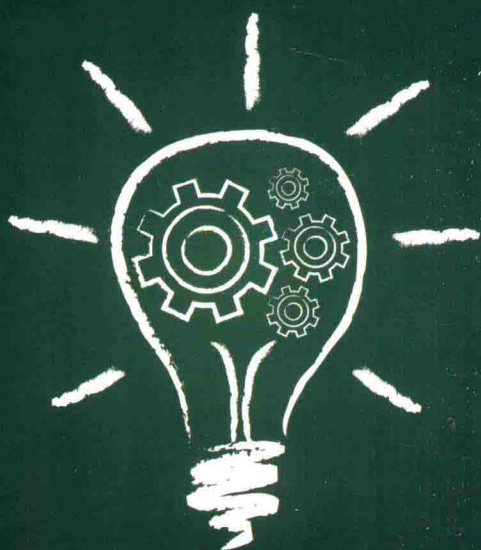


DOUGLAS
WOODWELL



RESEARCH
FOUNDATIONS

*How Do We Know
What We Know?*



Research Foundations

*How Do We Know
What We Know?*

Douglas Woodwell

University of Indianapolis



Los Angeles | London | New Delhi
Singapore | Washington DC



Los Angeles | London | New Delhi
Singapore | Washington DC

FOR INFORMATION:

SAGE Publications, Inc.
2455 Teller Road
Thousand Oaks, California 91320
E-mail: order@sagepub.com

SAGE Publications Ltd.
1 Oliver's Yard
55 City Road
London EC1Y 1SP
United Kingdom

SAGE Publications India Pvt. Ltd.
B 1/1 Mohan Cooperative Industrial Area
Mathura Road, New Delhi 110 044
India

SAGE Publications Asia-Pacific Pte. Ltd.
3 Church Street
#10-04 Samsung Hub
Singapore 049483

Acquisitions Editor: Helen Salmon
Editorial Assistant: Kaitlin Coghill
Production Editor: Brittany Bauhaus
Copy Editor: QuADS Prepress (P) Ltd.
Typesetter: C&M Digitals (P) Ltd.
Proofreader: Ellen Brink
Indexer: Diggs Publication Services, Inc.
Cover Designer: Candice Harman
Marketing Manager: Nicole Elliott

Copyright © 2014 by SAGE Publications, Inc.

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

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Woodwell, Douglas.

Research foundations : how do we know what we know? / Douglas Woodwell.

pages cm

Includes bibliographical references and index.

ISBN 978-1-4833-0674-2 (pbk. : alk. paper) — ISBN 978-1-4833-3405-9 (epub)

ISBN 978-1-4833-3406-6 (xml) — ISBN 978-1-4833-3407-3 (web pdf) 1.

Social sciences—Research—Methodology.
2. Research—Methodology. 3. Interdisciplinary research—Methodology. I. Title.

H62.W665 2013

001.4—dc23 2013031293

This book is printed on acid-free paper.



13 14 15 16 17 10 9 8 7 6 5 4 3 2 1

Detailed Contents

Preface	xii
About the Author	xvi
PART I: OVERVIEW	1
Chapter 1: Visualizing Research	2
Introduction	2
Visualizing Research	4
The Research Question	6
The Process of Research	7
Conclusion	15
Discussion Questions	16
PART II: GETTING TO CAUSAL THEORY	17
Chapter 2: Finding and Organizing Information	18
Introduction	18
Observation	19
First-Person Observation: Seeing It Yourself	20
Qualitative Approaches to First-Person Observation	20
Quantitative Observational Studies and Instruments	24
“Media”-ted Data Collection:	
Obtaining Data From the Middleman	26
Qualitative Mediated	
Observation: Episodic Records	26
Quantitative Mediated Observation:	
Running Records and Content Analysis	26
Opinion Seeking: Interviews and Polling/Surveys	28
Qualitative Opinion Seeking: Interviews	28
Quantitative Opinion Seeking: Surveys/Polling	30

Samples and Strategies in Polling Research	30
Survey Instrument Design	34
Description	35
Classification and Conceptualization	39
“Grounding” Theory	42
Conclusion	43
Discussion Questions	44
Appendix to Chapter 2: Literature Reviews	45
Chapter 3: Causal Theory	49
Introduction	50
What Is Causal Theory?	50
Deriving Theories Inductively and Deductively	52
Inductive Reasoning	53
Deductive Reasoning	55
Qualitative and Quantitative Theory and Research	56
Qualitative Theory and Research	58
Quantitative Theory and Research	59
Mixed Methods	61
Theoretical Levels of Analysis	62
Main Traditions in Theory Building	
in the Social Sciences	63
The Interpretivist Tradition: Microlevel Induction	63
Rational Choice Theory:	
Micro- and Macrolevel Deductions	67
Structuralism: Macrolevel Deduction	69
Behavioralism, Positivism, and	
Realism: Inductive Midlevel Analysis	71
Building a Theoretical Argument	72
Deductive Argumentation:	
Syllogisms, Conditional	
Logic, and Mathematics	72
Inductive Argumentation: Four Steps	
for Building a Convincing Argument	73
Conclusion	80
Discussion Questions	80
Appendix to Chapter 3: Prisoner’s Dilemma:	
A Simple Example of	
Formal, Rational Choice Theory	81

PART III: VERIFYING THEORY	85
Chapter 4: Preparing to Test Hypotheses	86
Introduction	86
A Typology of Variables	87
Theoretical Models	89
Hypotheses	91
Operationalization and Measurement	93
Validity, Reliability, and Precision: In	
Research Projects and in Measurement	94
Validity and Reliability in Research Projects	95
Validity of Measurements	98
Reliability of Measurements	103
Precision of Measurements	104
Experimental Data Collection	107
Quasi- and Natural Experiments	112
Conclusion	113
Discussion Questions	113
Chapter 5: Testing Hypotheses	115
Introduction	115
Hypothesis Testing and the Limits of Qualitative Research	116
Hypothesis Testing Through Critical Tests	120
Hypothesis Testing Through Statistical Analysis	121
Statistical Significance	122
Effect Size and Direction	123
Types of Statistical Tests	124
Regression Analysis	125
Ordinary Least Squares	126
Heteroscedasticity and Other Big Words	133
Regression With "Limited Dependent Variables"	137
Logit	139
Probit	140
Ordered Logit and Probit	141
Poisson and Negative Binomial Regression	141
Survival Models	142
Cross-Tabulation Analysis	142
Difference-of-Means Tests and ANOVA	145
What Does It Look Like?	147
Data Dredging and Hypothesis Testing	149

Conclusion	150
Discussion Questions	151
PART IV: USING THEORY	153
Chapter 6: Applying Theory and Evaluating the “Real World”	154
Introduction	154
The Varied Nature of “Case Study” Research	156
Case Study Purpose Number 1:	
Understanding Theory Better	158
Case Study Purpose Number 2:	
Understanding a Case Better	159
Structured-Focused	
Analysis/Interpretative Case Study Research	160
Simulations	163
Theory Into Action: Praxis and Best Practices	165
Research as a Cyclical Process	167
Conclusion	168
Discussion Questions	168
Afterword	170
Glossary	173
References	192
Index	197

List of Figures and Tables

Figure 1.1.	A model of the research process	5
Table 2.1.	Observational Data	
	Gathering: Qualitative and Quantitative	20
Figure 2.1.	Breakdown of qualitative	
	observational data collection	22
Figure 2.2.	Descriptive versus causal research questions	36
Table 2.2.	Examples of professions by research “dimension”	37
Figure 2.3.	Example of a “conceptual map”	41
Figure 3.1.	Deductive and inductive reasoning	52
Figure 3.2.	Deductive and inductive	
	reasoning in the research model (Figure 1.1)	54
Figure 3.3.	The qualitative–quantitative spectrum	57
Table 3.1.	Comparative Methodology Designs	77
Table 4.1.	Examples of Independent and Dependent Variables	90
Figure 4.1.	Breakdown of individual variable types	89
Figure 4.2.	Sample graphical model	91
Figure 4.3.	Hypotheses: Bridging theory and evidence	92
Figure 4.4.	Breakdown of “validity”	96
Figure 4.5.	Breakdown of “construct validity”	100
Figure 4.6.	Depiction of validity and reliability	105
Figure 4.7.	The three steps of classic experimentation	109
Table 5.1.	Example of a (Very Small) Data Set	121
Table 5.2.	Analyses Commonly Used	
	With Different Combinations of Variables	125
Figure 5.1.	Simple linear relationship with a coefficient = 2	127
Figure 5.2.	Real-world data are not perfectly linear	129
Figure 5.3.	A sample regression line	129
Figure 5.4.	Is there a statistically significant relationship here?	130
Figure 5.5.	Control and <i>ceteris paribus</i>	133

Figure 5.6.	Heteroscedasticity	134
Figure 5.7.	Collinearity displayed using a Venn diagram	136
Figure 5.8.	How a dichotomous dependent variable would look (with a continuous independent "x" variable)	138
Table 5.3.	Sample Baseline Analysis: Change in Conflict Likelihood	140
Table 5.4.	Simple Contingency Table/Cross-Tabulation	144
Table 5.5.	Contingency Table/Cross-Tabulation Controlling for Income	145
Table 5.6.	Elements Making Up (Most) Regression Output Tables	148
Table 5.7.	Sample Regression Output ^a	149
Figure 6.1.	Breakdown of the purposes of case study research	157

Preface

I don't know what they want me to do!

It can be a frustrating and disorienting feeling to be asked to design and/or execute a research project from scratch. Whether a scholar or student, we have all been there. I'll never forget as a graduate student being told by my advisor that my research needed a "model." After working on my model for the weekend, I brought it back to him, confident that I had put together some really good research only to be told, "It's pretty good, but you still need a model." Ugh.

Of course, that was just one of many frustrations. Other professors told me I needed to develop case studies or conduct ethnographic research. I didn't know what they really meant. As for the statistical approaches that represented the central thrust of my research, well, don't worry "you'll figure it out."

I delved into the libraries at my university, checking out every social science methodology book I could find. Most books involved in-depth discussions of approaches that seemed unrelated to anything I was researching. Other books were intimidating biblical-sized tomes that covered everything and anything but were as overwhelming as they were unapproachable. I eventually got through my dissertation project, but it seemed like the process was a lot more difficult than it needed to be. I never did find a methodology book that worked for me.

This is the book that I wish that I had read back then. In this book, I present a way of mentally framing research in a way that is understandable and approachable while also discussing some of the more specific issues that will aid students in understanding the options available when pursuing research. It is my hope that you as the reader, whether you are an undergraduate or graduate student, a professional or a scholar, or someone simply interested in how research leads to new discoveries, will find that this book helps crystallize your thinking about how we know

what we know and how we go about finding out about those things we do not know.

While at certain points I discuss in detail some commonly used research methods, my primary goal in this work is to convey an intuitive and easy-to-understand framework for understanding how research methodologies as a whole fit together and make intuitive sense. Many scholars do not even understand the basic, common sense, nature of how research methodologies guide the search for answers about the world. For some, methodological issues are often thought of as an abstraction or worse, dismissed as a distraction. Furthermore, among many in the social sciences and humanities, in particular, methodological study is simply conflated with quantitative methods that represent a big “turnoff” for the nonmathematically inclined.

Some scholars have put in great efforts defending their own research traditions while pooh-poohing the approaches of others. Much of the “Methodensteite,” or “methods conflict” that has reared its head over the years, particularly in the social sciences, has been based on an inadequate understanding of what different research approaches bring to the table and how different types of research questions require different methods of inquiry.

Yet much fruitful research has been conducted by bringing together different methodological traditions and examining research questions in new and interesting ways. For such cross-disciplinary and cross-methodological efforts to be successful, however, scholars need to understand research in a more holistic and more intuitive fashion. The goal of scholars and students should be to achieve a better intuitive and logical understanding of methodological design writ large rather than simply practicing something of an imitative approach to methods particular to their fields. Students and scholars confused by the morass of disjointed terminology and abstract concepts associated with research methodology are likely to benefit from the broader approach to research I take in this book.

My own training is in the social sciences, which in some ways represent a methodological middle ground between the contextual-minded humanities and the universal pursuits of those in the natural sciences. A well-trained social scientist might sometimes be viewed as a jack-of-all-trades and master-of-none, but the exposure to a wide spectrum of research questions and methodologies means that social scientist researchers are well positioned to understand the broad variety of research traditions that exist across fields.

Although many of the examples that I use in this book and some of the methods that I focus on are social science oriented, general methodological approaches are not the exclusive domain of certain types of research. The “big picture” of research I discuss is relevant across the humanities and social and natural sciences. Ultimately, pursuing answers to research questions in the most sensible way is not something that is specific to particular fields of study but rather an exercise in thoughtful problem solving that best addresses the subject at hand, regardless of a researcher’s specialization.

Research is a collaborative effort, and this book is no exception. There are many people who gave their helpful suggestions, time, and support. I would like to thank Sage, the good people who work there, and the outside reviewers who worked with them to provide a wealth of suggestions. These reviewers, whose research specialties covered a wide variety of fields, included James R. Anthos of South University, Paul Boyd of Johnson & Wales University, R. David Frantzreb II of the University of North Carolina at Charlotte, Monica B. Glina of Montclair State University, Karen Larwin of Youngstown State University, John Mitrano of Central Connecticut State University, David Vanata of Ashland University, and Maria Victoria Guglietti of Mount Royal University. Any remaining mistakes and shortcomings are, of course, my own.

Two of my colleagues also took on the exhaustive task of reviewing earlier versions of my manuscript. I offer my sincere appreciation to Joe Hansel, of the University of Indianapolis’s School of Psychological Sciences, and Milind Thakar, of the Department of History and Political Science, for their efforts.

Despite the best efforts of the above individuals, any errors or misconceptions contained within this book, and there are certain to be a few, should be considered entirely the fault of the author.

I would also like to especially thank Sharon Goetz, who has now taken the time to help cross the t’s and dot the i’s for two of my book manuscripts. Her time, support, and friendship have been invaluable in recent years.

Many of my students have also offered helpful insights on what works and what does not work in this text. Several of them, including Wesley Cate and Ben Waddell, expended extra effort in helping improve the writing in this book.

I might also never have begun this project had it not been for a conversation with Chinyelu Lee on a balcony in downtown Washington, D.C., five years ago. Thanks Chu, for both the inspiration and the friendship.

Last, but far from least, I would like to thank Sara Bremer Sale, Kim Deckman, Guin Holman, Katy Mann, Lindsay Shoger, and the rest of the crew at the Rehabilitation Hospital of Indiana. Partway through the process of authoring this book, I was permanently paralyzed by a rare abnormality of the blood vessels in my spinal cord. I was fortunate to have such a competent and supportive group help me piece things back together.

Please consider donating to www.christopherreeve.org or similar organizations dedicated to research into repairing spinal cord injuries and making a better life for those living with one.

About the Author

Douglas Woodwell is an associate professor of international relations in the Department of History and Political Science at the University of Indianapolis. He received his BA in international studies at American University, his MA in German and European Studies at Georgetown University, and his PhD in political science at Yale University. His earlier works include articles written for international relations journals and the World Bank as well as the book *Nationalism in International Relations*.

Research Foundations

*In memory of Greg Kalkanoff, a great friend who
knew that we're all pretty bizarre even if some of us
are just better at hiding it.*

SAGE researchmethods

The essential online tool for researchers from the world's leading methods publisher

Find exactly what you are looking for, from basic explanations to advanced discussion

More content and new features added this year!

"I have never really seen anything like this product before, and I think it is really valuable."

John Creswell, University of Nebraska-Lincoln



Discover **Methods Lists**—methods readings suggested by other users

Watch video interviews with leading methodologists

Explore the **Methods Map** to discover links between methods



Search a custom-designed taxonomy with more than 1,400 qualitative, quantitative, and mixed methods terms

Uncover more than 120,000 pages of book, journal, and reference content to support your learning

Find out more at www.sageresearchmethods.com

试读结束，需要全本PDF请购买 www.ertongbook.com