelings unmediated by cognitions or motivations as instances of "radical irrationality," which are relatively rare unless the decision maker is under considerable stress or surprised (M. Hermann 1979; C. Hermann, 1969; Walker and Watson 1992). Nevertheless, the emotion network reacts to stimuli from the environment faster than the other two networks and influences the responses and interactions of cognitions and motivations as the more rational processes for making decisions (Zajonc 1980; Neumann 2007).

The interaction among these three neural networks represents a model of bounded rationality: positive or negative feelings from the emotional network, motivated biases from the motivational network, and limits on the ability to store and retrieve information from the cognitive network

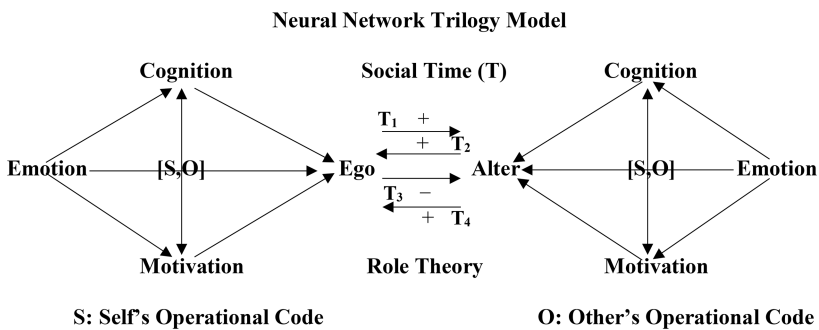


Figure 1.1 Neural Network Trilogy Model of Role Theory*

*Ego: Crusoe; Alter: Friday. T: Time; S: Self (Crusoe); O: Other (Friday). Positive sanction: (+); negative sanction (-).

interact to generate an imperfect response that does not meet the optimal standards of a decision-making model of “substantive rationality” governed by exact cost-benefit calculations and goal maximization (Simon 1985; Lau 2003). Instead, the interactions among these three networks are a satisficing rather than optimizing process of reaching goals and estimating rather than calculating the costs and benefits of ends/means relationships (Simon 1957, 1985; Mintz 1997, 2002; Lau 2003; Walker 2009).

The bounded rationality model in [Figure 1.1](#) also depicts an example of the exercise of social power by two individuals in the simplest version of a political system, namely, when politics begins as Crusoe meets Friday in Daniel Defoe’s famous novel about a shipwrecked sailor (Robinson Crusoe) who encounters a native on an isolated desert island (Walker, Malici, and Schafer 2011, 45). Crusoe names the native “Friday” after the day in the week when they had their first encounter. The novel can be read as a parable about English colonialism in the 17th century when the British Empire expanded across the globe, and more broadly, about the logic of Western imperialism’s expansion of world politics into what is today the Global South (Shinagel 1994). Friday becomes Crusoe’s “man Friday” in the novel, as their relations evolve from their initial interactions into a master–servant role dyad. This evolution in their social relations is defined in [Figure 1.1](#) by the exercise of social power between them as they exchange positive (+) sanctions (appeal/promise/reward) or negative (–) sanctions (oppose/threaten/punish).

The evolutionary pattern of relations between Crusoe and Friday over time in [Figure 1.1](#) is shown by the arrows connecting Ego and Alter at successive time periods ($T_1 T_2 T_3 T_4$), which depict the following sequential pattern in the exchange of cues (signals) between Crusoe (Ego) and Friday (Alter): {+ + – +}. This pattern defines their respective roles as Patron (+ + –) and Client (+ – +), respectively, as Crusoe and Friday exchange positive cues (+ +) at $T_1 T_2$ and then mixed signals (– +) at $T_3 T_4$. The first pair of signals defines their relations as friendly (+), hostile (–), or mixed (\pm), while the second pair of signals defines their power relations as either symmetrical (=) or asymmetrical (< or >), depending on whether the pair is identical (+ + or – –) or not (+ – or – +). The inferences about roles are drawn from binary role theory, which employs metrics from operational code analysis to infer the roles of Patron and Client for Self and Other in [Figure 1.1](#) from their exchange of cues as Ego and Alter (Walker 2013).

The sources of the roles attributed to Ego and Alter in [Figure 1.1](#) are the respective operational code beliefs emanating from the interaction between their respective cognitions and motivations, which are extracted from texts (fictional in this example) either authored as first-party accounts by the two members of the role dyad or extracted from third-party accounts by an audience of contemporary observers (other agents and journalists) or subsequently by historians and political scientists.

These sources rely on the logic of a language network to retrieve and analyze this information. The logic may be either a grammatical system or a mathematical system, which can be translated from one system to another. A common example is Morse code, which can translate sequences of letters for words into sequences of dots and dashes for the same words. In turn, dots and dashes can be translated into 0s and 1s and the information coded in the binary language of a computer program with mathematical operators and formulas as the grammar (Lloyd 2007).

These steps for translating letters of the alphabet into mathematical symbols are similar to the grammar of the Verbs in Context System (VICS) of content analysis, which is the language system for retrieving operational code beliefs as the basis for the roles in Figure 1.1. VICS provides a common language of mathematical symbols to retrieve both mental events (cognitions, emotions, and motivations) and social events (positive and negative sanctions) from different alphabetical languages, e.g., English, Spanish, Arabic, so long as dictionaries are available to match the relevant vocabularies of words from each language with each other (Brunner and Young 2020). The recursive logic of the language network that connects operational code beliefs and social roles is represented in Figure 1.2.

The belief and role networks in Figure 1.2 are linked by a language network along with the formulas for calculating the key VICS indices that define the belief networks of Self and Other and the corresponding roles for Ego and Alter. The logical steps in constructing the key VICS indices from observations in the language network at the center of Figure 1.2 are given in the formulas for the Self and Other indices at the bottom of the figure. The transitive verbs containing images of the exercise of power attributed to Self (S) and Other (O) are represented in the a, b, c, d cells of the language network. The respective percentage differences in these observations are the elements of positive (+) or negative (-) sanctions attributed to Self $(a - b)/(a + b)$ and Other $(c - d)/(c + d)$ in the text

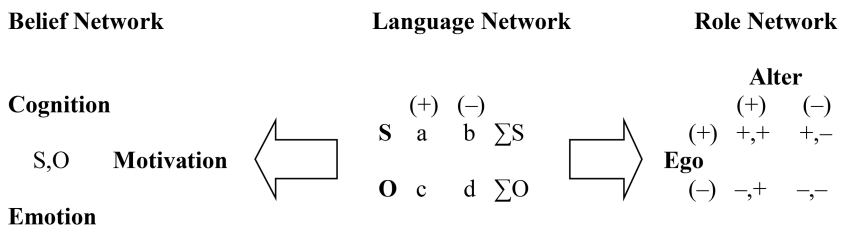


Figure 1.2 Belief, Language, and Role Networks for Constructing Key VICS Indices*

*Self VICS indices: approach to strategy: $S = [(a - b)/(a + b)]$; historical control: $S = [\Sigma S - \Sigma O] / [\Sigma S + \Sigma O]$.
 Other VICS indices: political universe: $O = [(c - d)/(c + d)]$; historical control: $O = [\Sigma O - \Sigma S] / [\Sigma S + \Sigma O]$.

under analysis, and the percentage differences in their respective sums are the historical control indices for Self $[\Sigma S - \Sigma O] / [\Sigma S + \Sigma O]$ and Other $[\Sigma O - \Sigma S] / [\Sigma S + \Sigma O]$.

The VICS rules for retrieving the information for these indices from a text include the following steps: (1) identify the relevant transitive verbs from a language attributed to the speaker and other agents of interest to the analyst; (2) count the number of transitive verbs attributed to each agent; (3) calculate the percentages for different kinds of transitive verbs attributed to each agent; (4) combine these percentages into different indices of the exercise of power by different agents; and (5) infer from these attribution patterns the diagnostic, choice, and shift propensities of relevant agents to exercise positive (+) or negative (−) sanctions toward one another (Schafer and Walker 2006).

Finally, use the rules of binary role theory (not shown in [Figure 1.2](#)) to identify the sequential patterns of behavior attributed as roles to different agents, which emerge from the analysis of their different propensities to exercise positive (+) and negative (−) sanctions. Then construct as mathematical game matrices the role network of their social interactions from the intersection of these roles. Binary role theory employs the rules of sequential game theory developed by Brams (1994) to solve these games and assess the fit between these models for the strategies and outcomes that define the relations between Ego and Alter. Conversely, if strategies and outcomes are known, it is possible to infer from the game between them the operational code beliefs that specified the roles of the agents (players). These possibilities make binary role theory a recursive hierarchical model of IR specified by the mathematical logic of game theory and the statistical metrics of operational code analysis (Walker 2013; Malici and Walker 2017).

Beliefs and Roles: Alliance Benefits

An alliance of beliefs and roles to specify games of strategic interaction goes beyond the separate study of FPA and IR toward integration with a common set of concepts, models, and metrics. The “nearly decomposable” relationship between the decisions of agents as subsystems and their roles as members of a larger system allows scholars of FPA and IR theory to pursue separate research agendas with middle-range theories of beliefs and foreign policy decisions that are nonetheless guided by models that are isomorphic (share consistent logics) and commensurable (share identical metrics) within a general role theory of world politics. Moreover, the products of these efforts at different levels of aggregation and analysis yield conceptual insights and empirical results that answer questions raised by both scholars and practitioners, thereby “bridging the gap” regarding foreign policy in theory and practice between the academic and policy communities (George 1993).

This volume contains only studies that have employed statistical indices and computer algorithms from the VICS of content analysis (Walker, Schafer, and Young 1998; Young 2001; Schafer and Walker 2006). This methodological focus provides more coherence to the collection of papers at the risk of losing “the idiosyncrasies of the case which, at times, may be critical to understanding why a leader is acting in a specific manner. Much of this richness is lost in a number-based approach” (Young and Schafer 1998, 72, cited by Malici 2017, 28–29). Offsetting this risk is the ability of categories to allow counterfactual analysis from a comparative perspective and thereby minimize committing “the fallacy of misplaced concreteness,” which is to mistake a particular interpretation of a case as the only one (Whitehead 1948, 52; see also Hedstrom and Swedberg 1998, 15; Post and Walker 2003, 403; Walker and Malici 2011, 297 and 317, n. 2).

The authors of the chapters in this volume strike a balance in managing these risks by including a discussion of the qualitative features of their cases and embedding the quantitative results within the context of a relevant analytical narrative (Bates et al. 1998). Scholars and practitioners who are interested in actor-specific models of particular leaders or states can employ the metrics of operational code analysis to identify the roles and corresponding strategies that those leaders attribute to themselves and others in the political universe. As George (1993, xvii) points out, policymakers also need generic knowledge about actors in situations, i.e., generalizable knowledge about leaders who occupy roles in the same state or other institutions over time or who face similar situations or challenges. Finally, both scholars and policymakers need abstract-theoretical knowledge about the conceptualization of strategies, “a conceptual framework for each of the many different strategies and instruments available for ... attempting to influence other states” (George 1993, xvii; see also Aron 1967). The book’s organization reflects the demand for these different kinds of knowledge by scholars and practitioners.

In **Part II**, *The Operational Codes of World Leaders*, five chapters provide *actor-specific knowledge* of leaders for practitioners and geographic area experts, including Vladimir Putin of Russia; US presidents Bush 43, Obama, and Trump; Bolivian president Morales; Sri Lankan president Kumaratunga; and leaders of various terrorist groups operating in the Middle East and North Africa (MENA). They employ single-case and small-N research designs with structured-focused comparison methods to understand changes in a leader’s belief system over time or to highlight differences across leaders and between their respective organizations. This actor-specific knowledge is valuable information for practitioners, in order to avoid or remedy foreign policy mistakes (Walker and Malici 2011). Some chapters extend the analytical focus to include the agreement between a leader’s beliefs and the beliefs embodied in a state’s policy documents or to link beliefs and domestic or foreign conflict behavior. Others employ new

methodological tools, such as VICS dictionaries in the native languages of the speakers, e.g., Spanish or Arabic, instead of English.

In **Part III**, *The Psychological Characteristics of US Presidents*, the contributors focus on *situation-generic knowledge* about situations and generalizations about a sample of leaders rather than on actor-specific models of particular US presidents. The samples of leaders shared by these studies are occupants of the White House from James Monroe to Barack Obama. The authors employ sampling and large-N research designs to introduce a new Psychological Characteristics of Leaders (PsyCL) data set containing the operational code beliefs of US presidents from the early 1800s to the present. Also coded are other psychological characteristics from the Leadership Trait Analysis (LTA) research program, such as distrust, belief in ability to control events (BACE), and self-confidence, which permit the investigation of the origins of operational code beliefs in the personalities of leaders (M. Hermann 2003).

One chapter links composite models of LTA and operational code analysis (OCA) variables to the conduct of foreign conflict behavior by US presidents, such as the initiation or escalation of militarized interstate disputes (MIDS) while controlling for various systemic-level variables, e.g., power level, contiguity, and joint democracy. Three other chapters address the evolution of US conflict behavior in the 20th century as the product of the interaction between presidential leadership and international norms, probe more deeply into the link between LTA personality variables and cognitive threat perceptions measured with OCA belief variables, and investigate learning effects and the electoral success exhibited by US presidents over time. Collectively, the analyses in these four chapters offer evidence on behalf of generic knowledge of the US presidency rather than a detailed analysis of specific US presidents.

In **Part IV**, *Computational Models of Foreign Policy Roles*, the focus is on *abstract-theoretical knowledge* of strategies and modeling strategic interactions among dyads and the evolutionary patterns among states in different regional and world systems. The emphasis is explicitly on the task of aggregation from the actor-specific level of operational code analysis to the general-systemic level of role theory. Two chapters employ VICS indices to link agent-based, decision-making variables such as strategic culture, social identities, and national interests with strategic outcomes of settlement, deadlock, domination, or submission between state dyads in world politics. In particular, the link between different VICS belief indices about the nature of the political universe, the optimal strategies for exercising social power in the form of positive and negative sanctions, and control over historical development are linked to the emergence of variants within families of the foreign policy roles of friend, partner, rival, and enemy in world politics.

Two other chapters employ computational modeling to demonstrate that, depending on the mix of foreign policy roles across states,

simulations of their interactions generate different distributions of the strategies of appeasement, bandwagoning, balancing, and hegemony. The analysis of the ensuing strategic interaction games suggests a solution to the empirical historical puzzle of how and why balancing strategies are relatively rare and often unsuccessful in the histories of international systems outside the European international system covering over 2000 years of world politics (Wohlforth et al. 2007; Kaufman et al. 2007).

In [Part V](#), *Beyond Beliefs in World Politics*, we revisit whether the chapters in this volume support the main argument about the synergistic effects of an alliance between the metrics of the research program in operational code analysis and the models of binary role theory. As a “theory complex,” do they make progress in crossing Simon’s bridge between FPA and IR while bridging the gap between theory and practice in FPA (George 1993; Hudson and Day 2020)? We also assess the results of the analyses in the preceding chapters with criteria for identifying scientific progress in IR theory from philosophers of science (Kuhn 1962; Lakatos 1970; Laudan 1977; Jackson 2011; see also Walker 2003; Elman and Elman 2003; Walker and Schafer 2010). We contextualize these assessments further with the criteria suggested by Greenstein (1987) and Smith (1968) for evaluating progress in solving problems of evidence, inference, and conceptualization in psychological explanations of politics.

Conclusion

We turn now to [Chapter 2](#) to present a more detailed and contextualized version of the main argument outlined in this chapter regarding belief metrics and role theory in the development of foreign policy roles as complex adaptive social systems. The details include conceptualizing the operational code construct as a set of key philosophical and instrumental beliefs constituting the operational code as a political belief system and a code of conduct for the exercise of social power in world politics (George 1969; Haas 2020). We also demonstrate in more detail how operational codes are the building blocks for drawing inferences about an agent’s strategies in making foreign policy decisions and enacting roles in world politics. We discuss as well solutions to the problem of identifying patterns of decision-making and role enactment by the different kinds of agents (individual leaders, single groups, coalitions, and states) that are focal actors in subsequent chapters of this book.

This analysis will support our claim that aggregations of these agents interacting in world politics constitute CAS, which can be modeled and measured with the analytical tools provided by sequential game theory and binary role theory (Holland 2012; Brams 1994; Walker, Malici, and Schafer 2011; Malici and Walker 2017). We demonstrate in subsequent chapters that substantive, methodological, and theoretical progress over the past decade and a half has extended well beyond beliefs as the central

focus of the operational code research program. The patterns of progress extend in the two directions foreshadowed in the prototypical operational code study of the Bolsheviks by Leites (1951, 1953) at the Rand Corporation during the early years of the Cold War. He focused on the psychological origins of Soviet beliefs about the distribution and exercise of political power embedded in the personalities of leaders and extended his analysis as well to focus beyond the beliefs shared by leaders in the Soviet Politburo to the cultural origins of their beliefs and their impact on groups, institutions, and states as agents and ultimately to the dynamics of regional and global systems in world politics.

References

- Aron, R. 1967. *Peace and war: A theory of international relations*. New York, NY: Praeger.
- Axelrod, R. 1984. *The evolution of cooperation*. New York, NY: Basic Books.
- Axelrod, R., M. Cohen 1999. *Harnessing complexity*. New York, NY: Free Press.
- Bates, R., A. Greif, M. Levi, J. Rosenthal, B. Weingast. 1998. *Analytic narratives*. Princeton, NJ: Princeton University Press.
- Brams, S. 1994. *Theory of moves*. Cambridge: Cambridge University Press.
- Breuning, M. 2011. Role theory research in international relations: State of the art and blind spots. In *Role theory in international relations: Approaches and analysis*, eds. S. Harnisch, C. Frank, and H. Maull, 16–35. New York, NY: Routledge.
- Brunner, K., M. Young, O. Özdamar, S. Canbolat, C. Thiers, C. Rabini, and A. Mehvar. 2020. Coding in Tongues: Developing Non-English Coding Schemes for Leadership Profiling. *International Studies Review*, 22(4): 1039–1067.
- Cantir, C., J. Kaarbo. 2016. *Domestic role contestation, foreign policy, and international relations*. New York, NY: Routledge.
- Elman, C., M. Elman. 2003. *Progress in international relations theory*. Cambridge: MIT Press.
- Geertz, C. 1973. Thick description: Toward an interpretive theory of culture.” In *The interpretation of cultures*, 13–30. New York, NY: Basic Books.
- George, A. 1969. The operational code: A neglected approach to the study of political leaders and decision making. *International Studies Quarterly* 23: 190–222.
- George, A. 1993. *Bridging the gap: Theory and practice in foreign policy*. Washington, DC: United States Institute of Peace Press.
- Greenstein, F. 1987. *Personality and politics*. 2nd Edition. Princeton, NJ: Princeton University Press.
- Haas, M. 2020. Operational codes in foreign policy: A deconstruction.” In *The Oxford research encyclopedia of international studies*. DOI: [10.1093/acrefore/9780190846626.013.539](https://doi.org/10.1093/acrefore/9780190846626.013.539).
- Hedstrom, P., R. Swedberg. 1998. *Social mechanisms*. Cambridge: Cambridge University Press.
- Hermann, C. 1969. *Crises in foreign policy*. Indianapolis, IN: Bobbs-Merrill.
- Hermann, M. 1979. Indicators of stress in policymakers during foreign policy crises. *Political Psychology* 1(1): 27–46.
- Hermann, M. 2003. Assessing leadership style. In *The psychological assessment of political leaders*, ed. J. Post, 178–212. Ann Arbor, MI: University of Michigan Press.

- Holland, J. 2012. *Signals and boundaries: Building blocks for complex adaptive systems*. Cambridge: MIT Press.
- Hudson, V., B. Day. 2020. *Foreign policy analysis: Classical and contemporary theory*. 3rd Edition. Lanham: Rowman and Littlefield.
- Jackson, P. 2011. *The conduct of inquiry in international relations*. New York, NY: Routledge.
- Jervis, R. 1997. *System effects*. Princeton, NJ: Princeton University Press.
- Kaufman, S., R. Little, W. Wohlforth. Eds. 2007. *The balance of power in world history*. New York, NY: Palgrave-Macmillan.
- Kuhn, T. 1962. *The structure of scientific revolutions*. Chicago, IL: University of Chicago Press.
- Lakatos, I. 1970. Falsification and the methodology of scientific research programs. In *Criticism and the growth of scientific knowledge*, eds. I. Lakatos, A. Musgrave, 91–196. Cambridge: Cambridge University Press.
- Lau, R. 2003. Models of decision-making.”. In *The Oxford handbook of political psychology*, eds. D. Sears, L. Huddy, R. Jervis, 19–59. New York, NY: Oxford University Press.
- Laudan, L. 1977. *Progress and its problems*. Berkeley, CA: University of California Press.
- Ledoux, J. 2002. *Synaptic self: How our brains become who we are*. New York, NY: Viking Press.
- Leites, N. 1951. *The operational code of the politburo*. New York, NY: McGraw-Hill.
- Leites, N. 1953. *A study of bolshevism*. New York, NY: Free Press.
- Lloyd, S. 2007. *Programming the universe*. London: Vintage Books.
- Lupia, A., M. McCubbins, and S. Popkin. Eds. 2000. *Elements of reason: Cognition, choice, and the boundaries of rationality*. New York, NY: Cambridge University Press.
- Malici, A. 2017. Foreign policy belief systems and operational code analysis. In *The Oxford research encyclopedia of politics*, 1–38. Oxford University Press. Online Publication Date: Oct 2017. DOI: [10.1093/acrefore/9780190228637.013.459](https://doi.org/10.1093/acrefore/9780190228637.013.459).
- Malici, A., S. Walker. 2017. *Role theory and role conflict in U.S.-Iran relations*. New York, NY: Routledge.
- Mintz, A. 1997. The poliheuristic theory of decision making.”. In *Decision making on war and peace*, eds. N. Geva, A. Mintz, 81–102. Boulder: Westview.
- Mintz, A. 2002. *Integrating cognitive and rational theories of foreign policy decision making*. New York, NY: Palgrave.
- Neumann, W. Ed. 2007. *The affect effect*. Chicago, IL: University of Chicago Press.
- Post, J., S. Walker. 2003. Assessing leaders in theory and practice. In *The psychological assessment of political leaders*, ed. J. Post, 399–412. Ann Arbor, MI: University of Michigan Press.
- Schafer, M., and S. Walker. Eds. 2006. *Beliefs and leadership in world politics*. New York, NY: Palgrave.
- Shinagel, M. Ed. 1994. *Robinson Crusoe*. New York, NY: W.W. Norton.
- Simon, H. 1969. *Sciences of the artificial*. Cambridge: MIT Press.
- Simon, H. 1985. Human nature in politics. *American Political Science Review* 79(2): 293–304.
- Smith, M. B. 1968. A map for the analysis of personality and politics. *Journal of Social Issues* 24: 15–28.
- Thies, C. 2010. Role theory and foreign policy. In *The international studies encyclopedia*, ed. R. Denemark, 6335–56. Vol. X. Oxford: Blackwell.

- Thies, C. 2013. *The United States, Israel, and the search for international order*. New York, NY: Routledge.
- Thies, C., M. Nieman. 2017. *Rising powers and foreign policy revisionism*. Ann Arbor, MI: University of Michigan Press.
- Walker, S. 1987. *Role theory and foreign policy analysis*. Durham, NC: Duke University Press.
- Walker, S. 2003. Operational code analysis as a scientific research program. In *Progress in international relations theory*, eds. C. Elman, M. Elman, 245–276. Cambridge: MIT Press.
- Walker, S. 2009. The psychology of presidential decision making.”. In *The Oxford handbook of the American presidency*, eds. G. Edwards, W. Howell, 550–576. New York, NY: Oxford University Press.
- Walker, S. 2013. *Role theory and the cognitive architecture of British appeasement decisions*. New York, NY: Routledge.
- Walker, S. 2016. Role theory as an empirical theory of international relations. In *The Oxford research encyclopedia of empirical international relations theory*, ed. W. Thompson. New York, NY: Oxford University Press.
- Walker, S., A. Malici. 2011. *U.S. Presidents and foreign policy mistakes*. Stanford, CA: Stanford University Press.
- Walker, S., M. Schafer. 2010. Operational code theory: Beliefs and foreign policy decisions. In *The international studies encyclopedia*, ed. R. Denmark, 5493–5514. Vol. VIII. Chichester: Wiley-Blackwell.
- Walker, S., G. G. Watson. 1992. The cognitive maps of British leaders, 1938–39. In *Political psychology and foreign policy*, eds. E. Singer, V. Hudson, 31–58. Boulder, CO: Westview.
- Walker, S., A. Malici, M. Schafer. 2011. *Rethinking foreign policy analysis: States, leaders, and the microfoundations of behavioral international relations*. New York, NY: Routledge.
- Walker, S., M. Schafer, M. Young. 1998. Systematic procedures for operational code analysis. *International Studies Quarterly* 42: 175–190.
- Whitehead, A. 1948. *Science and the modern world*. New York, NY: New American Library.
- Wohlforth, W., R. Little, S. Kaufman, D. Kang, C. Jones, V. Tin-Bor Hui, A. Eckstein, D. Deudney, W. Brenner. 2007. Testing balance-of-power theory in world history. *European Journal of International Relations* 13: 155–185.
- Young, M. 2001. Building world views with profiler+. In *Progress in communication sciences*, ed. M. West, 17–32. Vol. 17. Westport: Ablex Publishing.
- Young, M., M. Schafer. 1998. Is there method in our madness? *Mershon International Studies Review* 43: 63–96.
- Zajonc, R. 1980. Feeling and thinking: Preferences need no inferences. *American Psychologist* 39(2): 151–175.

2 The Development of Foreign Policy Roles

Beliefs and Complex Adaptive Systems

Stephen G. Walker

Introduction

The goal in this chapter is to demonstrate in detail the main argument in this volume that the theoretical and methodological logics governing the formation and identification of a leader's operational code as a system of *beliefs* also govern a state's operational code as a system of *roles*. Similar aggregation processes apply in both the organization of the *cognitive* operational code of an individual and the *social* operational code of a state. Both the individual and the state are agents in subsystems within larger systems, in which the logic of complex adaptive systems (CAS) can account for regularities in the exchange of information as the exercise of social power between agents as members of systems in a dynamic environment (Simon 1969; Gell-Mann 1994; Holland 2012). Beliefs define an individual's operational code of instrumental and philosophical beliefs about the exercise of social power (acts of cooperation and conflict) by Self and Other; those beliefs can also define a state's operational code regarding the exercise of social power between states as agents (Ego and Alter) enacting roles in world politics.

Social roles are defined and beliefs are attributed to an agent in the form of role conceptions (RC) for Ego (Self) and role expectations (RX) for Alter (Other) regarding role enactments (REs) as the exercise of social power between Ego and Alter (Holsti 1970; Walker 1987; Malici and Walker 2017). In this account RC and RX at the state level of analysis perform the prescriptive and diagnostic functions of instrumental and philosophical beliefs at the individual level of analysis. Beliefs at both levels of analysis follow the same organizational logic. Beliefs aggregate to display an individual's diagnostic and choice propensities regarding interactions with the environment, which also includes other agents. Their subsequent interactions generate social patterns of behavior

between them, which are hypothesized to be congruent (match up) with the cognitive patterns of their beliefs.

The sources of beliefs in an individual include relevant personality traits, which reflect inherited genes that interact in different combinations to produce them (Nowak 2006). All beliefs are “learned” from interaction by agents with the environment, in which some are transmitted directly as memes from cultural sources while others are generated by the reactions of agents and interactions with the individual’s personality traits. The individual’s environment may also enhance or depress the influence of some genes, which makes the causal story of the sources of beliefs even more complex (Dawkins 1999, 1996; Edey and Johanson 1989; Nowak 2011).

The following propositions summarize a general model of the origins of operational code beliefs, which incorporate genetic and environmental sources (Walker 1983, 2003; Walker and Falkowski 1985; Walker, Malici, and Schafer 2011, 54–55):

Prop. 1. As a result of inherited personality traits interacting with childhood and early adult socialization experiences in family and society, an individual acquires the dominant motivational needs for power, affiliation, and achievement in his personality and the instrumental and philosophical beliefs regarding the exercise and distribution of social power in his operational code.

Prop. 2. An individual tends to adopt an operational code that is compatible with the constellation of the needs for power, affiliation, and achievement in his personality.

Prop. 3. Although an individual’s operational code may develop a consistency that is independent from random fluctuations in immediate personal needs, the activation of these beliefs by environmental stimuli may arouse personal needs embedded in the belief system as the individual uses the various elements of his operational code to interpret and act in a decision-making situation.

Prop. 4. Once aroused, these motivational needs may contribute to the cognitive rigidity of an individual’s belief system and account for the intensity of cognitive dissonance and behavioral intransigence in the face of new information from the environment or other stimuli from the environment.

Prop. 5. Conversely, vivid stimuli or changes in context, respectively, may lead to behavioral change in the form of social learning or structural adaptation and even cognitive change in the form of experiential learning (changes in beliefs).

Can this model of the origins of an individual’s operational code beliefs be extended to include the origins of foreign policy roles attributed to groups, institutions, and states, along with the trace effects of inherited

personality traits? The short answer is “yes,” but with some important qualifications.

The Origins of Beliefs and Roles

Individuals, groups, institutions, and states are all agents, which are also members of systems. However, they are “nearly decomposable,” which means that the coherence and intensity of interactions within each of them as smaller *subsystems* are more intense than the relatively weak interactions among them that aggregate and constitute a larger *system* (Simon 1969, 99–103). That is, the boundaries for each of these subsystems make them semi-independent from one another as agents unless one level of organization absorbs one or more of the others. The two extremes that illustrate this possibility are (1) a political system in which a leader absorbs the other units so that “L’état, cest moi” (I am the state), to quote the French king Louis XIV (Tucker 1965) and (2) a totalitarian system in which the state as an institution penetrates the lives of its groups and individuals so that they lose their autonomy of thought and action (Tucker 1963). This aspiration to control the thoughts and beliefs of individuals is attributed to Communist and Nazi political systems in the 20th century, often headed by a supreme leader, making the distinction between (1) and (2) somewhat moot (Tucker 1965).

Predominant Leader Model

The personality-and-culture sources in Propositions 1–5 of an individual’s operational code as a psychocultural construct are modeled in [Figure 2.1](#) in the simplest case of a predominant leader. The psychological and social sources of the key beliefs in an agent’s operational code in this figure are personality traits and cultural norms, respectively, inherited from parents or acquired from agents of socialization that define a society’s social structure and the individual’s niche within it. The acquired socialization experiences come from “distal social antecedents” in the form of big historical events, such as wars, famines, or depressions, or the social norms acquired from them indirectly and transmitted to the individual by family, group, or societal institutions. In addition, “immediate social antecedents” transmit cultural social norms to individuals through personal life experiences in situations as members of families or broader reference groups such as socioeconomic classes within a society (Smith 1968).

Reading from left to right and following the arrows in [Figure 2.1](#), individuals with different personality traits are socialized into their societies and acquire key beliefs about I-1 Approach to Strategy, P-1 Nature of the Political Universe, and P-4 Control over Historical Development (see [Appendix](#)) regarding the exercise and distribution of social power in families, reference groups, and the society’s government. These key beliefs

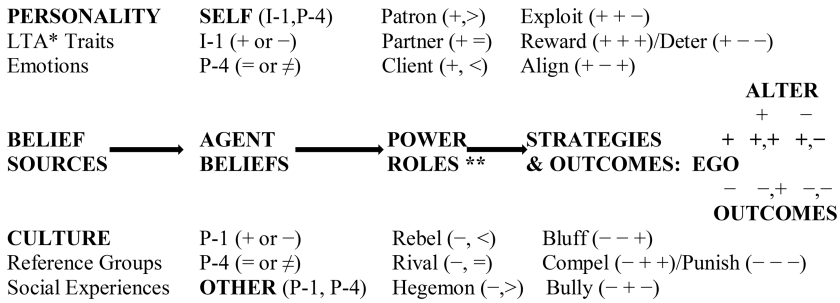


Figure 2.1 Origins of Operational Code Beliefs and Power Roles for Predominant Leaders

*Leadership Personality Analysis traits are identified by Hermann (2003, 181) to be related to leadership style, defined as “the ways in which leaders relate to those around them—whether constituents, advisers, or other leaders—and how they structure interactions and the norms, rules, and principles they use to guide such interactions.” LTA traits include (1) a belief in ability to control events, (2) need for power, (3) self-confidence, (4) conceptual complexity, (5) task focus, (6) in-group bias, (7) distrust of others, which combine in pairs to define different dimensions of leadership style: (1) and (2) dispose leaders to respect or challenge political constraints in the environment, (3) and (4) incline them to be open or closed to incoming information, (5) provides motivations for seeking leadership positions, and (6) and (7) motivate leaders on how to respond to threats and problems by dealing and solving versus eliminating them (Hermann 2003, 184–203). **I-1 or P-1 belief index specifies cooperation (+) or conflict (–) role; P-4 index specifies equal (=) or unequal (≠), i.e., weak (<) or strong (>) role for Self or Other.

become the core of an individual’s operational code and collectively interact to locate the individual’s *power roles* assigned to Self and Other within the context of different institutions and social situations. The six possible power roles for Self and Other shown in Figure 2.1 are the three cooperation (+) roles of client (+, <), partner (+, =), and patron (+, >) in the top half of this figure versus the three conflict (–) roles of rebel (–, <), rival (–, =), and hegemon (–, >) in the bottom half of the figure. They are defined by the intersection of the I-1 and P-4 beliefs for Self and the intersection of the P-1 and P-4 beliefs for Other (Walker 2013).

In turn, these power roles are associated with different RE strategies, which intersect to answer Lenin’s *kto-kovo* (who-controls-whom) question identified by Leites (1951, 1953) about the mediation of Self-Other relations in politics and locate the outcome as a pattern of *social power relations* between Ego (Self) and Alter (Other) in one of the cells in the Ego, Alter matrix of outcomes at the right-hand edge of the figure. The four cells of the (Ego, Alter) matrix show their power relations at a given point in time as mutual cooperation (+, +) in the upper left cell, submission/domination (+, –) in the upper right cell, mutual conflict (–, –) in the lower right cell, or domination/submission (–, +) in the lower left cell.

For example, if Ego's role is Patron and Alter's role is Client, then Ego's strategy is Exploit (+ + -) and Alter's strategy is Align (+ - +) in Figure 2.1. The intersection of their respective strategies is {+ + - +}, which is the sequence of alternating decisions to choose cooperation (+) by Ego, cooperation (+) by Alter, conflict (-) by Ego, and cooperation (+) by Alter. The enactment of their respective roles is a role location process with an outcome that both defines their roles {E,A: Patron, Client} and specifies their power relations (- +) in the lower left cell, in which Ego dominates and Alter submits.

This example illustrates the potential of the operational code analysis (OCA) model in Figure 2.1 to explain the outcomes of social power relations under the restricted condition when Self and Other as agents are the predominant leaders of states in the model. This version of the agents in the model assumes that the belief systems of leaders steer the actions of states in world politics, which makes the personalities of leaders and the matrix of their cultural experiences both the sources of their belief systems and the bases for their strategies in world politics. In turn, the intersection of their respective strategies generates the patterns of international power relations between them. The key assumption is that the leadership style and pattern of instrumental and philosophical beliefs in the predominant leader's operational code matches the pattern of actions by the state as an agent in world politics. The strong version of the argument in this model is that the leader's actions are indispensable to account for political outcomes, and the leader's personality is indispensable to account for the leader's actions (Greenstein 1987; see also Etheredge 1978; Walker 1982).

Focal Actor Model

However, this argument weakens when Self and Other in this model are not individuals and are instead single groups or multiple coalitions of groups (Achen 1988; Hermann and Hermann 1989). If the agent who makes decisions and enacts roles in world politics is conceptualized and measured as a state constituted by groups or institutions, it becomes more difficult (but not impossible) to apply the logic of the model in Figure 2.1. One possibility is to identify a "focal actor" within the state, which can be a group or institution and the channel through which foreign policy decisions are generated (Achen 1988). The beliefs and actions attributed to the focal actor define the state's operational code and power role in world politics. This approach makes the state's operational code primarily a social rather than a psychological construct. Its macro-level, social regularities "supervene," i.e., are generated and rely ontologically on micro-level, psychological processes but do not directly represent any particular individual's traits and beliefs. Instead, the macro-level construct is an emergent property of a social system rather than an attribute of an individual (Walker, Malici, and Schafer 2011, 25–29).