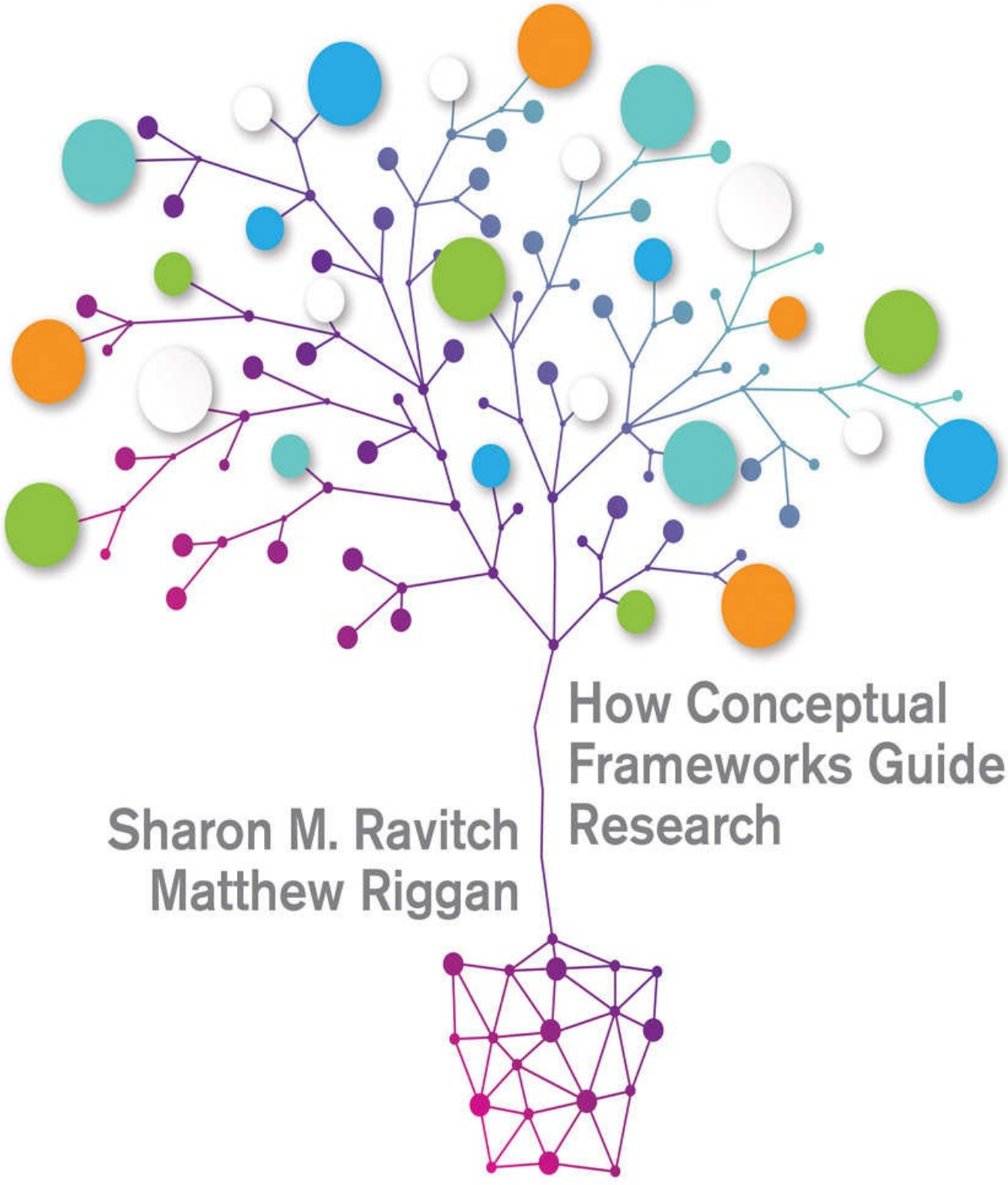
Reason & Rigor

2nd EDITION



How Conceptual Frameworks Guide Research

Sharon M. Ravitch
Matthew Riggan

Reason & Rigor

To our students, whose ideas and questions have inspired this book.

Reason & Rigor

How Conceptual Frameworks Guide Research

Second Edition

Sharon M. Ravitch
University of Pennsylvania
Matthew Riggan
University of Pennsylvania

Los Angeles
London
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Singapore
Washington DC

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FOR INFORMATION:

SAGE Publications, Inc.

2455 Teller Road

Thousand Oaks, California 91320

E-mail: order@sagepub.com

SAGE Publications Ltd.

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Brief Contents

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Detailed Contents

Foreword

One of the most difficult issues that students (and even more advanced researchers) face in the social sciences, and in applied disciplines such as education, is how to develop and use what is variously called a "conceptual framework," "theory," or "literature review." Howard Becker, in his book *Writing for Social Scientists*, has trenchantly analyzed this problem in a chapter appropriately titled "Terrorized by the Literature." Many of the dissertation proposals, journal papers, and book manuscripts that I have reviewed lack a clear, integrated, and relevant framework of ideas that explains the authors' understanding of the topic or problem they are studying and its importance and justifies how they are approaching it. There has been little detailed, specific guidance—in print or on the Internet—on how to create such a framework and to use it effectively in planning and conducting your research.

Sharon Ravitch and Matthew Riggan have now provided an excellent practical guide for developing this framework. They define "conceptual framework" broadly, including not only the relevant theoretical literature, but also the empirical findings of prior research and the researcher's own experiential knowledge, beliefs, commitments, and values. In working through six specific examples of social research in detail, elucidating the theoretical, empirical, and personal components that framed and guided each study, they enable the reader to see what the functions of a conceptual framework are and how to begin to develop a conceptual framework for their own research.

There are several aspects of Ravitch and Riggan's approach that I want to comment on. First, they see a conceptual framework as something that you create from multiple sources, not something that you find ready-made in "the literature" and simply adopt. Existing, explicitly formulated theories can be a major source of what Becker calls the "modules" from which you develop your conceptual framework—and may provide the basic ideas and structure for this framework—but they rarely constitute the entire framework. A common problem in dissertations and published research is that the authors force their data to fit a single theory, ignoring places where this theory distorts or ignores important aspects of the problem or phenomenon studied (Dressman, 2008). Reality is always more complex than any theory can completely capture, and you need to construct a conceptual framework that takes account of this complexity and avoids gross oversimplifications of the things you are studying, as best you can.

In my view, your conceptual framework is a lens, or better, a set of lenses, for making sense of these things, and often is most useful when it incorporates complementary theories that capture different aspects of your subject. Jennifer Greene, in her book *Mixed Methods in Social Inquiry*, refers to this as a dialectic stance for research, recognizing that different philosophical, theoretical, and methodological approaches have different strengths and

limitations, and that it is often most productive to try to engage these different approaches with one another, in ways that provide generative insights and a deeper understanding than any single theory or approach can provide.

Second, your conceptual framework is not simply an assortment of ideas and theoretical modules. The pieces should relate to one another in some way, to exhibit some sort of coherence; this is part of what Ravitch and Riggan mean by describing a conceptual framework as an "argument." This doesn't have to be a strict logical consistency; as stated above, it is often valuable to incorporate diverse, and even apparently contradictory, ideas in your conceptual framework. However, it does mean that you need to think about *how* the different pieces relate to one another, and what aspects of your subject each is most valuable for understanding. You also need to effectively communicate to your readers how this particular integration of ideas seems to you to provide the best approach for your research, and how it informs your research questions and methodological decisions.

Finally, your conceptual framework is not something that you construct before beginning your research and then leave unchanged, as a fixed foundation for your methods and analysis. This framework needs to be responsive to what you are learning from your research experiences and data; the latter will often necessitate additions or modifications to this framework, or even creating a substantial part of this framework through the generation of "grounded theory" from the data. A conceptual framework is not simply a visual or verbal *presentation* of your ideas; it is the *actual* framework of ideas and commitments that are informing and guiding your study, and may require ongoing reflection in order for you to fully understand these (Maxwell, 2012).

In clear prose and with numerous examples and questions, Ravitch and Riggan shepherd their readers through the challenging process of understanding, creating, and using conceptual frameworks for their research. In this edition, they have added a more integrated and dynamic presentation of their model of a conceptual framework, and additional detailed, illuminating examples. I don't know of a better guide for this process.

—Joseph Maxwell

Preface

In our work with graduate students over the years, we have watched many struggle mightily with the challenge of arguing for (that is, being able to articulate the reasons for and goals of) their study topics and methods. Some students come to us with what they believe to be fully formed research questions and designs, but have been told (usually by their dissertation chair) that their study lacks a "theoretical framework," effectively sending them back to the library in search of one. Others have received the vague suggestion that their dissertation needs "more of a literature review," which is rather like telling a culinary student that their soup needs "more ingredients." Still others present us with "conceptual frameworks" represented by elegant flowcharts but divorced from their discussion of the literature or their research methods. The common factor in most of these scenarios is a troubling disconnect between what students are reading about their topics, their thinking about what research questions matter and why, and their strategies for exploring those questions. This set of disconnects often results in ongoing frustration for both students and those who advise them. All too often this leads to studies like those described above—diligently executed but, in critical respects, under-conceptualized. The implications of this conceptual weakness for the quality of the studies' research designs (and the resulting empirical work itself) cannot be overestimated.

This book presents *conceptual frameworks* as a mechanism—process and product—for resolving much of this confusion and lack of coherence. We define a conceptual framework as *an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous* (a more comprehensive definition appears in Chapter 1). In this sense, the conceptual framework is both guide and ballast for empirical research, situating specific questions and strategies for exploring them within the wider universe of what is already known about a given topic or question. A conceptual framework allows researchers to make reasoned, defensible choices about how we might explore topics or themes heretofore underexplored or to explore old questions in new contexts. It matches our research questions with those choices, and in turn aligns our analytic tools and methods with our questions. It also guides the ways in which we think about collecting, analyzing, describing, and interpreting our data. This book seeks to make these concepts, as well as the processes of developing and defining conceptual frameworks, clear and accessible to the reader.

Conceptual frameworks (or aspects of conceptual frameworks such as literature reviews or theoretical frameworks) are often presented to students as a requirement for scholarly work with little explanation of why they are important and even less guidance about their direct, iterative role in the development and implementation of empirical research. As a result, many students end up citing theory that is not connected to their data collection or

analysis, or presenting their reader with "laundry list" literature reviews—extensive discussions of everything that has ever been written about a given topic with little or no sense of why it is important to know or how the literatures fit together.

Reason & Rigor aims to help students and other researchers understand the functional, comprehensive role of conceptual frameworks in organizing and guiding their empirical research. We view the development of conceptual frameworks as a process through which researchers identify the questions and lines of inquiry that matter most to them, develop appropriate strategies for pursuing those questions, and monitor and reflect on their own learning and thinking as the research unfolds. As a result, readers of this book will learn how to *use* existing knowledge (theory, methods, and empirical research) in conjunction with their own interests and observations to ask better questions, develop robust and justifiable strategies for exploring those questions, and explain both the importance and limitations of their findings.

Thanks to the thoughtful feedback of many reviewers, colleagues, and students, we have made a number of improvements to the second edition. Most notably we have added two chapters. For Chapter 3, which focuses on how conceptual frameworks are imagined and developed, we are thankful to Angela Duckworth for allowing us to profile her seminal work on grit, and for helping us understand the long and multifaceted process that led her to both the idea of grit and the means to study it empirically. This chapter addresses the question that is most likely to be on the minds of graduate students preparing for the dissertation process: How do I get started? We are also pleased to feature a second published work (along with Margaret Beale Spencer's, featured in Chapter 7) that primarily uses quantitative methods, bringing the book into greater balance in terms of methodological focus.

Chapter 8 is the second new addition to the book, and offers a student's perspective on the role of conceptual frameworks in the research process from beginning to end. Whereas Chapters 3 through 7 each focuses on a distinct phase of the process, Chapter 8 synthesizes across them, and shows some of the ways that fieldwork and data analysis feed back into the conceptual framework. Using both narrative accounts and artifacts from the research process, it allows you to see the author's conceptual framework as it evolves.

Beyond these two new chapters, we have added more graphics to illustrate key ideas and relationships and to give the reader a clear road-map to the book. We've also tried to streamline and simplify some sections to make the material as accessible as possible. We hope that these additions and revisions make the book both more comprehensive and more readable. And we hope that this book helps support the good work that you wish to do in the world!

Acknowledgments

We wish to jointly express our thanks:

To the authors whose work we focus on—Angela Duckworth, Frederick Erickson, Michelle Fine, Margaret Beale Spencer, and Jim Spillane—for your valuable, generative, important work in the world, for helping us to learn about and understand the value and uses of conceptual frameworks, and for your wonderful collaboration throughout the writing of this book. You have left large footsteps for generations of researchers to fill. We are grateful to you and so happy to be able to engage with you and your research as we conceptualized, wrote, and edited the book. To Bill Dunworth, for sharing the story of your work with us and the readers in such an honest and generative way.

To our editor, Vicki Knight, for your thoughtful support in all stages of this and the first edition of the book, for your belief in the value of this book, and for your ongoing support through to this second edition. Thanks also to the incredibly capable staff at SAGE as they guided the book through production, and to the many reviewers (formal and informal) who helped shape the second edition, including Production Editor Libby Larson, eLearning Editor Katie Bierach, Editorial Assistant Yvonne McDuffee, and Copy Editor Catherine Forrest.

We wish to express our appreciation to our reviewers for their thoughtful feedback and constructive suggestions on various iterations of this book. Thank you to Kathleen Gershman (University of North Dakota), Kyle Greenwalt (Michigan State University), Mark Moritz (The Ohio State University), Leslie Nabors Oláh (ETS), Cleti Cervoni (Salem State University), and Catherine Belcher (LA's Promise) for your support of our work. As well, we continue to appreciate the role of the reviewers of our first edition: Christine E. Blake, University of South Carolina; R. M. Cooper, Drake University; Timothy D. Letzring, J.D., Ed.D., The University of Mississippi; Jane Lohmann, Northeastern University; Ann M. Mayo, University of San Diego; and Julie Slayton, University of Southern California.

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Thanks to my teaching colleagues at Penn: Mike Johanek, Annie McKee, Dana Kaminstein, and Leslie Nabors Oláh. Teaching is itself an act of learning, and it is that learning more than anything that inspired this book. Thanks also to all of my current and former students. You've always pushed me to explain things clearly and simply, and to introduce ideas and methods in ways that are practical and make sense. That's what this book is for.

Finally, none of this means much without family. To my wife Erin, thank you for all of

your support, for sharing in my nerdy enthusiasm for this project, and for the sacrifices you made to allow me to pursue this work. To my sons Ian and Miles, thanks for tolerating all of the times Daddy was chained to the computer. I'll have more play time now, I promise. To my parents, John and Ann, my sister Jennifer (a brilliant scholar in her own right) and brother-in-law Ermias, and to Francis Vargas and Kim Katz, thanks for being all that a family should be. Your love and support make possible things far more consequential than this book, but this book would not be possible without them.

About the Authors

Sharon M. Ravitch, Ph.D.,

is a Senior Lecturer at the University of Pennsylvania's Graduate School of Education where she is Research Co-Director at the Center for the Study of Boys' and Girls' Lives and a Founding Co-Director of Penn's Inter-American Educational Leadership Network. She serves as the Principal Investigator of Semillas Digitales (Digital Seeds) a multi-year applied development research initiative in Nicaragua (http://www2.gse.upenn.edu/nicaragua/).

Ravitch's research integrates across the fields of qualitative research, education, applied development, cultural anthropology, and human development and has four main strands: (a) practitioner research as a means to engendering sustainable professional and institutional development and innovation; (b) international applied development research that works from participatory and action research approaches (projects currently in the United States, Nicaragua, and India); (c) ethnographic and participatory evaluation research; and (d) leader education and professional development.

Ravitch is the author of *Qualitative Research: Bridging the Conceptual, Theoretical, and Methodological* (with Nicole Carl, SAGE Publications, 2016), *Reason and Rigor: How Conceptual Frameworks Guide Research* (with Matthew Riggan, SAGE Publications, 2012); *School Counseling Principles: Diversity and Multiculturalism* (American School Counselor Association Press, 2006), and *Matters of Interpretation: Reciprocal Transformation in Therapeutic and Developmental Relationships with Youth* (with Michael Nakkula, Jossey-Bass, 1998).

Ravitch earned two master's degrees from Harvard University in Human Development and Psychology and in Education and a doctorate from the University of Pennsylvania in an interdisciplinary program that combined anthropology, sociology, and education.

Matthew Riggan, Ph.D.

is an Adjunct Assistant Professor at the University of Pennsylvania Graduate School of Education, where he teaches research methods courses and advises doctoral students. Previously, he was a Senior Researcher at the Consortium for Policy Research in Education (CPRE) at the University of Pennsylvania, where he studied school reform, mathematics education, and organizational learning. In 2013, Matt left full-time academic research to cofound the Workshop School, a public, project-based high school in Philadelphia. He earned his doctorate in education from the University of Pennsylvania.

CHAPTER 1 Introduction to Conceptual Frameworks

Imagine for a moment that you are an archaeologist interested in the number systems employed by pre-Colombian civilizations in Mexico and Central America. Where your interest in this specific topic comes from may be easy or difficult to pinpoint. Maybe it's the idea that there was some system in place before the numbers we use today, which we have a hard time seeing as but one of many possible systems for counting things. Perhaps it's a desire to better understand the intellectual achievements of civilizations long slighted by Western historians. Maybe as a child growing up in Mexico you wondered about the origins of the math curricula that guided your learning in school. Perhaps you were a Peace Corps volunteer in Mexico and have become interested in local knowledge construction. Maybe you came upon some rare documents that suggest earlier counting systems that have been heretofore unexplored. Whatever the prompt may be, you have your reasons for selecting this topic for your research.

But reasons are not enough. Assuming you have a basic familiarity with archaeology, you still have a raft of questions to grapple with before you can begin your research study. For starters, what data are you actually looking for? After all, you are not likely to find an old, dog-eared copy of the *Olmec Guide to Numbering and Calculation* buried next to a giant stone head. How will you find material evidence of what is basically a cognitive construct? How will you know when you have found it? What do you expect the artifacts you find to tell you about the number systems they represent? Why are they important? How do you ascertain historical context broadly and specifically in relation to the focus of your research?

Then there is the matter of where to look. Southern Mexico and Central America cover a lot of ground. On top of that, the actual borders denoted by those names are meaningless, given that they did not exist during the period you seek to study. How will you know where to begin your search?

Assuming you can somehow answer those questions, you then confront the question of how you will actually search for evidence. Who will you involve in the searching and (if you're lucky) excavation process? What kind of technology will you use? Once you have these issues covered, you will need to think about how to catalogue anything that you find. This in turn begs the question of how you will want to analyze the information you collect.

In short, you have a lot of work to do. The good news is that you have help. Many others —possibly across fields—have asked themselves questions that are similar to the ones you are now asking. They have already gone through the processes we have just outlined. And, happily for you, many of them have already written about it. Some of them went about

their work carefully and meticulously, while others may have been more careless or unsystematic. Some pioneered new methods, while others stayed within conventional modes of inquiry. Some focused on simply documenting what they found, while others sought out and tested possible explanations. Each has something important to teach you about how to approach your own study.

Some of what you read will tell you where there are known archaeo-logical sites that may serve as a good place to begin your search. Other material may include images that you think might possibly contain evidence of number systems and therefore warrant closer examination. Still other sources may focus on entirely different civilizations or periods, but employ methods for searching, cataloguing, or analyzing that seem relevant to your questions. A completely separate body of work may hint at the role of number systems in agriculture or in religious rites, methods of deduction that could prove useful.

You dive into these assorted literatures, noting the ways in which they speak to you and to each other, how they shape and refine your research questions, sharpen your focus, and give you insight into your possible methods. You continually reshuffle and reorganize them as you become better acquainted with their content. By the time you are finished reading, writing, and thinking about what you have learned, you have a pretty clear idea of what you are looking for and why, where you want to look, how you plan to look for it, and what you will do with what you find. And while you cannot be sure what precisely that is, you have some reasoned ideas about how what you find will inform your thinking, and that of others, about this topic. You are ready to go into the field.

In working through these questions, you have begun to construct a *conceptual framework* for your research. You have figured out what you want to study and why it matters (to you and broader audiences), and you have arrived at reasonable conclusions about how to go about studying it (methodology). The process of building this conceptual framework began with your personal interests—without them you would not be doing the work, after all—but it was your learning beyond that first stage, or foundation, that gave shape to the research.

Okay, so you are probably not an archaeologist. Neither are we. So why use this analogy?

When we frame the need for learning in material terms—needing to know what to look for and where to look for it—it seems obvious that we would use the individual and collective expertise of others to help us make good choices about how to go about framing, structuring, and approaching our research studies. It seems equally apparent that, having engaged in this process of learning about prior work that relates to and informs our own research, we should articulate a clear rationale for how we frame and approach our own research to someone who is new to our work.

By contrast, most social science research is not concerned with the physical search for

material things. Consequently, it becomes easy to lose sight of the need for a systematic way of thinking through and articulating what you plan to study and how you plan to study it. For many researchers, personal interest, topic, research questions, literature, context, researcher identity/positionality, research design and methods for data collection and analysis seem to drift away from one another, taking their studies with them, leaving the research under-conceptualized and methodologically hazy.

As teachers and advisers to graduate students across fields and disciplines, we encounter this problem all the time. One of our students (let's call him Chris) crafted an entire draft of his dissertation proposal only to be told by his adviser that he needed a theoretical framework. He was not told why or for what purpose. An even less lucky student, Arjun, was keenly interested in a specific topic and was told by his adviser which theoretical framework to use, but after reading two dozen or so books and articles could not figure out how the theory fit with his topic or research setting. Jayla had more luck linking topic and theory, but her design faltered methodologically. She intended to use surveys to link attitudes, behaviors, and outcomes, but her questions were all interpretive; the methods did not fit with the research questions. By contrast, Angela proposed a qualitative interview study paired with observation fieldnotes, but made no argument whatsoever for why these specific data collection strategies were appropriate to or necessary for her topic or how they fit together.

Failure to conceptualize and articulate these connections as the bedrock of a solid empirical study undermines your research in at least three ways. First, it makes your work conceptually murky. Researchers often explain, for example, that their work is "informed by" some line of theory, but fail to explain the specific ways that these theories bear on their own conceptualizations. Second, a weak conceptual framework leads to weak methodological arguments. At times, it seems as if the methodology of a study is preordained by the field in which it is conducted, irrespective of the topic. It is of little surprise, then, that arguments for the relevance of a topic (why it is worth studying) are silent on methods (how it should be studied). Third, it can leave you adrift in your empirical work. Rather than make their own argument for why their work matters, novice researchers often find themselves in the unenviable position of trying to associate their work with a plethora of different theoretical approaches simply because those approaches have previously been used to study their topic. When confronted with ambiguity, complexity, or change in the course of their work, they are therefore unable to fall back on a coherent rationale for the choices they have made, and thus have no basis to make good decisions about how to modify or adjust their methods and frameworks as the study unfolds.

Using examples from multiple research studies that work within and across topics and disciplines, this book shows—in broad and specific ways—how developing a sturdy conceptual framework can help you to circumvent or work through these common challenges. We argue that a conceptual framework both shapes the design and direction of your study and guides its development. We unpack and explore the roles and uses of conceptual frameworks across the various phases of research, and show how what you learn

in the field in turn feeds back into your conceptual framework, allowing you to integrate it into your overall understanding of the topic, design, research methods, and presentation of findings.

Conceptual Frameworks Explored and Defined

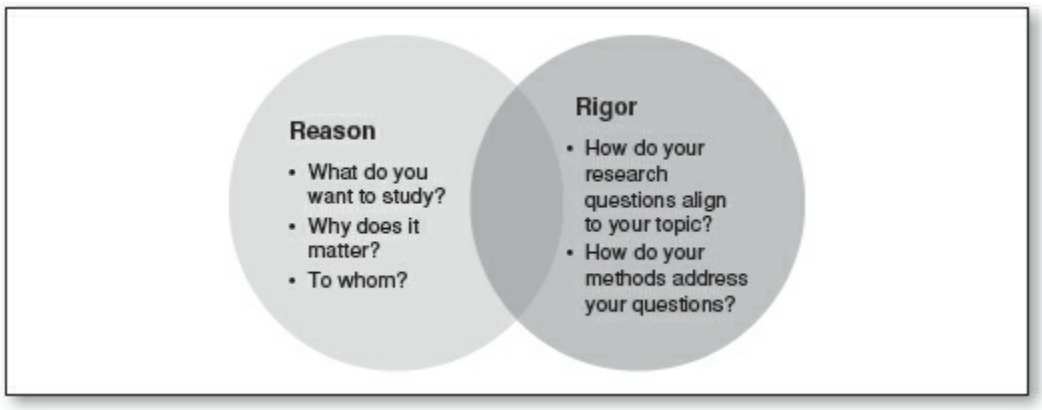
In our many conversations with colleagues and students, we have found that the term *conceptual framework* is used to refer to at least three different things. Some view it as a purely visual representation of a study's organization or major theoretical tenets. Such a representation is usually included within one's literature review, generally as a stand-alone figure or as an appendix.

A second perspective treats conceptual and theoretical frameworks as essentially the same thing. As with theoretical frameworks, the meaning of *conceptual frameworks* in this sense depends entirely on what one means by *theory*. As we argue in the next chapter, a problem can arise when researchers are vague about such definitions, as conceptual/theoretical frameworks in this sense can refer to either "off the shelf" (often called "formal theory" or "existing theory") or "informal" (i.e., your own working theories and integration of concepts) theories (for more on this topic see Ravitch & Carl, 2016).

A third view sees the conceptual framework as a way of linking all of the elements of the research process: researcher interests and goals, identity and positionality, context and setting (macro and micro), formal and informal theory, and methods. It is this view that comes closest to our own definition. In the sections that follow, we offer our own definition of the term, and explain how conceptual frameworks are related to other critical components of the research process, such as theoretical frameworks and literature review. In the process, we offer our own working definitions of those components as well. Our aim in defining our terms is not to engage in semantic debates with other scholars. Rather, our hope is that we can be clear and transparent about how we employ specific terms so that you can be as well.

For us, a conceptual framework is an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous. By *argument*, we mean that a conceptual framework is a series of sequenced, logical propositions the purpose of which is to ground the study and convince readers of the study's importance and rigor. Arguments for why a study "matters" vary greatly in scale, depending on the audience. In some scholarly work, the study may only matter to a small, esoteric community, but that does not change the fact that its conceptual framework should argue for its relevance within that community. By *appropriate and rigorous*, we mean that a conceptual framework should argue convincingly that: (a) the research questions are an outgrowth of the argument for relevance; (b) the research design maps onto the study goals, questions, and context(s); (c) the data to be collected provide the researcher with the raw material needed to explore the research questions; and (d) the analytic approach allows the researcher(s) to effectively address (if not always answer) those questions.

Figure 1.1 Reason and Rigor: An Argument for Topic and Methods



While our definition of a conceptual framework is different from others, the ideas behind that definition are not new. In their popular *Qualitative Data Analysis: A Methods Sourcebook*, Miles, Huberman, and Saldaña (2014) argue that novice researchers should spend considerable time at the outset of their research conceptualizing, identifying the components of, and articulating their conceptual framework. They define a conceptual framework in this way:

> A conceptual framework explains, either graphically or in narrative form, the main things to be studied—the key factors, variables, or constructs—and the presumed relationships among them. Frameworks can be simple or elaborate, commonsensical or theory driven, descriptive or causal. (p. 20)

Miles, Huberman, and Saldaña assert that the building of theory relies on central, broad constructs or categories, which they refer to as *intellectual bins* that contain multiple, discrete events, actions, and processes (p. 21). They argue that "setting out bins, naming them, and getting clearer about their interrelationships" helps to lead the researcher to his or her conceptual framework, which in turn focuses subsequent research. Developing a conceptual framework forces the researcher to be selective, to prioritize variables, and to discern specific relationships within the research.

In *Qualitative Research Design: An Interactive Approach*, Maxwell (2013) devotes an entire chapter to conceptual frameworks. Maxwell defines a conceptual framework in this way: "[T]he conceptual framework of your study—the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research—is a key part of your design" (p. 39), and uses the term *conceptual framework* "in a broader sense, to refer to the actual ideas and beliefs that you hold about the phenomena studied, whether these are written down or not" (p. 39).

Maxwell (2013) makes the important argument that the "conceptual framework for your research is something that is *constructed*, not found. It incorporates pieces that are borrowed from elsewhere, but the structure, the overall coherence, is something that you build, not

something that exists ready-made" (p. 41). He describes the conceptual framework as a combination of experiential knowledge and prior theory and research. In this sense, a conceptual framework is a theory, albeit at times a tentative or partial one. He contends that one might even use terms like *theoretical framework* or *idea context* rather than *conceptual framework*. While we depart from him in this latter issue of naming (we see the theoretical framework, as we will discuss below, as a component of a conceptual framework and as different and more focused than a literature review) we agree with him substantively on the frames, roles, and uses of the idea of a conceptual framework.

In *Designing Qualitative Research*, Marshall and Rossman (2011) spend a chapter focusing on conceptual frameworks, offering a different view of their content and purpose. In their view, the conceptual framework has three primary elements. First, it is an argument for the study's significance:

> [I]t provides evidence that the study has potential significance for practice and policy and is likely to contribute to the ongoing discourse about the topic (often referred to as contributing to "knowledge") (p. 58).
>
> Convincing readers that a study is significant and worthwhile entails building an argument that connects one's research to key theories and theoretical perspectives, policy issues, problems of practice, or social and political issues and realities that affect people's lives and society more broadly.
>
> Second, Marshall and Rossman (2011) suggest that the conceptual framework reflects "the important intellectual traditions that guide the study" (p. 58). They further note that these traditions are identified through a careful and thorough review of literature related to the study's topic.

Third, they argue that a conceptual framework "[I]dentifies gaps in what is known—by critiquing previous research, by extending existing theory, or by pointing to practices and policies that are not working" (p. 58). They state that these three elements "constitute the building blocks for a conceptual framework and help refine important and viable research questions" (p. 58).

Our definition of a conceptual framework draws from each of these conceptualizations. From Miles, Huberman, and Saldaña (2014) and from Maxwell (2013), we incorporate the idea that conceptual frameworks seek to identify "presumed relationships" among key factors or constructs to be studied, and that the justification for these presumptions may come from multiple sources such as one's own prior research or "tentative theories" as well as established theoretical or empirical work found in the research literature. We strongly agree with Maxwell's observation that through the process of developing a conceptual framework, the researcher comes to take ownership of the study's core concepts and logic, a

point that fits nicely with Miles, Huberman, and Saldaña's view of the conceptual framework as both a tool for and artifact of the researcher's learning. From Marshall and Rossman (2011), we adopt the explicit view of the conceptual framework as an argument for the study's importance, a stance echoed by Maxwell's view of the conceptual framework as "justifying" the research both substantively and methodologically.

Where we depart somewhat from these characterizations of conceptual frameworks is in the degree to which we seek to define and clarify the relationship between the conceptual framework and what we view as its component parts. For instance, Miles, Huberman, and Saldaña (2014) indicate that conceptual frameworks may be comprised of formal theories, observations, hunches, personal interests, or hypotheses, but say little about how these very different types of knowledge or inference fit together. Maxwell (2013) uses the terms *conceptual framework* and *theoretical framework* interchangeably, while Marshall and Rossman (2011) seem to conflate conceptual frameworks with literature reviews. As we argue in the next chapter, this vagueness, combined with the multiple, idiosyncratic meanings ascribed to these terms, contributes greatly to the confusion about the role that these component parts play in guiding research.

Elements of a Conceptual Framework

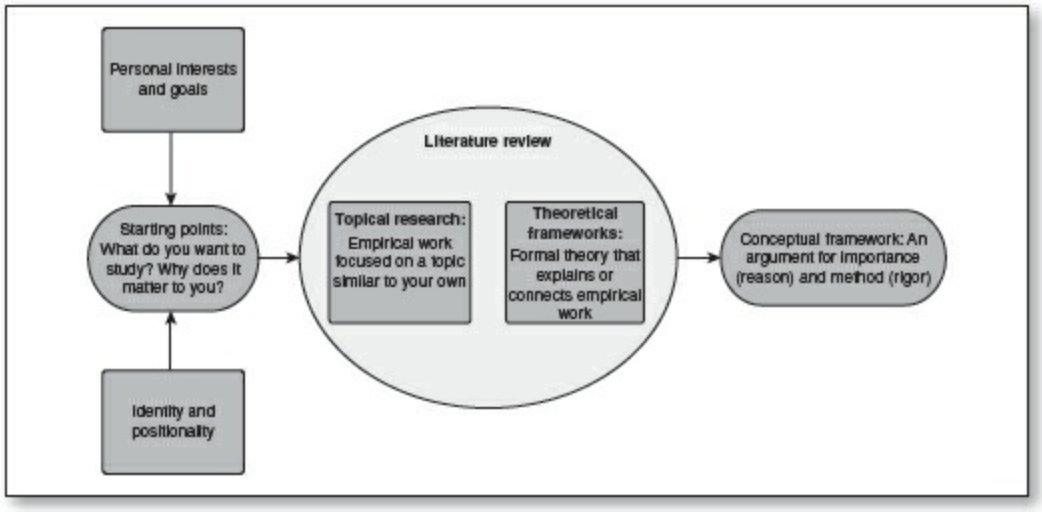
We define the conceptual framework as the overarching argument for the work—both why it is worth doing and how it should be done. The genesis of that argument lies in the researcher's *personal interests and goals*, which in turn are shaped by the researcher's *identity and positionality*. The argument is formed and bolstered through *literature review*, a process of learning from the work of others. Much of the literature that informs the conceptual framework is what we call *topical research*; that is, work that focuses on a similar topic or question to that of the researcher. A second critical function of the literature is to provide the researcher with *theoretical frameworks* to advance the argument beyond where previous researchers have taken it, or to introduce new questions, considerations, hypotheses, or explanations into the inquiry.

In sum, while others suggest that literature review, theoretical frameworks, and conceptual frameworks are more or less synonymous, we argue that the conceptual framework serves as the superstructure for the work. Personal interests and goals, identity and positionality, topical research, and theoretical frameworks each fit within that superstructure, while literature review serves as the primary process through which all of these elements are forged into a cogent, persuasive argument.

Personal Interests and Goals

Personal interests, which are sometimes referred to as intellectual goals (Maxwell, 2013), are what drive you to do the work in the first place—your motivation for asking questions and seeking knowledge. They reflect your curiosity, passions, beliefs about the world, values about what questions need answering, and working theories about how things work. As the chapters that follow make clear, there is a deeply personal aspect to this part of the work: Life experience tends to shape personal interests and goals more than detached intellectual questions.

Figure 1.2 Elements of a Conceptual Framework



Identity and Positionality

Given the personal nature of our goals and interests, it comes as little surprise that other aspects of who we are play an important role in shaping our work. Your own curiosities, biases, and ideological commitments, theories of action, and epistemological assumptions (what constitutes useful or valuable knowledge) are influenced by your social location (race, ethnicity, social class, gender, sexual identification, nationality, and other social identities), institutional position, and life experience. Additionally, your position in relation to the research setting is a critical consideration (we refer to this as researcher positionality). In practitioner research, for example, what constitutes an important research question might have less to do with the state of the literature on a given topic and more to do with pressing concerns of the practitioner herself given the issues or problems of practice from which the questions emerge. In traditions such as participatory action research, the framing of research questions is itself a process of figuring out what type of knowledge is valuable in a given setting or community according to the stakeholders within that community or group (Chilisa, 2012; Fals Borda & Rahman, 1991; Greenwood & Levin, 1998).

Literature Review

Literature review is the process through which you survey what is known about a given topic, how that topic has been investigated, and the intellectual and analytic tools that might help you to understand it better. As a researcher, you must critically read and make connections between, or integrate and synthesize, existing work related to your emerging research topic and its multiple theoretical and practical contexts. As suggested by Maxwell (2010), this process frequently calls for critiques of existing theoretical or empirical work, as well as of your own biases or assumptions. A skeptical eye is needed in this process. Your goal is not to find published work that supports your point of view; rather, it is to find rigorous work that helps shape it.

Topical Research

As we define it, *topical research* refers to work (most often empirical) that has focused on the subject in which you are interested. While much of this work resides within academic journals and books, it may also be found in policy or government research, or in reports produced through foundations, nonprofits, and advocacy organizations. For example, suppose you are interested in studying hand washing in hospitals as a strategy to reduce infection rates. Topical research in this area would profoundly shape how you might go about framing and conducting such a study. It offers insights on the nature and severity of the problem (e.g., infection rates and their consequences, compliance with hand washing and sanitization procedures), providing you with potential arguments for the study's significance. It also helps you identify gaps in the literature—what is not yet known about the topic. Finally, it allows you to survey the range of methodological approaches that have been brought to bear on the topic. This is a critical—and in our view overlooked—aspect of the literature review process. Reviewing the literature allows you not only to learn what is known about a topic, but also to critically analyze how that topic has been investigated. In the example above, observation protocols would be well suited for documenting the extent to which hospital staff adhere to sanitization protocols, but would contribute less to an analysis of why such protocols were (or were not) followed.

Theoretical Frameworks

In the terminology of Miles, Huberman, and Saldaña (2014), it is topical research, identified through literature review, that helps us to fill the intellectual bins that make up our conceptual framework. (It also leads us to create new bins.) But as they note, we are also interested in understanding the interrelationships among those bins. The purpose of a *theoretical framework* is just that. Engaging in the review of literature gets you to a theoretical framework, which is a considerably more focused, refined, and bounded integration of formal theory and topical research more broadly.

The Oxford English Dictionary defines a framework as "a structure composed of parts framed together, *esp*. one designed for enclosing or supporting anything; a frame or skeleton." In the case of theoretical frameworks, the "parts" referred to in this definition are *theories*, and the thing that is being supported is the relationships embedded in the conceptual framework. More specifically, we argue that the parts are *formal* theories; those that emerge from and have been explored using empirical work. As such, the theories that comprise a theoretical framework are usually found in the scholarly literature. Theoretical frameworks may either be borrowed from other research (we will see an example of this in Chapter 4) or fashioned by the researcher for the purposes of the study at hand (as we describe in Chapter 7). In both cases, theoretical frameworks represent a combination or aggregation of formal theories in such a way as to illuminate some aspect of your conceptual framework.

Because theory can explain so many different types of relationships (a topic we address in detail in Chapter 2), theoretical frameworks are often multilayered and complex. What is critical is that they achieve cohesion across those layers. To return to the hand-washing example above, a theoretical framework might include theories that seek to explain why sanitization protocols are not consistently followed even when they are simple and clearly articulated. A framework rooted in process engineering might consider the ways that sanitization procedures fit within the larger workflow of staff within specific settings, such as emergency rooms. A framework rooted in organizational culture might focus on whether subordinates feel safe or comfortable in confronting doctors when they fail to adhere to those procedures. A framework based on behavioral economics or psychology might consider the ways that medical practitioners could be "nudged" into compliance through real-time feedback or peer effects. In this example, there is no one "right" theoretical framework, and they are not mutually exclusive. (In fact, all three have been fruitfully employed to increase compliance and reduce infections in hospital settings.) But each seeks to explain an observed phenomenon in different ways, using different tools and methods.

Conceptual Frameworks: Integrative and Evolving

While we have attempted in this chapter to be as clear and specific as possible about what makes up a conceptual framework, it is also important to note that these frameworks are *integrative*. By presenting topical research, literature reviews, and theoretical frameworks as different aspects of building conceptual frameworks, we do not mean to imply that they are mutually exclusive. Formal theory emerges from empirical work, and empirical research is frequently used to test or apply formal theory. Our purpose in differentiating these processes/components is to note that they have different places and functions within a conceptual framework. Topical research helps you to begin to describe the *what* of the study, while theoretical frameworks clarify the *why* and the *how*.

Additionally, while we have noted that conceptual frameworks allow you to make good decisions about how best to plan an empirical study, we caution the reader not to view them as static. As Maxwell (2012) explains:

> Your conceptual framework will change during the course of your study, both because the information you gather will lead to new ideas and understandings, and because the process of doing this may lead you to become aware of, or question, parts of your previous conceptual framework (p. 86).

As the following chapters make clear, a defining characteristic of conceptual frameworks is that they *evolve*. Using the metaphor of a map, Miles and Huberman (1994) explain: "As the explorer's knowledge of the terrain improves, the map becomes correspondingly more differentiated and integrated. Thus, conceptual frameworks are developed at the beginning

of a study and evolve as the study progresses." (p. 20) This view of the conceptual framework serving as a guide and ballast in research, while at the same time evolving as the research develops, reflects a perspective that we share and will build on throughout this book.

Finally, while personal interests and goals, social location and positionality, topical research, and theoretical frameworks are what comprise a conceptual framework, we would never expect to see them organized according to these elements. In finished form, a conceptual framework is organized and expressed as an argument. Each step of that argument is a proposition justified by the topical and/or theoretical literature. The chapters that follow present clear, robust examples of such arguments.

Organization of This Book

As with most useful books related to methodology, we ground our discussion of conceptual frameworks in real examples from the literature rather than discussing them in the abstract. Thankfully, robust conceptual frameworks and strong arguments are relatively easy to find. What is missing is an explanation of what *makes* a framework robust or an argument strong, how these frameworks are conceived and developed, and how they are used throughout the research process.

Our aim in this book is to draw out and employ lessons from exemplary research so that you can use them in your own work. In the chapters that follow, we present and analyze the conceptual frameworks of five published works by a highly accomplished and diverse group of scholars. We asked each author to reflect on the process of producing the work, with particular attention to the links between their conceptual framework and different elements of the research process. Their reflections are included in the discussion of their work, affording the reader a rare opportunity to peek "under the hood" and see how the final product came to be. In a similar vein, we asked a former doctoral student to reflect on the role of the conceptual framework in his recently completed dissertation.

Through focused examination of these six studies, this book explores the role of conceptual frameworks in conducting empirical research. Specifically, we examine how conceptual frameworks are developed, and how they impact five major stages of the research process: conceptualization, research questions and design, data collection and fieldwork, data analysis, and presentation of findings. Beyond their ability to articulate a clear and compelling rationale for their research, we chose the specific authors and studies featured in this book for several reasons. First, the five authors represent a diversity of disciplinary backgrounds. The seminal research of Angela Lee Duckworth, a psychologist who studies grit and self-control, is the focus of Chapter 3. James Spillane, whose work is featured in Chapter 4, is a policy researcher interested in the dynamics of organizational change. Michelle Fine's work (Chapter 5) falls primarily into the category of participatory research and focuses on questions of identity, agency, and power among marginalized populations. In Chapter 6 we highlight the research of educational anthropologist Frederick Erickson, whose work seeks to understand how communication and interaction work in various settings, including schools. Margaret Beale Spencer's social psychology research (Chapter 7) examines the range of home, school, and community factors that influence the capacity of young people to cope with the challenges of race and social class inequality.

Second, while all five of the scholars whose work is in focus in this book have conducted research that relates in some way to education, the focus of the five articles discussed here reaches well beyond that particular field. While Spillane's article falls squarely within the realm of educational research, in the other four articles schooling is more of a backdrop

than a focal point. Overall, the range of topics and questions explored in these articles should be of interest to audiences well outside of the field of education.

Finally, we deliberately chose scholars and articles whose work represents a range of methodological approaches. Among the five articles featured here, two (Duckworth and Spencer) primarily use quantitative methods, and one (Fine) uses quantitative methods alongside qualitative approaches (what is commonly referred to as "mixed methods research") from the fields of psychology and anthropology. The remaining two articles are qualitative, but in quite different ways. Spillane's article uses classroom observations and interviews to better understand broad concepts, while Erickson employs fine-grained analyses of interaction common in sociolinguistics.

In sum, we selected the scholars and articles for this book with an eye toward making its central themes as broadly applicable across topics and disciplines as possible. This is not a book about how to do research—you will not find much discussion of the nuts and bolts of constructing interview protocols, creating analysis categories, designing surveys, or choosing appropriate statistical techniques. There are already plenty of good resources focused on those topics. What this book focuses on is how to make informed, sophisticated choices about engaging in each and all of these aspects of empirical research, how to justify and explain your research choices to your audiences, and how to integrate what you learn from your empirical work with what you already know.

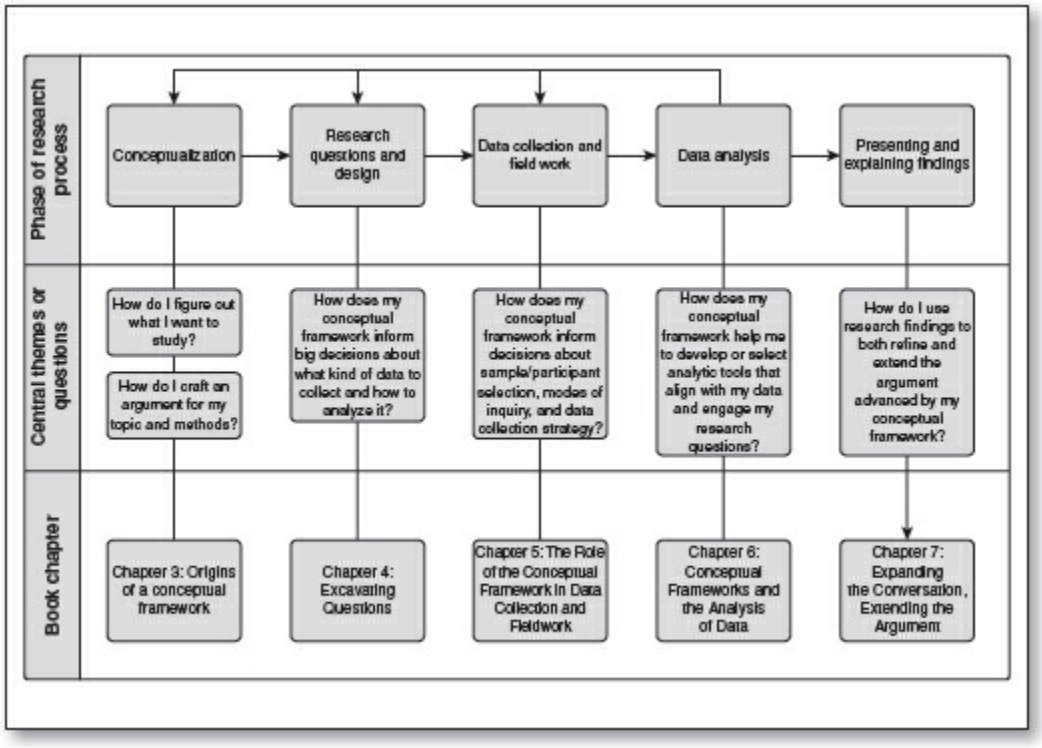
This book is divided into three parts. Part I provides valuable background and context about the role and importance of conceptual frameworks. In this chapter, we have explained what a conceptual framework is and why it matters. In Chapter 2, we present in brief our argument for the importance of conceptual frameworks. We show how a lack of clarity and transparency about the role of theory and the purpose of literature review frequently lead to disconnects between the purpose of a study, the literature it engages, and its methodological approach. We argue for conceptual frameworks (as we define them) as a solution to this problem.

Part II of the book, which includes Chapters 3–7, uses the published work of accomplished scholars, along with their reflections on that work, to highlight the role of conceptual frameworks in five phases of the research process: conceptualization, research questions and research design, data collection, data analysis, and reporting and explaining findings. The chapters proceed in the order that research work typically unfolds, though as we note throughout this book, that process is recursive. Figure 1.3 serves as a roadmap to this part of the book, linking individual chapters to specific phases of the research process and showing how each ties into the concept of conceptual frameworks more broadly.

In Chapter 3, we explore the ways in which an idea becomes a conceptual framework. Focusing on Angela Duckworth's influential research on grit, we show that it is the interplay of experience and scholarship, intuition and disciplined inquiry, that ultimately

gives a conceptual framework its form. Based on James Spillane's fascinating research on policy implementation as learning, Chapter 4 describes the role of conceptual frameworks in shaping research design, with specific focus on setting, participants, large-scale decisions about when to approach data inductively and deductively, and the role of theoretical frameworks in making those decisions. We next move into questions of data collection and fieldwork in Chapter 5, highlighting the mixed-methods innovation of Michelle Fine in studying "hybrid" identities. With her deeply reflexive approach, Fine's work provides a compelling example of the close ties between the way we think about something (in this case identity) and the strategies we employ to collect data about it. The thread of methodological innovation continues as we turn to data analysis in Chapter 6, which profiles Frederick Erickson's study of the timing of social interaction. We show how Erickson's novel conceptualization of interaction and communication created a need for new ways to analyze data about it, and how this in turn led him to develop new approaches to transcription and qualitative data analysis. In Chapter 7, we examine the ways in which conceptual frameworks help to contextualize and communicate findings. Analyzing the work of Margaret Beale Spencer, we show how a conceptual framework helps you to see your findings as an extension of your argument for your study, but also how it can help you make sense of unexpected findings or surprises.

Figure 1.3 Linking Conceptual Frameworks to Phases of the Research Process



In Part III of the book, we aim to integrate all of these elements of the research process in two ways. In Chapter 8, William Dunworth, a former doctoral student, reflects on the ways in which his conceptual framework guided him from initial conceptualization of his study all the way through the writing of his dissertation. In particular, Dunworth illuminates the

ways in which the conceptualization of a topic and the methods used to study it are interrelated. Through a series of candid and lively anecdotes and artifacts of his process, he illustrates how necessary changes in how he approached his fieldwork fed back to, and ultimately improved, his conceptual framework. In Chapter 9, we synthesize the broad themes and lessons learned from the book as a whole, and offer concrete, practical advice about developing and using conceptual frameworks.

Concluding Thoughts: Using Conceptual Frameworks

As we think about it in its most direct way, the purpose of a conceptual framework is to learn from the experience and expertise of others as you cultivate your own knowledge and perspective. A conceptual framework allows you to make reasoned, defensible choices about how you might explore research topics or themes heretofore underexplored, explore existing research questions in new contexts, and/or reexamine established topics or questions using different theoretical, epistemological, and methodological frames and approaches. Conceptual frameworks match your research questions with those choices, and in turn align your analytic tools and methods with your questions. Finally, conceptual frameworks offer a critical lens through which you may view your work and your role in carrying out that work.

The conceptual framework guides the ways in which you think about collecting, analyzing, describing, and interpreting your data. It is a core, driving component of the empirical research cycle. It serves as a point of departure for you, and much later your audience, to define and explain other aspects of the study. The very development of guiding research questions, the literatures that are chosen for the literature review and how they are situated in the theoretical framework, and the sense of significance of the research as well as its relationship to broader discourse communities, are all grounded in your conceptual framework. This framework, as the title of our book suggests, helps you to conceptualize and articulate the reason, or rationale, for your research as well as supporting intellectual and methodological rigor; it helps determine the methodology and informs your research design in a recursive way.

I'M ABOUT TO EMBARK ON MY DISSERTATION OR MASTER'S THESIS RESEARCH. HOW DOES THIS BOOK HELP ME?

To more fully understand what a conceptual framework does for you as a researcher, or more precisely, what you do with your conceptual framework, it is useful to think about it in terms of the questions and challenges you will most likely encounter as you design and engage in research:

- *What do I want to study?* As you will see in Chapter 3 and again in Chapter 9, many forces both in and outside of the research process shape conceptual frameworks: experience, intuition, curiosity, interest, passion, and even concerns all shape your basic choices about the work you want to do. From there, the traditional tools of research—literature review, synthesis, research design, data collection, and analysis—help you refine broad interests into specific lines of inquiry.
- *Who cares?* All of us who do this work hope that it will at the very least inform the thinking of others, and many aspire to work that actually affects people's decisions, actions, or priorities. A conceptual framework pushes you to consider your work from the perspectives of others, and to keep in mind the rhetorical dimensions of your work.
- *What literature do I need to include, and when have I read enough?* As we discuss in the next chapter and in many of the examples that follow, a conceptual framework helps you figure out what is and is not relevant to your study, where and how theory fits within your argument, and how broad that argument needs to be given your audience(s). It also reminds you that when reviewing literature you are not only learning about your topic, but also the methods others have used to study it.
- *How do I know what kind of data to collect and how to analyze them?* A conceptual framework helps you clarify what you want to focus on, the relationships you want to examine, and the context(s) in which the work will unfold. This provides you with a set of criteria for thinking about appropriate tools and methods for conducting your research.
- *How does my own position and way of seeing the world shape the framing and execution of my research?* As William Dunworth's fascinating reflection on his doctoral research (Chapter 8) shows, understanding the ways in which who you are affects what you do as a researcher is much more than acknowledging limitations or navel gazing. Access to research sites and participants, data collection strategies and methods, and analytic frameworks are directly influenced by researcher identity and positionality.Conceptual frameworks help you think through these connections in concrete, actionable ways.
- *How do I deal with surprises in the data or unexpected developments in the field?* Despite the need for careful planning and forethought, research almost never proceeds according to plan. Context is fluid, participants (and researchers!) change, and research questions evolve. And the data almost always surprise us in some way—that's what makes it interesting! Ravitch and Carl (2016) describe a conceptual framework as a "methodological ecosystem" in which the creative work of research takes place. This is a powerful metaphor, since ecosystems are dynamic and interdependent. When one thing changes, it affects the whole system. So it is with your research. And just as understanding an ecosystem can help a scientist make sense of how the parts affect the whole and vice versa, a conceptual framework can help you figure out how unexpected changes in one part of your study influence all of the other parts.

CHAPTER 2 Why Conceptual Frameworks?

In the previous chapter, we defined conceptual frameworks and situated our definition within the related literature. In this chapter, we make the case for the necessity of a conceptual framework in empirical research. Conceptual frameworks, we argue, can help you resolve two common problems evident both in the literature and, more important, in the struggles and challenges faced by students embarking on major research projects. First, there is a lack of clarity and precision in understanding what the term *theory* means. Second, there is considerable confusion about the role and purpose of literature review as part of the empirical research process. If you are like most students, you hear your professors use these terms all the time, but you probably never hear them defined or explained (or even connected to each other). As a result, you learn that your research needs to include something called a literature review or a theoretical framework, but are less clear about how these pieces relate to one another or what their functions are. Organizing your thinking and work by developing and using a conceptual framework will simplify and clarify this process.

There has been no shortage of efforts to explore and explain the relationship among concepts, theories, frameworks, and methods (Anfara & Mertz, 2015). Some of these efforts seem to confuse rather than clarify these relationships. Others are clearly articulated and persuasively argued, but do not necessarily agree or fit with one another. Many of those who teach and mentor graduate students and novice researchers fail to adequately clarify their own understanding or working definitions of key terms or ideas relating to theory, conceptual frameworks, and the role of literature in empirical work, and thus use terms and concepts interchangeably. And even if you are lucky enough to have a professor or adviser who takes care to clearly define terms or concepts, the odds are that his is but one of several different (and potentially conflicting) voices you encounter as you prepare to carry out your own research. The field requires some realignment in this area. A primary goal of this book is to offer working concepts and definitions to address that need.

A thorough analysis of the extent and root causes of this confusion would require an empirical study of its own. The literature, after all, reflects the best efforts of people who purport to be thoroughly interested in this topic, and have presumably spent a great deal of time thinking about it. Focusing on the literature is therefore likely to *underestimate* the degree to which we as academics convey mixed, vague, or contradictory messages about how our students' research is shaped by the research of others. Even within this best-case scenario, however, it is not difficult to see where such messages might come from. We argue that there are two principal sources of confusion about how theory and literature inform research. First, the term *theory* refers to many things, but those who use the term with their students rarely explain what they mean by it (Maxwell, 2013; Maxwell &

Mittapalli, 2008). Second, while the necessity of a literature review is widely agreed upon, there is considerable disagreement about why it is necessary (Boote & Beile, 2005; Maxwell, 2006). Further, we argue, the literature review tends to be viewed as a product rather than an iterative process of meaning and decision making that is guided by, as it informs, one's conceptual framework. Static views of literature reviews limit their overall usefulness in making decisions about the research, and confuse rather than clarify the role that theory plays.

What (and Where) Is Theory?

Within the research lexicon, few terms are as frequently used and broadly defined as *theory*. Nearly everyone agrees that a theory attempts to explain why things work the way that they do, and that it usually does so by way of identifying and examining relationships among things (Maxwell, 2013; 2013; Maxwell & Mittapalli, 2008; Strauss, 1995). After that, it seems to get complicated and confusing for many.

Entire volumes have been dedicated to the question of what theory is. We cannot faithfully reproduce them here. To understand why this topic is confusing, however, we need only consider the multiple levels on which it is described. This is best accomplished by way of a scenario, as it (hopefully) avoids the overlapping and often vague terminology that characterizes many discussions of theory.

The Many Levels of Theory: A Thought Experiment

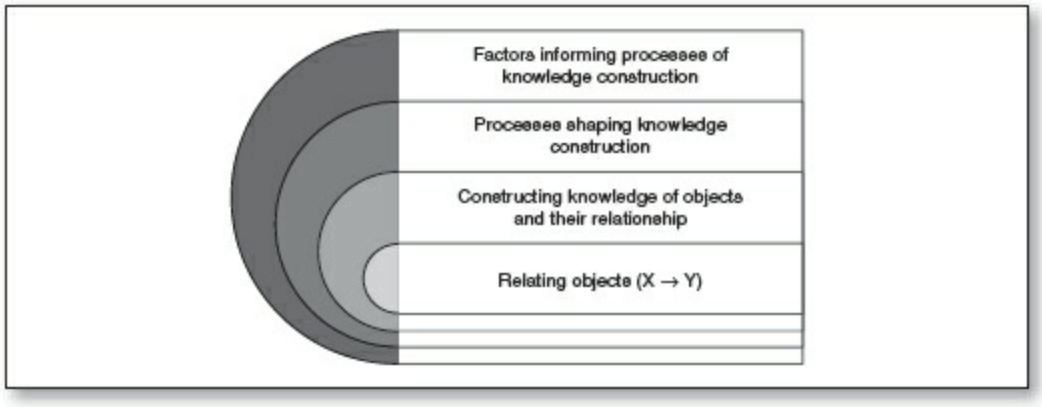
Picture yourself in a room, looking at a page upon which you have drawn two boxes, the first labeled X, the second Y. There is a line connecting the two boxes. That line represents a relationship of some sort.

What you are looking at is a theory. That theory could be causal, as would be the case if X represented smoking and Y represented lung cancer. This is probably the most widely understood meaning of what theory is. But it could also be interpretive. Suppose, for example, that X represented race and Y denoted identity. It is unlikely that you would be suggesting that race *causes* identity. But you might very well be suggesting that it is an expression or function of it. In either case, you would be arguing that the *meaning* of race is somehow shaped by identity. Maybe, however, you are unsure of whether it is X or Y that is doing the shaping, or you hypothesize that the two are mutually influential. In this case, your theory would be primarily relational. Irrespective of the type of relationship between X and Y, all of these theories have two things in common. First, they are a logical assembly of conceptual pieces (Morse, 2004). Anfara and Mertz (2015) suggest that these pieces begin with sensations, which are then given names (concepts), which are then grouped (constructs), then related to one another (propositions), and finally ordered logically (theory). In our scenario, then, the diagram on the page might represent either a proposition or a theory, depending on what X and Y represent and the complexity of the relationship between them. Second, they are constrained to what is in the diagram. The concepts X and Y exist as independent constructs, treated as objects under study, and more or less accepted at face value. In the examples above, this means that it is assumed that we all have roughly the same ideas about what race and identity (or smoking and cancer) are, or at least what conceptual building blocks constitute them. This view of concepts and the relationships between them is often referred to as *postpositivism* (Creswell, 2013). This term

has become something of a political hot potato in academia; those who wish to more fully engage this argument are invited to review the (many) publications arguing for or against it. For our purposes, we will simply note that the defining characteristic of this view of theory is that it concerns itself with concepts or constructs *as they are thought to exist*, and places less emphasis on questions of how or why they are thought to exist as such.

While likely the most obvious, the relationship between X and Y on the page in front of you is but one of many domains within which theory plays out in this scenario. A second domain takes into account the fact that it is *you* who has drawn the boxes and connecting line and *you* who is looking at the diagram. For this to occur, you must have accepted, at least conditionally, that there is such a thing as X, such a thing as Y, and some means by which they relate. The meaning of these things is, in this formulation, a function of your thinking about them; they hold no meaning outside of your interpretation. This is fairly easy to envision when X and Y denote abstractions such as race and identity, but it is worth pointing out that they are equally true of the first example given above, as both *smoking* and *cancer* allow ample room for interpretation that could substantively alter the hypothesized relationships between them. (The theorist Ivan Illich once corrected a journalist who had asked about his cancer by explaining that what he actually had was a cancer *diagnosis*.) While the first domain focused on the relationship between X and Y, this second domain focuses on the relationship between you and the diagram. It is concerned largely with issues of *epistemology*—how the individual constructs knowledge through the asking of questions. While undoubtedly theoretical in the sense of positing a relationship between thinker and thinking, this level of theory is often referred to in philosophical terms (Crotty, 1998; Guba, 1990). This is partly because it emerged as a critical response to positivism and objectivism, which held that the defining characteristic of scientific inquiry was that constructs such as X and Y could be observed objectively and atheoretically (Schwandt, 2015). But its implications extend beyond criticism. It encourages researchers to see themselves not merely as followers of scientific procedure but as interpreters and producers of it. It also explicitly defines research as an interpretive process: the way we collect and analyze data is a process of *making* rather than *discovering* meaning. This view of knowledge production forms the foundation for interpretivism and hermeneutics, two of the major paradigms informing social inquiry (Creswell, 2013; Denzin & Lincoln, 2003).

Figure 2.1 The Many Levels of Theory



If you accept that the diagram is an extension of your thinking and not an objective image of "reality," the next question is: Why do you think the way you do? What influences the processes through which you make meaning? How you conceptualize X and Y is not merely a function of your own eccentricities, after all. Your understanding of X and Y (and the relationship between them) is shaped by who you are, which is in turn shaped by the world around you. Who you are may be conceptualized in terms of age, race, gender, language, ethnicity, social class, sexual identity, or any number of other aspects of your social identity. It may be conceptualized in terms of an experience you have had. It is also fluid; how you see yourself, or which aspects of your self shape your understanding of something, likely depends on your context. A third domain of theory views the diagram as a cognitive or symbolic extension of yourself, and thus focuses on the relationship between the world outside the room and you. This is the primary focus of hermeneutics, which seeks to understand why interpretation happens as it does, and the types of linguistic and historical processes that influence the making of meaning (Gadamer, 1989; Ricoeur, 1973). It also gives rise to "critical" theories such as feminism, critical theory, critical race theory, queer theory, and aspects of Marxist theory, which posit that larger social structures and processes associated with race, gender, culture, and social class (and their intersectionality) profoundly shape how we come to understand social phenomena (Hill-Collins, 1998/2000; Parker & Lynn, 2002; Skeggs, 2001).

Returning to the particulars of our scenario, a fourth domain of theory focuses on the room you are sitting in, and how its location (specific and broad) and characteristics may affect your production of the diagram. Suppose, for instance, that X referred to human activity and Y referred to global warming. One might easily imagine (or observe, in the ongoing political and cultural battles over climate change) that the definition of each, and the relationship between the two, would vary greatly in both nature and complexity depending on the institutional setting in which it is hypothesized. Specifically, we might postulate that certain institutional settings, themselves embedded in larger worlds, make certain understandings and ways of relating X and Y more or less available. Theorists such as Michel Foucault devoted their intellectual lives to exploring the ways in which the development and evolution of social institutions (for example, churches, hospitals, asylums, and prisons) fundamentally altered the conceptual categories (for example, virtue, health,

sanity, and safety) available to individuals as they experienced and interpreted the world around them and thus circumscribed the choices they made (Mills, 2003). Philosophical traditions such as post-structuralism and post-modernism share a similar preoccupation with interrogating the production of "truth" and "rationality" and the social implications thereof (Lather, 2006). (In a mischievous bit of analysis, Becker [1993] points out that the terms under which arguments over the epistemology of social inquiry play out are themselves a product of the social organization of academic disciplines or fields.)

Whose Theory Is It, and Where Does It Come From?

So far, we have focused primarily on what theory is about. To complicate matters further, there is the question of whose theory it is. Descriptions of theory range from informal hunches to formal sets of propositions that have guided, and been subject to, widespread empirical exploration (Lytle & Cochran-Smith, 1992; Noffke, 1999; Schön, 1995). Schwandt (2015) suggests that theory ranges from informally held *concepts* about why things work the way they do, to *theoretical orientations* used for "identifying, framing, and solving problems," to *substantive theories* focused on specific content rather than just relationships, to *formal theories*, which in essence are substantive theories that have achieved a level of generalizability (p. 302). Similarly, Marshall and Rossman (2011) differentiates between *tacit* and *formal* theories—the former referring to personally held ideas about how things work, the latter denoting established theory as found in the research literature. Maxwell (2013) adopts a similar view, noting that while *existing* theory frames and informs the research process, the assumptions and tentative hypotheses held by the researcher as she thinks through a study themselves constitute theory. Referring to an anecdote in which a student is interested in parent–infant interactions, Schram (2003) suggests that

> we can identify theory along a continuum that extends from formal explanatory axiom (Bowlby's Attachment Theory), to a tentative hunch ("Something about that interaction between mother and infant doesn't seem right"), to any general set of ideas that guide action ("It's more appropriate to ask the mother about it first"). (p. 42)

In other words, theory may posit a formal relationship, refer to a hunch held by the researcher/observer, or reflect a set of beliefs about how the topic itself should be studied.

There is nothing wrong with any of these levels, or characterizations, of theory. Each is useful; each says something important about how we go about figuring out how the world works and the factors that shape that process. The problem is that they are really quite different from one another, yet they all have the same name. The result was neatly summarized by Flinders and Mills (1993):

> When researchers speak of theory, they naturally take for granted that they will be understood at the level they intend to be understood. Yet, because these various levels of meaning are simultaneously at play, what researchers take for granted may not be shared by others. They sometimes find themselves talking about theory at one level, while their colleagues are thinking about it at quite another level. At best, this leads to muddled communication. At worst, researchers are left wondering how otherwise intelligent people could be so obtuse as to misunderstand what they mean. (p. xiv)

When a professor tells you that your work lacks a "theoretical framework," she could be referring to any of the domains of theory described above, or to some amalgam of domains. Is it any wonder that students are so often confused about where, when, and how theory informs their work?

Throughout *Reason and Rigor*, we aim to highlight how theory (at different levels) informs the conceptual frameworks of scholars from different fields, using different methods. While all of the researchers featured use theory to posit relationships between concepts, they vary considerably in the degree to which they explicitly theorize themselves (and the worlds they inhabit) into the research process. As we will see, this is due to a variety of factors, including the nature of the questions, the intended audience, the field(s) in which the researcher works, and the predispositions and work processes of the researchers themselves.

Assuming that you can somehow figure out what your professors mean by *theory*, how do you figure out how it informs your work? What theories (and what levels of theory) apply, given your interests? To answer these questions, you need to learn from the work of others. But here we run into a second, and equally serious, source of confusion: Academics define and describe literature reviews in different ways, and do not necessarily agree on the purpose of reviewing literature.

What Is a Literature Review, and What Is It For?

As we began writing this book, we asked a dozen or so colleagues from across the country, all university-based scholars and researchers, to tell us how they view the role of the literature review in master's theses and dissertations as well as in scholarship more broadly. There was a wide range of responses, many of which contradicted each other. For some, it seems, developing a comprehensive literature review reflects a kind of recreation of their own graduate experiences (positive or not): they ask students to do it because they believe it to be a rite of passage that is beneficial for novice researchers; it is arduous and time-consuming (as well as grounding and contextualizing) and that is what makes doctoral work rigorous. This view persists because those who have experienced this kind of process are, in turn, more likely to ask their students to engage in the same kind of process. For others, the purpose of a literature review is to demonstrate expertise about a specific topic. This is partly out of the necessity of knowing one's subject, and partly from a sense of academic quid pro quo—if you want other people to care about what you think, you need to show that you care about what they think and that you know what a wide variety of scholars think. Still others view the literature review as a process of situating what one wants to study within a larger framework of information and ideas, in essence explaining how the empirical work at hand informs unresolved questions or gaps in the literature.

Several of our colleagues used a common metaphor to describe the literature review: a conversation. Yet their framing of this conversation differed in important ways. First, if a literature review is a conversation among scholars, is the student/author a participant in the conversation or an observer, or some combination between the two? Second, if the student is a participant, how much is he allowed to talk back to this discourse community, and in what ways? For example, is his role to sit at the table, ask questions, and nod solemnly, or is he free to engage with what he sees as problematic assumptions or ideas and offer critiques?

Like the confusion about conceptual and theoretical frameworks, the role of the literature review in academic research is perplexing for many students, novice scholars, and researchers more broadly. The literature in this area, while considerable, does not necessarily ameliorate this confusion (Bruce, 1994; Boote & Beile, 2005). And even if academics could all agree on what a literature review is for, we often fail to adequately address the question of greatest importance to students: How does the literature review relate to the design and execution of the study more generally? A central purpose of this book is to show you how to use literature review to build your conceptual framework, which in turn informs every other aspect of your work.

Relevance Versus Thoroughness

While there are actually more than a dozen different forms of literature review (Booth,

Papaioannou & Sutton, 2012), they are most often defined in one of two ways. The first is as a sub-genre of academic writing. A literature review in this sense is a comprehensive synthesis of all of the research literature about a specific topic. Typically, the author establishes criteria for which research to include, sometimes based on publication in peer-reviewed journals, other times based on data or methodology. The goal of this type of writing is to present to the reader a clear sense of the intellectual contours and fault lines within a given conceptual domain: What are the broad areas of agreement about a given topic, where are there disagreements, and why do they occur? What questions are unanswered? What overarching conclusions and lessons can be learned from the accumulated literature? This view suggests that mastery of one's field—a prerequisite for doctoral-level work—requires a comprehensive synthesis of all literature related to that field. This is necessary not only for the sake of learning relevant content and theory, but also for developing the skills of assimilating and synthesizing academic work (Hart, 1998; Boote & Beile, 2005).

The second way of defining a literature review relates more specifically to theses and dissertations. The most common, and general, definition of the literature review in this sense is that it is a discussion of research literature related to one's topic (Bruce, 1994; Nunan, 1992; Hart, 1998). This view suggests that the scope of the literature review should be confined to those works that are most relevant to the study's research questions.

Each of these definitions makes sense. The problem is that scholars do not tend to agree on whether they are two different things. Maxwell (2006) discusses a "division within the educational research community as a whole over the proper form and goal of literature reviews that are part of dissertations and dissertation proposals" (p. 29). That division, he argues, is between the expectations of some faculty that a literature review must be thorough and comprehensive versus the view of others that it should be a selective and focused review of literature within and across specified fields. This inconsistency, he argues, is at the center of the confusion around the genre, its goals, and its uses. Maxwell offers a perspective on literature reviews that *relevance* is more important than *thoroughness*. He defines relevance in this way: "Relevant works are those that have important implications for the design, conduct, or interpretation of the study, not simply those that deal with the topic, or in the defined field of substantive area, of the research" (p. 28), and argues against what he refers to as Boote and Beile's "foundationalist" perspective on literature reviews, arguing instead to view them as an anchor or tool, stating that "a literature review is an essential tool, and any researcher must learn to use it competently" (p. 30).

Process Versus Product

Most researchers would readily concede that literature review is both a product and a process (Ridley, 2012). Yet in our experience there is a strong bias in favor of the former. Too much emphasis is placed on the literature review as a component of dissertations or

published research—a task to be completed and checked off—rather than as an active process of sense-making that helps the researcher synthesize and integrate within and across various existing theories and bodies of scholarship. Above all, the purpose of literature review is *learning*. It is the process through which you become informed about what is known about a given topic, what is not known, and how others have attempted to answer relevant questions related to that topic. Viewed this way, the thoroughness–relevance relationship shifts from one that appears dichotomous to one that is developmental. The purpose of reviewing literature is to arrive at an understanding of what is most relevant, both to the field and to the research design. The road to relevance passes through thoroughness. The remaining question—how much of the literature review to include in the final product—strikes us as less important and interesting than what is learned along the way and how it informs the work.

The focus on literature review as product creates an artificial separation of the literature review from other elements of the dissertation, including the conceptual/theoretical framework and methodology. Reviewing dissertation drafts, it is not uncommon for us to find separate sections titled "Statement of the Problem," "Conceptual Framework," "Theoretical Framework," and "Methodology" in addition to a chapter titled "Literature Review." Yet each of these sections actually reviews the literature!

Even more vexing is the common practice of separating one's "statement of the problem" or "purpose of the study" from the wider literature review. One commonly used guide to writing dissertation proposals, for example, defines the problem statement as an introduction to the study that describes "the big issue you want to address" (Biklen & Casella, 2007, p. 56), while the literature review (presented as a thing rather than a process) is a summary of "the conversation that already exists in relation to your topic" (p. 76). This strikes us as problematic for two reasons. First, as we note above, arguing for the importance of your study should be the product of reviewing the literature, not a parallel activity. Second, suggesting that this one small section of your study is the designated place for argument implies that the rest of your study is not such a place. By now it should be apparent that we view the whole of your study as an argument, and much of it an outgrowth of the process of reviewing literature.

Understanding a conceptual framework as an argument for the importance and rigor of a study, the definition and purpose of literature review becomes much clearer. Literature review is the process through which the researcher builds the argument for their work. As such, our definition prioritizes process over product. And while we certainly lean toward the criterion of relevance more than thoroughness, we see the latter as a precursor to the former. Further, we believe that relevance is not simply a matter of what is "related to" one's topic, but rather the specific literature (topical and theoretical) that frames and advances the argument for the study's topic and methods—the conceptual framework.

Understood this way, literature review as a process has two main purposes. First, it helps

you understand "the conversation" already taking place about your topic, and what you might have to add to that conversation. Research is a collective, cumulative enterprise. The ultimate goal is the expansion of knowledge; it therefore stands to reason that new research should embark from the point up to which a topic or question is well defined or understood. Shulman (1999) asserts that *generativity*—or "building on one another's work" (p. 162)—is one of the primary criteria of solid scholarly work. He defines *generativity* as the way in which scholars make sophisticated and critical meaning of prior scholarship and research in order to situate our own work in a preexisting milieu. Shulman states that "the key rationale for insisting on disciplined, public, and peer-reviewed work is to provide a sound basis for others to build atop one's efforts, even as each of us strives to stand on the shoulders of our peers. If the edifice of education scholarship is to achieve integrity, then the investigations that constitute that corpus of work must themselves have integrity" (p. 162).

Second, literature review shows you all of the different ways that researchers have attempted to think about and study the question or problem you are now approaching. Hart, in his widely used book, *Doing a Literature Review: Releasing the Social Science Research Imagination* (1998), makes the argument that:

> A major benefit of the review is that it ensures the "researchability" of your topic before "proper" research commences. All too often students new to research equate the breadth of their research with its value. Initial enthusiasm, combined with this common misconception, often results in broad, generalized and ambitious proposals. It is the progressive *narrowing* of the topic, through the literature review, that makes most research a practical consideration. (p. 13)

In this sense, the literature review helps one to focus one's topic and the scope of one's research substantively, not just to contextualize the topic and research questions. Similarly, Boote and Beile (2005) argues that a thorough literature review is essential to developing the theoretical and methodological sophistication needed to make good decisions about research design and methods. They argue that this use of literature is all too often overlooked.

> Current initiatives and faculty focuses have ignored the centrality of the literature review in research preparation, in turn weakening the quality of education research. This oversight has its roots, we believe, in a too-narrow conception of the literature review—as merely an exhaustive summary of prior research—and a misunderstanding of its role in research. … A good literature review is the basis of both theoretical and methodological sophistication, thereby improving the quality and usefulness of subsequent research. (pp. 3–4)

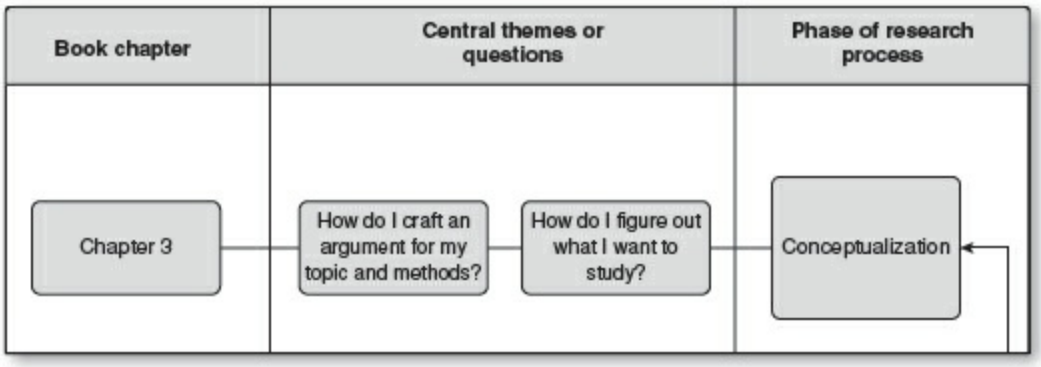
Taken together, these purposes suggest that an effective review of the literature enables the researcher to (a) understand the conversations already happening within and across relevant fields; (b) figure out how to add to these conversations; and (c) identify the best means of doing so theoretically and methodologically (Glesne, 2016; Hart, 1998; Ravitch & Carl, 2016).

The Case for Conceptual Frameworks: Concluding Thoughts

This chapter has focused on the reasons why students and new researchers tend to get lost inside all of the different elements of the research process. In sum, we argue that students tend to be confused not by a lack of ideas about what theory is or what literature review is for, but by a profusion of such ideas with no clear mechanism or framework for sorting them out or relating them to one another. This confusion is compounded by disagreement about how both theory and literature are intended to inform and structure research. Some scholars (Anfara & Mertz, 2015; Dressman, 2008) have evoked an "off the shelf" view of theory, as in, *I am using social reproduction theory to study the educational experience of second-generation Central American immigrants*. Others caution students to resist precisely this approach, suggesting that premature adoption or overreliance on theory forces the researcher to narrow his focus, blinding him to possible avenues of inquiry in his work (Anderson & Jones, 2000; Avis, 2003; Van Maanen, 1988). As noted previously, disagreements also abound with regard to literature reviews, principally with regard to their scope, the degree to which the literature is intended to inform research design and methodology, and the distinction between literature review as a process versus product.

This overall confusion and lack of coherence will not be resolved by renaming things (or, worse yet, arguing about which things should get which names). What will help, however, is if researchers can learn to be as clear and explicit as possible about why and how we have chosen to study a topic, and can learn to use the process of literature review to develop, refine, and evolve these arguments. This book is intended to promote this type of transparency and coherence. In the chapters that follow, we highlight and analyze the work of six scholars, each of whom has demonstrated how to frame and argue for the relevance and purposes of his or her research as well as how to let those arguments inform, and be informed by, his or her empirical process.

CHAPTER 3 Origins of a Conceptual Framework: *The Birth of Grit*



Throughout this book, we argue that good research is built on a strong conceptual framework. The chapters that follow specifically focus on how conceptual frameworks shape research design, data collection, analysis, and writing. But where do good conceptual frameworks come from? How do you figure out what matters to you, and once you do, how does that get shaped into a framework that can guide your research?

In this chapter, we trace a conceptual framework from its earliest incarnations into a final, published form—and beyond. We focus on "Grit: Perseverance and Passion for Long-Term Goals," authored by Angela L. Duckworth, Christopher Peterson, Michael D. Matthews, and Dennis R. Kelly (2007). This was Duckworth's first publication on grit, an idea that would profoundly influence research, policy, and practice in psychology and education. It is therefore an ideal case for examining the question of where ideas come from and how they evolve into conceptual frameworks. We begin by situating the article within the wider context of Duckworth's work, and then introduce an excerpt from the published article. We next turn to the question of how this work came to fruition. In particular, we focus on the story of grit as an idea—how its formation emerged from different lines of inquiry. In particular, we highlight the interplay of thinking and intuition, experience, review of literature, methodological choices, and data collection and analysis in giving shape to both the central concept of grit and the argument for its importance.

About the Author

Dr. Angela Lee Duckworth is an associate professor of psychology at the University of Pennsylvania and a 2013 MacArthur Fellow. Duckworth received a BA in neurobiology from Harvard in 1992 and, as a Marshall Scholar, a Masters in neuroscience from Oxford. She completed her PhD in psychology at the University of Pennsylvania. Prior to her career in research, Duckworth founded a nonprofit summer school for low-income children which won the Better Government Award for the state of Massachusetts and was profiled as a Harvard Kennedy School case study. Angela has also been a McKinsey management consultant and, for five years, a math teacher in the public schools of San Francisco, Philadelphia, and New York City.

Background and Context: An Overview of the Work in Focus

Angela Duckworth knew that grit was important before she had a name for it. In her five years as a math teacher, she repeatedly saw students succeed or struggle not so much due to their ability, but rather their willingness to sustain effort and follow through. Her inability to help some students travel the last mile proved an ongoing source of frustration and disappointment. "It was a strong intuition I had from five years of classroom experience that many of my students would just give up too early," she reflected in her interview with us. "I could just see what was over the hill but I couldn't get them to come over the hill with me so they could see that things were really going to be okay on the other side. From the very beginning of graduate school, I knew that I wanted to study persistence."

Persistence, however, was not the initial focus of Duckworth's research. Instead, she began by studying self-control—another quality she intuited to be critical to students' success in the classroom, and an ongoing focus of her research. At the heart of both of these lines of inquiry was a common, and old, question: What explains why some people achieve more and others less? And more specifically, what explains it even when those people inhabit similar social contexts and have similar abilities?

Before she could mount an argument that grit was an important part of the answer to those questions, she had to define it, and show that it was distinct from other characteristics, such as ability or "Big Five" personality traits. The article at the center of this chapter is her attempt to do just that. This work serves three important purposes: to define and explain what grit is, establish that it is a unique and distinct construct, and make the case that it matters.

Duckworth's research falls within a broader body of work that has steadily gained traction in policy circles in recent years. In education, research has long focused on a relatively narrow set of outcome measures to both evaluate programs and identify factors that predict success or struggle. Similarly, policy has centered heavily on standardized test scores as a means to evaluate both schools and teachers. Meanwhile, research on the workplace has continued to try to unravel the question of what makes some people successful while others struggle, with most work focused either cognitive ability (g) or personality traits (Heckman & Rubinstein, 2001).

Recently, however, social scientists have begun to question this narrow focus, advancing different but related theories about what predicts success in school and at work. James Heckman, a labor economist at the University of Chicago, has published a string of books and articles since 2000 advancing the argument that "noncognitive" skills such as persistence are critical to educational and labor market success, and that narrow measures of

achievement are a poor predictor of long-term outcomes (Heckman & Rubenstein, 2001; Heckman, Stixrud & Urzua, 2006; Heckman, 2014). Carol Dweck, a psychologist at Stanford, has argued that "mindset"—one's beliefs about whether ability is fixed or mutable—is in fact a stronger predictor of success than ability, and that mindset can be taught and learned (Dweck, 2006). In 2012, the Consortium for Chicago School Research published a report arguing, in part, that grades were a better measure of academic performance than test scores, in large part because they encompassed noncognitive factors such as academic behaviors and persistence (Farrington et al., 2012). Collectively, this work is pushing educators, policymakers, and business leaders to rethink what skills or abilities should be prioritized and how they should be measured.

In the sections that follow, we first present an excerpt of "Grit: Perseverance and Passion for Long-Term Goals." The excerpt focuses on the literature review and methods discussion included in the published work. Following the excerpt, we break the argument down into a series of logical steps, making the paper's conceptual framework explicit. We then turn to the primary focus of this chapter: the evolution of grit as a concept, the framework that developed around it, and processes that informed that development.

We focus on the evolution of the idea itself, highlighting the process that led to both the coining and definition of grit as a term. Importantly, this process drew on three distinct forms of research: literature review, interviews, and survey design. Each of these forms served to shape and refine the concept and to bolster the argument for it. The interplay between concept and method is also critical: the definition of grit shaped the means to study it, but the reverse was also true. Each in turn helped to frame the argument that grit is real and important, the conceptual framework that serves as the foundation for this important and influential work.

Duckworth, A. D., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92* (6), 1087–1101.

Talent and Achievement

> [1] Intelligence is the best-documented predictor of achievement (Gottfredson, 1997; Hartigan & Wigdor, 1989). Reliable and valid measures of IQ have made it possible to document a wide range of achievement outcomes affected by IQ, including college and graduate school grade point average (GPA; e.g., Bridgeman, McCamley-Jenkins, & Ervin, 2000; Kuncel, Hezlett, & Ones, 2001), induction into Phi Beta Kappa (Langlie, 1938), income (Fergusson, Horwood, & Ridder, 2005), career potential and job performance (Kuncel, Hezlett, & Ones, 2004), and choice of occupation (Chown, 1959)…

[2] However, in the Terman longitudinal study of "mentally gifted" children, the most accomplished men were only 5 points higher in IQ than the least accomplished men (Terman & Oden, 1947)… More predictive than IQ of whether a mentally gifted Terman subject grew up to be an accomplished professor, lawyer, or doctor were particular noncognitive qualities: "Perseverance, Self-Confidence, and Integration toward goals" (Terman & Oden, 1947, p. 351). Terman and Oden, who were close collaborators of Cox, encouraged further inquiry into why intelligence does not always translate into achievement: "Why this is so, what circumstances affect the fruition of human talent, are questions of such transcendent importance that they should be investigated by every method that promises the slightest reduction of our present ignorance" (p. 352).

Personality and Achievement

[3] The Big Five model has provided a descriptive framework for much of the contemporary empirical work on traits that predict success (Goldberg, 1990; John & Srivastava, 1999; McCrae & Costa, 1987; Tupes & Christal, 1992). In a 1991 meta-analysis, Barrick and Mount concluded that Big Five Conscientiousness related more robustly to job performance than did Big Five Extraversion, Openness to Experience, Neuroticism, or Agreeableness (Barrick & Mount, 1991). Uncorrected correlations between conscientiousness and job performance ranged from r _ .09 to r _ .13, depending on the occupational group. In a meta-analysis of confirmatory studies of personality measures as predictors of job performance, Tett, Jackson, and Rothstein (1991) observed a sample-weighted mean correlation between conscientiousness and job performance of r _ .12.

[4] One might conclude from these meta-analyses that at best, any given personality trait accounts for less than 2% of variance in achievement. If so, compared with IQ, personality would seem inconsequential. Alternatively, it is possible that more narrowly defined facets of Big Five factors may more robustly predict particular achievement outcomes (Paunonen & Ashton, 2001). It is also possible that there exist important personality traits not represented as Big Five facets…

[5] Although we recognize the utility of the Big Five taxonomy as a descriptive framework in which newly characterized personality traits should be situated, we do not believe that it provides an exhaustive list of traits worth studying.

[6] Conscientious individuals are characteristically thorough, careful, reliable, organized, industrious, and self-controlled. Whereas all of these qualities bear a plausible contribution to achievement, their relative importance likely varies depending upon the type of achievement considered. For example, Galton (1892) suggested that self-control—the ability to resist temptation and control impulses—is a surprisingly poor predictor of the very highest achievements…

[7] Hough (1992) distinguished between achievement and dependability aspects of conscientiousness. According to Hough, the achievement-oriented individual is one

who works hard, tries to do a good job, and completes the task at hand, whereas the dependable person is self-controlled and conventional (p. 144). In a meta-analysis, Hough found scales classified as measuring achievement orientation predicted job proficiency (r _ .15) and educational success (r _ .29) better than did dependability (r _ .08 and r _ .12, respectively).

[8] Grit overlaps with achievement aspects of conscientiousness but differs in its emphasis on long-term stamina rather than short-term intensity. The gritty individual not only finishes tasks at hand but pursues a given aim over years. Grit is also distinct from dependability aspects of conscientiousness, including self-control, in its specification of consistent goals and interests. An individual high in self-control but moderate in grit may, for example, effectively control his or her temper, stick to his or her diet, and resist the urge to surf the Internet at work—yet switch careers annually. As Galton (1892) suggested, abiding commitment to a particular vocation (or avocation) does not derive from overriding "hourly temptations."

[9] Grit also differs from need for achievement, described by McClelland (1961) as a drive to complete manageable goals that allow for immediate feedback on performance. Whereas individuals high in need for achievement pursue goals that are neither too easy nor too hard, individuals high in grit deliberately set for themselves extremely long-term objectives and do not swerve from them—even in the absence of positive feedback. A second important distinction is that need for achievement is by definition a non-conscious drive for implicitly rewarding activities and, therefore, impossible to measure using self-report methods (McClelland, Koestner, & Weinberger, 1992). Grit, in contrast, can entail dedication to either implicitly or explicitly rewarding goals. Further, we see no theoretical reason why individuals would lack awareness of their level of grit.

Development of the Grit Scale

[10] The aforementioned reasoning suggests that grit may be as essential as IQ to high achievement. In particular, grit, more than self-control or conscientiousness, may set apart the exceptional individuals who James thought made maximal use of their abilities. To test these hypotheses, we sought a brief, stand-alone measure of grit that met four criteria: evidence of psychometric soundness, face validity for adolescents and adults pursuing goals in a variety of domains (e.g., not just work or school), low likelihood of ceiling effects in high-achieving populations, and most important, a precise fit with the construct of grit.

[11] We reviewed several published self-report measures but failed to find any that met all four of our criteria. The only stand-alone measure of perseverance we found, the Perseverance Scale for Children (Lufi & Cohen, 1987), is not face valid for adults. The Passion Scale (Vallerand et al., 2003) assesses commitment to a subjectively important activity but not perseverance of effort. The tenacity scale used by Baum and Locke (2004) and derived from Gartner, Gatewood, and Shaver (1991)

was developed for entrepreneurs and is not face valid for adolescents. Similarly, the Career Advancement Ambition Scale (Desrochers & Dahir, 2000) refers to attitudes toward one's "profession" and "firm." Cassidy and Lynn (1989) developed a need for achievement questionnaire that taps work ethic and desire for excellence, which are consonant with the construct of grit, but also several irrelevant qualities such as the needs for money, domination of others, superiority over competitors, and social status. Finally, the goal commitment scale by Hollenbeck, Williams, and Klein (1989) assesses state-level, not trait-level, goal commitment.

[12] In the absence of adequate existing measures, we developed and validated a self-report questionnaire called the Grit Scale. We expected grit to be associated with Big Five Conscientiousness and with self-control but, in its emphasis on focused effort and interest over time, to have incremental predictive validity for high accomplishment over and beyond these other constructs.

[13] We also tested the hypothesis that grit would be unrelated to IQ. Whereas personality and IQ represent independently flourishing literatures, few contemporary investigations have incorporated both kinds of measures. Thus, we have learned surprisingly little about how personality traits and intelligence are related and about their relative contributions to performance. There are notable exceptions to this trend (cf. Ackerman & Heggestad, 1997; Chamorro-Premuzic & Furnham, 2005), but in general, psychology has ignored the recommendations of Wechsler (1940) and R. B. Cattell and Butcher (1968), who cautioned that the independent study of either noncognitive or cognitive individual differences, to the exclusion of the other, would be impoverished.

Method

[14] *Development of the Grit Scale*. We began by generating a pool of 27 items tapping the construct of grit. Our overarching goal for scale development was to capture the attitudes and behaviors characteristic of the high-achieving individuals described to us in early, exploratory interviews with lawyers, businesspeople, academics, and other professionals. We intentionally wrote items that would be face valid for both adolescents and adults and that did not specify a particular life domain (e.g., work, school). We included items that tapped the ability to sustain effort in the face of adversity (e.g., "I have overcome setbacks to conquer an important challenge," "I finish whatever I begin"). We also considered that some people sustain effort not because of subjective interest but rather because they are afraid of change, compliant with the expectations of others, or unaware of alternative options. Thus, several Grit Scale items ask about the consistency of interests over time. For example, two reverse-scored items were "My interests change from year to year" and "I have difficulty maintaining my focus on projects that take more than a few months to complete." Items are rated on a 5-point scale from 1 _ not at all like me to 5 _ very much like me.

[15] We considered item-total correlations, internal reliability coefficients, redundancy, and simplicity of vocabulary to eliminate 10 items. On the remaining 17 items, we conducted an exploratory factor analysis on half of the observations chosen at random (n _ 772). We sought a solution that satisfied tests for number of factors (e.g., R. B. Cattell's scree test), retained 5 or more items with loadings of at least .40, yielded internally consistent factors that made psychological sense, and best approximated simple structure. A two-factor oblique solution with promax rotation satisfied these criteria. See Table 1 for the 12 retained items and corrected item-total correlations with each item's respective factor. We considered the possibility that these two factors were an artifact of positively and negatively scored items but were convinced that the factor structure reflected two conceptually distinct dimensions. The first factor contained 6 items indicating consistency of interests, and the second factor contained 6 items indicating perseverance of effort. Because we expected that stamina in the dimensions of interest and effort would be correlated, we accepted this oblique solution in which the two factors were correlated at r _ .45.

[16] To test the integrity of the final two-factor solution, we confirmed that the specificity of each factor (i.e., the portion of reliable variance not shared by the other factor) was larger than the error variance for that factor. Further, confirmatory factor analysis with the remaining 773 observations in our sample supported this two-factor solution (comparative fit index _ .83 and root-meansquare error of approximation _ .11). The resulting 12-item Grit Scale demonstrated high internal consistency (_ _ .85) for the overall scale and for each factor (Consistency of Interests, _ _.84; Perseverance of Effort, _ _ .78). In subsequent analyses, neither factor was consistently more predictive of outcomes than the other, and in most cases, the two together were more predictive than either alone. Therefore, we proceeded using total scores from the full 12-item scale as our measure of grit.

The Present Research

[17] In the absence of adequate existing measures, we developed and validated a self-report questionnaire called the Grit Scale. We expected grit to be associated with Big Five Conscientiousness and with self-control but, in its emphasis on focused effort and interest over time, to have incremental predictive validity for high accomplishment over and beyond these other constructs… We also tested the hypothesis that grit would be unrelated to IQ.

The Argument

As we define it, a conceptual framework is a grounded argument about why the topic of a study matters to its various and often intersecting fields, why the methodological approach used to explore that topic is valid, and the ways in which the research design is appropriate and the methods are rigorous. In "Grit: Perseverance and Passion for Long-Term Goals," the authors first introduce and define the term:

> We define grit as perseverance and passion for long-term goals. Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress. The gritty individual approaches achievement as a marathon; his or her advantage is stamina. Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course. (pp. 1087–88)

The authors then advance an initial hypothesis that grit is "essential to high achievement," and construct an argument for this position. That argument can be summarized as follows:

1. While measures of intelligence have been shown to predict achievement in a number of ways, the effect is smaller than we might expect, and other, noncognitive factors such as perseverance and self-confidence appear to play an important role (paragraphs 1–2).
2. Another potential predictor of achievement is personality. Yet the so-called Big Five personality traits have not been shown to predict achievement in any meaningful way (paragraphs 3–4).
3. This is most likely because there are important traits that the Big Five framework fails to include. Specifically, conscientiousness encompasses a diverse set of characteristics, some of which appear to predict achievement more robustly than the overall construct (paragraphs 5–7).
4. Grit overlaps with some of these characteristics, but is also conceptually distinct from them, particularly in its emphasis on pursuit of long-term goals (paragraphs 8–9).
5. There is therefore reason to think that grit may be a more robust predictor of achievement than other characteristics. Yet no measure of grit currently exists (paragraphs 10–11).
6. The grit scale was developed to determine whether grit could be distinguished from other characteristics, and whether it would predict achievement more robustly (paragraphs 12–13).
7. Developing the scale consisted of first creating a set of self-report items that, collectively, described the core tenets of grit using a variety of terms and expressions. Redundant or confusing items were omitted, and factor analysis was used to

construct the final scale, which included two related dimensions: consistency of interests and perseverance of effort (paragraphs 14–16).

8. Analyzing data from six different studies, regression analysis was used to measure the relationship between grit and achievement in a variety of domains, and extent to which grit predicts achievement over and above ability or conscientiousness (paragraph 17 forward).

The relationship between literature review and methods in the structure of this argument is emblematic of a strong conceptual framework. In discussing what is already known about what predicts or explains achievement, Duckworth and her coauthors use literature to show that, while our understanding of this important topic is incomplete, we have some idea of the shape and size of the piece that is missing from the picture. This sets up the argument that grit may be that missing piece, but it also establishes a strong rationale for the methods employed. If the literature suggests that there *should be* a construct distinct from personality (specifically conscientiousness) and intelligence that predicts achievement better than either of them, then the modes of collecting and analyzing data should allow the authors to test those two conjectures. Consequently, the authors propose to develop a scale using factor analysis (which identifies the underlying cohesive factors of a large number of survey items), test it alongside established measures of intelligence and personality (to demonstrate that it is distinct from either), and analyze the extent to which the new construct (grit) predicts achievement over and above either of them. The ideas that are discussed speculatively in the literature are tested and validated empirically through data collection and analysis.

Origins: Conversations With the Dead and the Living

While the methodological specifics of this article could warrant a chapter of their own, we are primarily concerned here with where the idea for a conceptual framework comes from. What types of thinking or processes give form to the argument as it appears here? What questions do the authors ask before they are ready to posit an answer?

Quantitative research is often associated with logical positivism: a willingness to accept that things are what they are in an objective sense. This is an overly reductive view, however, and in this instance it is clearly not the case. As a concept, grit has its roots in experience, intuition, and qualitative methods. As we described earlier, the original impetus for focusing on grit and self-control emerged from Duckworth's experience as a teacher and her intuition about what enabled some children to succeed. As a graduate student working with Martin Seligman at the University of Pennsylvania, her ideas about grit evolved primarily through conversation with others about success and achievement. As she shared with us,

> I would meet weekly with Marty and we would talk about people we knew who were successful. We would just try to do the old style armchair psychology that William James did, like "what about your friend Sarah Z., tell me about her?" And I would say to Marty, "what makes Robert Sternberg so productive?" We had an intuition from our own personal observations that this kind of extraordinary stamina, this kind of singular purpose maintained over very long periods of time, was one of the defining characteristics of the people who are really at top of their fields. It was something different from talent.

These conversations helped sharpen Duckworth and Seligman's ideas of what they really wanted to know—the questions they needed to be asking. The next step was to include more people in their discussions. Duckworth conducted a series of interviews with leaders in a variety of fields based on the same set of questions she and Seligman were asking each other. As she and her coauthors explain in the article:

> Our hypothesis that grit is essential to high achievement evolved during interviews with professionals in investment banking, painting, journalism, academia, medicine, and law. Asked what quality distinguishes star performers in their respective fields, these individuals cited grit or a close synonym as often as talent. In fact, many were awed by the achievements of peers who did not at first seem as gifted as others but whose sustained commitment to their ambitions was exceptional. Likewise, many noted with surprise that prodigiously gifted peers did not end up in the upper echelons of their field. (p. 1088)

Though she had no training in interviewing, Duckworth intuited one of its basic premises: inviting participants to tell stories, describe specific people or situations, and then ask them to interpret those reflections. In this case, that consisted of asking participants to think of people in their field who have been highly successful, describe them, and then reflect on the qualities or characteristics that most contributed to their success.

These interviews were exploratory; they were designed to get at the same themes and questions that had emerged in Duckworth's conversations with Seligman. They were also intended to give her a sense of the language people used to describe what she ultimately called grit, including terms like passion, stamina, interest, and effort. These different framings of a common concept would inform the development of items in the next stage of the research process. Before that, however, Duckworth faced the question of when to shift from exploratory interviewing to writing survey items. As it turned out, the work of an earlier generation of psychologists provided a useful lens to answer these questions. "I was very influenced by doing this historical reading," she reflected:

> I went back to Francis Galton and Eysenck and a lot of great psychologists had actually taken upon themselves the question of who is successful in life. So, reading Catherine Cox, William James, these characteristics of stamina in the domains of interest and effort, the two parts of grit, it emerged in that too. I think if I hadn't seen this resonance between my interviews and then also observations of long dead psychologists, I probably would have kept going a little further [with interviews].

This reflection offers two important lessons. First, when reviewing literature, there is often a bias toward the novel. Particularly among graduate students, an up-to-the-minute literature review suggests topical and methodological currency. Yet in many disciplines, some of the most influential work is also the oldest. Older work is also more likely to be focused on big, general questions (like what makes people successful in life), because it was conducted before detailed specialization became a hallmark of academic work.

The second lesson focuses on the idea of convergence, and is applicable to both literature review and data collection. Duckworth interviewed until she found a point of "resonance" between what she was hearing in the interviews and what she had seen in the early literature. Essentially, this meant that she reached a stage where the themes emerging in the interviews were well defined and consistent with what she had seen in the literature: She had the approximate shape and size of her concept, and collecting additional data was not altering or adding to it in any significant way. "I think that when the next data point doesn't teach you that much because you've already seen that before, that seems to me a marginal return on the new data," she noted. This is also true of literature review: For practical purposes, you know you have done enough when the literature no longer teaches you anything new about your topic.

Formulating the Concept: From Conversing to Inquiring

The interviews informed and reinforced Duckworth's thinking about the qualities that made people successful, and gave her different ways to describe those qualities. The ability to use different framings and descriptions to talk about a common set of ideas was critical to the next stage of her research: writing survey items in what would become the grit scale.

Originally, the grit scale was not supposed to be a scale. At the strong urging of Seligman, Duckworth began with the assumption that persistence should not be studied with a self-reported questionnaire, but rather through some kind of performance task. Her original, exploratory work involved designing different exercises and observing children as they worked to complete them. The rationale for this approach was sensible: A measure based on what people actually do should be more reliable than a survey on which they rate themselves, simply because people tend not to assess their own abilities or characteristics objectively.

Yet the performance task approach turned out to be a poor fit for what Duckworth wanted to study. The problem was time. In reviewing literature and doing interviews, she had become convinced that to really understand persistence, she needed a measure that would encompass interest and effort sustained over long periods of time—years rather than hours. There was no way to capture that element using a performance task. "The kind of persistence I was interested in as a former teacher was not…can you do this for 10 minutes, can you do this for half an hour," she recalled. "I wanted to know about the persistence where you have a bad day and you get up and the next day you're still committed to your goal."

This realization underscores an important aspect of conceptual frameworks: the link between *what* to study and *how* to study it. As her idea of persistence evolved to include long-term pursuit of goals, the original method Duckworth envisioned for studying it became infeasible, prompting her to step away from the work and reconsider her options. When she returned to it a year later, the option that had been off the table when she began her work—developing a scale—now seemed the most logical approach.

Writing items is in some ways the sausage making of survey research. For all of the analytic precision of the stages that follow, item writing itself is subjective, interpretive, and even literary. The very rationale for scale development is that people interpret words and phrases differently; hence any single item is subject to interpretations other than that intended by the researcher. By collapsing multiple items together, the aim is to measure the overarching concept in ways that are less susceptible to varying interpretation and therefor more stable.

Duckworth used the language she heard in her interviews to craft her draft survey items. As described in the article (paragraph 14), the goal was to develop items that could be used

with different aged populations and would not be dependent on a particular context or setting. Through interviews and reviewing literature, Duckworth knew she needed items that looked at both interest and persistence. But even using what she heard in the interviews, finding the right language proved challenging. She shared,

> I wanted to communicate passion sustained over time but the items that I came up with, as a second year graduate student, [were] interests over time. So in a way there is this rift between the idea of passion sustained over time and just the consistency of your interests. Now, there is obviously overlap between interest and passion but I don't think people would say they are exactly synonymous.

Other attempts to get at the underlying ideas that make up grit proved too subjective to perform well as survey items. Early attempts included references to sprints and marathons, tortoises and hares. These are cultural references that hold meaning to some people and not others. Like all expressions, their power lies in the meaning they imply rather than their literal definition. But those meanings are not shared universally and therefore do not translate well to item construction.

Duckworth began with 27 items. Ten items were eliminated either because they were redundant or were too subjective to yield any consistent measurement. She then performed a factor analysis on the remaining 17 items. Put simply, factor analysis allows a researcher to see how different survey items perform relative to one another, with a focus on which items cluster together. These clusters, which are identified and measured by looking at how item responses correlate, are called factors. As the article explains, the factor analysis yielded a "two-factor solution"; that is, two clusters of items. Five items from the original 17 were dropped because their "factor loadings" (the strength of their correlation with one of the two factors) were not sufficiently strong to warrant inclusion, resulting in a final scale that included 12 items.

Duckworth referred these two factors as "consistency of interests" and "perseverance of effort." But the process of naming and describing the factors was itself interpretive. The emergence of the two-factor solution was actually shaping Duckworth's thinking about what grit was. "I was first interested in what the factors were saying and whether I could discern that there was something different about Factor 1 and Factor 2," she recalled. "And then of course, the very next thought was—well what are these things?"

By looking at what, specifically, the items asked about, Duckworth was able to rather quickly transition from Factor 1 and Factor 2 to "consistency of interests" and "perseverance of effort," an important step in refining her concept of grit. As she shared in her interview,

> I could see there were two major factors, and the interest factor was different from the effort factor. It was kind of a back-and-forth process between looking at data and thinking, and then thinking and then looking at the data that helped me understand what grit was. But then also [to] apply that understanding of what grit was to then analyzing the data in the way that I did. It's hard to kind of pull apart but my guess is that this is just generally true. I think it is rare to [say] "well, I thought about [it] for five years and then I had it perfectly clear in my mind, and then I went and did all these studies, and then I went and thought about it again." I think it's much more like, "today I thought about it a lot and then the next day I read a bunch of data which made me think about it a little differently, and then I went back and thought about it more, then I went back to the data."

While Duckworth is specifically referring to the back-and-forth between thinking about her core idea (grit) and developing scales through item writing and factor analysis, it is interesting to note that this type of toggling is usually assumed to reside more in the province of qualitative methods, as is the inductive process of creating and naming categories based on clusters of observations (in this case, survey items that performed similarly). In describing her process of concurrently developing a construct and the tools to measure it, she reminds us once again that the lines between methodological approaches are blurrier than we think.

Forming and Advancing the Argument

In simple terms, the argument that Duckworth presents in the article is this: there is such a thing as grit, it is different from other things, and it is important. Building the grit scale was a necessary precursor to advancing this case. But to actually validate it, Duckworth needed a way of differentiating grit from other constructs thought to be related to achievement, such as ability or personality traits. She also needed a way of showing that grit actually predicted achievement.

Her methods of achieving this were surprisingly simple. Having built a tool to measure grit, she and her colleagues conducted a series of studies examining the relationship among grit, talent, personality traits, and achievement. While they took care to conduct these studies in different contexts and with different populations, the analytic tools they employed were fairly consistent: regression models that measured the extent to which grit predicted achievement (by measuring grit at Time 1 and achievement at Time 2), the strength of the correlation relative to other predictors, and the extent to which grit and other predictors covaried. In the article, Duckworth summarized the studies' findings as follows:

> Across six studies, individual differences in grit accounted for significant incremental variance in success outcomes over and beyond that explained by IQ, to which it was not positively related… Grit accounted for more variance in outcomes than commonly observed for Big Five Conscientiousness. In Studies 1 and 2, we found that grittier individuals had attained higher levels of education than less gritty individuals of the same age. Older individuals tended to be higher in grit than younger individuals, suggesting that the quality of grit, although a stable individual difference, may nevertheless increase over the life span. As we expected, grittier individuals made fewer career changes than less gritty peers of the same age. In Study 3, undergraduates at an elite university who scored higher in grit also earned higher GPAs than their peers, despite having lower SAT scores. In Studies 4 and 5, grit was a better predictor of first summer retention at West Point than was either self-control or a summary measure of cadet quality used by the West Point admissions committee. However, among the cadets who persisted to the fall semester, self- control was a better predictor of academic performance. In our final study, grittier competitors in the Scripps National Spelling Bee outranked less gritty competitors of the same age, at least in part because of more accumulated practice. (p. 1098)

Empirically, findings from the six studies confirmed many of Duck-worth's original intuitions about what makes people successful—hunches that were born in her classroom as a teacher, refined through reading the work of William James and his contemporaries, enriched through her conversations with Seligman and interviews with other experts, and

sharpened through creation and validation of the grit scale. She learned that grit was distinct from IQ or ability and personality traits (as measured by the Big Five), and that it predicted success in the contexts she observed over and above those variables. But in addition to affirming many of her hypotheses going into the work, the early studies also offered surprises, enriching her understanding of what grit was, why it mattered, and how it fit into the larger puzzle of understanding achievement. Describing what she learned from these six studies, Duckworth explained:

> The obvious other explanation for success is talent; some people are just better at things and they learn faster and they are going to be the winners. There's an expression "talent will win out," you know, the cream rises to the top kind of thing. And I just wanted to test that directly. So I think in almost all of these studies, certainly the ones that have the kind of prospective longitudinal grit predicting something else, there are some measures of talent… your Whole Candidate Score in West Point or IQ in the spelling bee…One of the things I expected was that grit would predict over and beyond these measures or over and above, like controlling for talent you still get a prediction. But, one thing I didn't expect to see so clearly in the data, which truly just jumped out, is that you never find that grit is just positively correlated with talent. You often find it negatively correlated or zero correlation.

Having validated many of her original suppositions, the final step in forging the conceptual framework in this article—and one that has carried forth in her subsequent research on the topic—was rhetorical: finding a way to tell a story from the data that was clear and compelling.

The early stages of this story, described above, focus on the rationale for grit as a new construct. It was an argument that something was missing from our understanding of what leads people to be successful. The later stages, which report and discuss findings of the six studies included in the article, make the case for why and how grit matters.

In the case of this article, the six studies presented happened to be undertaken in chronological order. But that was not the primary reason for presenting them in the order they were introduced. More important was the need to present findings in a way that followed logically, building toward a specific conclusion. Noting the work of colleagues she admires, Duckworth explained that well-written research reads like a story, with narrative elements building upon one another.

> I really aspire to that kind of writing, where you're telling the reader a story and you give them the setting and it kind of unfolds. It both is natural but also is anticipatory. Like they are kind of engaged in a way and they are wanting to read the next paragraph.

In this article the story is told carefully in the findings and discussion sections, first establishing a strong link between grit and success in studies one through three, and then systematically presenting evidence that this link was likely not the result of other, unobserved factors in studies four through six. "I was influenced by what covariants to add because I think in longitudinal work you're always worried that X predicts Y but it's for some other reason," Duckworth explained. "There's some third variable Z, so you progressively want to eliminate possible Zs that it could be."

For this article—the first of many Duckworth would publish on grit—this is where the story ends. And it is worth noting that in academic terms, the conclusion is actually quite modest. After summarizing their findings, the authors note the limitations of their work to date, relate what they learned back to the literature, and suggest some implications for policy and practice should further research substantiate their findings. But there is no grand theory here, no attempt to make proclamations about a broad set of human behaviors or characteristics. While this was in part due to the disposition of the researcher, it also highlights the interplay between accumulating bits of empirical evidence and theory building. Formal theoretical work tends to be top-down in nature, imposed on data as a means of analyzing them. Empirical work, by contrast, is usually bottom-up: data points are collected and aggregated until some bigger picture or pattern emerges. Reflecting on a decade of researching grit and self-control, Duckworth explained that she arrived at theory over a long period of time:

> I do have a theory but it's been very slowly evolving and I think in a way the individual empirical insights—girls have more self-control than boys and that's why they get better grades…one of the reasons that it is easier to delay gratification for some kids is that they have strategies that help them—these had been just like little individual insights. The theory I'm a little late to, I think many people start with theory and then that drives a lot. But for me it was much more bottom up.

There is an important lesson here, especially for those who are new to academic research: *A strong conceptual framework does not always require a strong theoretical framework*. As we will see in the chapters to follow, there are many places where theoretical frameworks can help advance your thinking and research, and in these cases you should include them. But you do not need, in some cases, to complicate your work unnecessarily by presuming theory as the only starting point. As the example of this article (and its author) shows, just as often it can be a conclusion.

Conceptualizing Frameworks: Concluding Thoughts

This chapter is about where conceptual frameworks come from. "Perseverance and Passion for Long-Term Goals" is a particularly useful example to examine, since the focus of the article is, in fact, the formulation and articulation of a conceptual framework. The story of how that framework came to be is partly told in the article itself, but it is Duckworth's reflections on her own process, and her own learning, that truly illuminate it. That story offers three main lessons. First, in keeping with our discussion of personal interests, goals, identity, and positionality in Chapter 1, the story of grit shows that experience and intuition are important. Literature review (both topical research and theoretical frameworks) plays a critical role in shaping and refining conceptual frameworks, but it is not necessarily what gives rise to them. If you are careful and thoughtful in your process, you will have plenty of opportunity to refine and rethink your intuitions and assumptions as needed, just as Duckworth did.

Second, informal methods—thinking things through, journaling, discussing with colleagues—are in fact a critical part of the learning process. For Duckworth, watching documentaries about successful individuals or observing people informally shaped her thinking as much or more than formal research. "I do go back and forth with the data, but honestly I think [I learn] at least as much from talking and observing and dreaming and thinking as I do from ANOVA and ANOCOVA," she reflected. Remember that research is just as much about thinking as doing. There are steps in the process that are formal and technical, and these tend to be what get reported in published articles and books. But if you become too focused on those aspects too soon, you risk shortchanging the foundational work of asking questions and problem solving that ultimately make the work meaningful. Finally, as you will see throughout this book, just as the articulation of a conceptual framework shapes the methodological choices researchers make, so the findings from that research feed back onto the conceptual framework. As you move through the process, keep in mind that while academic work is about framing, presenting, and substantiating argument, it is also about your own learning as a researcher.

Reflection Questions

1. Why do you want to study what you want to study?
2. Why do the topic and context matter to you personally? Why might it matter to others?
3. Whose thinking about your question or topic has influenced your own, and why?
4. If you could engage in thought partnership conversations about your topic to further your own thinking, whose opinions and perspectives might challenge and help you to develop yours? And what questions would you ask them?

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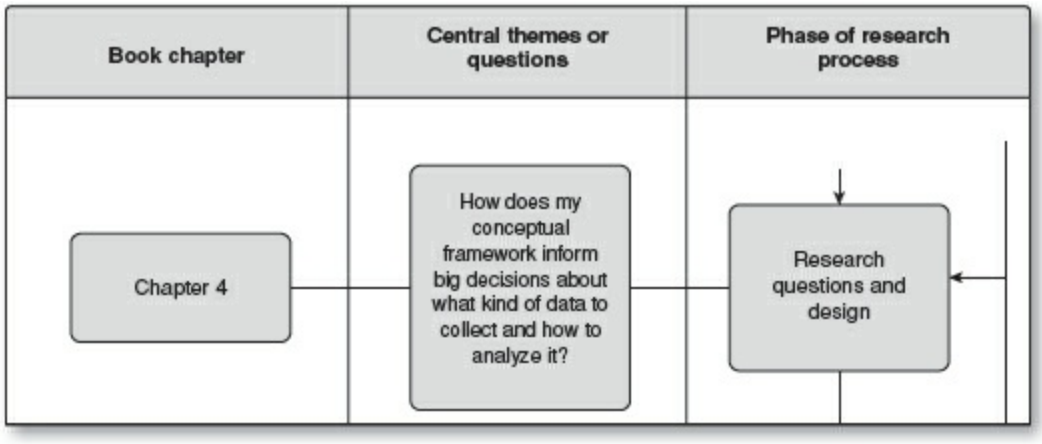
CHAPTER 4 Excavating Questions: *Conceptual Frameworks, Research Questions, and Research Design*



In the previous chapter, we delved into Angela Duckworth's research on grit to examine the question of how conceptual frameworks are formed—a mixture of intuition and experience, informal methods, literature review, formal methods, and interpretation of data. In this chapter and the three that follow, we focus on specific stages of the research process, beginning with research questions and research design.

While it is undoubtedly true that research questions shape research design, such questions do not simply materialize out of the academic ether. To paraphrase Winston Churchill, arriving at your research questions is not so much the beginning of the end as the end of the beginning. But you have to engage in significant intellectual work to get there. The conceptual framework, we argue, serves as both guide and ballast throughout the process of refining one's understanding of the domain of inquiry as well as the questions that will guide the inquiry into fruition.

“Excavating” Research Questions

The process of developing your research questions is primarily one of *excavation*. You disembark onto a vast swath of intellectual terrain, formed by an amalgam of what you care about and are interested in, the field(s) you have been exposed to and are working within, and what is already known about the problems or questions that pique your interest. Somewhere buried within that mass of interests, concerns, and exposures are your research questions. To find these questions, you must dig deeply into significant amounts of written material: texts that fit specifically into your domain of study, as well as those not directly related to your research questions but that may help contextualize them. This process begins with the development of broad, topical distinctions that help you figure out what is and is not relevant to the central themes of your emerging study. From this entry point, you move to questions of what is already known and established in the fields that relate to your topic. This process of wading through—and making meaning of—the fields that relate to and frame your emerging research helps you determine what is already known about these fields and what is not yet known. It is here that you begin to build your conceptual framework. What is already known, and *how* it is known, form the foundation upon which your research questions, and ultimately your research design, will be built. From there it is a process of searching, with increasing sensitivity and sophistication, for ideas, theories, and methods that help you to figure out what is most important for you to ask, how best to ask it, and how to structure an empirical study so that you are in a position to answer your research questions in data-based ways.

In this chapter, we illustrate the interconnection between conceptual frameworks, research questions, and research design, focusing on James P. Spillane’s (2002) “Local Theories of Teacher Change: The Pedagogy of District Policies and Programs.” After providing intellectual background and context for the article and presenting excerpts from the published work itself, we offer a detailed analysis of the argument that constitutes its conceptual framework. We then explain how choices made about the conceptual framework in turn shape the research design, directly influencing data collection and analysis in myriad ways. We conclude with a discussion of the interrelated and evolving nature of conceptual frameworks and their relationship to research design.

About the Author

In the field of education policy research, few contemporary scholars have been as innovative or as influential as James Spillane. Collaborating with colleagues in Michigan, he was part of a group of scholars that pioneered a new view of policy implementation focused on how actors at various levels of the educational system make sense of policy, and how their understanding of policy in turn shaped how they implemented it. Spillane's specific contributions to this work include analyses of the social and interactive nature of teachers' thinking and learning about policy (Spillane, 1999), explorations of how local officials construct policy through interpretation of various "signals" from the state and elsewhere (Spillane, 2000, 2004), and local officials' theories about how teachers learn (Spillane, 2002, presented below). Spillane has also pioneered a *distributed perspective* on school leadership, a view that has fundamentally changed the way that researchers (and many practitioners) in education and beyond think about leadership work in schools.

In addition to his many conceptual and theoretical contributions to the field of educational policy, Spillane has also been a key innovator in research methods. His studies have employed a vast array of data collection and analysis strategies, including traditional participant observation and survey research, real-time electronic logs of principal activity, and quantitative social network analyses as a strategy for measuring school communication and interpersonal influence. He has published extensively on his innovations in mixed methods research.

James P. Spillane is the Spencer T. and Ann W. Olin Professor in Learning and Organizational Change at the School of Education and Social Policy at Northwestern University. He is also professor of Human Development and Social Policy, professor of Learning Sciences, professor of Management and Organizations, and faculty associate at Northwestern's Institute for Policy Research. Spillane has published extensively on issues of education policy, policy implementation, school reform, and school leadership. His work explores the policy implementation process at the state, district, school, and classroom levels, focusing on intergovernmental and policy-practice relations. He also studies organizational leadership and change, conceptualizing organizational leadership as a distributed practice. Recent projects include studies of relations between organizational infrastructure and instructional advice-seeking in schools and the socialization of new school principals. His work has been supported by the National Science Foundation, the Institute of Education Sciences, the Spencer Foundation, and Carnegie Corporation of New York. He has authored several books including *Standards Deviation: How Local Schools Misunderstand Policy* (Harvard University Press, 2004), *Distributed Leadership* (Jossey-Bass, 2006), *Distributed Leadership in Practice* (Teachers College Press, 2007), *Diagnosis and Design for School Improvement* (Teachers College Press, 2011), and numerous journal articles and book chapters.

Background and Context: An Overview of the Work in Focus

At the heart of all policy implementation is the complex process of changing human behavior. Social policies are in essence plans that are designed to get people—whether teachers, doctors, consumers, or voters—to behave in ways that are thought to benefit them or the people they are supposed to serve. Policy implementation is the process of putting those plans into action. For a long time, the dominant framework for thinking about implementation was built upon concepts from economics and political science: rewards or sanctions introduced in such a way as to inform rational choice.

But what if the people who are supposed to implement policy see it as something wholly different than do those who designed it? Incentives or disincentives for implementing a policy may serve us well if everyone shares the same fundamental understanding of what the policy actually is, but what if they don't? What if they think it means different things? What if policy implementation is less like reading from a script and more like interpreting an image? If this were the case, the fundamental challenge of implementation would be less about incentives and more about understanding.

The article we discuss in this chapter seeks to better understand policy implementation as a process of teaching and learning. We analyze "Local Theories of Teacher Change: The Pedagogy of District Policies and Programs" (Spillane, 2002), in which the author explores the relationship between district actors' theories of teacher learning and classroom practice. This article originally appeared in *Teachers College Record* and is an outgrowth of Spillane's wider study of the Statewide Systemic Initiative (SSI), an early state-level reform focused on standards-based reform in mathematics and science. This wider study has been described in detail in numerous articles (see Spillane, 1996, 1998, 1999, 2000) and in Spillane's 2004 book, *Standards Deviation: How Schools Misunderstand Education Policy*. The article presented here found its origins in a series of analyses conducted toward the end of the SSI study. While the article presented below has its own specific conceptual framework, it emerges from and builds on the framework of the wider study. The SSI study framed policy interpretation as a critical aspect of implementation. In other words, how educators understood a given policy was directly related to the actions they took in implementing it. In *Standards Deviation*, Spillane specifically engaged in a critique of research that views implementation as a matter of fidelity (that is, policies are consciously followed or rejected) or that employs a rational choice model in which local players deliberately choose to accept, reject, or modify policy. As Spillane asserts:

> Conventional accounts assume that local officials are choosing between following policymakers' directions or ignoring them; they assume that locals get the intended

> policy message. That assumption is problematic because in order to choose, local actors must figure out what the policy means. To decide whether to ignore, alter, or adopt policymakers' recommendations, local officials must construct an understanding of the policy message. (Spillane, 2004, p. 6)

Further, Spillane argues that the ways in which policy is understood comprise a complex and situated process. Effectively, he makes the case that district actors do not merely implement policy, they make it. Their process of doing so, he asserts, is based on the incorporation and interpretation of information from a variety of sources, including official state policy. This way of thinking about implementation was, at the time of the research, relatively unusual. The conventional view still focused on "rational choice" and with it the assumption that the policy message was understood as intended. But Spillane was part of a group of scholars in Michigan in the early 1990s who were beginning to think in new and innovative ways about this process. In studying the adoption of mathematics frameworks in California, David Cohen, Deborah Ball, Susanna Wilson, Penelope Peterson, and others were coming to think of policy implementation by teachers not as a matter of following (or resisting), but rather as a form of learning (see Cohen & Ball, 1990). From this perspective, implementation was not a matter of fidelity, but rather the process through which teacher (or principal) learning occurred. This idea influenced both Spillane's formulation of the SSI study and the conceptual framework for "Local Theories of Teacher Change."

Methodologically, Spillane's focus on interpretation necessitated a qualitative approach, as he needed data that would allow him to examine and understand how actors at various levels of the system understood and interpreted policy. But he had a challenge: Asking specifically about state policy would likely constrain the interviews, generating the very types of normative responses that Spillane was arguing against. So for the interview component, he adopted a more open, less structured and directive format. For districts, for example, he used snowball sampling—developing a participant pool based on key respondents' suggestions of who else would provide valuable perspectives—to try to find the people in each district who were most knowledgeable about math and science instruction. In the interviews themselves, open-ended, semi-structured protocols focused largely on how district officials thought about and supported standards and instruction. The goal was to create the conditions necessary to engage respondents in talking openly about math and science instruction on, and in, their own terms.

At the same time, the SSI study was in part an evaluation of how the new state standards affected practice. Studying instruction in an evaluative context is challenging work. Documenting change in instruction calls for both sufficient detail and depth of understanding to be sensitive to those changes and sufficient scale to measure their breadth and significance. Few studies have the resources to do so fully, so trade-offs have to be made. In this case, the trade-off was to use surveys to get a general sense of teachers' instructional practice, but then to engage in close observations on a subsample to try to

obtain a more fine-grained view of how instruction was being shaped. This need to explore, in an inductive way, how players in the setting engage in and think about these issues is, in large part, how the study ended up including interview data on districts and teachers, as well as survey and observation data at the teacher level.

As indicated in the excerpt that follows, "Local Theories of Teacher Change" both builds on and extends the conceptual framework that guided the SSI study. It uses the findings from the wider study to develop and contextualize a new set of research questions, and while it relies on the same data set as the original study, it employs new analytic approaches in accordance with modifications in the conceptual framework. In the remainder of this chapter, we first present an excerpt from the published article. We next highlight the article's conceptual framework, noting how it builds on the argument of the wider study. We then illustrate how the refined framework led to a new set of analytic approaches, and we draw broader connections between the conceptual framework and research design. This analysis highlights the relationship between the conceptual framework and research methods as well as the evolving and dynamic nature of the framework itself.

Situating the Work: Theoretical Underpinnings

[1] A combination of pressure including bureaucratic control and accountability mechanisms, and support in the form of curricular materials and professional development, is thought necessary if teachers are to implement instructional reform proposals (Elmore & McLaughlin, 1988; McDonnell & Elmore, 1987). In the segmented and decentralized American education system, many governmental and nongovernmental agencies provide support and sometimes apply pressure to guide teachers' practice. Pressure, though necessary, is believed to be insufficient for local implementation (Elmore & McLaughlin, 1988). Support is essential, and the local work setting, because of its proximity to the classroom, is possibly the most influential environment with respect to teacher support.

[2] Support is especially important with respect to the implementation of standards-based reform because the complex changes in instruction that characterize these reform proposals will require substantial learning by those who are expected to implement these changes (Cohen & Barnes, 1993). Teachers, often unwittingly, understand instructional reform proposals to involve only minor changes in their existing conceptions of teaching, learning, and subject matter (EEPA, 1990; Spillane & Zeuli, 1999). Even if teachers construct the reform message in ways that resonate with its intent, they may lack the requisite knowledge to put it into practice. Hence, teachers will have to learn a great deal to successfully implement the tremendous changes in instruction pressed by standards-based reforms (Cohen & Barnes, 1993; Schifter, 1996). This learning is difficult, both for the teachers and for those who teach them, because the new disciplinary content and pedagogy represent such a tremendous shift from how teachers now teach and how they learned in school. Further, this learning depends in some measure on the capability of district officials, both administrators and lead teachers, to promote teacher learning from and about standards. District officials' support of teachers' learning from and about standards will depend not only on their understanding of the instructional ideas advanced through these reforms but also on their ideas about communicating these understandings to teachers; that is, their beliefs about and knowledge of teacher learning. One's understanding of a policy message does not ensure that one can help others understand that message.

[3] To say that teachers will have to learn so they can to implement the instructional reforms advanced through standards, however, leaves much unspecified and underexplored because learning can be conceptualized in different ways. Learning in general, and teacher learning in particular, can mean different things depending on one's conceptual perspective (Richardson, 1999). Thus, in suggesting that implementation involves learning, it is necessary to probe the nature of learning. To do that, I look at theories of learning using a typology developed by Greeno, Collins, and Resnick (1996). They identify three theoretical perspectives on cognition and

learning—behaviorism, the cognitive view, and the situative-sociohistoric view.

[4] The behaviorist perspective, associated with B. F. Skinner, holds that the mind at work cannot be observed, tested, or understood; thus, behaviorists are concerned with actions (behavior) as the sites of knowing, teaching, and learning. Knowledge is transmitted by teachers and received, but not interpreted, by students. Transmission is the instructional mode, and to promote effective and efficient transmission, complex tasks are decomposed into hierarchies of component subskills that must be mastered in sequence from simple to complex (Gagne, 1965). Learning is externally motivated by reward and requires developing correct reactions to external stimuli. Well-organized routines of activity, clear instructional goals with frequent feedback and reinforcement, and the sequencing of skills from simpler to more complex are important in the design of learning opportunities.

[5] The situative-sociohistoric perspective (Hutchins, 1995a, 1995b; Lave, 1988; Pea, 1993; Resnick, 1991; Vygotsky, 1978) regards individuals as inseparable from their communities and environments. This perspective views knowledge as distributed in the social, material, and cultural artifacts of the environment. Knowing is the ability of individuals to participate in the practices of communities (e.g., the mathematics community). Learning involves developing practices and abilities valued in specific communities and situations. The motivation to engage in learning is seen in terms of developing and sustaining learners' identities in the communities in which they participate. Thus, learning opportunities need to be organized so that they encourage participation in practices of inquiry and learning, support the learner's identity as skilled inquirer, and enable the learner to develop the disciplinary practices of discourse and argumentation. Learning opportunities need to be grounded in problems that are meaningful to the student.

[6] The cognitive perspective (Piaget, 1970) seeks to understand and describe the working of the mind. Knowledge, in this view, includes reflection (Brown, 1978), conceptual growth and understanding, problem solving (Newell & Simon, 1972), and reasoning. Learning involves the active reconstruction of the learner's existing knowledge structures, rather than passive assimilation or rote memorization, with learners using personal resources including their prior knowledge and experiences to construct new knowledge (Anderson & Smith, 1987; Confrey, 1990). In this view, engagement with learning is natural. The motivation to learn is intrinsic. Moreover, extrinsic motivators can undermine intrinsic motivation (Lepper & Greene, 1979). Learning activities engage students' interest and prior knowledge, sequence their conceptual development, and introduce students to the core principles of a domain. This view of learning resembles what Richardson terms the normative-re-education perspective on teacher learning, in which change is enabled through reflection on one's beliefs and knowledge.

Data Collection

[7] State-level data, collected between 1989 and 1996, included interviews with state policy makers, state legislation, Department of Education (MDE) and State Board policy documents, State Board meeting minutes, and media reports. District data included interviews with district officials and local policy documents, including curriculum guides, annual reports, policy statements, and listings of professional development workshops. A snowballing technique was used to identify local educators involved in the instructional policy making process for interviews. Those interviewed in each district included district office and school administrators, teachers involved in developing instructional policies, local school board members, and parents. We completed 165 interviews.

[8] Interview protocols were used to ensure that comparable data were collected across the 9 sites. These protocols included questions about general characteristics of the school district, the extent and nature of district office efforts to reform mathematics and science, the ideas about mathematics and science instruction supported by district office reform initiatives, and the role of state and federal policies in district office reforms. Interview questions were open ended and interviews ranged from 45 minutes to 2 hours; all but two were tape-recorded and transcribed. Based on an analysis of first round interviews (collected in the autumn of 1994), a second round of data collection was undertaken the following spring. District officials were asked a series of questions to get at their beliefs about instructional change and teacher learning as part of a broader conversation about standards and efforts to implement standards in their district.

[9] The classroom component of the study used the Population 1 (third and fourth grade) and Population 2 (seventh and eighth grade) Teacher Questionnaire of the Third International Mathematics and Science Study (TIMSS) to survey all third- and fourth-grade teachers and all seventh- and eighth-grade mathematics and science teachers in the 9 districts. Identifying a set of items related to the mathematics standards, we constructed a scale of reformed practice, and based on teachers' responses to these items, we observed and interviewed a subsample of teachers, who reported instruction that was more aligned with the mathematics and science standards. Stratifying the sample to ensure distribution across district types, locations within the state, and teachers who scored high on our reform scale, we then selected randomly from among the teachers reporting instruction that was aligned with the standards, approximately the top 10% of our sample. Focusing on teachers who reported teaching in ways that resonated with the standards enabled us to understand the nature of practice in classrooms where it was more likely to be consistent with standards and the implementation challenges faced by teachers.

[10] The sub-sample selected for observation and interviews included 32 teachers from 6 of the 9 districts. Of these 32 teachers, there were 18 third- or fourth-grade mathematics teachers, and seven were seventh- and eighth-grade mathematics teachers. We observed and interviewed each teacher twice, with the exception of one elementary teacher who was observed only once because of scheduling difficulties.

During visits to these classrooms, we used an observation protocol to take detailed notes about practice and audiotaped parts of lessons. After each observation, we wrote field notes of our observations, including a detailed narrative of the lesson we observed that addressed each of the analytical issues identified in the protocol. We also interviewed the teacher following each observation, audiotaping each interview.

Data Analysis

[11] All interview data were computer coded. Five categories were used to code first-round interviews: background information on the site; ideas about mathematics and science supported by district office policies; consistency, authority, power and authority of local policies; teachers' opportunities to learn about instruction in the district; and local perspectives on state and federal policies. Second-round interviews were coded for local educators' understandings of mathematics and science for "all students," mathematical "problem solving," "hands-on" science, and parental involvement.

[12] For the purpose of this paper, we reanalyzed interview data with those district officials in the sample who took a central role in selecting or designing learning opportunities for teachers. Initially, we identified all passages that focused on instructional change and teacher learning from the interview transcripts of those 44 district and school administrators, lead teachers, and subject-matter specialists who were involved on a regular basis in promoting instructional change in their district. We not only looked at district officials' responses to those questions that focused explicitly on their beliefs about teacher learning and instructional change but also looked at their entire transcripts for relevant data. We then coded the data for each informant, using four categories that focused on their beliefs about teaching teachers, teacher learning, the curriculum for teacher learning, and motivating teachers to learn and change. Four of the 44 informants were removed from the sample because there was insufficient data with respect to their beliefs about teacher learning. Two researchers then coded data for the remaining informants using three categories—behaviorist, cognitive, and situated—to categorize each informant's theories about instructional change and teacher learning. Inter-rater reliability was 75%, with the two coders agreeing initially on the categorization of 30 of the 40 informants. After discussing the data for the remaining informants, the two coders agreed on the categorization of nine of them, engaging a third researcher to classify the remaining informant.

* * *

[13] Phase 3 qualitative data were analyzed and integrated with the TIMMS questionnaire data to examine what aspects of instruction were consistent with the standards and what forces were influencing teachers' implementation. Classroom

observation and interview data were coded using categories that corresponded to the content and pedagogy standards put forward by NCTM [National Council of Teachers of Mathematics], along with the category "all students" (concerning issues of race, class, gender, and handicapping conditions). The coding of data involved interpreting and organizing narrative accounts of the lessons and teachers' interview responses in light of the coding categories. These analyses resulted in analytical memos that ranged from 40 to 90 single-spaced pages for each teacher. Further, these data were coded for the array of factors that interact to influence teachers' attempts to revise their practice including policy, professional, private, and public sectors as well as influences associated with teachers' personal experiences and their students.

The Argument

As we define it, a conceptual framework is a grounded argument about why the topic of a study matters to its various and often intersecting fields, why the methodological approach used to explore that topic is valid, and the ways in which the research design is appropriate and the methods are rigorous. In "Local Theories of Teacher Change," that argument is presented as follows:

1. Reform implementation is a function of pressure and support. Support is most effectively provided at the local level (paragraph 1).
2. Standards-based reforms, which focus on instructional change, require substantial learning on the part of teachers (paragraph 2).
3. Local support therefore requires that districts be effective in promoting teacher learning (paragraph 2).
4. Learning is not a simple process, however. How districts support and promote teacher learning depends greatly on how learning is conceptualized (paragraph 3).
5. The research literature suggests three theoretical perspectives on learning: the behaviorist, cognitive, and situative-sociohistoric views (paragraph 3).
6. Data collected for this study allow for the analysis of both how district actors conceptualize teacher learning and the instructional practices of a subsample of teachers (paragraphs 7–10).
7. Data analysis focused on: (a) the extent to which the theories of learning of local officials could be classified as behaviorist, cognitive, or situative-sociohistoric; and (b) the relationship between these theories of learning and the prevalence of instructional practices consistent with reform expectations (paragraphs 11–15).

Several aspects of this argument warrant further consideration. First, there is the question of what is assumed: What does the reader need to have in mind for Step 1 to make sense or to seem important? In this case, what is assumed is that implementation matters. It is assumed that the reader knows that the success of reforms hinges on their implementation, and that this is no small feat. There is a wealth of research literature supporting this point, but the author elects not to dwell on it, choosing instead to begin with a concise summary of what makes implementation work (pressure and support).

Any argument begins with this formulation: What does your audience already know and care about? In this case, Spillane assumes that his audience (readers of *Teachers College Record* in particular and education scholars more generally) cares about school reform and knows that implementation matters and that it is complicated. Were he presenting this paper at a conference of school counselors or parents, he might have to back up further to make his case. The audience might not be familiar with school reform at all, and it might hold different assumptions about the relationship between theory (reform on paper) and

execution (reform in practice).

It is also helpful to examine what comprises the conceptual framework here. Specifically, it includes three parts: (a) previous empirical work on school reform implementation; (b) previous research conducted by the author about the nature and process of implementation; and (c) theoretical work on how learning happens. Previous research is introduced to support the idea of implementation as guided by pressure and support, and that classroom-level implementation is a function of teacher learning. In the case of the former, a widely read and cited source (Elmore & McLaughlin, 1988) is used to substantiate this rather broad claim. In the case of the latter, Spillane cites his own previous work along with that of his colleagues, David Cohen and Carol Barnes, who were studying implementation of mathematics reform in California around the same time the SSI study was conducted. This is an excellent example of how a discussion of literature moves from the general to the specific, and from widely read and accepted work to more nuanced and local research. In two paragraphs, Spillane brings the reader from some of the most generalized observations about reform into a particular conceptualization of what implementation looks like.

More subtly, Spillane also brings the reader up-to-date with the evolution of his own thinking about implementation. Like his colleagues in Michigan, Spillane had previously explored classroom-level implementation as a form of learning, and ventured theories about the contexts and processes through which that learning occurred (Spillane, 1999). He had also delved into the ways in which district officials learned state policy, and theorized about its effects on implementation (Spillane, 2000). At the time of "Local Theories of Teacher Change," however, he had not analyzed how actors at one level of the system thought about how those at other levels of the system learn policy. Such thinking, he reasoned, was likely embedded in local officials' ideas about school-level implementation, but up to 2002 this had not been a focus of his research.

The jump from viewing policy implementation as learning to viewing it as teaching—the flip side of the education coin—had been made previously by Cohen and Barnes (1993). If all policy required education of some sort, they asked:

> What kind of education has educational policy offered to enactors? What has been the pedagogy of policy? To answer these questions, we must inquire about how policymakers actually tried to teach teachers to teach differently, and to do that we must consider policy as a sort of instruction. (pp. 209–210)

Implicit (and occasionally explicit) in any conversation about how to teach are assumptions about how people learn. It is this facet of policy "education" that Spillane chose to focus on in "Local Theories of Teacher Change." The conceptual framework presented in the article can therefore be viewed as an extension of both Spillane's previous work and of Cohen and

Barnes's analysis of the "pedagogy" of policy.

One useful way to think about developing a conceptual framework is that as the author, you are leading your readers down a path. At the end of the path is what you want to show them—your empirical study, as defined and framed by your research questions. But you need to get them there first. Each step on the path is a step in the argument. To this point in "Local Theories" (through paragraph 3 above), Spillane has walked his readers halfway down the path. He has made a strong case that successful policy implementation depends on how local officials think about teacher learning. In this sense, he has already satisfied one of the two main requirements of a good conceptual framework: He has made a strong argument that his topic matters and, further, has provided a rationale for how it matters. What he has not done (yet) is made the case for how he wants to explore this topic.

Conceptual Frameworks and Research Design

When researchers get into questions of how a study is conducted, there is sometimes a tendency to assume that we have moved from a discussion of topic to a discussion of methods. In reality, it is not that simple. How you execute a study is a function of how you think about it. Both your research questions and your methods are shaped by your engagement with the literature. In the article presented here, the first step Spillane takes in convincing the reader that his approach is the right one is a theoretical one. As he rightly notes, merely saying that conceptions of learning are central to implementation is not enough:

> Teacher learning … can mean different things depending on one's conceptual perspective (Richardson, 1999). Thus, in suggesting that implementation involves learning, it is necessary to probe the nature of learning. (Spillane, 2002, p. 379)

This leaves Spillane facing a critical question: How do you "probe the nature of learning"? Recall that the primary analytic approach to the wider SSI study was inductive. Spillane explored and examined how local officials and teachers constructed policy in the context of their own practice. One option would have been to continue in that vein, analyzing the interview data with an eye toward developing a typology of local theories of learning. This would have been entirely defensible, provided there were sufficient data to define and support such a typology. But Spillane was not sure it was necessary. As he stated in our interview with him about "Local Theories of Teacher Change" and his work more broadly,

> You often reach a point where this is a toss-up. Do we need grounded theory here? There's a lot written about learning and change. There's a lot of work on learning theory. There's a lot written about teacher learning. So I guess I felt that it was unclear to me that there was a need to keep on the grounded theory and let the ideas bubble up at me.

The alternative to working inductively (letting the ideas "bubble up") was to analyze the data deductively by applying a previously developed, or a priori, set of themes or categories to them. Such themes are almost always derived from the research literature; in Spillane's case the vast, multidisciplinary literature on learning theory. Specifically, Spillane adopted a typology developed by Greeno, Collins, and Resnick (1996), which is itself a synthesis of the literature on how learning happens. In our working definition of a conceptual framework, this is an excellent example of how a *theoretical framework* (the Greeno et al. typology) becomes situated within a larger conceptual framework (the overall argument for

the focus and execution of the study). As described in paragraphs 4 through 6, this typology presents three clearly defined and differentiated perspectives on learning, situating each within a rich empirical tradition. It therefore provides Spillane with a useful tool for "probing the nature of learning," one that informs both his thinking and his methodology.

There are two reasons for moving from an inductive to a deductive analytic approach. First, as the sociologist Andrew Abbot (2004) has said, research is a process of framing, reframing, and trying to solve puzzles. Our own intellect is one tool for solving those puzzles, but so are other people's intellects. A critical component of empirical research, and a major reason for consulting the literature to begin with, is using other people's ideas to help address our questions. As Spillane stated in our interview, "It helps you interpret the data, which is, after all, why we have conceptual frameworks." He continued:

> Here what you see is a shift to letting the ideas dominate—and these are ideas about learning—come to the fore and guide the conversation with the evidence, in many respects. But that is after reading through these data over and over again and trying to make some sense of them, and then deciding this is not a situation where it is going to bubble up from below, and I need some conceptual and analytical tools to inform them.

The second reason for moving from an inductive to a deductive analytical approach is that the typologies developed through local, inductive work are rich in detail and nuance, but because they are emergent they may also not be as clearly defined. Using an established typology allowed Spillane to employ a more clearly defined and robust system of categorization.

Having made a strong case for how one might think about learning (paragraphs 3–6), the one remaining step in Spillane's argument is to explain how his study relates different perspectives on learning to implementation outcomes. He has already made the case that it *should* matter, but to fully convince readers of the viability and rigor of the study, he needs to articulate how he went about exploring whether and how it actually *did* matter. Here the discussion shifts from a theoretical focus (paragraphs 4–6) to a methodological one (paragraphs 7–13).

How you organize research is a function of how you think about a given topic and the kinds of research questions you want to ask. In the SSI study, the primary focus was on how local officials interpreted and thereby constructed policy, and how that process influenced what happened at the school or classroom level. Data collection was organized around this focus. "It was a pretty linear way of thinking," Spillane explained:

> We began with analysis of the state policy environment around mathematics and

> science. We moved from there to the district, and then the next step was to see what was happening in classrooms. And our hope was that we would learn something about the district from looking at the classrooms. And a lot of that was around the notion of what sense people make would be reflected in district policy, which in turn would influence classroom teachers.

This overarching logic is evident in the description of data collection provided in the article. In paragraphs 7 and 8, Spillane outlines state- and district-level data collection strategies. He describes the logic and process of participant selection, the structure and focus of interviews, and general characteristics of the interviews themselves. As an argument for rigor, these paragraphs accomplish three things. First, they establish that the researcher collected sufficient and appropriate state-level data to understand what the policy was. Second, they establish that the researcher interviewed the appropriate people, given the focus of the study. Third, they emphasize that the questions asked of local officials were general and open-ended; interviews focused on a series of topics but were designed to elicit participants' ideas about mathematics and science reform in their districts. Spillane further signals the study's inductive analytical approach by noting that the second round of interviews was based on preliminary findings from the first round.

In paragraphs 9 and 10, Spillane outlines classroom-level data collection procedures, which include surveys, observations, and interviews. Two purposes are served here. First, he establishes that what he was looking for at the classroom level—implementation of reform-minded instructional practices in mathematics and science—is in fact the outcome of interest. This is an argument for the suitability of the data to the research questions. Second, by describing the sample and the array of data collection strategies used, he indicates the depth and scale at which teacher practice is examined. This is an argument for the credibility of the statements about instruction in the article.

The section of the article on data collection (paragraphs 7–10) seeks to persuade readers that the data collected for the study were both focused on the appropriate topics and substantive enough to generate credible findings. In the paragraphs that follow (11–13), Spillane makes a similar set of arguments about data analysis. The goal is to demonstrate to readers that a clear and rigorous process was employed to explore and define local officials' theories of teacher learning and to examine the relationship between these theories and classroom practice. To accomplish the former, Spillane walks readers through the steps he took to reduce and focus the data on local officials' theories of teacher learning (paragraphs 11 and 12). To address the latter, he outlines how data from multiple sources about teacher practice were consolidated into cases and coded according to the degree to which that practice was consistent with reform-oriented mathematics instruction (paragraph 13).[1]

In sum, Spillane's research design is mapped onto his conceptual framework; how he frames his topic informs the way he studies it. He argues that understanding local officials'

theories of learning is an important and underexplored aspect of policy implementation. In relation to this driving belief, Spillane lays out a sampling, data collection, and analysis plan that show how he intends to structure the inquiry. He suggests that local theories of teacher change may influence classroom instruction and then outlines how he will tentatively explore this relationship analytically. The data he collects align with the big ideas in his conceptual framework (that is, local officials' understanding of policy and the instructional practices of mathematics teachers). The analysis he conducts refines those data to more specific constructs (aspects of local officials' theories of teacher learning and the presence of specific reform-oriented instructional practices in mathematics) and explores the relationship between them.

The Co-Evolution of Conceptual Frameworks and Research Design

By the time you see them in publication, good conceptual frameworks like the one discussed here appear fully formed. They are comprehensively argued and closely linked with research questions and design. This is helpful for readers, and it lends credibility and clarity to the research. But it also masks the ways in which conceptual frameworks evolve. In most studies, this process is nonlinear and iterative. You consult literature, identify topics and issues you wish to explore, frame arguments, pose questions, design studies—and then the work begins. And in research, "the work" has a tendency to not behave in quite the way you expect. In some cases, you may have misunderstood something fundamental about the topic you hope to study. More often, though, you learn things you did not plan to learn, but that nonetheless change the way you think about your questions or topics. This in turn feeds back into your conceptual framework, which leads to changes in your approach to the research. Those expecting this process to happen in a linear, tidy fashion will soon discover (and, hopefully, come to appreciate) its generative messiness.

"Local Theories of Teacher Change" offers a strong example of how this generative process works. Spillane did not begin the SSI study with the idea that local officials' theories of teacher learning were important; they emerged from a wider set of data focused on how local officials understood (and thus enacted) policy. This led him to focus on questions of how learning happens, which in turn led him back into the literature and toward the Greeno et al. (1996) typology that serves as his theoretical framework for the article. The conceptual framework presented above is the result of that critically reflective and iterative process.

One of the problems with thinking about literature review as an artifact rather than as a process is that it leads you to think of the frameworks that result as being static and the steps that follow as being linear. You conduct a literature review, collect your data, analyze your data, report your results, and discuss the implications of those results. (This remains the dominant publication format in social science journals.) This often leads to the assumption that you have a problem if your findings do not relate precisely back to your literature review. Instead of returning to the literature to puzzle through what might be happening in your data, you may think your study has gone wrong or that you can only report those findings that conform to your existing literature review. This mindset ritualizes the literature review, thereby reducing possibilities borne out of active engagement in the creation process. Instead of strengthening and informing your study, the literature ends up stunting it.

"Local Theories of Teacher Change" developed into an article precisely because conceptual frameworks evolve. For Spillane, this was not a problem but rather a necessary and vital

stage in the lifecycle of this—and any—study. As he explained to us,

> On the one hand, you construct a framework that guides your study design and data collection from the outside. I don't think I have … ever done a study where the initial frame was sufficient to get me through data analysis and writing. In other words, always, I've come up against, "Well, this framework is inadequate," for some particular aspect. That may be because at the outset, it was too broad to provide this sort of fine-grained analysis that was necessary for a question like this. Or it may be that sometimes I encounter something that I didn't expect I would be writing about in the beginning, but now I'm writing about, and the framework doesn't speak to it explicitly enough. And I think in the case of this article that was the situation. The notion that "the pedagogy of policy" or the notion of "district policymakers as teacher educators," I guess that was … there implicitly, but it wasn't an explicit focus, from what I can remember. And instead I think this was something that came up—it looked interesting. I suspect what happened here is that we coded the data first around the category of what is it they think … they're thinking about teacher learning and change, and then I needed something to help narrow down and really analyze … the data that were coded under that. So this is a good example of a situation where—which again, I think has happened in every study—where there's something else I want to pursue here, and the original framework has limitations as a tool. I need to go back into the literature.

Because conceptual frameworks are closely linked to research design, development in one leads to development in the other. In the case of this article, data collection had already been completed by the time Spillane arrived at theories of teacher learning, so the shift in conceptual framework did not alter that aspect of the study. But it had significant implications for how the data were analyzed. As discussed above, this article is the outgrowth of a shift from an inductive analytical approach to a deductive one. That shift was precipitated by the incorporation of a new theoretical framework (the Greeno et al., 1996, learning typology) into the larger conceptual framework. As such, "Local Theories of Teacher Change" serves as an excellent example of how changes in the way you think about a topic give rise to new questions, which in turn require new methodological tools to unpack and examine.

Conceptual Frameworks and Research Design: Concluding Thoughts

Two basic research questions prompted the analysis that produced "Local Theories of Teacher Change": (a) How do local officials think about teacher learning? and (b) What are the implications of local officials' theories of teacher learning for classroom practice? Spillane discovered these questions through the process of working on his data, finding new puzzles, and ultimately returning to the literature to try to figure out those puzzles. It is through this fitting together of previous work and existing research that you come to discover—to excavate from what is already known—new research questions, which in turn inform your thinking about what data to collect and how to analyze those data. In good research, the conceptual frameworks we see in publication present a compelling argument for those questions. But it is the process of developing those frameworks that is most important—a process that is no less than your learning of your topic, in all its complexity, as it unfolds.

Reflection Questions

1. When you look at the argument for your study, can you break it down into a series of logical propositions, as is done here with Spillane's work? Can those propositions be supported by topical research or theoretical frameworks?
2. When you look at the "intellectual bins" (to use Miles and Huberman's term) that will fit within your conceptual framework, what kind of data will you need to collect in order to fill those bins? Does your research design allow for the collection of these data?
3. Does your plan for data analysis work for the data you will collect? Does it align back to the relationships or hypotheses posited by your conceptual framework?

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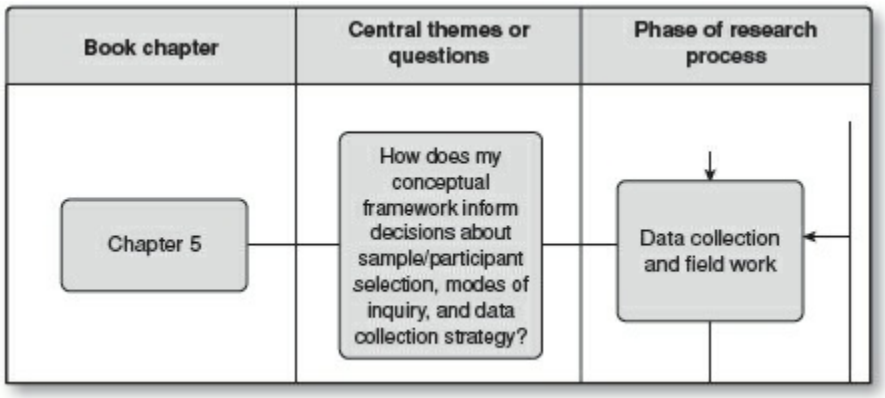
Note

1. The excerpt included in this discussion does not reflect the full account of how Spillane analyzed teachers' instructional practice. Additional discussion of analysis is provided on pages 399–402 of "Local Theories of Teacher Change." We chose not to include this section because the discussion of methods is intertwined with his discussion of findings. Including this section in its entirety was beyond the scope of this chapter. For additional discussion of analysis of instructional practice, please see Spillane (1999, 2002) and Spillane and Zeuli (1999).

CHAPTER 5 The Role of the Conceptual Framework in Data Collection and Fieldwork



A central goal of this book is to clarify and illuminate the role of conceptual frameworks throughout the empirical research process. This chapter focuses on the particular influences and implications of the conceptual framework as it relates to data collection and approaches to fieldwork more broadly. We highlight the close relationship between the arguments that researchers make for a study's relevance and importance and those that we make for its rigor. *Simply put, the choices you make about what to study are tightly interwoven with those you make about how to study it*. A central purpose of conceptual frameworks is to make both explicit and to provide both you and your audience with a clearly articulated rationale for the methodological choices you make throughout the research process.

Methodology, however, is no simple matter. Both how you think about doing the work and how you carry it out require careful consideration of your role as a researcher, how you see the world (and yourself within it), what to emphasize (and de-emphasize) in your data collection and analysis, and how to represent yourself, your work, and the study's context(s) and participants to your readers. The ways that you wrestle with these complexities shape your conceptual framework at the same time they are shaped by it (Golafshani, 2003; Maxwell, 2013; Norris, 1997).

Who You Are, How You Think, and What You Study

A significant challenge in designing and conducting research is to critically examine and make transparent the goals, commitments, frames of reference, guiding concepts and theories, and working assumptions that influence your work (Anderson & Saavedra, 1995; Chawla, 2006; Peshkin, 1988; Ravitch & Carl, 2016). In our work teaching and advising students, we often find that they engage in their research as if there is little or no connection between their methods and findings; their own subjectivities, priorities, theoretical orientations; and their design and methods. As Emerson, Fretz, and Shaw (1995) argue, researchers must understand that there is an "inseparability of methods and findings." This means in part that how one approaches data collection—and, we would add, what one brings to the design and framing of the research as a whole—has much to do with the quality and content of one's data and therefore has a significant influence on one's analyses and findings (Peshkin, 1988; Ravitch & Wirth, 2007). But what does this mean operationally? How can you conceptualize and then analyze these relationships, and use that understanding to make better choices about methodology? How do your guiding assumptions, commitments (theoretical and political), belief systems, relationship to the participants and setting, and conceptual framing of the research topic and focal populations of your research influence the various components and dimensions of your fieldwork?

Focusing on "Theorizing Hyphenated Selves: Researching Youth Development in and Across Contentious Political Contexts," by Michelle Fine and Selcuk Sirin, in this chapter we center our discussion on the relationship between conceptual frameworks and data collection and fieldwork. Fine is an internationally recognized qualitative researcher specializing in participatory action research and other applied qualitative methodologies that sit at the intersection of psychology, education, and sociology. She is known for taking her research to places—literally and figuratively—where few choose to go, working in deeply participatory ways with socially marginalized groups such as out-of-school youth and incarcerated women. Most important for our purposes, Fine is a sophisticated thinker about the close relationship between what we study and how we study it. She does not see herself as an observer of social and political situations, as many researchers do, but as an actor in those situations. Similarly, the conduct of research in Fine's view is anything but value neutral. As the article discussed in this chapter shows, Fine argues that people's assumptions about what is "normal" or "objective" serve to legitimize or validate some groups or behaviors while marginalizing others. In challenging these assumptions, she also interrogates how they are produced—a process that leads back to questioning the role of research and of herself as a researcher. Bourdieu's (1989, 1990) concept of people as embodied histories helps us to understand Fine's reflexive stance on herself as an instrument of the research. For Fine, any inquiry into a social process or phenomenon is also an inquiry into one's self. Her ability to conceptualize, articulate, and methodologically address how her own history and ideological beliefs influence her research—both what she

chooses to explore and how she structures those explorations—has allowed her to break new ground both theoretically and methodologically.

In this chapter, we first discuss the intellectual background and context for "Theorizing Hyphenated Selves." We then present excerpts from the article itself, as well as a second publication (by the same authors) that articulates more fully the wider conceptual terrain within which the article can be located. Following the excerpts, we summarize Fine and Sirin's argument and analyze the relationship between how the argument was framed and how the data were collected. We focus specifically on how the conceptual framework for this research was developed, the relationship between the topic of the study and the stance of the researchers, and in turn how that stance informed specific choices about data collection. We conclude with a discussion of the iterative, ever-evolving nature of conceptual frameworks as they are developed, challenged, and refuted through engaging reflexively in fieldwork.

About the Author

Michelle Fine is a Distinguished Professor of Critical Psychology, Women's Studies, American Studies, and Urban Education at the Graduate Center, CUNY. Fine is a university teacher, educational activist, and researcher who works on social justice projects with youth, women and men in prison, educators, and social movements on the ground. Fine taught at the University of Pennsylvania from 1981 to 1991, when she was codirector of the Philadelphia Schools Collaborative, a member of Women Organized Against Rape and the National Coalition for the Defense of Battered Women. She has authored many "classics"—books and articles on high school push outs and adolescent sexuality—called the "missing discourse of desire," the impact of college in prison, the struggles and brilliance of the children of incarcerated adults, and the wisdom of Muslim American youth. She writes on the injustice of high-stakes testing, queer youth, and the racial abuse of mass incarceration of people of color, and she loves to conduct research with young people who know intimately the scars of injustice and the laughter of surviving the streets of New York. A pioneer in the field of youth participatory action research and a founding faculty member of the Public Science Project, Fine has been involved with a series of participatory studies with youth and elders from across different racial, ethnic, and social class backgrounds, to investigate circuits of dispossession and circuits of critical resistance.

A much sought-after expert witness in gender, sexuality, and race discrimination education cases, Fine's research and testimony have been most influential in the victories of women who sued for access to the Citadel Military Academy and in *Williams v. California*, a class action lawsuit for urban youth of color denied adequate education in California. Most recently Fine, Maria Elena Torre, and a participatory action research team including women from Bedford Hills Correctional Facility published "Changing Minds: The Impact of College on Women in Prison," which is nationally recognized as the primary empirical basis for the contemporary college in prison movement.

The national and international recognition of her work is evident in a sampling of recent awards that include the 2013 Strickland-Daniels Mentoring Award from the Division of Psychology of Women of the American Psychological Association, the 2013 American Psychological Association Public Policy Research Award, the 2012 Henry Murray Award from the Social Psychology and Personality Society, the 2011 Kurt Lewin Award from the Society for the Psychological Study of Social Issues, the 2010 Social Justice and Higher Education Award from the College and Community Fellowship Program for Formerly Incarcerated Adults, the 2008 Social Justice Award from the Cross Cultural Winter Roundtable, the 2007 Willystine Goodsell Award from the American Educational Research Association, the 2005 First Annual Morton Deutsch Award, an Honorary Doctoral Degree for Education and Social Justice from Bank Street College in 2002, and the Carolyn Sherif Award from the American Psychological Association in 2001.

Background and Context: An Overview of the Work in Focus

Like most people, researchers studying child and adolescent development tend to think of it in individualized terms. *Development* implies change, but the change is often assumed to be occurring largely *inside* the young person. The wider social environment in which the change is unfolding is seen as a backdrop, if it is seen at all.

Sometimes, though, the background changes so radically that people can be seen and treated completely differently one day than they were the day before—a change that has profound developmental implications. Such was the case for Muslim-American youth before and after the events of September 11, 2001. Beyond its intrinsic value and narrative power, their story is important because the disruption and reframing of the identities of this group of young people says a lot about the wider society of the United States and the power structures in which their lives and experiences are framed and embedded.

Telling this story, however, is not easy. How do researchers and those involved in youth development more broadly go about gaining an understanding of how youth construct their identities—specifically, when youth hail from marginalized groups in socially and politically contentious contexts? How can we understand the tensions and cross-currents in youths' social, psychological, emotional, and academic development, given all the moving parts of their identities and the social, political, familial, and institutional contexts that shape them?

Further, if one's research seeks to investigate the influences of power, hegemony, and inequity on identity development with populations that are marginalized and oppressed, one's research methods must interrupt broad social trends that serve to marginalize the voices of these research participants given the power structures and how they become instantiated and enacted within the research process itself. This represents a significant challenge. More often than not, researchers are employed by (and therefore a part of) the very institutions whose construction of these populations has reinforced their marginalized status. It is a tension not easily resolved.

The work of Michelle Fine sits at these disciplinary, theoretical, and ideological crossroads. Fine's research has embedded into its design the multiply situated theoretical, ideological, and methodological concepts and approaches necessary to investigate and understand the shifting terrain of adolescent identity construction and the personal, social, familial, and institutional influences on these intra- and inter-psychic processes. To traverse this conceptual, theoretical, relational, and interdisciplinary terrain, researchers need framing concepts that seek complexity and hybridization rather than status quo and normative understandings of the phenomena in focus. Within this conceptual milieu, the concept of

hyphenated identities has become central to Fine's empirical work because it allows for a kind of conceptual and methodological innovation that rests upon deeply considered social critique that hails from, as it crosses over, disciplines and fields. Fine's work adds layers of complexity to discourses on youth identity development because of its conceptual complexity and richness as well as because of the generative tensions between its theoretical frames and methodological considerations.

Across Fine's career as a researcher, the concept of the hyphen—as a marker and symbol of an active, highly individualized meaning-making and identity formation process that both invokes and involves complex social and political forces—is a thread she weaves into a broader framework of and approach to critical, reflexive, and relational research. The hyphen is both metaphorical and analytical. It is a framing concept that allows Fine to argue for a rigorous methodological approach that shows fidelity to the complexity of people's lives and identities rather than a dogmatic adherence to methods that is so often the norm in research (Harrison, MacGibbon, & Morton, 2001). She urges researchers to view all people—not only those in positions of power—as meaning makers and experts concerning their own experiences (Brooks & Davies, 2007; Jacoby & Gonzales, 1991; van Manen, 1990), to examine how aspects of people's identities intersect with larger social and political forces to create identity responses that are complex and difficult to neatly typologize (Chilisa, 2012; Ravitch, 2000). Fine's work calls for research to be interpersonally authentic and respectfully critical of mainstream views that essentialize, reduce, and oversimplify the lives of research participants (as well as researchers), especially those who are socially and politically marginalized.

The idea of the hyphen as a metaphor both for social processes or phenomena and for the research process itself has long been a theme in Michelle Fine's work. Its genesis is both biographical and intellectual, constituted by multiple influences (disciplinary, conceptual, relational, and lived experience) while at the same framing her way of conceptualizing new problems and contexts. In our interview with her, which focused on her research, Fine stated, "The way I think about all research is that it's driven by biography, theory, desire, and context." She explained:

> That is, *hyphenated selves*, as a notion, comes easily to me, biographically, because I have an enormous amount of discomfort in any space that I feel is calling for homogeneity or monogamy in commitments, and I am, by style, probably most comfortable in places where questions of difference are at play, and up for grabs. There's something about what would be called *essentialism* that not only offends me intellectually, but scares me, personally. So, the strands that help me get there are, I am, both my parents are Jewish-Polish immigrants from Poland, although they would never say "Polish," it was just a stop through, to schlep through, to be treated like shit through, to get out the other end through, and my mom who's now 95 is the youngest of 18 kids. … My dad sells plumbing supplies. And getting invited to the

> [university] president's house and not knowing which fork to use. And so, I'm interested in the hyphens we all live on. I actually find them both a source of my anxiety and my best thinking. And so I think hyphenated selves, coming out of the Muslim-American work, has a longer trajectory in my own body.

As this excerpt illustrates, Fine relates her personal background to the ways that she engages in research; she works in focused ways to locate herself as a shaper of the values, lenses, and conditions of the research. But the concept of the hyphen is not solely a product of Fine's personal story. It also provides her with a useful way of thinking about identity construction, a central theme in all of her work. For Fine, the concept of hyphenated selves allows for a complexity of understanding of people's perspectives on their own identity construction, and resists hegemonic understandings and representations of underserved and marginalized populations. In describing her early work with high school "dropouts," Fine described the evolution of her own thinking about hyphenated selves.

> I remember when I was exploring *Framing Dropouts* [Fine, 1991], I just kept interviewing smart kids who had dropped out. … So I think of that in light of a lot of my work with kids who have been pushed out of school, or women in prison, that there's a kind of, another whole knowledge that's going on. … So, I think it was between self and other, and … I think in all of those settings I've been working this question of, "To what extent do our methods reproduce our fantasies of the *other* rather than interrogate the complexity of our own privileged point of view and the complexity of people who have been deemed *others*?"

In this statement, Fine complicates the relationship between the self and "other" as a means of resisting a pejorative, hegemonically framed perspective on what *other* means. This is a recursive cycle of thought, reflection, and action—she intentionally works at this intersection of concept and method as a response to her beliefs about what it means to engage with people in a true exploration into aspects of their lives and the conditions in which their perceptions and social identities are formed and reformed over time.

To best understand the conceptual framework upon which "Theorizing Hyphenated Selves" is built, it is helpful to consider the larger study from which this article emerged. In 2003, Fine and several colleagues began exploratory research with Muslim-American youth about their identity development during the period before and after the attacks on the United States on September 11, 2001. In formulating and then carrying out the study, they developed the idea of *hyphenated selves* as a theoretical framework (our term) to explain the dynamic process of identity construction in complicated and even fraught political and social contexts. Specifically, the study examined the intra- and inter-personal identity negotiations among Muslim-American youth in the wake of dramatic shifts in U.S. public

opinion of Muslims following the events of September 11. While Muslim-American youth were previously made the object of what Fine and others refer to as an "orientalizing gaze," they had been nonetheless seen as relatively "ordinary" in an ethnic U.S. landscape. After September 11, Muslim-Americans found quickly that their social positioning had changed and they were suddenly subjected to suspicion, surveillance, hostility, and violence. In a separate article, Sirin and Fine (2007, pp. 151–152) advanced an argument for the importance of this topic:

> [1] Adolescence is a developmental period during which young people form, and then reform, their cultural identities (Erikson, 1980; Fine & Torre, 2004; Fine, Burns, Payne & Torre, 2004; Helms, 1990; Solis, 2003; Way & Robinson, 2003). This may be a particularly complex psychological task for youth living in contexts, or historic moments, in which their diverse racial, ethnic, national, religious, sexual origins stir in tension (Willis, 2002). When one's social identity is fiercely contested by the dominant discourse either through formal institutions, social relationships, and/or the media, one of the first places we can witness psychological, social and political fallout is in the lives of young people. As Willis (2002) suggests, youth embody and perform the very economic, and we would add cultural, conflicts that constitute global politics. Adolescence is precisely the moment in which international, national, social and personal "crises" erupt most publicly and spontaneously, and, unfortunately, they are more often than not misread as simply personal, hormonal, disciplinary or developmental "problems" (Abu El-Haj, 2005; Appadurai, 2004; Fine et al., 2004; Sen, 2004; Sirin, Diemmer, Jackson, Gonsalves, & Howell, 2004; Sirin & Rogers-Sirin, 2005). Growing up in the midst of what Fazal Rizvi (2005) calls Islamophobia, Muslim-American youth offer us a lens into the developmental challenges that confront teens who live on the intimate fault lines of global conflict; teens who carry international crises in their backpacks and in their souls.
>
> [2] For Muslim youth living in the U.S., negotiating their identities across different cultural terrains became decidedly more challenging after the events of 9/11 (Cainkar, 2004). On one hand, their lives, like those of everyone else in the U.S., were under attack. On the other hand, they were perceived as a potential threat to the safety of their neighbors. Ideologically represented as a threat, since 9/11 "they"—Muslim-Americans—have been watched, detained, deported, and invaded in order to protect and save "us"—non–Muslim Americans. Just as life in their 'home countries' erupted in international and domestic conflict, these youth and their families came to be perceived as potential threats to U.S. national security. This situation did not dissipate after the initial attacks of 9/11, but rather, it continues today, reinforced every time there is news of a security threat. At this moment in history in the United States these young people are at once becoming more religiously grounded and nationally rootless; transnational yet homeless (Bhabha, 2005; Levitt, 2000).
>
> [3] Since 9/11, we have learned much about the U.S. attitudes toward Muslims and

other cultures (see Gerges, 2003), but the developmental consequences for youth of a world fractured by religious terror and global conflicts have yet to be determined, particularly for Muslim youth upon whom the heaviest burden may lie—at least in the U.S. We take seriously young people's experiences of witnessing and critically speaking back to global, national, cultural and economic contradictions (Fine, Roberts, Torre, Bloom, Burns, Chajet, Guishard, & Payne, 2004), and believe they bring passion, loss, desire and critical action to ongoing, shifting cultural formations. It is our view that these young women and men offer a theoretical lens on many groups of youth who struggle with economic/cultural oppression, hegemonic representations of self (Deaux & Philogone, 2001; Solis, 2003) and diminished opportunities for selfhood in the post-9/11 U.S. context.

[4] In our efforts to build a conceptual framework that can guide our study, given the paucity of specific research on Muslim-Americans, we gained insights from three areas of related research on immigrant minority youth. Research on immigrant youth shows that the successful integration of both one's own culture and the dominant culture, leads to more positive developmental outcomes (Berry, 1997; Berry & Kim, 1988; Nesdale, Rooney, & Smith, 1997; Oppedal, Røysamb, & Sam, 2004; Oppedal, Røysamb, & Heyerdahl, 2005; Phinney, Cantu, & Kurtz, 1997) whereas marginalization, that is disengagement from both cultures, is associated with mental health problems for immigrant youth. Previous research on minority youth in general (e.g., Fisher, Wallace, & Fenton, 2000; Lorenzo, Frost, & Reinherz, 2000; Romero & Roberts, 2003), and immigrant youth in particular (e.g., Berry, 1997; Nesdale, Rooney, & Smith, 1997; Suarez-Orozco, 2005), also show strong evidence that minority stress (i.e., discrimination and stress associated with one's social status) can lead to mental health problems in terms of depression, anxiety, and psychosomatic complaints. Thus, the developmental process for immigrant youth not only originates from the challenges of reconciling multiple cultural systems of reference but also from discrimination and stress due to one's minority status (LaFramboise, Coleman, & Gerton, 1993).

[5] Further, drawing theoretically from the writings of Amartya Sen (2004), we also recognize that culture is but one aspect of self, flowing in interaction with other complex dimensions of selfhood; that culture is "not a homogeneous attribute" (43) but rather is filled with the tensions and delights of discordance; that "culture absolutely does not sit still," (43) and that "cultures interact with each other and cannot be seen as insulated structures." (44). We add to Sen's working definition by noting that when a culture is under siege, it becomes particularly prominent for those who live within the diaspora, like immigrant Muslims in the U.S. The social and psychological tensions are exacerbated when home countries shatter in conflict, when one's culture is hijacked by terrorists, and when one's new country marks you as suspect. In times of tension and conflict, as Yuval-Davis (2001) notes, cultural binaries and oppositions proliferate. The intense stereotyping and dehumanization of Muslims in the U.S. reflects this dynamic poignantly. It is in the very sinews of

adolescent lives that we come to see how culture and global politics enter the body and soul of U.S. youth (see Rao & Walton, 2004).

Sirin, S. R. & Fine, M. (2007). Hyphenated selves: Muslim American youth negotiating identities on the fault lines of global conflict *Applied Development Science*, *11* (3), 151–163; reprinted by permission of the publisher (Taylor & Francis Ltd, http://www.tandfonline.com).

"Theorizing Hyphenated Selves" builds upon this argument, but focuses more explicitly on how the concept of hyphenated selves should be studied. Using our own definition of a conceptual framework—an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous—the article takes as its starting point that the topic is important, and delves deeply into an argument for why the methods used were appropriate—even necessary—given the subject matter. As such, the article embodies the central theme of this chapter: the close relationship between what you choose to study and how you go about studying it. Because we have already extensively quoted the authors about the rationale for studying this topic, we have selected the excerpt below to focus on their discussion of how they went about doing so. We then highlight the various ways that the larger conceptual framework for the study informed both the authors' conceptualizations of the research process and the actual work of data collection.

Fine, M. & Sirin, S. R. (2007) "Theorizing Hyphenated Selves: Researching Youth Development in & across Contentious Political Contexts." *Social & Personality Psychology Compass*. (1) 1–23. © 2007 Blackwell Publishing Ltd. Used with permission of John Wiley & Sons Inc.

Methods for Studying Hyphenated Selves

[6] We took up an intensive investigation of the hyphen, theorized as a dynamic social psychological space where political arrangements and individual subjectivities meet. We came to understand that the psychological texture of the hyphen is substantially informed by history, media, surveillance, politics, nation of origin, gender, biography, longings, imagination, and loss—whether young people know/speak this or not. Across maps, interviews, and surveys, we could see great variety in young peoples' experiences of self/selves, Others and how they negotiated the hyphen in distinct contexts—on a bus, in an airport, at the dinner table, at school and in the mosque. While some spoke of the hyphen as a solid wall of mistrust, others describe it as a porous membrane. … Some portray the hyphen as a traumatic check point, and others as a space for cautious collaboration, public education, or (as you will see below) assertive confrontation. For a few it is a space of shame, for many a site of

anxiety and for others an opportunity to invent new versions of self.

[7] The hyphenated selves approach is not, however, simply a conceptual framework. It also carries methodological implications. If researchers are to situate young lives in and across historic, cultural, and political contexts; link narratives of identity to distant and local political arrangements and interrogate intersectionality and wide variability within the "group," we confront questions of design (see Shohat, 2006). … We reflect here on the methodological choices we have made toward understanding the complexity of the hyphen, even as we remain skeptical and humble always about these decisions, all too aware of their limitations, their ambitions, and the impossibility of "catching politics" as they circulate through the rapidly metabolizing bodies of youth.

[8] We gathered a diverse group of Muslim-American youth, ages 12 to 18, from the New York and New Jersey area, with varied experiences and standpoints, to help us refine the research questions, articulate the design and the methods, and think about the ethics of research on/with politically vulnerable young people. By design, participatory action research (PAR) projects rest on the assumption that social research should be sculpted through the knowledge carried by young people and adults most intimately affected by injustice and struggle.

[9] [The youth] helped us create a design of mixed methods—surveys, focus groups, mapping, individual life stories—to best capture complex and layered stories about Muslim-American youth individually and collectively, as they matured amid the post-9/11 "war on terror" political context. They warned us about ethical concerns, critiqued traditional measures of stress and youth "risk" behaviors, laughed at the "dating measures" we thought about using and gently educated us.

On Mixing the Methods

[10] Methodologically, we tried to develop a research design that could stretch to uncover the layered complexity of youth growing up in politically contentious contexts, including qualitative and quantitative information constructed by individuals and groups, about processes that are very much on their mind and buried in their personal and collective unconscious, documenting how local conditions and distant arrangements affect stories of self and relations with others. And then we sought to generate an analytic plan that would allow us to review the data by gender, nation of origin, parents' educational level, heterogeneity of community, type of school, religiosity, etc. While a theory of hyphenated selves may appear to be most compatible with qualitative methods, we have found ourselves interested in intentionally mixing qualitative and quantitative methods.

[11] [W]e gathered a sample of more than 200 youth from across communities (primarily New York and New Jersey, but also a few from across the U.S.) and asked them to construct maps, participate in focus groups, sit for interviews and complete surveys consisting of a number of open-ended questions and a set of psychometrically

validated measures. Given the developmental shifts in identity formation, we sampled youth in two age cohorts (12–18 and 18–25) who completed quantitative surveys that assessed multiple social and cultural identifications with "Muslim communities" and "mainstream U.S. society,"[1] their experiences of and responses to discrimination, and standardized measures of psychological well-being and health. The survey also, at the encouragement of our youth advisory group, included questions about the books they are reading, stresses in their lives from family and school, and imaginative open-ended questions asking them what messages they would include in an MTV show about Muslim-American teens. Our mixed design allowed us to document common experiences of Muslim-American youth but also to excavate the rich variation of and within this group of young people. Via surveys we were able to generate descriptive statistics and correlations between discrimination and strength of ethnic identity that help us situate some of the experiences of Muslim-American youth alongside other marginalized groups and to articulate a theory of how unequal power relations affect youth development. At the same time, with interviews, maps, and open-ended questions we were able to go beyond the most typical experiences and understand the rich variation within this group of young people, in their own words/drawings. In addition to learning from each method one at a time, we also combined various aspects of these multiple methods through research questions. For example, in order to examine how young people negotiate their hyphenated selves, we produced cross-tabulations of survey responses by three meta-codes of the maps: evidence of integrated lives at the hyphen, evidence of parallel lives, and evidence of conflict and tension between lives. The results from this mixing of the methods not only answered our research question but also validated the new method (the maps in this case) with previously established survey measures. Our point here is simple: the theory of hyphenated selves has implications not only for conceptual framing but also for design, methods, and analysis.

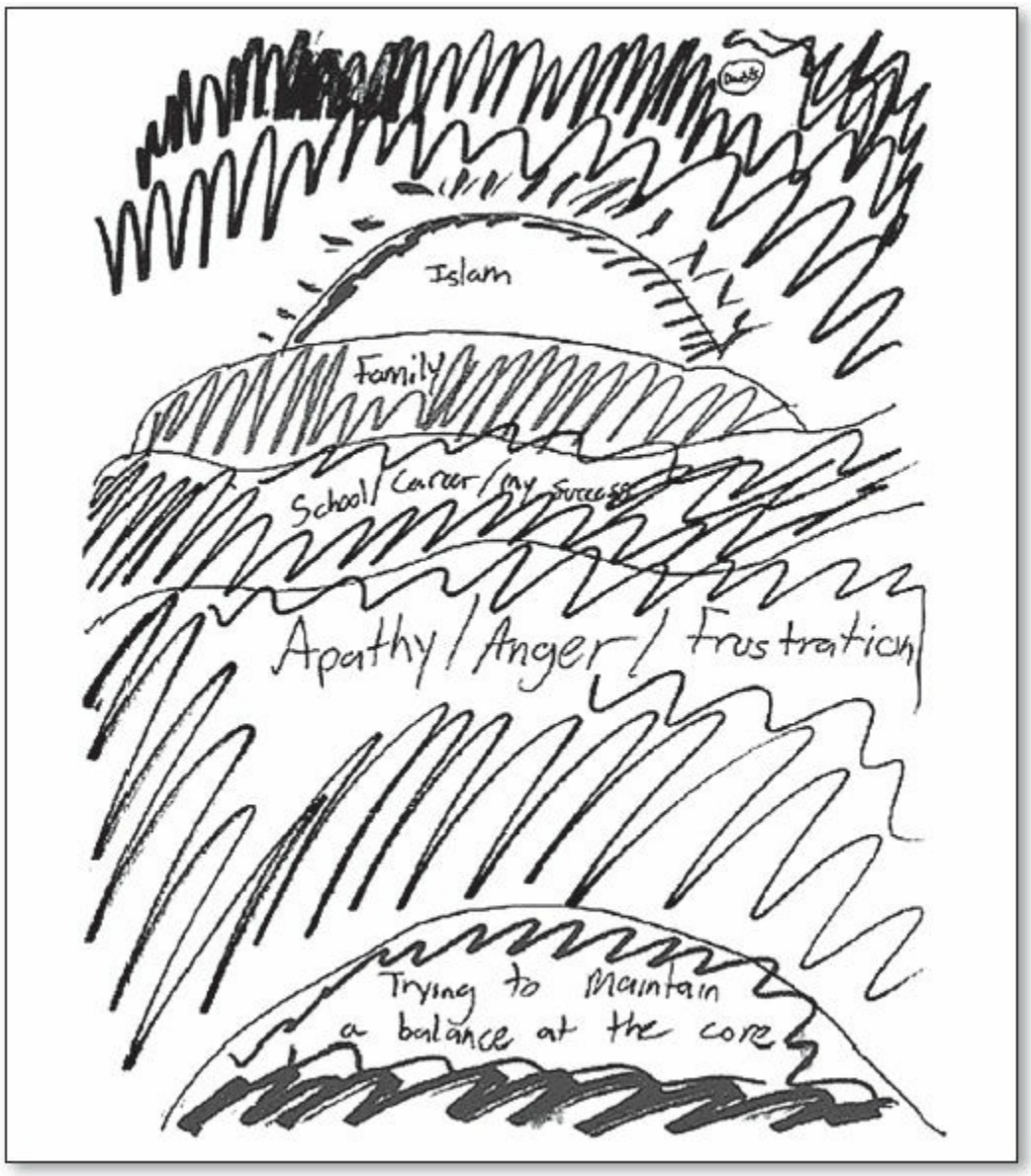
[12] In our work with varied groups of youth in schools, communities, juvenile facilities and with the Muslim-American teens, we have relied on an old social-psychological method—long buried and deserving of resuscitation—the personal "identity map." Variations of this projective method have psychoanalytic roots with Winnicott, Winnicott, Shepard, and Davis (1989) and have been applied by environmental psychologists (Lynch, 1960; Saarinen, 1973), radical geographers (Geiseking, 2007; Hart, 1981; Harvey, 2001; Katz, 2003), and social psychologists, most notably Milgram and Jodelet (1976).

[13] While the prompts may vary depending on the research project—draw the city, your selves, safe and dangerous spaces in your life, a conflict in your life, your journey to your new country or into the future—across projects young people take the invitation for creativity and run with it. With the Muslim-American youth, we asked them simply to draw their selves (i.e., student, daughter/son, athlete, Muslim, American [see Figure 5.1]) the way they see it. We gave them crayons, markers, paper, and about 15 minutes. We have collected, to date, more than 200 of these

maps, which reveal, as Willis would suggest, the varied ways in which young lives connect to political events, social arrangements, religious and cultural traditions, mass media and youth culture, interpersonal relationships, personal yearnings and fears, fantasies about home country and the U.S.

[14] We also used surveys to assess how young people negotiate their identities as Muslim-Americans. In order to avoid creating—and measuring—a false dichotomy, that is, creating a framework that forces the research participants to pick one identity over another, we allowed for the possibility of having two unrelated identifications. Superficially, in our surveys we created parallel forms where in one set of questions we measured the degree to which young people identify with Muslim communities using the collective self-esteem measure (Luhtanen & Crocker, 1992) and an additional form where we used the same set of questions to capture the degree of identification with mainstream U.S. society. Unlike more typical survey items where the participants are asked to choose their location in a bidirectional continuum (i.e., Muslim-American) or even worse, choosing one or the other, we asked them to rate each identity independently. It is possible, of course, that the two forms reified the distinctions between these identities, particularly for those seeking "fusion" selves, but with this measurement strategy we were able to directly test the now famous "clash of civilization" hypothesis to see how compatible these two forms of identifications were. Surveying the hyphen in this way also allowed us to create psychological models of what might be called critical pluralism, understanding the bases of "Muslim collective identity" and the bases of "Mainstream U.S. collective identity."

Figure 5.1 Youth Map: Documenting Layers of Self



SOURCE: Fine, M. & Sirin, S. R. (2007) "Theorizing Hyphenated Selves: Researching Youth Development in & across Contentious Political Contexts." Social & Personality Psychology Compass, (1) 1–23. © 2007 Blackwell Publishing Ltd. Used with permission of John Wiley & Sons Inc.

[15] After youth completed surveys and maps, a subset were invited to participate in focus groups. Here we could interrogate, for example, the meaning of the red core, the source of the questions, the weight of external influences and what enables and threatens the balance, in the maps displayed above. As Wilkinson (1999) and Wilkinson and Kitzinger (1995, 2000, 2003) have argued in their now classic essays on focus groups and conversational analysis, focus groups enable researchers to connect understandings of selves-in-relation with analyses of how young people actually engage with, experience, and perform in live *social settings*. Focus groups offer

social spaces where "differences" are animated and contact is engaged; where researchers can witness the inter-subjective performances of self, distancing from, projections onto and alliances and confrontations with others.
[16] Maps and focus groups offer up interpretive material, therefore, that can be analyzed with respect for the material presented as it is, but also with an analytic eye for what is absent; enabling researchers to analyze at once, *what is* but also *what is not said*.

The Argument

In Sirin and Fine's 2007 article (paragraphs 1–5), the authors articulate a clear rationale for studying identity development among Muslim-American youth in the post–September 11 era. "Theorizing Hyphenated Selves" focuses on the methodological implications of that choice. As such, the argument takes a different turn, focused on persuading the reader that the choice of topic and research questions necessitates a different set of methodological considerations. It opens with a note that this is conceptually challenging terrain, and that any methodological choice about how to study it involves concessions and trade-offs (paragraphs 6 and 7). There is an inherent tension here: The authors are at once trying to convince the reader to follow them into unfamiliar (and perhaps uncomfortable) terrain, while acknowledging that there may be intellectual, social, and political risks involved. This dualism—in which Fine seeks more compelling ways to define the world while remaining suspicious of her role in doing so—is a recurrent theme in her work. The methodology she and her coauthor then outline is an outgrowth of Fine's years of critical engagement in participatory action research (PAR). Fine has chosen (and refined) a PAR approach because it seeks to create a dynamic, generative, level playing field of communication and interaction between researchers and participants in ways that guide and support each phase of data collection to be as democratic and exploratory as possible. Such an approach was especially important for the present study, as Fine explained during her interview:

> [PAR] just insists that that knowledge is at the table, and helps shaping the questions, and the methods, and the design, and the interpretation. … So, I think it went from an epistemology/methodology thing—like, how do we design our research so we're not reproducing othering—to understanding the veil and the performances of identities, particularly in groups that have been marginalized.

Having positioned themselves as a part of the research, the authors then show how this positioning, combined with their choice of topic, shaped their methodological choices. As an argument, the goal is to show how specific aspects of their methodology reflect the position described above. As such, it is framed in terms of choices about research design overall, as well as specific data collection strategies:

1. To guard against making Muslim-American youth an object of research, participants were engaged in decision making about what kinds of data to collect and how to collect these data (paragraphs 8 and 9).
2. Because the participants were diverse, data collection and analysis strategies sought to draw out the individual nuances of their stories and experiences while allowing for cross-sectional or comparative analyses. Therefore, a mixed methods design combining surveys with various qualitative techniques was most appropriate

(paragraphs 10 and 11).

3. Identity construction is both personal (individually nuanced) and relational (set against the backdrop of community, family, society, and culture), and consists of both explicit and tacit aspects of one's sense of self. For this reason, identity maps were used to anchor qualitative data collection (paragraphs 12 and 13).
4. To ensure that surveys did not force respondents into categories that were artificially neat or dichotomous, surveys were designed to allow for multiple identifications (paragraph 14).
5. To explain and gain depth on the identity maps, they were discussed with participants in focus groups. Focus groups were chosen because of their social, interactive, and performative nature, allowing researchers to observe as well as listen to explanations of identity construction (paragraph 15).

In the sections that follow, we first discuss the evolutionary and iterative nature of conceptual frameworks, focusing on how the idea of hyphenated selves evolved into a theoretical framework (as a subset of her overarching conceptual framework) in Fine's work. We then turn to a fuller exploration of the links between conceptual frameworks and data collection in that work, focusing on three critical aspects in the process: stance, design, and modes of data collection. We conclude with a brief discussion of the nature and meaning of rigor in Fine's methodology, and how the study methodology is shaped and informed by her conceptual framework.

Before delving more deeply into the article itself, it is important to note that in both the article quoted above (paragraph 4) and when interviewed, Fine uses the term *conceptual framework* somewhat differently than we do in this book. Specifically, her working definition of a conceptual framework is what we think of and refer to as a *theoretical framework*; that is, a crafting together and integration of theories (paragraphs 1–5) to illuminate a particular topic, problem, or phenomenon. As we noted in Chapter 1, some researchers use these terms differently or even interchangeably within and across fields and this is a helpful example of that since we can narrate this and use it to make this clear as we focus on a specific study. Moreover, the labels are less important than the definitions. For the remainder of this chapter, when Fine and Sirin refer to *hyphenated selves* as a conceptual framework, we will quote them as such. In our own analysis, however, we will continue to use the terms *conceptual* and *theoretical framework* in accordance with the definitions presented in Chapter 1. We include our definitions of each term here so that you can hold this in your mind as you read the chapter.

Hyphenated Selves as a Theoretical Framework

The concept of hyphenated selves developed over more than twenty years of Fine's research with and across various groups that are marginalized from mainstream U.S. society. In recursive fashion, it includes reflection on how her own background influences how she constructs research—that is, her process of creating the most expansive possible set of concepts for use as investigative tools and analytic frames. Throughout her research, the voices, realities, needs, imposed constraints, and possibilities of participants are a central aspect of Fine's engagement across populations and settings (paragraphs 7–10). Fine's research with Muslim-American youth exemplifies how conceptual frameworks can be both actively developed and still developing. Her conceptual framework is both formed and porous; it is a foundation to the research even as it remains actively open to the learnings from the work as it unfolds.

While the idea of hyphenated selves grew out of Fine's own work, it did not develop in a vacuum. Like all research, Fine's research joins a conversation already underway—a conversation that she found in many ways troubling. "One thing that was important for us early on was to think about audience," she explained.

> We were writing on a contentious issue: a group of young people, who were seen as the potential bodies for either patriotism or terrorism or oppression who then became terrorists pretty quickly [post-9/11]. So we weren't writing in a vacuum. … So thinking about entering contentious audiences is a little like Double Dutch jump rope. … You know, it's hard to figure out when to go in, when's it safe? So, we really had to think about the first hyphen of, for me, who am I? … So, the conceptual framework forced me, us, to think about history as a method. And then to figure out which history are we placing them in. … So, putting them in the history of exiled youth, and the developmental consequences of being exiled, was a really important theoretical move that I think, for your readers, it's important. … And that has everything to do with how you choose your literature review. … Every study on Muslims up until that point—Muslim kids—was about *hijab*. You know, just like, the fetish. So, we weren't going to reproduce the fetish. … And so, figuring out what argument you want to be making is really important. And then, people have to figure out, does the literature reinscribe a dominant literature, or does it help you make a different argument?

This statement helps elucidate Fine's perspective on a central argument that her and Sirin's research with Muslim-American youth makes: how one can investigate politically, socially, and interpersonally charged topics with marginalized populations in ways that do justice to the complexities that exist within individuals and groups, and how researchers (particularly

those who are members of dominant groups) must work through challenges of discerning and confronting hegemonic undercurrents that influence their research choices. Fine and Sirin's research with Muslim-American youth critically examines prior research across several disciplines in order to explore how to situate their research so that it might question or challenge the dominance of less critical research on (not with) Muslim-American youth (paragraphs 3–5). Fine and Sirin propose the concept of hyphenated selves as a new theoretical framework (again, our term) "to better understand youth identity in and across contentious political contexts" (p. 1).

Having explicated the theoretical foundations of the hyphenated selves framework, Fine and Sirin then turn to the methodological implications and challenges of such a framework, and reflect on some of the lessons they have learned from operationalizing it in their own work. In the discussion that follows, we focus on the intersections between the concept of hyphenated selves and the methodological approach of this work, elucidating the ways that the conceptual framework informs, as it is shaped by, one's methodological approach.

The Hyphen as Method: Positionality and Practice

The framing of the hyphenated selves concept instantiates itself in the design of the research, and necessitates a critical attention to data collection. As such, Fine and Sirin's framing of the issues at play with Muslim-American youth—issues of a shifting political, social, and psychological landscape that has both external and internal implications for their social and identity development—requires that they use multiple, intersecting methodologies within a participatory mode of inquiry, engaging the participants in the construction of the data collection methods by asking for their authentic, in-depth feedback at the outset and throughout the data collection process (paragraphs 7–9).

One of the most interesting aspects of Fine's research with Muslim-American youth is how the concept of hyphenated selves has roots in, and provides nourishment to, her methodological approach. Her reflexive stance became infused in her methodology, leading to the development and testing of methods that allowed for transparency and approachability of complexity with participants. As she stated in her interview with us about the work,

> Somewhere between epistemology and reflexivity and design lies the question of "How do you think about the relationship between you, your work, the audiences you're speaking to, and the participants you're working with?" And I think this hyphen idea is vibrant at each of those junctures. It's like relational therapy was a departure from psychoanalysis. I think the hyphen illuminates the relational ways in which we do our work. … Those of us who are doing critical work have a real obligation to try to make sure that the work doesn't get caught in the undertow of hegemonic representations. And so, kind of at every level now, I think—for me at least—the hyphen gives us pause and courage at the same time.

This approach is in part a result of Fine's interrogation of traditional research methods and an ensuing acknowledgment of their limitations in terms of creating the conditions necessary for participants to have a sense of agency and voice in the research. Her realization of the theoretical and methodological constraints of mainstream research ultimately led Fine to adopt (and adapt) participatory methods, which allowed for greater authenticity, agency, and complexity within the research itself (Chilisa, 2012). This process reflects the intertwined nature of theory and methods. Fine's unease with the binary distinctions that exist on either side of the hyphen paralleled her skepticism about the capacity of traditional research methods to complicate those distinctions. Using participatory methods offered a space and an opportunity to wrestle with these complexities.

> A conceptual framework is, like, an intellectual, political, and aesthetic experience, right? But it presumes scholarship and politics are constructed, not passive, not flat, not the next question on the horizon. And, I mean, it's really why I love PAR. Because we can create what Maria Torre would call *contact zones*. And then we have to figure out, okay, so if we don't write the story of high schools from the point of view of the principal, or the black boy in the AP class, from whose point of view? … And what happens if you actually try to broker different kinds of knowledge?

It is this position of the researcher as a "broker" of knowledge that gives rise to both innovation and complexity in Fine and Sirin's methodology, and that brings to the fore the hyphenated nature of their own roles in relationship to their participants, setting, and topic. On the one hand, they seek to deeply involve Muslim-American young people—the focal population of their research—into the process of data analysis and interpretation. At the same time, however, they remain aware of their own disciplinary backgrounds and institutions, which they ultimately speak back to in their work. The result is a methodology that is itself "hyphenated" in the sense that it simultaneously utilizes and critiques specific techniques for both collecting and analyzing data.

As we argue in Chapter 1, an important function of conceptual frameworks is that they allow you to make reasoned, defensible decisions about your methods. Thus far in this chapter, we have attended closely to the relationship between how the authors conceptualize the topic of their study and their role and position as researchers of that topic. We now turn to the conduct of the research itself, with particular attention to the relationship between the authors' conceptual framework and the data collection strategies they employed.

Having arrived at a sense of their stance as researchers and how it relates to their conceptual framework, the authors faced the considerable challenge of finding a way to conduct the research in a way that reflected that stance. A guiding premise for the entire process was that the methodology should be transparent. (Indeed, the very publication of "Theorizing Hyphenated Selves" could be seen as an effort to make methodology transparent.) The goal, Fine explained, was to make clear how methodological decisions were made, given the complexity of the topic and positions of the researchers.

> I think it's self-conscious insofar as we try to be very transparent. That is, listing as much as possible the small decisions we've made. Because especially with qualitative work, it feels like that's not done a lot, and it just looks like magic.

The first step in doing so was to think about how the data collection should be designed: What questions should be asked, how, in what order, and in what contexts? It was important for Fine and her colleagues to engage in this work collaboratively with the study

participants. They were concerned that a less participatory, person-centered approach would not do justice to the complexities of these young people's lives and therefore, given her values and priorities, would not be an acceptable means of engaging in the research. To that end, Fine and Sirin introduce the study's methodology by noting the critical role played by young people in developing and refining questions, themes, and instruments (paragraphs 8 and 9). A central belief that guides Fine and Sirin's argument about the need for participatory research is that the youth themselves must be given room to actively challenge the researchers' potentially sedimented, biased perspectives, and to do so they need to be viewed and engaged with as experts of their own lives and of their own situated meaning making. In order to inquire into young Muslim-Americans' processes of meaning making about their identities given the contentious milieux into which their lives and the research falls, the youth themselves needed to complicate the theoretical constructs Fine and Sirin brought into the research and how they should approach the inquiry. As Fine shared,

> It was clear to me/us that this would have to be, even mildly participatory, that the young people would have to help shape the questions we would ask, the analysis we would undertake, the language we would use. Most of my work at this point is highly participatory. And I don't just do that because I'm a "Leftie," or because I think it's nice, or because I like having 7,000 people's names on articles. But I do it for … reasons of what might be called validity. The two places that I enter this are expert validity and construct validity. I do think expertise is distributed. I don't think legitimacy is, but I think expertise is, and I would like to do research with the richest version of expertise possible. And, I think that our constructs in psychology and education are typically developed from a privileged point of view and we don't even know it. And so, I very much appreciate the generosity of people who've paid a price for our work and our institutions, to help me reconfigure the constructs that we're talking about. So, when I talk about *diploma denial* now, rather than dropouts, I'm shifting the unit of analysis, right? I'm talking about policies that are denying young people diplomas rather than "Oh, you weren't very motivated," right? So, the project was participatory, insofar as we had a group of young people really helping us think about methods and questions and language, even though we fought a lot. … So, the participatory element really helped us understand the many ways these hyphens were playing in their lives.

The next step was to determine what kind of data to collect. Fine and Sirin first articulate the challenge of collecting data that would allow them to deeply explore the concept of hyphenated selves in contentious contexts (paragraph 10). After briefly describing the participants, the authors outline their approach to data collection, arguing for a mixed design that includes surveys, identity maps, and focus groups (paragraph 11). Specifically, they explain that their data needed to address two major needs. First, it needed to allow

participants to describe themselves—to construct and articulate their identities—on and in their own terms. Paired with focus groups, the identity maps were designed to serve this purpose. Second, it needed to both create room for and describe intra-group variation, which was the primary rationale for collecting survey data. Again, this necessity was generated by the conceptual framework, which suggested that populations such as Muslim-American youth could not be easily reduced and categorized, and that understanding the experiences of such populations thus needed to account for their heterogeneity.

The authors then describe, in detail, these data collection methods. They first turn to the use of identity maps, noting their methodological lineage and arguing for their suitability for this particular study (paragraphs 12 and 13). Of particular importance is the idea that these maps allow the participants to present or construct a social context around their sense of themselves; the instrument does not presuppose the nature of those relationships. As Fine shared with us, "In the qualitative, we said: 'Draw your many selves,'" Fine explained. "We didn't structure it; we left it to them." Further, she explained, putting participants more in charge of the conversation opened up more opportunities for them to engage potentially sensitive topics, which in turn created a more fertile environment for the focus groups.

> [The identity maps] enabled young men and young women—particularly young men—to narrate affect that never would have come up either with focus group, or the surveys, or the individual interviews. … I just think it's a great method, because it legitimates the presence of politics, contradictions, and affect in identities and selves, in a way that asking people questions pulls for coherence. So, then they did these maps, and then, on the basis on that, they introduced themselves in the focus groups.

Fine and Sirin next describe how surveys were used to assess how the participants negotiated their identities as Muslim-American youth (paragraph 14), focusing on the role of survey data in differentiating the over-arching concept of *Muslim-American* by allowing respondents to explain or define themselves as any combination of each, depending on specific domains or contexts. Here they had to walk a fine methodological line. On the one hand, they wanted to use the surveys to complicate either/or notions of identity. On the other hand, because it presupposes the importance of certain content and how questions should be asked, survey research tends to be less collaborative and participatory than other approaches to data collection. Fine described the challenge of thinking about traditional methods in unconventional ways:

> On the survey, I think we had a few different desires. One was not to set up any item where *Muslim* was at one end and *American* was at the other, to allow these strands of a braid to be narrated independently and interdependently, if they so chose, right? …

> And the young people helped us shape that. Now, so much of this literature says, you know, "Are you American, or are you Muslim?" Or "Are you Black, or are you American? Are you an immigrant?" Or, you know, "Do you live here or there?" And so this was a challenge, in the same way that transnationalism was a challenge. … So we're working against this dominant literature that's fixing and arguing opposition. So, I think I would say that we set up the survey to be able to interrogate each of those identities, and to what extent in the survey they overlap, so you can check *my friends,* or *my food,* or *my music*, or *both*. But also, statistically, to be able to say, "These are unrelated." Which was a big, important finding. … But I was really glad to be able to pull those pieces out and say, this group of kids were all over the map, but these key, dominant notions are really operating in very, very different ways.

Finally, the authors explain the role of both maps and surveys in structuring and informing the focus groups (paragraph 15). These groups served two main purposes. First, they gave participants the opportunity to explicate and build upon their maps, with focus group facilitators prompting them about why they drew them the way they did. Second, as with all focus groups, it allowed these interpretations—descriptions of identity—to overlap and interact in a social setting, allowing participants to co- construct or further explain key themes together, and to articulate differences and similarities in their perceptions and experiences.

Fine and Sirin's use of identity maps combined—and strategically sequenced—with focus groups, surveys, and interviews speaks to the ways that they developed and implemented a research design that includes multiple, intersecting venues for the participants to share aspects of their identities and experiences in ways that can draw out their multilayered truths respectfully and with a particular attention and fidelity to the complexity of their social and psychological experiences as individuals and as a group living within a contentious socio-political milieu, one that changed on them in the middle of their adolescent identity development. This approach to data collection allows for more finely differentiated, complex data to emerge in a way that speaks to intra-group variation as a unit of analysis. It also has particular implications for data analysis. For one thing, the data collected for this study were deliberately not intended to "validate" one another. Instead, Fine and Sirin engineered into the study a certain tension, hoping that what they learned from and through each data source would allow them to make better sense of the others. Fine explained this tension as a different way of understanding triangulation as an analytic process, offering as an example the relationship between identity maps and survey data in the Muslim-American youth study:

> I'm interested in what was called *triangulation*, but not to understand how different methods confirm each other, but the kind of jazz they create when you layer them on top of each other. You know, the kind of new music, not, "Oh yes, we're saying

> exactly the same thing in the surveys and the focus group." That just feels like a lack of imagination. But figuring out what this jazz is isn't always so easy. So, one of the ways we did that was to create these meta-codes of the maps, and dividing them into *integrated*, *parallel,* and *conflicted*, and then laying those codes onto the survey data to see whether or not there were different dynamics. And certainly, in the conflicted ones, there were lots more reports of discrimination. … So, in some ways it became a way to validate the maps, but also to integrate qualitative and quantitative, or visual and statistical information.

For Fine and Sirin, the research is about keeping complexity vibrant and keeping explorations into Muslim-American youths' identities problematic, contested, and polyvocal. Fine and Sirin have chosen a conceptual framework and methodological approach that seek messiness rather than sterility; their research aims to understand the multilayered nature of the meanings the youth attribute to their identity descriptors in all of their range and variation rather than trying to flatten them out. Doing so requires not only a certain comfort level with ambiguity and complexity, but also a high degree of flexibility. The goal is not to develop a single, uniform "technique" for working across methods, but rather to remain systematic and transparent in how that work happens. In keeping with her relation of her topic to her stance as a researcher, Fine explained that this flexibility was needed to honor both the complexity of the topic and the views of the participants:

> If you're going to mix methods, it's not to find sameness, but actually to work the complexity. So, I think the transport is an invitation to take these ideas to other contexts, but also to take with it the responsibility of its complexity … and not to turn it into a technique. … And so, I worry that transportability becomes standardization technique, and yet I also worry that people are diving into areas that are fragile and precious, and not very well protected, the way privileged spaces are protected, and that they feel free to say awful things. And so, it's a little bit of a call to responsibility, like I said. … So, maybe the hyphen's a way of, like, connecting those two as well, because method shouldn't be technique, but it should be systematic.

This statement about the responsibility of researchers to be reflexive is a call to action as much as it is a caveat and a validation of why to work with various identity groups, especially when their experiences are shaped by being systematically marginalized and are ideally a recursive process of critical, iterative conceptual and methodological development. These caveats are borne from Fine's experience engaging in research into delicate, complex topics with populations that have often been marginalized and mistreated in ways that affect her research. Fine's statement about looking for complexity, of having a responsibility to be ideologically loyal and methodologically attentive to complexity, is at the core of her

decades-long research career. Her resistance to viewing methods as technique, while arguing that they should be rigorous and systematic, is at the center of debates in the field of qualitative research in particular, debates about how one achieves methodological rigor while at the same time resisting theoretical and methodological rigidity. This is a delicate balance, but, as we see in works like "Theorizing Hyphenated Selves," achieving this kind of fidelity to complex theoretical and methodological approaches is possible as long as conceptual-methodological choices are intentional and transparent and become, themselves, a domain for and of critical inquiry.

Conceptual Frameworks and Fieldwork: Concluding Thoughts

We conclude this chapter with a statement about the nature of conceptual frameworks and their influence on data collection and fieldwork choices. As this chapter elucidates, conceptual frameworks are both guides for and products of an iterative, ever-evolving process of study development; this process happens through researcher engagement in reflexivity through dialogic and internal processes of meaning making that challenge and refute as well as support and uphold specific theoretical and ideological influences on the research. We argue that it is precisely through reckoning with the tensions and crosscurrents that arise when one scrutinizes the influences on their research that the most creative, elucidating research findings emerge (Jaffee, Kling, Plant, Sloan, & Hyde, 1999; Russell & Bohan, 1999). This is clear in the work at the heart of this chapter.

Michelle Fine's work offers an excellent example of the close relationship between who you are, what you study, and how you study it. A conceptual framework is actually the embodiment of all three. As a researcher, you make choices about what you think is important or interesting; those choices are reflections of who you are as a person. They are also reflections of where and with whom you work. The language you use to describe the research, the methods you employ, and how you write up and present results are all a function of the social, political, and professional worlds you inhabit as a scholar. By highlighting Fine's work, we hope to make explicit the nature of this relationship.

More generally, this chapter illustrates how conceptual frameworks inform methodology. Simply put, the ways in which you argue for a particular topic or focus profoundly influence the range of methodological options available to you. Fine's own interest in breaking through fixed (and in her view, pejorative) conceptions of "other," or non-American, identity necessitated a different approach to survey design and a more open, participatory form of qualitative data collection. The choices you make about what data you collect are in turn intimately tied to how you are able to analyze those data. It is to this aspect of methodology that we turn in the next chapter.

Reflection Questions

1. What is the role of the conceptual framework in terms of how it informs and influences one's data collection and fieldwork choices? Can you think of an example that helps you consider what this looks like in practice?
2. What is the relationship of the conceptual framework to one's data collection methods specifically?
3. What is the relationship of a theoretical framework to a conceptual framework?

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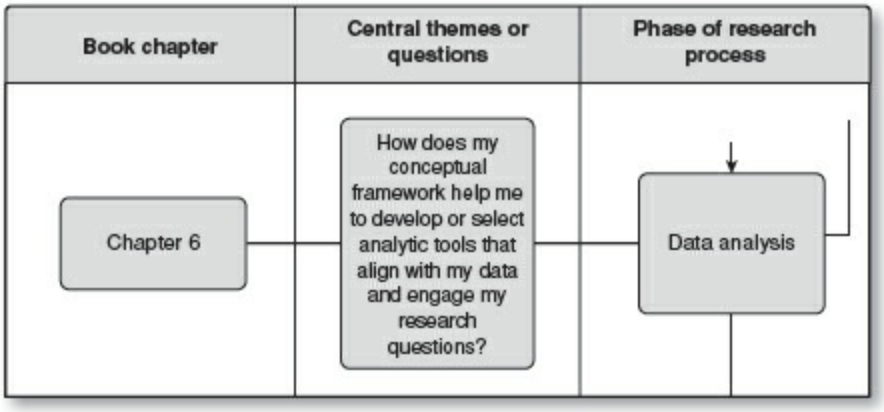
Note

1. Both extremely problematic—from our perspective—categorizations were accepted at the insistence of our PAR advisory board, who explained that even though all of the respondents are from the U.S., they do not always identify as "American."

CHAPTER 6 Conceptual Frameworks and the Analysis of Data



Just as data collection is a series of decisions about how a researcher interacts with the setting, data analysis is a series of choices about how you interact with the data. We argue in this book that a conceptual framework offers a clear, consistent frame of reference for making methodological decisions, including choices about how you organize, interpret, and, ultimately, analyze (and as we will see in this chapter, re-analyze) study data. This chapter moves us from explicating the role of conceptual frameworks in designing and collecting data in empirical studies to what you *do* with those data once you have collected them: how you conceptualize data, frame data theoretically, develop arguments based on what you see in and discern from your data sets. At its ideal, a conceptual framework informs data analysis in direct, meaningful, and transparent ways. It helps you decide what is most important to emphasize or focus on, provides you with tools for organizing and filtering the data, and helps you make choices about where and when to work inductively or deductively. It also justifies and makes visible your own interpretive processes, which (as we detailed in the previous chapter) are themselves shaped by your intellectual, ideological, and political commitments.

Examining the Influence of an Ever-Emerging Conceptual Framework

To illustrate this process, we analyze "Going for the Zone: The Social and Cognitive Ecology of Teacher-Student Interaction in Classroom Conversations," written by Frederick Erickson. Erickson is an educational anthropologist who has helped shape the field of qualitative research and has been a methodological innovator throughout his career. We explore Erickson's process of data analysis to explicate the interpretive process as a series of decisions about how a researcher interacts with the data and how this is guided by conceptual leanings as it informs them. We use this analysis of Erickson's methodological choices to explain how conceptual frameworks inform a researcher's process of choice-making and framing. We specifically examine how conceptual frameworks inform analytic themes (and vice versa) and discuss the role of various modes of data analysis, including transcription, data organization, and theory building, in relation to what we think of as the inductive–deductive continuum.

"Going for the Zone" is based on Erickson's research in a kindergarten and first-grade classroom. After discussing background and context for the chapter, we move into an examination of the text as a means to understand how a researcher's conceptual framework both directly and indirectly informs his analytical choices and methods. While these aspects of the research process are typically talked about in isolation, we seek to relate them in ways that do justice to the important role a conceptual framework plays in the analytic process. We chose to include this piece of Erickson's research for several reasons. First, his work in general, and this article in particular, occurs at the intersection of multiple fields, and thus integrates ways of thinking about and doing research from different perspectives. Second, for the better part of his career, Erickson has been an innovator in data analysis—something that is readily apparent in this article. Finally, Erickson has analyzed this specific data set using a range of theories, allowing us to see the implications of his conceptual framework for his findings and the arguments he arrives at in "Going for the Zone." It is important to note that we spend time in this chapter elucidating, in detail, how Erickson has iterated—evolved and deepened—his conceptual framework over the course of his career. What is so valuable in this case is that you can trace how the various theoretical and epistemological exposures that Erickson has had over the many decades of his career have prompted him to interpret his data differently as he tries on and combines various lenses. We view this as a valuable account because it explicates how this re-interpretation of data happens, specifically as it relates to data analysis (and re-analysis) using various theoretical frameworks over time. In the case of "Going for the Zone," we assert that the iteration of Erickson's conceptual framework is a research innovation and that there is much to learn from paying attention to how our changing and growing understandings—informed by formal theory and personal experience—can support us in viewing and re-viewing our data toward the most holistic, trustworthy, and well-informed approach to data analysis

possible.

About the Author

Frederick Erickson is George F. Kneller Professor of Anthropology of Education and Professor of Applied Linguistics at the University of California, Los Angeles (UCLA). Originally trained in music, with an undergraduate and master's degree in music composition and music history, he became engaged in volunteer music teaching in an inner-city YMCA in Chicago, where he later did youth work and participated in the civil rights movement as a volunteer in the Southern Christian Leadership Conference's northern urban initiative. He earned his PhD in education at Northwestern University in 1969. Since then he has taught at the University of Illinois-Chicago, Harvard University, Michigan State University, and the University of Pennsylvania. His contributions to the field of anthropology of education have earned him numerous honors and awards, including fellowships from the Spencer Foundation and the Annenberg Institute for Public Policy, a Fulbright award, the Spindler Award for Scholarly Contributions to Educational Anthropology from the American Anthropological Association, and a Lifetime Achievement Award for Research on the Social Context of Education from Division G of the American Educational Research Association (AERA). Erickson's writings on the video-based micro-ethnographic study of classroom and family interaction and on qualitative research methods more generally are widely cited. His recent book, *Talk and Social Theory: Ecologies of Speaking and Listening in Everyday Life* (Polity Press, 2004), received an Outstanding Book Award for 2005 from AERA. He serves on the editorial boards of *Research on Language and Social Interaction*, *Discourse and Communication*, *International Review of Qualitative Research*, and *Teachers College Record*. In 1998–1999 and again in 2006–2007 he was a fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford University. In 2000 he was elected a member of the National Academy of Education, and in 2009 he was elected a fellow of AERA.

Background and Context: An Overview of the Work in Focus

Human interaction is not rocket science. It's far more complicated than that. Language alone, with its multiple formal and informal meanings, is astonishingly complex. But interaction is much more than language. Nonverbal communication, often subtle, can change the meaning of words; changes in tone (in the case of sarcasm, for instance) indicate meanings that are qualitatively different from the literal definition of a word. Speakers are governed by unwritten rules about interruption and turn-taking, which can be bent or broken with the assistance of verbal and nonverbal cues, and different styles of speaking may be considered appropriate or inappropriate depending on the setting and context, the speaker, or the listener.

For the most part, we humans are remarkably adept at negotiating this complexity. But as globalization brings about ever more intercultural contact, the instances of disjuncture—moments when the people interacting are governed by different sets of rules—become ever more common. All of which lends added importance to a question that we take for granted in our everyday lives: how does interaction work?

For decades, anthropologists and sociolinguists have grappled with this fundamental question. In education, they have focused on the added dimension of what happens when certain ways of interacting are considered "normal" or acceptable while others are not. Understanding the broad spheres of influence on everyday encounters in educational spaces such as schools and classrooms, for example, has helped educational theorists, researchers, and practitioners—and those of us who inhabit multiple roles—to engage critically, in contextualized ways, in analyses of school- and classroom-based conditions, realities, and relationships. In this vein, Frederick Erickson's research has contributed a great deal to our understanding of relational dynamics and their educational implications in terms of how these are framed and shaped by larger sociopolitical circumstances that instantiate themselves in seemingly small micro-interactions.

Like much of Erickson's work, "Going for the Zone" resides at the intersection of theories about interaction, culture, and learning—an intellectual space that was created in part through the work of cultural psychologist Lev Vygotsky. Though criticized during and after his own lifetime, Vygotsky's work enjoyed a renaissance in the second half of the twentieth century. Among scholars, his work fit comfortably with evolving theories of distributed cognition and situated learning (Cole & Engestrom, 1993; Lave & Wenger, 1991), while pedagogical trends (back) toward cooperative learning and constructivism buoyed its status among educational practitioners. A full discussion of Vygotsky's work is not needed here. Suffice it to say that these intellectual and educational trends signaled a shift from thinking about learning as something that happens inside people's heads (a view generally, if

oversimplistically, ascribed to Piaget) to something that happens in the interactions among them. In the academic world, this shift brought fields and disciplines that had previously been more distant or even opposed into close contact. Those who studied cognition and those who studied interaction found themselves on common ground (if not necessarily in agreement) in conversations about the nature of learning.

During this time, Frederick Erickson was part of a group that was working to redefine and extend our understanding of how interaction works. As he began his doctoral research at Northwestern University, Erickson was influenced by early work in sociolinguistics and ethnography of communication, along with psychological research on nonverbal behavior and communication. These lines of research converged on a view of conversation and interaction that was ecological in nature. In our interview with him about his empirical work, Erickson explained:

> The idea was there is this ecology of mutual influence between everybody who is a participant in the scene, and you didn't just focus on the lead speaker. You were looking at the whole thing in a kind of ecosystem perspective.

This in turn gave rise to a more nuanced understanding of the context in (and with) which communication occurred. By the 1970s, context was no longer seen as the backdrop to interaction, but something that was created through interaction itself. Erickson explained to us the significance of this development:

> In Ray McDermott's doctoral thesis, there's this wonderful line where he says, "People in interaction," I think maybe he said, "constitute contexts for one another." So, context isn't outside the text of the interaction; it's in it, as well as outside it. So, that was another, kind of fundamental assumption we were using. … If you don't realize that within a given event there may be many different phases, each with a different participation structure, each a new context, you're going to do things that were appropriate in the previous one, but that aren't now.

It was around this time that what Erickson terms "neo-Vygotskian" perspectives began to enter the literature. Among those who studied interaction, this was a welcome development. But Erickson and his colleagues found the neo-Vygotskian perspective on interaction to be simplistic, and perhaps a bit naïve. "This notion of interaction in the zone of proximal development (ZPD) seemed curiously sociologically innocent," as he explained in our interview with him:

> The early writing about engagement [in the ZPD] … made it seem as if that

> engagement itself was unproblematic, right? And all you had to do was just get two people together, and they would form this ZPD, and then everything would be just smooth sailing from then on. And by then I had been in a whole bunch of classrooms … and I was more and more persuaded that simply establishing something like a relationship in the zone of proximal development was interactionally so much more complicated than people were thinking about.

The material that eventually became "Going for the Zone" was originally developed for a lecture Erickson was asked to give by a colleague. By this point, he had for some time been studying the fine-grained structures and processes underlying communication in classrooms, and had developed some innovative approaches to doing so. The idea of critiquing the neo-Vygotskian view occurred to him as he thought about how to frame and introduce this way of studying communication to a new audience. As he shared,

> The kind of invocation of Vygotsky was the new thing that I added, given that I was going to be talking to these people who knew about that. … Thinking that this is a rhetorically effective way to make the point that interaction itself is the learning environment, and it's a whole lot more complicated than the way most people talk about it.

Framing his work along new theoretical lines was far more than just rhetorical sleight of hand, however. For the argument to be persuasive, Erickson had to show not only that the critique had theoretical merit, but that the data he presented and the way he analyzed them would support that critique. In the excerpt and discussion that follow, we show how he approached this and, in the process, highlight the tight relationship between conceptual framework and the framing and analysis of data.

There were many twists and turns in the road to making the argument presented in "Going for the Zone." Some of these twists were caused by shifts within and across generations of thinkers and how those germinated across fields and instantiated themselves in his point of view at the time of writing the chapter. This historical moment within and across fields directly framed Erickson's thinking as well as how he envisioned his audience and therefore constructed the messages he wished to communicate. This process of deciding how to enter into a "conversation already happening" requires the intentional making of interpretive choices about how to enter these discussions conceptually.

> Erickson, F. (1996). Going for the zone: The social and cognitive ecology of teacher-student interaction in classroom conversations. In D. Hicks (Ed.), *Discourse, learning, and schooling* (pp. 29–62). Cambridge, UK: Cambridge University Press; Reprinted with the permission of Cambridge University Press.

Social Interaction as a Learning Environment

[1] Research and theory construction along neo-Vygotskian lines has presented cognition in a new light: as socially situated (a kind of production that makes purposive use of tools, including those others have made) and as transpersonal (a distributed phenomenon, not simply something residing within a single head). This makes for a profound change in how we think about thinking, about learning, and about teaching—participation by teachers and pupils in non-verbal interaction and in oral and written conversation—the interaction among people that fosters learning.
[2] How does the mutual influence we call teaching and learning actually take place in and through immediate social interaction? Neo-Vygotskian work has emphasized the importance of social interaction in learning. It points to the engagement of expert and novice in the zone of proximal development (ZPD), through which the more expert party in the interchange helps to complete and extend the actions and insights of the less expert one.
[3] Yet, if social interaction is seen as crucial for learning, we must not leave unexamined the notion of social interaction itself. My sense is that in much of the neo-Vygotskian work, what has occupied the foreground of attention is the cognitive or linguistic changes that occur in the learner rather than the processes of interaction through which such changes are seen as being stimulated. Analyses of transcripts of expert-novice dialogue focus on the content of speech rather than on the process of interaction in tandem with its manifest content. In other words, interaction as a social and behavioral process seems to be treated as a residual category in discussions of engagement in the ZPD. Thus it is possible that unexamined assumptions about the nature of social interaction (and of conversation) as a medium for learning and teaching may be constraining the ways in which pedagogical transactions are being viewed.

Conceptions of Social Interaction

[4] Neo-Vygotskian discussions of engagement in the ZPD place special emphasis on two aspects of social interaction—the dyadic and the reciprocal. Perhaps because of the origins of the notion of ZPD in the interactive experiments of Vygotsky, the learning situation is seen as one involving a single expert and a single novice (see, e.g., Vygotsky 1978; Wertsch 1985; Wood, Bruner, & Ross 1976).
[5] Dialogue is a powerful and evocative metaphor for the transformative engagement that happens in conversation. Yet the organization of talk in classrooms is not literally dialogic, that is, classrooms are not just settings for verbal exchanges between pairs of individuals in isolation from others around them. That view comes in part from idealized images of pedagogical conversations such as that of Mark Hopkins and a student sitting on either end of a log, or of the teacher-student dialogues from classical, medieval, and renaissance educational texts (which themselves probably

derive from Plato's idealized presentation of Socrates in dialogue with one primary interlocutor at a time). Prescriptive models of "good teaching" often treat classroom conversation as if it were a series of one-on-one engagements between the teacher and a succession of students. Classroom etiquette for recitation (nowadays considered an aspect of classroom management) and the ubiquity in whole-class discussion of what many researchers call the *IRE* discourse sequence (known information question initiated by the teacher, followed by a response by a student, followed in turn by evaluation of the response by the teacher) may imply a cultural model of "one speaker at a time and pairs of speakers in dialogue" for the social participation framework of ordinary classroom conversation.

[6] In my experience, much classroom interaction is far messier than this, even when children are being nice. Children stumble over each other in conversation. They may complete each other's clauses and turns at talk. They may take turns away from each other. The pullings and counter-pullings, the ebbs and flows of mutual influence in the conversation, are not just between one student and the teacher at a given time but rather among many students—sometimes among teams of students—and the teacher. How, then, does a single student get to a ZPD with a teacher? And need the single student get there alone or can multiple students enter a ZPD together? Do we mean only dyadic engagement when we conceive of interaction in the ZPD?

[7] The other notion about interaction implicit in the neo-Vygotskian work is that it is reciprocal in a sequential sense; that is, one party's action is seen as being followed by another's in response across successive moments in real time. From this point of view (the usual one), human social interaction is conceived as a ping-pong match. Successful participation by speakers, and the influence of one speaker on another, are seen as involving syntagmatically appropriate matchings of one person's initiation with another person's response across successive moments in real time (e.g., if person X asks a question, then person Y is accountable for answering it at the next appropriate moment).

[8] Yet this emphasis on sequential reciprocity (which centers our attention on turn-taking in oral discourse) overlooks the complementarity of simultaneous participation in interaction by interlocutors. More than turn-taking is going on. At the same moments in which the speaker is speaking, the listener is listening. Because the speaker can see as well as hear, whatever the listener is doing non-verbally (and verbally) is available as evidence that what the speaker is saying is being received by the auditor.

[9] Given the complexity of reciprocal and complementary organization that is necessary to accomplish a multiparty conversation successfully, we must ask, "How does the socio-cognitive ecology work in classroom conversations? How is the collective action done so that interactional (and cognitive) traffic jams do not occur and so that there is an opportunity for understanding and learning?" In attempting to answer such questions, we may come to see how insights gained from analysis of the workings of interactional traffic management in classroom conversations can inform a

theory of cognition and learning as situated, collective, and purposive human activity.

Traffic Management in Interaction: Timing and Contextualization Cues

[10] Timing appears to be what holds the whole ecology of interaction together in its performance. The relative temporal location of the various actions of interlocutors is an important aspect of the ordering of the collective activity of conversation in both its reciprocal and its complementary aspects. We can speak of timing as one aspect of a dialectical process in interaction that has been called contextualization by Gumperz (1982; see also Erickson, 1992), entailing a system of signals he calls contextualization cues. The notion of contextualization follows that of Bateson (1956), who observed that because of an inherent ambiguity in systems of communicative signs, those engaged in interaction need to regulate it by signals that point to the relevant context of interpretation in which other signs are intended to be "read." Thus sets of communicative displays contain, within the surface structure of their performance, certain behavioral features that function as cues that point to their proper interpretation. In other words, the enactment of communication reflexively creates its contextual framing at the same time as it is being framed by its context.
[11] In the timing of immediate social interaction, such as in face-to-face conversation, an especially important contextualizing function appears to be performed by the temporal placement of points of emphasis in speech prosody (volume and pitch shifts) and in body motion (postural shifts, gaze, changes in direction of motion in gesture). The points of emphasis appear to function as contextualization cues that signal expectations at various levels. Not only do individual cues of verbal or non-verbal emphasis enable one to anticipate immediate next moments, but because they tend to cluster together in regular intervals of occurrence, the clusters of points of emphasis in speech and body motion often can be perceived as a cadence. This cadence is a rhythmic underpinning that enables the various participants in a conversational interchange to anticipate the projected courses of action of individual interlocutors and of the conversational group as a whole (see the discussion in Erickson, 1992).
[12] This sense of "rightness" of time is pointed to by a distinction in Greek between time in a technical or physical sense and in a social and phenomenological sense. The former conception of time is meant by the term *chronos*, from which we derive terms for clock time and for the quantitatively uniform measurement of units of time. The latter understanding is meant by the term *kairos*, which refers to the developing or unfolding quality of time: change of seasons, of weather, of crucial turning points in history. This is time as humanly experienced: "in the fullness of time"; the emergent "not quite yet"; the "now" that, once arrived, feels right.
[13] In human social interaction, *kairos* timing results from the mutual activity of the

interactional partners. It is not absolutely regular chronometrically; there is an ebb and flow of speeding up and slowing down that in music is called rubato. Yet conversational partners share a mutually enacted timing that is remarkably predictable. At some moments, it is almost chronometric, but not quite. At other times, rhythmic stress in speech and in body motion (i.e., posture, gesture, and gaze) is virtually metronomic in its chronometric regularity. At this point, the significance of *kairos* timing for the organization of interaction is only beginning to be realized (see the discussion in Auer, 1992; Cooper-Kuhlen, 1992; Erickson, 1982, 1992; Erickson & Shultz, 1982, 72–74; Scollon, 1982).

[14] In sum, we can say that timing enables nothing less than the social organization of attention and action in conversation. Moreover, we can say that the timing of interactional performance is accomplished by contextualization cuing. Hence when we say that cognition and action are situated in socio-cognitive learning environments, we mean, among other things, that they are situated in real time—not an ideal "time-out" condition for reflection and deliberation but an actual, ongoing development of sequences of interaction, moment by moment, in which one is never completely sure of where the interaction is going next and during which the time clock never stops.

[15] At (28) Miss Wright turned further to her left to look at the chalk-board behind her. Now she asked another question, and it was a known-information one: "You remember what the name of that letter is?" She paused and Angie did not answer. "[The letter] that looks like a snake?" she prompted, tracing the sinuous letter with her hand. Angie still did not answer. "What …" Miss Walsh began with another prompt.

[16] In the silence of the turn allocated to Angie, three other students answered at (29–31): "S! . . S… S…" Miss Wright looked away from Angie and around to her right at the speakers, shaking her head. "No," and saying "Sh … You're right but let's let Angie tell it." The turn sharks had struck again.

(23) T: (*looks back to L*)

What else do you like about school?

(24) A: Play. …

(25) T: What do you like to do best in school?

(26) A: Play blocks…

(27) T: Play with blocks … is that your favorite thing? . .

(28)T: (*turns to her left, then points left hand to chalkboard behind her*)

You remember what the name of that

letter is . . (*Angie does not speak*) that looks like a

snake? . . (*Angie does not speak*)

What … (*Angie does not speak*)

(29) S-1: S …

(30) S-2: S …

(31) S-3: S …

(32) T: (*looks around to her right at speakers, shakes head, "No," . . and smiles*)

Sh . . You're

right but let's let

Angie tell it . .

[17] Notice (at 28–31), the time at which Angie did not speak and the other students did. At (28) the teacher asked Angie, "You remember what the name of that letter is?" The pause after that question was the *kairos* time in which an answer was appropriate. But Angie did not answer then, nor did she do so after a prompt by the teacher that was followed by another prompt, "… that looks like a snake?… What…" Finally, three other students said the answer, *"S."*

[18] Someone needed to answer, and do so in the right time. But not just anyone. As indicated by the prior verbal exchanges with the teacher and by the teacher's non-verbal signals of posture and gaze orientation, it was Angie who had been designated by the teacher as the appropriate utterer of the answer that was summoned by the question. The teacher had been looking at Angie. When she looked away to her left (at 28), she did not look at another student, which might have been taken as an implicit cue nominating someone other than Angie as the next designated speaker. (Often the teacher signaled that one child's air time was over and another's was beginning by looking away from the prior speaker to another student whose air time would be next.) But in this case, in looking away from Angie, the teacher looked at the chalkboard. Thus, even though gaze and full frontal postural orientation with Angie were broken by the teacher, her glance to the board can be taken as maintaining rather than changing Angie's right to the floor. Angie was still being framed by the teacher's cues as the designated next speaker—the person who should answer the question just asked, and who should do so in the next moment of the discourse.

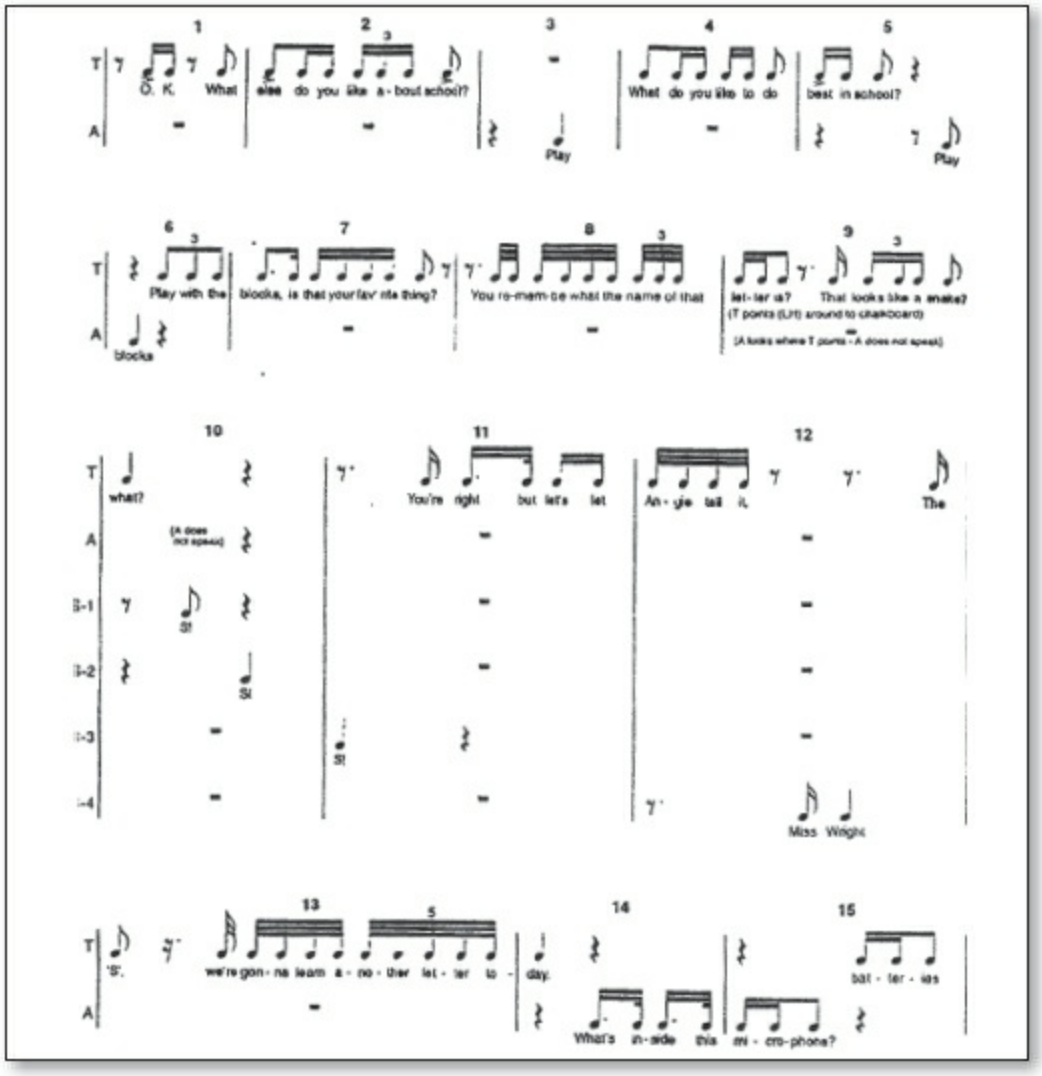
[19] How do we know it is a *next* moment? How did the teacher, Angie, and the other students know when that "next" moment had arrived? We can infer that their inferences about the *when* of the answer slot have to do with the *kairos* timing cues

discussed earlier. A succession of stressed syllables of speech mark a cadence together with markers of kinesic prominence, such as change in the direction of motion in a gesture, with shifts in postural position, and with shifts in gaze direction. Prior time intervals in that cadence could be taken as if they marked a metronome beat. Thus a succession of rhythmic, regularly spaced beats on prior moments enabled one, in the current moment of a "now" beat, to estimate how long it would be until the "next" beat would occur. Interactants could thus hold an expectation of the actual occurrence at a "next" and "go for" it, reaching for it by speech or gesture that projects a trajectory that will be completed on the cadence point of the next beat.

[20] The following transcription (Figure 6.1), using musical notation, shows how the next moment for the answer "S" was being projected in Angie's and the teacher's interactional behavior. The transcription begins with the question by the teacher at (23), "What else do you like about school?"

[21] Notice that in measure (2) there were two stressed syllables in the teacher's speech, "else" and "school." In measure (3), after a pause of exactly the same duration as the interval between "else" and "two" in the previous measure, Angie said "Play," thus answering the teacher's question. Notice a similar pattern in measure (5), where the pause after the stressed word "best" in the teacher's question "What do you like to do *best* in school?" Angie said, "Play *blocks."* In this case the word "play" was unstressed—said as a "pickup note" to the stressed word that followed, *"blocks."* That stressed word came at the same time interval as that between the previous stressed word, *"best,"* and the pause in the teacher's speech that followed. From this it would seem that the appropriate time for an answer to be uttered to a question by the teacher is either the next "beat" after the end of the teacher's question or the next "beat" after that. If the cadence established across stressed syllables or words is approximately 1 second, then the student has 1 second, or at most 2 seconds, to respond to the teacher's question. After 1 or 2 seconds, either the teacher will prompt the designated answerer (often beginning the prompt on the next beat after the silence by the student) or another student will attempt to answer.

Figure 6.1 Rhythmic Organization of Questions and Answers About School and Letter Name



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[22] In these cases, the questions asked for information that Angie alone knew, and she answered them with a stressed word uttered on the "beat" immediately after the end of the teacher's question. This left no room either for a prompt by the teacher or for an attempt by another student to take away the answer turn by filling the rhythmically cued answer slot with an answer of his or her own.

[23] Then the teacher revoiced Angie's utterance, "Play *blocks,"* with a slight syntactic expansion, "Play with the *blocks."* (Notice that in making this slight paraphrase, a shift to a more formally elaborated style by including the conjunction and definite article, the teacher echoed the rhythmic placement of Angie's utterance; in the

teacher's utterance, primary stress still fell on "blocks," with the previous syllables uttered as a triplet of "upbeats" preparing for the stressed word, "blocks.") At measure (8) the teacher began to ask another question: "You remember what the name of that letter is?" Unlike the previous questions, this was a teacher-like known-information question. As the teacher uttered the question, she turned and pointed to the board.

[24] Angie's eyes followed the sweep of the teacher's arm as Angie directed her gaze to the chalkboard where the teacher was pointing. But notice the first beat of measure (9)—the beat immediately after the end of the teacher's question. Unlike the two previous occasions when Angie had answered on the next beat after the last stressed syllable in the question (measures 2–3 and 5–6), this time on the next beat after the teacher's question Angie did not answer. In measure (9) the teacher responded to Angie's silence with a prompt, "… that looks like a *snake?"* Still no answer. On the next beat the teacher started another prompt: "what." As she said this, one other child answered "S" just after the beat. On the next beat, the second beat of measure (10), another child answered. Finally, on the next beat (measure 11), the teacher, who had by then looked away from Angie to the other speakers, addressed them by saying, "You're *right,"* and went on to say, "but let's let *Angie* tell it." As the teacher said "you're *right,"* she placed the stressed word on the immediately next beat, just as had Angie and the other children when they were filling answer slots after the teacher's questions. Thus the teacher's utterance, "you're *right,"* on the second beat of measure (11) can be heard as an "answer" to the students' saying "S" in answering the question that had originally been directed at Angie.

The Argument

The argument at the center of "Going for the Zone" is about how we understand interaction. Erickson builds from the general idea that cognition is social and interactive to a more specific point about the nature of that interaction. This in turn establishes the rationale for a close analysis of the timing of interaction. The overarching argument can be summarized as follows:

1. Neo-Vygotskian thinking reflects a shift toward viewing cognition as socially situated and interactive, and therefore constitutes a fundamental change in how learning and thinking are viewed (paragraphs 1 and 2).
2. However, if we are to locate interaction at the center of thinking and learning, it is important to pay close attention to the nature of interaction itself. To really understand how the ZPD functions, we need to know something about how conversation works, and this is no simple matter (paragraphs 3 and 4). Specifically, we need to account for two important aspects of interaction.
3. First, it does not tend to occur in the form of orderly dialogue (paragraphs 5 and 6).
4. Second, it is considerably more complicated than a sequence of turns taken by the various speakers. In addition to what is being said at any given moment, listening, feedback, and nonverbal communication all shape the interaction (paragraphs 7 and 8). This complexity must be negotiated and managed in order to avoid cognitive and conversational "traffic jams," and thus provide opportunities for learning.
5. This is primarily achieved through timing (paragraph 10), which refers both to the temporal sequence of utterances and other communicative behaviors, *chronos*, but also to the successful identification of "right" or appropriate instances for those behaviors within the stream of the interaction, *kairos* (paragraph 12).
6. This timing is determined not only by what is said, but by all of the other contextual and nonverbal cues that people use to figure out the timing of conversation (paragraphs 11 and 13).
7. To truly understand, therefore, how a ZPD is established (or not established) within classroom interactions, it is necessary to explore the timing of those interactions (paragraph 14).

At the heart of "Going for the Zone" are numerous pages (approximately 9 out of 31) of deep, focused, and specific line-by-line analysis in which Erickson uses data to ground his interpretations and theorize interaction. He accomplishes this through the use of a multilayered analytical approach in "an attempt to make visible the social interactional medium in which cognition and learning might be taking place in classroom conversation" with a critical sensibility about the "ecosystem of relations of mutual influence between speakers who are also hearers and viewers" (p. 54). Based on the data presented, he asserts the importance of the role of time in interactional engagement. Grounding his assertion in

an analysis of rhythms in the communication of the participants in the classroom in focus, Erickson states that "*time*, especially the cadential patterns produced by points of emphasis in the verbal and non-verbal behavior stream" (p. 54) function as contextualization cues for the players in the scene. He states, "As participants orient their attention and action to a common temporal framework, their contributions in listening and speaking behavior occur together, and interaction proceeds smoothly and coherently" (p. 55). This argument sets the scene for his discussion of turn sharks—those students who are able to discern patterns in speech acts and insert themselves (in place of their peers) into a teacher–student interaction—as well as several other behaviors that might be analyzed quite differently using another set of analytical lenses.

From Argument to Analysis

It is worth noting how previous literature on talk, participation, turn- taking, and conversation analysis (among others) formed the building blocks for Erickson's approach to data analysis in "Going for the Zone." This analytic work is inductive, but the tools he used to *do* the work were provided by previous theory. Erickson's work is therefore instructive in terms of understanding the role of a conceptual framework in specific data analysis choices —that is, in how he actually went about reanalyzing his data in light of the set of theories he was using at this juncture.

The argument outlined above (paragraphs 1–14) constitutes the first half of Erickson's conceptual framework: he has made the case for why the topic matters. The next task is to show that he has developed a valid and rigorous approach to studying it. Because this chapter focuses on data analysis, the second set of excerpts and figures (paragraphs 15–24) show how the analysis followed the argument for the topic. To back his argument with data, Erickson needed to accomplish two things. First, he needed to identify an instance in the data where a ZPD could have developed (or was developing) in order to show the complications involved in doing so. This raises difficult analytic problems: how to identify characteristics of a situation in which a ZPD could occur, and how to use those characteristics to locate such instances within the data. In other words, the characteristics of the ZPD had to be operationalized as analytic themes—descriptors that could be applied to the data. In this analysis, he used two criteria to identify a scenario in which a ZPD could be established. Broadly, there must be an interaction that involves an expert and a novice (per Vygotsky's theory). Further, it must be clear that within the interaction there is intent on the part of the expert to engage the novice. Drawing on his own and his colleagues' work on interaction analysis, Erickson uses the occurrence of a "known information question" to identify such a moment. The student is being asked the question at the same time as the desired response is indicated. This, Erickson argues, amounts to an invitation of the student, Angie, to take and hold the floor along with the teacher.

Having located an instance within the data in which a teacher and student were "going for the zone," Erickson was next required to show how actually establishing it was fraught with complexity. Because he had argued that understanding interaction meant understanding timing, making this point required that he demonstrate for the reader how the timing of this interaction complicated any efforts to establish or sustain a ZPD. More specifically, he needed to show how both *kairos* and *chronos* time, along with contextualization cues, could be seen within this process. To accomplish this, Erickson introduced two methodological innovations in his analysis and presentation of the data: The first was a unique transcription process designed to show the cadence of the conversation, and the second was a system of musical notation to show its precise rhythm.

Transcription as Data Analysis

For most researchers, transcription is simply the process through which recorded words are turned into printed words; it seems merely transactional rather than an artifact of interpretation that is value-laden. Its neutrality is something that even many experienced researchers take for granted, believing that and acting as if it is a neutral act, as if anyone would organize the words and pauses in the same way. It therefore is typically viewed as a mechanical act (one that is often outsourced to professional services) rather than as a subjective and engaged one that holds within it layers of interpretation and that generates meanings based on these interpretations (Ravitch & Carl, 2016). This matters more for some types of analysis than others; for those who closely study interaction, the nuances of language, expression, and participation matter a great deal. Referring to a paper written by a colleague, Erickson explained:

> Even when you have an audiotape and a videotape, and you think you are being just a brute empiricist in transcribing the sounds, you are making choices in the way you arrange it on the page. And all that is foregrounding some things and backgrounding others. And so it is not theoretically neutral at all.

In some research, this point might be understood as a critique. For Erickson, it represents an opportunity. Taking a theoretical approach to transcription—deliberately emphasizing aspects of what is being transcribed in order to examine them more closely—is not preparation for data analysis but analysis itself. This is first evident in the excerpt in paragraphs 16 and 17, in which Erickson details a unique set of transcription conventions designed to draw out the cadence of the interactions he analyzes.

Before presenting the transcript, a brief summary of transcription conventions is appropriate:

> Transcription is done in breath group units rather than in whole lines horizontally across the page. Usually there are two lines per breath group, with the *tonal nucleus,* the syllable receiving primary volume and pitch stress, appearing at the left margin. Even more special stress on a syllable or word is indicated by an underline. (Such transcription by breath group, with the tonal nucleus made visually prominent, enables the reader to read the text aloud and get a sense of the cadence organization that obtains within and between turns at speaking.)
>
> Occasionally, when a second speaker begins to talk in response to a prior speaker, the second speaker's first word begins just to the right of the last word uttered by the prior

speaker, as at (29–31) and (64–66).

Overlapping speech is indicated by this symbol: [

Alternation between speakers with no gap and no overlap ("latching") is indicated by this symbol: ∑ (pp. 38–39).

The effect of this approach is striking. In reading the transcript aloud, one can identify where words were emphasized, which words were stressed, and where speakers overlapped. By using transcription to show these aspects of communication to the reader, Erickson is able to explain in theoretical terms their significance. He shows how, through contextualization cues, the teacher created an opportunity for Angie (and Angie alone) to respond to a known information question (paragraphs 17 and 18). When she did not respond in appropriate time to those cues, the "turn sharks"—other students who intuitively understood the cadence and knew the correct answer—interceded.

The transcription conventions used for this segment of analysis are highly effective in showing that there was a "right" time to respond to the teacher's questions, but they provide less information about how participants knew precisely when that right time occurred. For this, Erickson adopts another innovation in his treatment of transcription: He sets it to music. As shown in Figure 6.1 (between paragraphs 21 and 22), the turn sharks' timing was informed not just by contextualization cues such as the teacher's posture or gaze but by the actual rhythm of the conversation. For those who can read musical notation (or better yet, sound it out), this approach allows the reader to see (and hear) the precise sequence of teacher utterances and gestures, pauses, and student responses. Having presented the transcript as such, Erickson then shows that correct answers were continually and consistently provided one beat after the question, with stressed words in both question and response falling on that beat (paragraphs 21 and 22). These interactions effectively established the tempo of the interaction. Like a musician in an ensemble missing an entrance, he argues, Angie's failure to respond "in time" to the teacher's question about the letter *S* cued the other students that this was the time to cut in to the conversation (paragraphs 23 and 24).

This approach to data analysis is creative, but more than that, it is functional. Erickson's argument about the complexity of interaction—and thus complications in establishing a ZPD—relies on being able to show the reader that *time matters* when studying interaction. In this excerpt, we can see the utility of both identifying contextualization cues and of plotting transcript data onto a musical score. Erickson visually maps out the "rhythmic organization of questions and answers about school and letter name" (p. 46) by providing us with an innovative way to consider the data. This was a departure from much of the discourse analysis that was being done at the time, which tended to focus more heavily on the semantic links between turns within the interaction. "It is so much more complicated

than that," Erickson reflected.

> [Timing] needed to be foregrounded in … transcribing. … By then I was transcribing with stressed syllables on the left margin, and then the little things that are going up to the next one on the right side, which doesn't look like conversation analysis, or anybody else's transcribing. That was an original thing of mine to emphasize this regularity of pulse, or cadence. And then, if you know how to read music, the quasimusical notation makes that even clearer.

It is worth noting that this innovation represents something of a theoretical fusion in itself. Erickson's knowledge of music theory and notation—designed as it is to plot sound (and silence) across time and participants—equipped him with a set of tools from well outside his disciplinary background that nonetheless furthered his analytic work. Equally important is the way this approach took shape. Theoretical developments led Erickson to believe that timing mattered, which in turn gave rise to methodological innovations. Reflecting on the evolution of this approach, Erickson explained:

> Particularly for Angie, the whole business of how adjacent turns get set up as a matter of interactional sociolinguistics, or interactional accomplishment, is what led me to the close look at the timing of all this. And that's what led me ultimately to the musical notation stuff. Because by then I had looked at a lot of this kind of footage with that perspective, and I had written a couple of papers on the timing of adjacent turns. And it's the very time cues in shifts in postural position, gesture, gaze, and stressed syllables in the speech stream that help people … recognize that there's an underlying pulse here. Not consciously, but that there is an underlying pulse, or cadence. And it's the very regularity of that cadence that enables the turn sharks to know where to go to answer for, and also in the later scene. It is just exactly that issue of the real-time interactional performance dynamics of turn exchange.

This whole discussion about transcription conventions and the mapping of transcription data onto nonconventional structures (musical scores) tells a story of making analytical choices and the implications thereof for the building of specific data-based arguments. Erickson shares with his readers his choices around the structural and spatial organization of the actual words on the page. He provides a rationale and context for these choices that begins to map out his argument concerning the timing and cadence of speech and their complex relationship to engagement and perception in this classroom setting. This shows Erickson's careful analysis of the activity and speech acts in this classroom context, or what he refers to as "the ecology of social interaction" (p. 49) in this space and time.

Evolving and Shifting Frameworks of Analysis

"Going for the Zone" is a particularly compelling example of the role of a conceptual framework in data analysis because it shows how a researcher draws upon, as he enters into layered critical dialogue with, multiple intersecting fields that bear on the phenomena under study. While Erickson's work in general crosses a range of fields and disciplines, in the case of this chapter, these fields include sociolinguistics, discourse analysis, neo-Vygotskianism, social interaction theory, music theory, teacher research, and theories of culture and communication broadly. His engagement with these fields spans over four decades and becomes instantiated in a multilayered, creatively interdisciplinary approach to making sense of and formally analyzing these specific data. It also evolved along with his continuing analysis and theoretical developments in related fields. Erickson's long-standing engagement in framework development that is iterative and reflexive allows us to understand the ways in which analysis is a conceptually embedded process, one that can shift and change as one's theoretical lenses and conceptual framing shifts over time.

Throughout his career as a researcher, Erickson has cultivated a critical and receptive sensibility about developing theory and theorizing practice, particularly in classroom settings. He structured his argument in this chapter around the concept of "social interaction as a learning environment" (p. 29), taking the conceptual core of neo-Vygotskian theory and framing it in a particular way using theories from across fields to address issues of communication and interaction in thinking, learning, and teaching.

"Going for the Zone" focuses on data that Erickson has actually analyzed at multiple points over the course of his career, using many different theoretical frames to make a variety of arguments within and across fields. This chapter, with its use of preexisting data analyzed in new ways, brings to the fore the significance of how (and why) his reading and understanding of this conversation segment has changed over time. This helps us to understand the value of his own experience of learning and coming to know Vygotskian theory and the idea of the ZPD, as well as how it has shaped his critique of the assumption that the structure of the interaction is dyadic. This is crucial to understanding how he framed the data in this chapter, how this framing shaped and informed his thinking, in what respects he found these ideas (or their subsequent treatment in the literature) problematic, and how he thought these concepts could (and should) be reconfigured based on that assessment. This in turn helps us to understand what he was hoping to interject into the conversation about classroom interaction: the complexity of classroom ecologies and how context, timing, and relational and communicative rhythms shape actions within this setting.

Erickson's long experience with these specific data, coupled with the theoretical and intellectual evolution of the fields in which he has worked (described above), offer us a

unique perspective on how the analysis of data changes as one's conceptual framework evolves. He made meaning of these data in various ways that fit within the intellectual and theoretical milieux of the time, even as he informed them through his own work. His integration (and critique) of neo-Vygotskian theory was the latest in a series of shifts in how he viewed the data. As he shared in our interview,

> I'd had all these … sociolinguistic interests from the earlier times. And as I sat there watching the tape—and I had used this in my teaching about classroom life, so the issue of the turn sharks had come up as we watched it. … One reason I took this clip was that I knew that there was stuff in it that I could show people, and it had intrinsic interest. And then, as I was working up the presentation … [one] way of thinking about this is that this little conversation is a kind of interrupted zone of proximal development.

This recollection evokes our discussion from Chapter 2 about the meaning of theory, and why it can be so difficult to understand and define. Of course, theory refers to how things relate to one another, but it also serves as a lens through which you view your world and your work. Shifting theoretical orientations necessitate shifts in conceptual framework; paragraphs 1 through 14 are the consequence of such a shift. But more important, these shifts change what you see in your data, both in terms of which specific data grab your attention and how you make sense of their meaning. For example, Erickson explained to us how the lens of neo-Vygotskian theory directed his attention to certain events and characters within his data.

> If it hadn't been Vygotsky, it might have been critical ethnography. … It would have been then a very different story. The data would have been different, what was foregrounded would have been different, and [another student] would have been in the center of the story, and Angie and her gear-shifting problems would maybe not even [have] been mentioned.

We find this explanation of his approach to analyzing the data in terms of his choices about how to situate and frame his analysis an important one, particularly given the confusion surrounding the choice of conceptual frameworks and the influence of those choices on data analysis. It is striking that Erickson's consideration of a new theoretical framework led him to view, or review, the data differently, to see new and different things in them, and to recast his argument in an innovative direction. This speaks to the multiple influences on interpretive frames and analytical arguments; it helps us see the power and implications of conceptual framing. This can teach us a great deal about how conceptual frameworks inform analytic themes or categories (and vice versa) as well as about how one's working theoretical frames influence quite specific moments of data reduction, organization, and

analysis. As he explained to us,

> If the emphasis is going to be on turn sharks, then turn-taking and its interactional enactment, and all the things that go into that, are what you end up focusing on analytically. … You see different things in the videotape when you have these different orienting concerns, which is part of the point.

There is a subjectivity to this process—the intertwined nature of what we think about and what we see—that may initially make you uncomfortable. Does this simply mean that we look for confirmation of our pre-existing views within the data? It does not. Rather, it points to the relationship between deductive and inductive analysis. In Erickson's analysis of the role of time and timing in structuring conversation, much of the analysis is inductive —the data direct his attention to the argument. But his evolving sense of its significance, both academically and educationally, was continually recast by theory and thus shifted the structure and contextualization of that argument—essentially a deductive process. "There is a real place for a more inductive way of coming to whatever theoretical frameworks you can use," he explained.

> And my story is very much that way of going back and forth with something like data, but also as your theoretical interests change, what you see changes. … You can't just say "Well, I'm a poststructuralist, therefore. …" It seems to me beginners make [that] mistake. Some of them make the mistake of thinking that you can just be completely atheoretical—and that's naïve. But the other naïveté is to think that somehow there's some book someplace that's got the theory in it, that's then going to [tell you what to do].

This statement is an important one about the nature of one's mindset going into empirical research. Erickson is speaking about the complex relationship between understanding the theoretical and conceptual frameworks that guide us and remaining open to what emerges from the data. This requires that you understand the relationship between *framing theories* and *emergent theories*, among other things. We argue that this tension is a generative one. The ways that emergent theory maps onto, relates with, and challenges preconceived theoretical frameworks are what allow you to critically and appropriately develop data-based theories (Anderson & Jones, 2000; Bailey & Jackson, 2003; Chawla, 2006; Jaffee et al., 1999).

Finally, it is worth noting that, in keeping with themes from the previous two chapters, there is something of an autobiographical aspect to Erickson's approach to analysis. This is candidly acknowledged in the text of the article when he explains that "the heavier emphasis on interaction than on cognition in this chapter is due to the focal interests of its

author" (p. 56). But there is a more fine-grained aspect to this formulation that speaks more deeply to the link between who we are and what we find important or interesting. "The more I think about it, the more I'm persuaded that the central focus of one's work in social inquiry, the crucial problems that you focus on in your career, are fundamentally autobiographical," he commented. He continued,

> In my case, my earlier work on gatekeeping interaction, and the assessments that people make of each other and their capacities, that was an issue that as a young man I was very anxious about. … I know that judgments about "Other" is something that was a front-burner issue for me. And I managed to do some good stuff with that. But it wasn't taking that off the shelf, at all. … Ultimately, it isn't that you pick a theory, and then pick a site, and then come out with a study that could be predicted by knowing what you reached for on the shelf.

This personal statement about how Erickson gravitated to the central topics of his career, as well as about his teaching of generations of doctoral students and discerning the personal influences on their work, is meant to provoke a particular kind of research reflexivity: an identification of and reckoning with the autobiographical aspects of one's interest in and commitment to particular lines of inquiry. Echoing Michelle Fine's comments from the previous chapter, Erickson explained that the important thing is to be clear about those preferences, to acknowledge them forth-rightly, and ultimately to use them to delve more deeply into the work:

> Rather than being an open window on somebody else's world, unedited video footage like this, when people watch it, works like a projective test. It's like a Rorschach inkblot. You read into it whatever's on your front burner. I'm sure this is true for any kind of evidence, but particularly for video, there's so much potential information there. It's so dense with information bits that you can't extract data out of them. That is, paying attention to some information bits rather than others, you have to do that, because otherwise it would just be totally incoherent. It's the buzzing and blooming confusion that William James talked about. So, it's got to be selective attention. And the best you can do is try to disprove your favorite hunches about what's going on by looking over and over very carefully.

Conceptual Frameworks and Data Analysis: Concluding Thoughts

As this chapter presents, data analysis and theory development are ideally in an iterative and dynamic relationship. We argue that the degree to which a researcher views these as a "dialectic of mutual influence" (Nakkula & Ravitch, 1998) is directly related to the quality of your analysis. Frederick Erickson's reflections on "Going for the Zone" show clearly how the arguments that we make inform our choices about what to focus on within the data and how to analyze those data. Beyond that, the story presented in this chapter illuminates the relationship between theoretical and conceptual frameworks. In this instance, a shift in theoretical framework—using neo-Vygotskian theory to analyze how learning happens in a classroom situation—opened up new analytic possibilities but also revealed shortcomings in the theory itself, shortcomings that the author attempted to both illuminate and address through specific analytic methods. Articulating the logical connection between the problem identified (in this case, the inattention to the complexity of interaction in the theoretical framework) and the methodological means to address it (analyzing the role of timing within such interactions) is a central function of conceptual frameworks. Though they may evolve along with our theoretical understandings and methodological innovations, their role in anchoring those developments to fundamental arguments about what we study and how we study remains constant. The extension of those arguments—explaining to the reader why what we have learned is important, and what its implications are—is where the conceptual framework is culminated. It is to this final stage, presenting and contextualizing findings, that we turn in the next chapter.

Reflection Questions

1. It is generally assumed that data analysis generates theory. Yet Erickson's story also shows how theory development generates new approaches to data analysis. What assumptions does your conceptual framework make about the relationship between data analysis and theory building?
2. In what ways are your interpretive processes shaped by your intellectual, ideological, and political commitments?
3. What is the relationship between the development of Erickson's theoretical framework and the iteration of his conceptual framework? And how did this shift influence his data analysis? How might you consider this in your own work?

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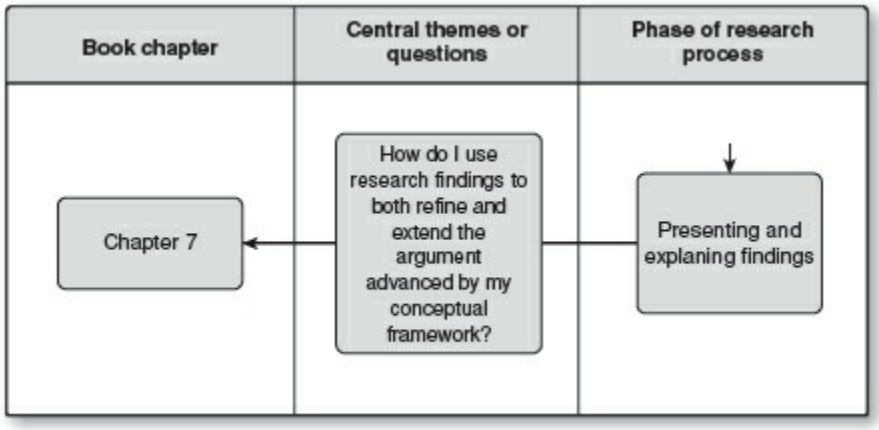
CHAPTER 7 Expanding the Conversation, Extending the Argument: *The Role of Conceptual Frameworks in Presenting, Explaining, and Contextualizing Findings*



In traditional scientific literature, the relationship between theory and results is often portrayed as linear: Either the data support the hypothesis or they do not. From this perspective, the relationship between one's conceptual framework and findings seems straightforward. In social science research, however, hypotheses are more like interwoven threads in a complex tapestry; it is difficult if not impossible to pull on one without pulling on several others. The most ardent of positivists would chafe at this type of complexity, because without isolating the phenomena or processes in question, it is difficult to determine causality. But social phenomena are inherently multifaceted and complex, and the vast majority of social science research is not conducted under laboratory conditions. As such, findings seldom conform neatly to expectations, nor are they linear or easily isolated. Because of this, you are left with the difficult and sometimes ambiguous task of making sense of what you have learned. Unlike the scientific archetype in which results are analyzed primarily (or only) in relation to specific hypotheses, this process often involves a thoughtful interrogation of the assumptions and logic that led to your results. Conceptual frameworks help you to contextualize and make sense of your findings, but you also use findings to review, revise, and, ultimately, strengthen your conceptual framework.

This type of recursive relationship between theory and data is common in qualitative research. Conceptual frameworks shape a study's design and research questions, but answers to those questions are often drawn out through inductive (rather than deductive) data analysis. In this sense, dialectic is established between the theoretical constructs that framed the study and those that emerge from it.

Often overlooked, however, is that the same dialectic exists in quantitative research. While most quantitative work relies on constructs that are established a priori (prior to analysis), the relationships between those constructs—the links in the conceptual framework—are dynamic and often unpredictable. The surprises generated through data analysis contribute to the understanding of the phenomena under review, but also beg the question of what generated those surprises to begin with. Were your assumptions flawed? Were there constructs that should have been included but were not? Were there critical processes that you overlooked? This type of questioning is critical to your continued learning as a researcher. Ultimately, these surprises help you to advance your own work and contribute to a broader understanding of the topics and issues you choose to study.

The process of working back and forth between conceptual frameworks and findings, and the way this process shapes your writing, is the focus of this chapter. Our discussion focuses on the path-breaking work of Margaret Beale Spencer. Specifically, we review and discuss "A Phenomenological Variant of Ecological Systems Theory (PVEST): A Self-Organization Perspective in Context," written with Davido Dupree and Tracey Hartmann. We chose to focus on this specific piece for two reasons. First, it relies exclusively on quantitative methods, and therefore serves (along with Chapter 3) as a counterweight to the works that are primarily qualitative. Second, it is, among other things, a story of what can happen when researchers encounter surprises in their data, and how they deal with those discoveries.

About the Author

Margaret Beale Spencer is the Marshall Field IV Professor of Urban Education, and Chairperson in the Department of Comparative Human Development at the University of Chicago. Previously, as the Board of Overseers Professor of Interdisciplinary Studies in Human Development at the University of Pennsylvania, she was also the inaugural Director of the W. E. B. Du Bois Collective Research Institute as well as the Center for Health Achievement Neighborhood Growth and Ethnic Studies (CHANGES). Spencer's Phenomenological Variant of Ecological Systems Theory (PVEST) addresses life-course development and serves as the foundation for her race/ethnicity- and gender-acknowledging developmental research. The programmatic human development effort addresses resiliency, identity, and competence formation processes for ethnically diverse groups (particularly African American, Hispanic, Asian American, and European American youth) who reside in neighborhoods with varied resources. Her continuing research and programming applications address youths' emerging capacity for healthy outcomes and constructive coping methods while developing under unacknowledged and stressful conditions. She has published approximately 120 articles and chapters since 1973, completed three edited volumes, and received funding for more than three dozen research proposals from foundations and federal agencies. Most recently, she was awarded the 2006 Fletcher Fellowship, which recognized work that furthers the broad social goals of the U.S. Supreme Court's *Brown v. Board of Education* decision of 1954. She joined the faculty of the Department of Comparative Human Development and The College of the University of Chicago in January 2009.

Background and Context: An Overview of the Work in Focus

For decades, researchers exploring the relationship between economic poverty and life outcomes have struggled with something of a paradox. On the one hand, economic poverty affects just about everything else, from income to life expectancy, and in most cases does so more than any other identifiable factor. On the other hand, within high-poverty populations, the range of life outcomes for any individual varies considerably. Economic poverty shapes people's lives, but it does not determine them. This raises an intriguing and important question: What is it that allows some people to successfully negotiate the obstacles presented by economic poverty while others do not? Which social, community, and/or individual characteristics help people to cope with these challenges, and which ones make it harder for them to do so?

This basic question has long been at the core of Margaret Beale Spencer's research. The present article, "A Phenomenological Variant of Ecological Systems Theory (PVEST): A Self-Organization Perspective in Context," is an outgrowth of a much longer (and continuing) line of research. While this line of inquiry has been conducted in multiple contexts using different types of data and with a variety of collaborators, the unifying thread has been Spencer's pioneering of the PVEST. A full rendering of the origins and components of this theoretical framework would require an entire chapter in itself (see Spencer, 2008; Spencer et al., 2006), but it is important to understand its basic premise and lineage.

As the name implies, PVEST fuses a theory of development (ecological systems theory) with a phenomenological perspective on the processes through which development occurs. As articulated by developmental psychologist Urie Bronfenbrenner (1979), Ecological Systems Theory maintains that human development is profoundly influenced by a nested set of systems ranging from the intimate to the removed. Put simply, Bronfenbrenner argues that development is a function of the individual's interactions with *microsystems* such as family, neighborhood, and school. These microsystems interact with and thereby mutually influence one another inside a *mesosystem*, which is in turn situated within an *exosystem*—the wider social settings in which *microsystems* are situated, such as personal or professional networks or direct interactions with organizations or institutions. These settings are themselves nested within a *macrosystem* in which economic, social, and cultural influences form the context inhabited by all of the other systems. Changes in any of these systems affect the smaller systems that reside within them, and ultimately the development of the individual. As Bronfenbrenner explains, ecological systems theory

> seeks to provide a unified but highly differentiated conceptual scheme for describing and interrelating structures and processes in both the immediate and more remote

> environment as it shapes the course of human development throughout the lifespan. (p. 11)

While Bronfenbrenner (1979) stresses that it is the perceived characteristics of the environment (as opposed to an "objective" reality) that are most salient to development—and designs his research accordingly—the processes and interactions through which those perceptions are formed, and the ways in which those processes influence development, are not a primary focus in his empirical work. In her research, Spencer seeks to better understand these processes and to interrogate and learn about how interactions and experiences shape individuals' understanding of the world and their place within it. It was this interest that led to the incorporation of a phenomenological perspective into her research. While phenomenology, a branch of philosophy concerned with the nature of phenomena, has been employed in the social and behavioral sciences in a variety of ways, Spencer uses the term in a manner most commonly found in psychology.[1] Phenomenological psychology holds that people's experiences cannot be observed objectively; rather, they can only be understood on their own terms within a person's broader meaning making and rendering of their experiences in the world (Langdridge, 2007). From a phenomenological perspective, the process of making meaning of these experiences is inter-subjective; that is, their significance is shaped through the interaction and mutual influence of individual, subjective impressions of shared experience (Nakkula & Ravitch, 1998).

In sum, PVEST accepts the person-environment logic of development that is at the core of Ecological Systems Theory, but focuses on processes underlying development rather than its outcomes. As Spencer (2008) asserts:

> The conceptual combination of phenomenology with ecological systems perspectives serves to improve one's appreciation of the "how" of development. Emphasizing the "how" of development is very different from the traditional and linear acknowledging of the "what" (i.e., individuals' patterned outcomes). (p. 698)

This fitting together of theories—literally a theoretical framework—led Spencer to develop two new propositions that are central to PVEST. First, the work of making sense of both self and environment coalesces over time into a stable identity, which in turn rationalizes behavior (whether adaptive or maladaptive). Second, the process of identity formation is bidirectional. Behavior has outcomes and consequences for the individual, but at the same time it also affects other people, and thus alters the environment in which sense making and identity formation occur. Each of these propositions has real implications for our understanding of the broader relationship between life circumstances and outcomes. *Resiliency*, often thought of as some innate quality or characteristic, takes on a different

meaning when viewed through a PVEST framework; it is as likely to be found in the environment surrounding the individual—which provides the experiences that must be interpreted and integrated with a sense of self—as in the individual herself.

Being in Conversation With Theory: Influences on Thought and Action

When you develop a conceptual framework, you position yourself in relation to existing bodies of literature as well as theories already in place. As noted in Chapter 1, this process of developing the conceptual framework of a study is often imagined as a conversation. The question is the degree to which you choose to insert yourself into that conversation—already in progress—and how you make your entrance. Margaret Beale Spencer chose to enter the conversation forcefully. At the core of PVEST is a strident critique of earlier theories of human development, one borne out of personal experience as well as prior and ongoing scholarship.

In our interview with her, Spencer shared some of the personal experiences that influenced both her broad career trajectory and her specific research agenda. An African American female, Spencer was raised in an under-resourced urban Philadelphia neighborhood in the 1950s, primarily by her mother, who modeled particular values and socialized her daughters to share those values. Mrs. Elizabeth R. Beale impressed upon her daughters that much was expected of them and that each had every capacity to live up to those expectations. Margaret noticed from an early age that the initial primary school she attended did not share her family's lofty expectations. "My mother inculcated particular values and expectations concerning hard work and responsibility," she recalled. "I attended school but wasn't really impressed. I was experiencing dissonance around assumptions concerning race, socioeconomic status, as well as expectations." Spencer intuitively began to develop a sensibility around the mismatch between home and school, specifically as it related to expectations for African American students and families. This was a defining experience of her K–12 years and left her with questions and goals in relation to issues of race, equity, and identity. She has made a career out of answering these questions and in so doing has contributed a great deal to our understanding of this area of psycho-educational research.

Spencer completed a master's degree at the University of Kansas before pursuing doctoral studies at the University of Chicago. She found that the pathologization of African American children was equally prevalent in the academic world as in the K–12 sphere. Theories of human development, she discovered, were riddled with assumptions about race, social class, and gender. Specifically, whiteness was generally assumed to be "normal" and deviations from whiteness therefore pathological (Spencer et al., 2006). Once again Spencer experienced a troubling dissonance, this time between what she was reading about African American children and what she experienced on a daily basis. As she stated in her interview with us,

> Here I was as a doctoral student, raising children, studying development, while also asking questions about normal human development for diverse youngsters, which were not in the textbooks. The textbooks were basically biased in the sense that they made a priori assumptions based upon ethnicity, race, SES [socioeconomic status], and skin color. Thus, there were no alternatives for me except to challenge those assumptions.

The present article uses the PVEST framework to explore a specific aspect of development: self-organization. In the psychology literature, the process of self-organization essentially describes how identity forms. There are two reasons why it was important to link the broader theoretical framework to this specific concept. First, self-organization describes the cultivation of a relatively stable sense of self through which both experiences and responses to those experiences are filtered. This is consistent with PVEST, which argues that stable identities are the cumulative coping product of repeated interactions between the person and the environment. Second, as the authors refer to it in this article, self-organization has specific implications for resiliency. One's identity, Spencer and her colleagues argue, has significant bearing on whether a young person responds to challenging circumstances in what she conceives of as adaptive or maladaptive ways. Linking concepts of self-organization to PVEST roots the concept more firmly in the literature while simultaneously advancing the argument that identity processes are central to human development.

While this chapter focuses primarily on how Spencer contextualized and explained the results of her research in light of the article's conceptual framework, a brief summary of the data and methodology employed is important to understanding those results. Because they are best understood in light of the article's conceptual framework, we insert a summary of the data, methods, and results in between two excerpts from the article, the first of which outlines the argument and the second of which discusses the results.

> Spencer, M., Dupree, D., & Hartmann, T. (1997). A Phenomenological Variant of Ecological Systems Theory (PVEST): A self-organizational perspective in context. *Development and Psychopathology*, *9*, 817–833; Reprinted with the permission of Cambridge University Press.

Comparisons of PVEST and Self-Organization Perspectives

> [1] Cicchetti and Tucker (1994) emphasize the "individual's active strivings for self-organization as the major determinant of ontogenesis." For them, self-organization leads development from "a state of relative globality and lack of differentiation to a state of increasing differentiation, integration, articulation and hierarchic integration." Resilience is defined from the self-organizational perspective as the

"ability to utilize self-righting tendencies" during sensitive periods or in response to negative feedback as in Cicchetti et al.'s (1993) study of maltreated children (Cicchetti & Tucker, 1994, p. 534). For instance, a youth who is generally perceived as quiet and withdrawn may similarly think of himself as shy. However, with more experiences, interactions, and feedback in different contexts, the child may develop a more differentiated understanding of himself. The youth may recognize the contexts (e.g., people, places, activities) in which he is more quiet and reflective versus those contexts where he is more outgoing and engaging. Consequently, the youth develops his ability to use self-righting tendencies such as avoiding certain people, places, or activities, downplaying or emphasizing the importance or value of certain people, places, or activities. The youth may even learn how to capitalize on the perception of being quiet and reflective when it is associated with other traits that are valuable in different contexts. For instance, a child of few words who is also above average in size compared to peers may not need to be particularly verbose if physical stature is associated with fighting or athletic ability. On the other hand, in a classroom setting, an African-American female of few words may be perceived as a good student merely because she is not a behavior problem. The point is that self-organization is determined not only by context (e.g., home, school, community) but by the phenomenological experience of race, gender, physical status, and many other potential factors.

[2] According to Lewis (1995), emotional and/or cognitive appraisals of the environment influence the moment-to-moment patterns of self organization. Stability in an individual is recognized when situational response patterns become personality structures. Change in the self-system is explained by perturbations in the life of the individual. These perturbations include changes in the environment or the individual such as cognitive development or puberty. Significant perturbations or those that occur at particularly sensitive periods cause disequilibrium. New experiences—including new thoughts and emotions—must be integrated. The PVEST expands on this self-organization perspective by nesting the self in the larger micro-and macro-systems and illuminating the impact of feedback from the environment, particularly related to individual differences of race, class, skin color, gender, and maturational differences. The emphasis provides a more enhanced interpretation of interactive effects of culture and context with life-span ontogenesis.

Environmental Risks/Stress Engagement: Perturbations/Negative Feedback to the System

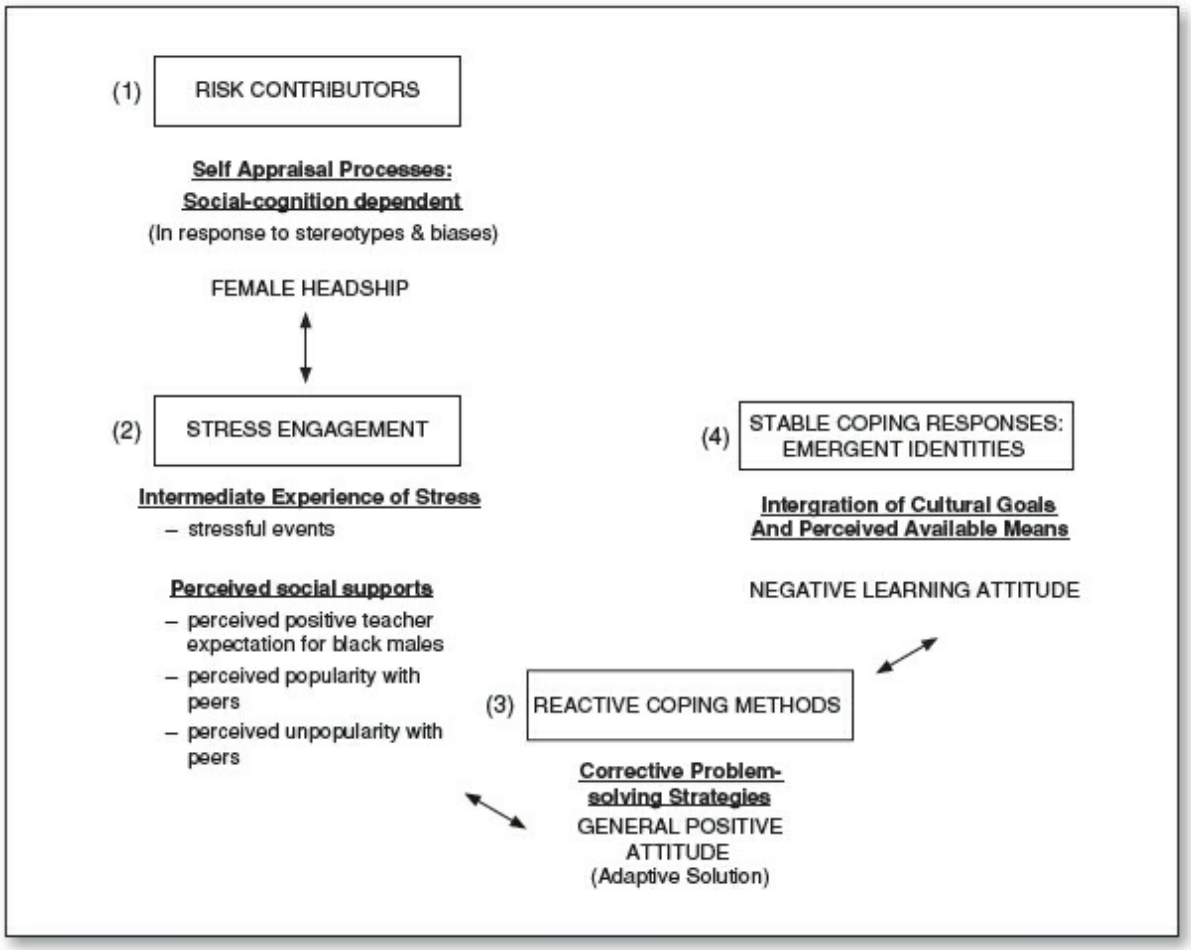
[3] Recurring experiences of the same feedback and stress can cause the individual to repeatedly reorganize in response to environmental conditions. Feedback and repeated response patterns would crystallize into personality structures, particular developmental trajectories, and identity. What does this mean if the individual is living in, as Chestang (1972) states, a hostile environment, experiencing chronic and negative feedback loops and the stress of poverty and violence on a daily basis? Lewis

(1995) offers that when an individual receives negative feedback, the use of a defense mechanism is required for the individual to continue functioning in a way that does not threaten his or her ability to see him or herself as valued in different contexts. Thus, African-American students experiencing negative feedback about the self in school might shut off from this critically important experience. This decision may result in the diverting of psychic energy and attention to their peer group and reorganizing themselves or more closely attaching to a group which provides positive, or at least less threatening, feedback. The decision—which could lead to problem behaviors, school drop-out, and delinquency—may be of help in the short term in preserving the self, although exponentially troubling efforts for mastery and competence in the long term. Consequently, behaviors that may lead to resilient appearing outcomes in the short term, however, may lead to pathological outcomes in the long term. Pathology occurs when the self-system "shuts down" in a sense, becomes reactively organized around negative feedback about the self, does not fully integrate all components, or becomes dependent upon maladaptive solutions as "self-righting tendencies" as its major corrective problem-solving strategy. This differs from effective coping—the use of adaptive solutions as one's corrective problem-solving strategy; when repetitively used as stable coping responses, the outcome is an achieved identity or set of healthy psychosocial processes that undergird the probability of productive life-stage coping products.

[4] As a demonstration of the PVEST model as an *extended* self- organizational perspective and as illustrated in Figure 7.1, in this paper we explore a model predicting negative academic learning attitude. The model includes a particular risk (female headship) and two levels of stress engagement. Female headship is believed to be a pre-existing risk contributor and is included in the model as a control for any possible differences based on family structure. The first level of stress engagement is a self-report of whether the adolescent experienced certain stressful events within the past year (stressful events). Cumulative stressful experiences have been found to have a synergistic effect, which couples with other experiences that draw on the cognitive resources of adolescents; accordingly, it also was included in the model as a control to account for differences based on the number of stressors one must deal with. The second level of stress engagement (perceived social supports) is more concerned with the phenomenological experience of stress and includes perceived positive teacher expectations for Black males, perceived popularity with peers, and perceived unpopularity with peers. It is assumed that the less social support one perceives from teachers and peers, the more negative learning attitude one will exhibit as a stable coping response or emergent identity. The model also includes an adaptive (vs. maladaptive) reactive coping method, generally positive attitude, suggested as a mediator variable (refer to Figure 7.1). It is assumed that a general positive attitude can mediate the relationship between perceived social supports (i.e., the source of stress) and negative learning attitude (i.e., the stable [psychosocial linked] coping response). That is, the higher the general positive attitude, the lower the negative

learning attitude. Negative learning attitude represents an emergent identity in this model and stable coping response to stress. The assumption is that the adoption of a negative learning attitude emanates from the repetitive use of particular corrective problem-solving strategies: for example, involved is the frequent employment of maladaptive solutions or infrequent use of adaptive solutions (i.e., in this case infrequent use of a general positive attitude) in the face of perceived social supports or lack thereof. Accordingly, a negative learning attitude is suggested as a stable coping response or emergent identity that serves to maintain a "positive view of themselves" as perceived by particular adolescents. Importantly, the implications of a negative learning attitude as an emergent identity include a devaluing of learning activities as well as a diminished role of academics in such youths' experiences.

Figure 7.1 Model of Relationship Among Female Headship, Stressful Events, Perceived Social Supports, General Positive Attitude, and Negative Learning Attitude



SOURCE: Spencer, M., Dupree, D., & Hartmann, T. (1997). A Phenomenological Variant of Ecological Systems Theory (PVEST): A self-organizational perspective in context. Development & Psychopathology, 9 (4), 817–833. Reprinted with the permission of Cambridge University Press.

[5] Accordingly, the analyses explore two hypotheses. First, an *inverse* relationship is expected between having a general positive attitude and the stable (psychosocial) coping response: negative learning attitude. Second, for this sample of African-American adolescent males, specifically two of the perceived social support predictor variables (i.e., perceived positive teacher expectations for Black males, and perceived unpopularity with peers) are expected to be significant contributors to the prediction of negative learning attitude; the direction of effects for the two variables (i.e., perceived positive teacher expectations for Black males, and perceived unpopularity with peers) is expected to be negative and positive, respectively.

Summary of Data, Methods, and Results

[6] The findings presented in this article are based upon an analysis of survey data from 266 African American students (181 male, 85 female) ages 14 to 17. The survey itself was compiled from well-established instruments that had been validated through prior research. The central variables discussed in the article—stressful events, perceived teacher perceptions, perceived popularity with peers, general positive attitude, and negative learning attitude—were each based on scales that had themselves been tested and found reliable. Simple correlations were used to explore the strength of associations between variables; setwise regression was used to analyze the extent to which predictor variables (female headship, stressful life events, perceived popularity with peers, and general positive attitude) explained variance in the outcome of interest (negative learning attitude). Because PVEST hypothesizes that gender influences how young people interpret and respond to their lived experiences, the analyses were run separately for boys and girls.
[7] The analyses produced the following results:

1. For boys, experience of stressful life events was positively correlated (r =.27, p <.001) with a general positive attitude. In other words, the more stressful events boys reported experiencing within the past year, the more positive their general attitude.
2. For boys, there was a negative correlation (r = −.3, p <.001) between stressful life events and a negative learning attitude.
3. Perceived unpopularity with peers was related to a less general positive attitude (r = −.28, p <.001 for boys; r = −.21, p <.05 for girls); and a more negative learning attitude (r =.47, p <.001 for boys; r =.52, p <.001 for girls).
4. For boys and girls, perceived unpopularity with peers explained the greatest percentage of variance in negative learning attitude.
5. For boys, perceived popularity with peers was a significant predictor of a less negative learning attitude (b = −0.22, p <.01). The same relationship did not exist for girls.
6. For boys, perceived positive teacher expectations for Black males were associated with a less negative learning attitude, but the relationship was considerably weaker (p <.10) than for other mediating variables.

7. For boys and girls, female headship was not a significant predictor of negative learning attitude.

Discussion

[8] As initially stated, one of the important strengths of coupling a phenomenological perspective with an ecological systems approach is that it affords a more dynamic, culturally responsive, context-sensitive perspective for interpreting the individual's own meaning making process: It captures the individual's inter-subjectivity. The perspective is particularly important for understanding the school experiences of African-American adolescents. The significant physical, cognitive, physiological, and emotional normative changes associated with adolescence make the period, in and of itself, an unusual source of dis-equilibrium for a critical developmental transition as youth prepare themselves for a successful passage into adulthood. In US society, academic competence is an important foundational component for successful adulthood and, in fact, life course competence. Thus, experiences had in the school context that leave students feeling disfranchised and/or lead to school drop out or delinquency must be recognized. The school context continues to be a source of special challenge for youth of color and economically disadvantaged teens. Understanding youths' subjective processes and their relationship to academically significant outcomes are of critical importance (Fordham & Ogbu, 1986). Adolescent attitudes toward learning represent a critical outcome variable and was the criterion measure for the study in light of the long-recognized relationship between poor school performance and problem behaviors (e.g., Took & Weiss, 1994).

[9] All measures were student reports for self or student perceptions of teachers and peers. As indicated by Figure [7.1], in this paper we attempt to couple risk/stress variables with a reactive (although adaptive) coping method, general positive attitude, for the prediction of a stable coping response: negative learning attitude. In addition to stressful events, a set of perceived social support variables were included as other stress factors; perceived positive teacher expectation for Black males, perceived popularity with peers, and perceived unpopularity with peers (see Figure [7.1]).

[10] The general goal of the hypotheses tested was to explore the etiology of adolescents' negative learning attitudes. The first hypothesis explored the efficacy of the reactive coping method, general positive attitude, as a contributor variable in the prediction of negative learning attitude. The second hypothesis explored whether two of the three perceived social support variables (i.e., perceived positive teacher expectations for Black males and perceived unpopularity with peers) were the most salient in the prediction of negative learning attitude.

[11] Evident from Tables 3 and 4 [not included here] is that female headship was not a significant predictor for males or females. From a phenomenological perspective, family structure alone would not necessarily explain differences in psychological states such as negative learning attitudes. Rather, PVEST suggests that the self-appraisal

processes that the adolescent makes with respect to his or her family's structure will have greater influence than the family structure itself. Nevertheless, other factors were significant contributors in the prediction of negative learning attitude. For girls, as reported in Table 4, after controlling for risk and stressful events which were not significant, perceived unpopularity with peers was the single significant contributor to girls' negative learning attitude. Unexpected was that stress experienced was of total unimportance for negative teaming attitudes for girls given its unmistakable salience and consistent importance across steps of the regression for boys. Given the *singular* importance of unpopularity with peers for negative learning attitudes in the case of girls, on the one hand, the regression finding might suggest a special sensitivity to perceptions of unpopularity with peers for girls versus boys. On the other hand, the significance *of both* unpopularity and popularity with peers in predicting negative learning attitudes for boys might, in fact, suggest their broader and undifferentiated responsivity to peer evaluative feedback; importantly, it provides significant opportunities for intervention/prevention supports. Further, in the case of girls, if the stress measure had been heavily weighted for assessing *peer-specific* stress, might there have been an equally important predictive relationship between stress and negative learning attitude across the different steps? Perhaps the findings suggest broader, *generic* sources of importance (in fact, academically non-marginalizing?) in the lives of males versus females. More physiologically and health-relevant theorizing concerning sex differences suggest greater undifferentiated and life-course associated vulnerability to stress for males when compared to females (Wingard, 1987). In fact, hypotheses about the greater longevity of females in general have been linked to their life course development and use of same-sex relationships as opposed to men's greater reliance on opposite-sex (i.e., marital) bonds. In sum, the salience of unpopularity and popularity with peers for boys and the singular significance of unpopularity with peers for girls might, in and of themselves, represent different etiologies.

[12] There were other interesting differences for boys (refer to Table 3). First, stressful life events were highly important for males in the prediction of negative learning attitudes in an unexpected direction: more stress was a significant predictor of a less negative learning attitude. Stressful life events continued to contribute across steps with a negative beta at each of the subsequent steps of the regression equation. The pattern may mean, as suggested, that boys who experience a significant amount of stress in their lives stay more engaged in the schooling process, are less marginalized and invisible and, consequently, have a less negative learning attitude. Although a qualitative analysis of experiences was not done, this unexpected predictive relationship might imply that for males, in particular, stressful events may be a proxy for the lack of marginalization. That is, youth may be heavily engaged in social activities that also result in significant opportunities for stressful events. Certainly data obtained for girls suggest their greater classroom centrality when compared to Black males (see Irvine, 1990).

[13] Independent of gender, perceived social supports, specifically perceived

unpopularity with peers, accounted for a significant amount of variance for youths' negative learning attitude. As suggested, over a third of the variance for negative learning attitude for girls was accounted for by the sole significant contributing variable: perceived unpopularity with peers (refer to Table 4). The prediction model for boys is especially important since it presents many more opportunities for intervention strategies and social supports. For example, reporting few significant life events may suggest marginalization and may be important in the acquisition of negative learning attitudes. Additionally, all three perceived social supports were significant contributors. Perceiving that teachers hold positive expectations for Black males is associated with less negative leaning attitudes. Similarly, a perception of being popular with peers is associated with a less negative learning attitude. On the other hand, like the findings for girls, the perception by boys that they are unpopular with peers is a significant predictor of negative learning attitude. Further, even though just marginally significant ($p < .05$) the reactive (adaptive) coping method, having a generally positive attitude, is related to a less negative learning attitude for boys (refer to Table 3).

[14] Resilience is only recognized in the context of adverse or stressful experiences. Having a generally positive attitude is suggested as an effective reactive (although adaptive) coping method. It is used as an adaptive corrective problem-solving strategy in the face of challenge that helps a person to move through the adverse circumstance through the use of a strategy, perhaps, that keeps one "upbeat" and positive. In fact, the findings for boys provide support for the first hypothesis that explored the importance of that coping method for learning attitude. The finding for boys, in fact, was in the expected (inverse) direction: less evident use of positive attitude as a reactive coping method is associated with a negative learning attitude. Consequently, the modest although significant contribution of a positive learning attitude to youths' negative learning attitude may suggest that, to some extent, boys have learned to perceive certain experiences—that would be highly stressful or discouraging for others—as a part of everyday experience (i.e., merely something else or one more challenge). There may be events that occur so consistently that some youth use reactive (adaptive) coping responses developed, adopted, and modeled by members of the community and which may for some, cast the experiences themselves in a more positive light. That is, the sheer prevalence of specific challenges prevents a more personalized internalization of affect. On the other hand, other students may lack exposure to models who make frequent use of reactive coping methods that are adaptive and instead are exposed to models who use more maladaptive problem-solving strategies, and, as a consequence, such youths may take on a stable coping response (e.g., negative learning attitude) which has deleterious behavioral correlates and adverse coping products (e.g., school failure and school leaving).

[15] Understanding youths' perceptions and reactive coping methods to experiences such as having a parent with a drug problem, living with parental rancor and divorce, becoming involved with or being exposed to drugs or alcohol, attending schools that

are alienating, and having increased conflict with parents are all chronic, context-linked stresses that require reactive coping methods. The relationship between stressful events and adaptive corrective problem strategies (e.g., general positive attitude) deserves further inquiry. Furthermore, PVEST suggests a reciprocal relationship between perceptions and attitudes.

[16] Specifically and consistent with a phenomenological analysis, our perceptions of how others perceive us can influence our expectations, responsive attitudes and behaviors. This is complicated by the fact that our attitude and behaviors can influence how others perceive, respond, and react to us. Therefore, in considering the meaning of the findings from this study, it is important to keep in mind that this study focused on cognitive variables concerned with perceptions and attitudes. Except for a report of stressful events experienced in the past year, no behavioral variables were included that would indicate whether negative peer perceptions were, in fact, unfounded or not for any given student. Nevertheless, PVEST suggests that perceptions are important as a source of stress and can influence behavior even when they are not based necessarily "in fact." Therefore, if lack of acceptance or positive perception by teachers in the school context leads to youths' disfranchisement from the schooling process, the focus of students' perceptual processes may represent an important and necessary focal point for intervention efforts.

[17] As an intervention strategy to address adolescent problems, there has been significant national interest in the supportive role of mentoring. Our findings indicate that, particularly for males, youths' perceptions of teachers are critically important as a source of stress. The predictive pattern for males suggests the need for adult role models and supportive adults in the lives of youth who provide models of adaptive corrective problem-solving strategies (e.g., general positive attitude). Furthermore, interventions that focus on either perceived or real peer relations suggest other potentially important pathways for enhancing youths' school engagement through the internalization of a less negative learning attitude.

[18] There was partial support for the second hypothesis, which suggested that perceived positive teacher expectations for males and perceived unpopularity with peers would be the most important contributors to negative learning attitude. Table 3 indicated that the largest contributor was perceived unpopularity with peers; although, equally salient was perceived popularity with peers. Positive teacher perceptions was modestly significant for boys. On the other hand, for girls, only perceived unpopularity with peers significantly and consistently predicted negative learning attitude. The finding that perceived unpopularity with peers, for girls, represents the single significant predictor of negative learning attitude is consistent with other research demonstrating that female peer groups are especially important and different from male peer groups. As suggested, across the life course, social relationships appear to be unusually salient for health: physical and mental. The centrality and salience of the peer group for girls is important for programs of health promotion and enhancement. However, for males, the findings suggest additional

and multiple roots of support and intervention: teacher supports, training programs and mentors as models of more adaptive corrective problem solving strategies (i.e., reactive coping methods). These data do not indicate non-peer group potential resources for girls, however. Perhaps, for females, stressful events should be thought of more in terms of group as opposed to individual experiences. Furthermore, it may be the case that general positive attitude, for females, should be thought of in terms of how it could be influenced by peer relations.

[19] The finding for this model suggest that particularly and consistently for African-American urban male teens, particular stresses are important in the prediction of negative learning attitude: positive teacher expectancies for Black males, perceived unpopularity with peers, and perceived popularity with peers; the relationships are in the expected direction. The reactive (adaptive) coping method, general positive attitude, appears to be an effective adaptive response to perceived unavailability of social supports as the source of stress in the prediction of the stable coping response: negative learning attitude. Having a generally positive attitude matters in the prediction of negative learning attitudes. These findings suggest its role as a singularly important and independent contributor for males' negative learning attitudes after controlling for risk, stressful events, and diverse sources of social support. In general, it is not a new notion that teachers and peers *matter* in the lives of youth (Irvine, 1988; Cunningham 1994). However, analyses suggest that specifically perceived unpopularity with peers matter most for boys and girls; particularly for females, however, perceived popularity with peers does not seem as salient as their perceived unpopularity. Clearly all social supports are of special importance for males.

[20] Overall, perceived social supports are critically important as a source of stress and are linked to cultural contexts amenable to intervention. As suggested, the predictive models may be helpful in the "fine tuning" of intervention methods that should result in better self-organizational outcomes and life course opportunity. As an interpretive device, the PVEST model provides an important framework for clarifying complex context-linked phenomena.

The Argument

Following a brief introduction to the logic of PVEST, the article moves into a more specific discussion of the relationship between environment, self-organization, and outcomes. The overall goal is to demonstrate to the reader that linkages between environmental factors, identity, and outcomes are interrelated. This argument is structured as follows:

1. Self-organization (identity) enables youth to adjust or "self-correct" across different social, institutional, and cultural contexts (paragraph 1).
2. However, self-organization is itself influenced by the individual's subjective and personal interpretations of experience, along with developmental changes, such as puberty (paragraph 2).
3. Youth coming of age in "hostile" environments (that is, those characterized by high levels of negative feedback) therefore self- organize in ways that reconcile negative feedback with a more affirming view of themselves (paragraph 3).
4. These self-organizing processes may produce adaptive (resilient) or maladaptive (pathological) responses, depending on a variety of factors (paragraph 3).
5. This article explores the relationship between environmental risk factors, how those factors are perceived and experienced by youth, and self-organization (paragraph 4).
6. Specifically, this article explores the hypothesis that a negative learning attitude—in essence, a devaluing of school—emerges when negative feedback is present and there is no appropriate coping method available (paragraph 5).
7. Survey data are analyzed to assess the strength of relationships between these constructs, and to determine the extent to which negative feedback and coping methods influence self-organization (paragraph 5).

While this chapter focuses on how findings are situated and explained, there are a few aspects of the argument itself that are worth noting. First, as with other works featured in this book, the argument opens with the case for why this research matters and then moves into how the study was designed to meet the needs of the research. Particularly worth noting is the relationship between the study's theoretical framework (PVEST) and its conceptual framework, which argues for the importance of studying how environmental risk factors and coping responses influence school-relevant developmental outcomes. As we argued in Chapter 1, the theoretical framework is nested within the conceptual framework.

Second, more than any other article featured in this book, "A Self-Organization Perspective in Context" attempts simultaneously to stand alone and to tie into a much larger (and longer) body of work. A major challenge for this study and the article that resulted from it was to carve out a smaller piece of the larger framework and then to provide enough context for the reader to understand what the former says about the latter. This is best illustrated by Figure 7.1, which highlights specific pieces of the PVEST framework, linking

each to a specific construct or variable presented in the article. "In this paper, we decide to look at just a part of the theory … [that] looked at identity as the outcome," Spencer explained. Put another way, PVEST includes a starting point (environment), an ending point (life outcomes), a set of mediating processes or factors, and hypothesized relationships among all three. But every study built on PVEST did not address all of the relationships posited by the larger theoretical framework. Spencer explained in the interview:

> Where you assign or designate placement of a construct in a theoretical framework like this very often depends upon the nature of your questioning of some particular phenomenon. It is critical to determine your current place in the question-asking process. Specifically, what is the burning interest that you seek to make some sense of at the moment?
>
> Given the response, you then move in that direction, and through your stepwise research efforts, then seek to obtain a bit of clarity for that specific segment. Following that step, you then add another piece later on. Thus, a theory-driven and linked programmatic research tradition includes an implicit and critical acknowledgment that you can't do it all or answer all of the relevant questions at one time.

In the present study, what was a mediating process in the larger framework (identity) becomes an outcome of interest for the conceptual framework presented in the article. This makes the study, as presented, more focused and tightly aligned with the constructs measured by the survey instruments. It also allows Spencer and her colleagues to address specific questions related to how stress impacts students' choices and influences school success.

Finally, it is worth noting the use of language in this article and what it says about the intended audience for the work. In Chapter 4, we noted that every argument needs to have a starting point, and the location of that starting point depends largely on the intended audience for the work. From the language used, it is readily apparent that "A Self-Organizational Perspective in Context" is written for an academic audience that is familiar with the basic tenets of developmental psychology. As such, the conceptual framework is not focused on arguing that resilience is important—it is assumed that the audience already understands that. Instead, the article focuses on understanding how resilience works. Similarly, it assumes an understanding of phenomenology and of identity processes that is firmly rooted in the field of psychology. In this article, no attempt is made to locate this perspective alongside those from other disciplines; the focus is on analyzing a set of relationships using the tools and epistemology of a particular field. Given the audience for the article, this approach is entirely appropriate—it conveys the necessary information about the particulars of the analysis while assuming that the reader will be able to make sense of those specifics within the larger discourse of the discipline.

Presenting and Discussing Findings

The discussion section of this article picks up where the literature review leaves off: explaining the significance of a negative learning attitude within the context of PVEST (paragraph 6). Specifically, Spencer and her colleagues argue that negative learning attitudes lead to negative life outcomes such as dropping out of school or academic delinquency. This effectively establishes negative learning attitude as a proxy outcome, and ties the smaller, more focused analyses presented in the article to the larger PVEST framework. As such, the introduction both reminds the reader about why the topic of the study is important (because negative learning outcomes are associated with adverse life consequences) and makes an argument about its broader significance.

Having re-engaged the argument for the study, the authors briefly remind the reader of its methodology (paragraphs 6 and 7). This includes a brief summation of the data and the primary hypotheses that were explored: the relationship between general positive attitude and negative learning attitude and the relationship between teachers' expectations or perceived unpopularity with peers and negative learning attitude. In three brief paragraphs, the authors have reminded the reader of the overall conceptual framework for the study and in doing so have set the stage for the discussion of findings that follows. There is an important lesson in this bit of setup work, especially for those employing quantitative methods. When presenting your findings, remember that on their own, the numbers are meaningless. Having worked with them extensively over a long period of time, it may be self-evident to you what they refer to, but it will not be so evident to your reader. The values you report need to be attached to concepts, relationships, and, ultimately, your research questions. If the reader can see them as evidence presented in the context of your conceptual framework, they are more likely to understand the points you are trying to advance and to be persuaded by them.

With regard to the findings themselves, the discussion section actually tells two quite different stories about the relationship between findings and conceptual frameworks. The first offers a good example of what happens when researchers' findings more or less conform to their expectations: the results are used primarily to extend and support the conceptual framework. The second is just the opposite: a story of a finding that not only fails to conform to the researchers' expectations but also raises questions about the assumptions that led to those expectations in the first place. While these stories are somewhat intertwined within the article itself, we choose to discuss them separately here. Together, they offer a useful illustration of one of the tensions endemic to research: how you teach others about your work on the one hand, and how you yourself learn from it on the other.

Using Findings to Contextualize and Extend the Argument

Many of the results presented in the article are consistent with the PVEST framework. The authors note that it is not surprising that female headship alone would not predict negative learning attitude (paragraph 9). It is not the fact of female headship that influences self-organization, they argue, but rather how female headship is experienced and interpreted that would likely have the greatest influence on coping responses and ultimately on self-organization. This is where the phenomenological perspective is emphasized—development is not viewed merely as a set of observable experiences or behaviors, but rather as the cumulative interpretation and integration of those experiences into a sense of self. The fact that female headship was not significant is therefore presented as evidence in support of this phenomenological perspective. "What we're saying," Spencer explained to us, "is that of all of the findings, this is one of the most important. Identity or the self-organizing process is critical, not the assumptions imposed concerning the salience of single headship. That is what is really key here."

As hypothesized (paragraph 5), there was an inverse relationship between having a general positive attitude (a reactive coping method) and a negative learning attitude (an emergent identity). The authors note that this finding is consistent with PVEST and then attempt to explain its implications (paragraph 12). They venture beyond specific findings to offer a possible explanation for why, given environmental stressors, some youth develop a general positive attitude while others do not. This entails an inversion of the relationship between the theoretical framework and the findings. The authors begin by noting that the findings validate PVEST, but then use PVEST to offer a hypothesis as to why general positive attitudes vary. Specifically, they suggest that youth may have differential exposure to others who are engaged in either adaptive or maladaptive coping responses, and that this exposure likely influences their own attitudes. This is consistent with the idea, central to PVEST, that individuals' processes for making sense of their experience are inter-subjective. It also builds on an empirical finding from the study: that peer influences are important in shaping youths' stable coping responses. In sum, the conceptual framework for the article serves not only to contextualize empirical findings, but to offer reasoned explanations for those findings that extend beyond the analyses conducted.

Perceived social supports were also related to negative learning attitude in ways anticipated by PVEST. The strongest relationship was between perceived unpopularity with peers and a more negative learning attitude; for girls it was actually the *only* significant predictor. This finding warrants explanation on two levels. The first level relates to the implications and significance of perceived unpopularity (or popularity) with peers as a predictor of negative learning attitude (paragraph 14). As with the finding regarding a general positive attitude, the authors begin by noting that these findings are consistent with their original hypotheses (paragraph 5) and argue that they validate the importance of perceptions (the phenomenological perspective) when analyzing the relationship of environmental factors and developmental outcomes. They then argue that further attention to students' perceptual processes is warranted from a research perspective, and that efforts to strengthen

students' peer relationships should be more of a focus from an intervention standpoint (paragraph 15). Again, this represents an extension of the argument from findings to implications.

The second level concerns the apparent differences between boys and girls with regard to other social support variables: perceived popularity with peers and perceived positive teacher expectations for Black males. Here the authors attempt to explain why gender differences were evident (paragraph 9), arguing that research on how males and females experience stress suggests that the males do so in broad, undifferentiated ways (that is, stress is perceived as generalized and cumulative), while for females stress is more specific to particular sources. Further, they note, females are more likely than males to attempt to cope with stress through the formation of same-sex peer relationships. This explanation offers a good example of how additional literature (in this case from health research) can be integrated into a conceptual framework to help explain and contextualize specific findings.

In attempting to respond to a question that emerged from their research but was not directly answered by it, the authors address an important question faced by many researchers when presenting and contextualizing findings: How much do we need to explain, and how do we go about explaining it? It seems important that the results of this analysis differed for boys and girls. This is also consistent with the Ecological Systems Theory aspects of PVEST, in which social and cultural views and experiences of gender are clearly a factor in the process of self-organization. At a minimum, the authors would be justified in simply presenting these differences as evidence that such macro-level factors must be considered when studying development. But they go beyond that, introducing more general research on gender and the experience of stress in order to offer a possible explanation for the result they observed. It is important to note, however, that they do so with some caution. This is appropriate under the circumstances—the authors offer a reasoned interpretation of their finding, but are careful not to overstate the meaning of the finding itself.

In the conclusion (paragraphs 17 and 18), the authors note that while research literature has consistently documented that young people's relationships with both teachers and peers are important, findings from their analyses suggest that the importance of these relationships may be more differentiated and complex than originally thought, and that further investigation is warranted. They also note the potential implications for interventions, but only in the sense of general considerations. Like decisions about the starting point for one's argument, the nature of recommendations emerging from a study is a function of its intended audience. Because "A Self-Organizational Perspective in Context" is written for academics, it makes sense that its implications focus largely on conceptual and methodological implications for research.

In sum, the findings presented in this study are integrated with its conceptual framework in three ways. First, the authors respond directly to the research questions and hypotheses

previously articulated; in essence, they present an empirical model of the conceptual framework. Second, they explain more broadly how the relationships evident in the data map onto PVEST, the study's theoretical framework. Finally, they note the parts of the model that were not addressed or explained by their analysis, and indicate areas where further investigation into aspects of the framework is needed. Together, this integration validates the framework empirically and offers the reader a context in which to make sense of the results of the study.

Learning From Surprises: How Findings Reshape Conceptual Frameworks

While many of the findings in "A Self-Organizational Perspective in Context" are consistent with PVEST and with the article's conceptual framework, one fairly significant result appears to contradict them. For boys, the experience of stressful events was strongly *positively* related to having a general positive attitude: the more stressful events reported, the more positive the general attitude. Similarly, the experience of stress was negatively related to a negative learning attitude: the more stress experienced, the *less* negative the learning attitude. The regression analysis yielded similar findings: The experience of stressful events was a significant predictor of less negative learning attitude, even when controlling for other factors.

As the authors note, PVEST would predict that experiencing more stress would be related to a less positive general attitude, and consequently a more negative learning attitude. In fact, the opposite relationship was found. They admit being surprised by this finding. But how they respond within the article itself is only part of the larger story. Equally important, this counterintuitive result led Spencer to reconsider some of her assumptions about the context in which stress is experienced, ultimately leading to significant changes in how PVEST was organized and presented.

In "A Self-Organizational Perspective in Context," Spencer and colleagues offer two tentative explanations for this result (paragraphs 10 and 12). First, they suggest that instead of signaling the presence of instability or negative feedback in boys' lives, reports of stressful events may in fact serve as an indication of *engagement* in schooling. As they assert, "youth may be heavily engaged in social activities which also result in significant opportunities for stressful events." Second, the authors posit that the relationship between stressful events and a general positive attitude may be bidirectional. Having a general positive attitude is not the result of experiencing stress, but rather a filter for interpreting those experiences. "To some extent," write the authors, "boys have learned to perceive certain experiences—that would be highly stressful and discouraging for others—as part of everyday existence" (p. 830).

Because the article was primarily focused on the relationship between social supports,

coping methods, and self-organization, explaining this surprising finding was not the primary focus within the discussion section. The authors offer possibilities but do so only in brief, focusing instead on explaining the results that are more central to their hypotheses. But the importance of this surprise extends well beyond the article. The dissonance it created helped Spencer to rethink the relationship between environment, stress, and coping in ways that fundamentally changed PVEST. "The dilemma here is that we interpreted risk, in terms of stressful events, in a very simple way," she reflected in the interview. She continued:

> When considering stressful events, one could interpret them narrowly in terms of risk alone. That was not our intent. However, in fact, we did not include constructs and variables, which provided opportunities for other interpretations. For example, on the one hand, high-stress-experienced males may have interpreted or inferred more problem-solving competence as a consequence of having been burdened by significant levels of stress and risk. Capturing that perspective would have been an important protective factor to capture in the conceptual framework. That is, representing PVEST as an exploration of human vulnerability—consistently representing both risk *and* protective factors—was critical. Thus, at the same time relative to the project's design, including both explicit protective factors and risks was key. Accordingly, their absence represented a clear oversight in the design of the published project and, thus, a lesson learned.

Accordingly, upon review, there were at least two problems with this conceptualization, Spencer explained. For one thing, young people experience different types of stress, with varying consequences. The measures used in the study failed to differentiate the possible perceptions of stressful experience, which may have been partly responsible for the finding. More importantly, the analysis failed to account for protective factors, experienced in real time as supports, available to youth. The authors speculate in the article whether the experience of stressful events might actually be a proxy for such supports, but they had no way to explore that theory empirically. In subsequent work, however, Spencer has reframed both risk and stress in terms of *net vulnerability*, characterized by a combination of differentiated stress and the presence or absence of support. In later work (Spencer et al., 2006), she explains the concept as follows:

> Net vulnerability … consists of the contextual and personal characteristics that may potentially pose challenges during an individual's development. Risk contributors are factors that may predispose individuals to adverse outcomes. These may be offset by protective factors, thus defining net vulnerability for a given individual. (p. 642)

Spencer describes risk using a *dual-axis formulation*, essentially a two-by-two matrix with

risk factors (*low, high*) on one side and protective factors (*low, high*) on the other. Using this more nuanced lens, Spencer offered a compelling critique of her earlier work in our interview with her. Pointing to a diagram and referring to the high-risk and low-protective-factor versus the low-risk and high-protective-factor group, Spencer explained:

> These are the two groups that obtain significant attention in the social sciences: Youth who are high risk with low protective factors, and kids who experience low risk and high protective factors. This latter group represents the unquestioned assumed standard of normal development and is usually comprised of white, middle-income, and, too often, male individuals. As noted, it has been the habit of social science to compare these two groups. However, in using a dual-axis model to represent PVEST and its recognition of human vulnerability, we acknowledge the existence of a high-risk–high-support group as well as low-risk–low-support group of individuals who are generally ignored. However, for this particular publication, for the group of high-risk and high-stressed students, we failed to include measures designed to capture diverse types of support. In sum, we overlooked the need for inclusion of measures designed to account for the broad and varied sources of supports, that is, present and accessible even given the presence of high risk.

The evolution of PVEST offers an important lesson about the relationship between theoretical frameworks and empirical work. As we argued in Chapter 1, a theoretical framework is not simply applied to a setting—the data and findings are constantly reflecting and pushing back on the framework itself, offering valuable feedback about both its usefulness and conceptual soundness. Surprises are one of the ways in which this happens. (Null results are another.) For researchers, the important thing is to remain open to these opportunities to advance our learning and thinking. By definition, theoretical frameworks are complex (because they involve a fitting together of different theories) and acontextual (we develop and employ them to make sense of ambiguous situations or relationships). As we go through the process of systematically collecting and analyzing data related to those frameworks, we have more of an opportunity to examine them within the specific context we seek to learn about. From this perspective it becomes clear that theoretical frameworks are *supposed* to evolve. And since they are nested within conceptual frameworks, it stands to reason that those would evolve as well. Thus, using conceptual frameworks to contextualize findings is about validation and explanation, but it is also about making sense of unexpected or counterintuitive results, for reader and researcher alike.

Conceptual Frameworks, Presenting and Explaining Findings: Concluding Thoughts

Throughout this book, we have sought to present academic argument as a series of sequenced, logical propositions, each building on the previous. We have defined the conceptual framework as an argument about the importance (reason) and quality (rigor) of a study or piece of writing. As we have shown in this chapter, the presentation and contextualization of findings serves two important functions related to the conceptual framework. First, it serves as an extension of the argument. If a conceptual framework is an argument about the worth of a question or questions, discussion of findings or results can be thought of as an argument about the significance of the answers to those questions. It takes the conceptual framework as a point of departure. Second, it provides a critical opportunity to reflect on and critique the conceptual framework. This applies to both the substantive assumptions and ideas that form the argument (in this chapter, for example, the relationship between stress and response) as well as the study's methodology (the degree to which risk is or is not differentiated). This critique is essential to good empirical research. Your conceptual framework, and the theories that fit within that framework, provide you with a reasonable rationale for your questions and methods. But that framework is also subject to what you learn from the data themselves. As such, findings are simultaneously an outgrowth of conceptual frameworks and a feedback loop to strengthen and improve them.

Reflection Questions

1. Go back and re-read your initial research design (what you wrote before you collected any data). What hypotheses or working theories did you have about your findings? What did you expect you would find, and why?
2. Now compare those expectations to your actual findings. What surprises, if any, did you encounter? How do you explain them? What tools can you use (e.g., literature? Additional data collection? Further analysis?) to make sense of them, for you and for your readers?
3. If your conceptual framework is an argument comprised of a sequence of steps, what new steps can you add to your argument based on your findings?

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Note

1. While phenomenology (a branch of philosophy) is most commonly associated with qualitative methods, it has been applied quantitatively as well. Specifically, quantitative methods for exploring phenomena are useful when attempting to discern whether some phenomenon is perceived in a consistent manner by multiple subjects. That is in fact the case in the present article, in which survey research is used to link perceptions of self and environment to examine the process of identity formation.

CHAPTER 8 Reflections on the Making and Re-Making of a Conceptual Framework

WILLIAM K. DUNWORTH

In the previous chapters of this book, the authors have used examples from published journal articles to break down the ways that conceptual frameworks inform specific aspects of the research process, such as research design or data analysis. In this chapter I take a more integrative, narrative approach, with two main purposes. First, I tell the story of how my conceptual framework evolved across the life cycle of my research, from initial conceptualization through research design, fieldwork, and analysis. Second, I attempt to frame the big ideas presented in this book within the context in which they are most likely to be read: the experience of a doctoral student struggling and learning his way through the process of developing, using, and refining a conceptual framework. Throughout, I draw on artifacts of that process to illustrate my thinking at particular points in time, including research journals, interview notes, and draft concept maps. I show how my understanding of what I was studying was profoundly shaped by how I went about studying it, highlighting the recursive nature of the work. I have deliberately not sanitized the story I tell here: missteps and faulty assumptions were as important to my learning as moments of insight and clarity.

In January 2009, I embarked for China for what I thought would be approximately 12 months of field research for my doctoral dissertation. Over the course of several years of experience as a senior-level practitioner developing executive education programs in China for a major U.S. business school, I had begun to question the fit of Western management education to China's organizational needs. These questions led me to leave my job, develop fluency in Mandarin, and spend well over a year in comprehensive review of the literature related to Chinese and Western educational, organizational, and cultural constructs relevant to my study.

Having spent many extended periods of time in European and Eurasian cultures, I set off for China fully expecting to land on my feet to smoothly and efficiently execute my data collection plan. When I finally returned home more than three years later, not only had the design of my research radically changed, but so had my understanding of myself as a researcher and as an individual in society. It would only be as I attempted to process my struggles into meaning in the final months of my research that I would fully come to appreciate what I had experienced. It was my tacit experiential struggles rather than my explicit data that gave me the most meaningful insights into China and its institutions. Furthermore, it was those struggles that revealed just how difficult it can be to let go of biases that emerge from the cognitive and philosophical anchors of one's home culture and

socialization. It was only by learning to let go of aspects of my Western psyche that I finally achieved what I set out to do in China.

What helped me come to understand and ultimately let go of my biases was my conceptual framework. In what follows, I attempt to show how I went into the field viewing my framework as a static artifact—a theoretical blueprint that would help me analyze data as I collected them. By doing so, I consistently created obstacles for myself as I became blind to tacit cues I was getting from the environment. It was only after I struggled for well over a year to get *access* to data, that I finally came to understand that a conceptual framework should play a much more dynamic and pervasive role throughout the research enterprise. I realized then that the conceptual framework should be a tool through which I could creatively engage with the unforeseen challenges and obstacles I encountered in the field. This realization proved critical given the diametrically different culture where I sought to enact my research.

In reflecting now, I realize that in my research I was effectively building an applied knowledge strategy for business schools that seek to collaborate across Chinese–Western cultural divides. For this reason, it makes sense to present my experiences in the field as a portfolio of narratives through which I harvested knowledge as I sought to answer the fundamental question, "What's going on here?" I use the word *narrative* intentionally, for narrative knowledge is the midpoint between the deeply embedded, context-specific, *experiential* knowledge I tried to make sense of in the field and the more abstract and applied *explicit* knowledge that found its way into my final dissertation as data analysis and theory (Boisot & Li, 2006). It was the "moral" of these narrative stories that became the themes or framing concepts that guided the process of my research and analysis. They helped break my learning process free from the narrow focus my Western cultural understanding initially imposed on my research design (von Krogh, Ichijo & Nonaka, 2000).

The literature of cross-cultural research suggests that Western cultures tend toward strategies that reduce uncertainty while the East Asian cultures tend toward strategies that absorb uncertainty (Lowe, 2003). With that in mind, the episodic narratives that follow attempt to capture some the tensions I encountered as I approached my conceptual framework initially as a static blueprint through which I sought to reduce uncertainty in the field, and as a dynamic process through which I learned to absorb and make meaning of uncertainty. It was the act of continuous engagement with these tensions that surfaced the themes or morals that helped me understand the challenges of managing Chinese–Western MBA program partnerships. I present these narratives here to place the reader in the moment of my fieldwork in a way that will give you a degree of surrogate experience with those tensions. It is my hope that this experience will enhance appreciation for the value of conceptual frameworks, as well as convey some of the knowledge I developed in trying to use them.

About the Author

Dr. William Dunworth is an international knowledge management and capacity building strategist based in the United States. With more than 20 years of global work at the intersection of business strategy and learning system design, he is an expert at developing knowledge strategies that enable organizations and individuals to adapt to complex operating environments. He currently works as a consultant in the international development arena where he has built a portfolio of knowledge management projects spanning Africa, Central Asia, the Middle East, and the South Pacific.

Dunworth worked for five years at the Aresty Institute of Executive Education of the Wharton School, where he held a number of senior positions in program design and client relationship management. During this time, he was a member of the senior management team and led a group responsible for designing leadership programs for corporate clients around the world, with particular emphasis on China, Japan, Korea, and India.

Dunworth also worked in Moscow for the Thunderbird School of Global Management, where he led several projects that developed management training centers in regions of Russia as well as in Ukraine and Kazakhstan. In addition to his strong consulting skills in organizational diagnosis and learning design, he is an experienced facilitator and coach. He spent several years on the faculty of the Kant Akademie in Berlin, Germany, where he facilitated training programs to prepare women from the former socialist countries for management careers in multinational corporations. In addition, he was an Adjunct Professor of Management for the Stern School at New York University's Shanghai Center, as well as for Vietnam National University (Hanoi).

Dunworth recently served on the International Advisory Board for the School of Global Journalism and Communications at the Southwest University of Political Science and Law in Chongqing, China. Other memberships have included the editorial board of the UK *Journal of Change Management* and the University of Pennsylvania Board of Trustees' Social Responsibility Advisory Committee. Over the years he has also undertaken field-based advocacy work in education in such places as Romania, Russia, rural China, and the South Bronx.

In addition to his doctorate from the University of Pennsylvania, which was awarded with distinction, Dunworth earned an MBA in Organizational Strategy from the Goizueta Business School at Emory University, where he was a Foreign Language and Area Studies Fellow for Russian. He also has an MSc in International Politics from Edinburgh University in Scotland, and a BA in German and International Business from the College of Mount St. Vincent in New York. He has studied at several international universities including the Moscow State University (Russia), Harbin Institute of Technology (China), Free University of Berlin (Germany), University of Burgundy (France), and the

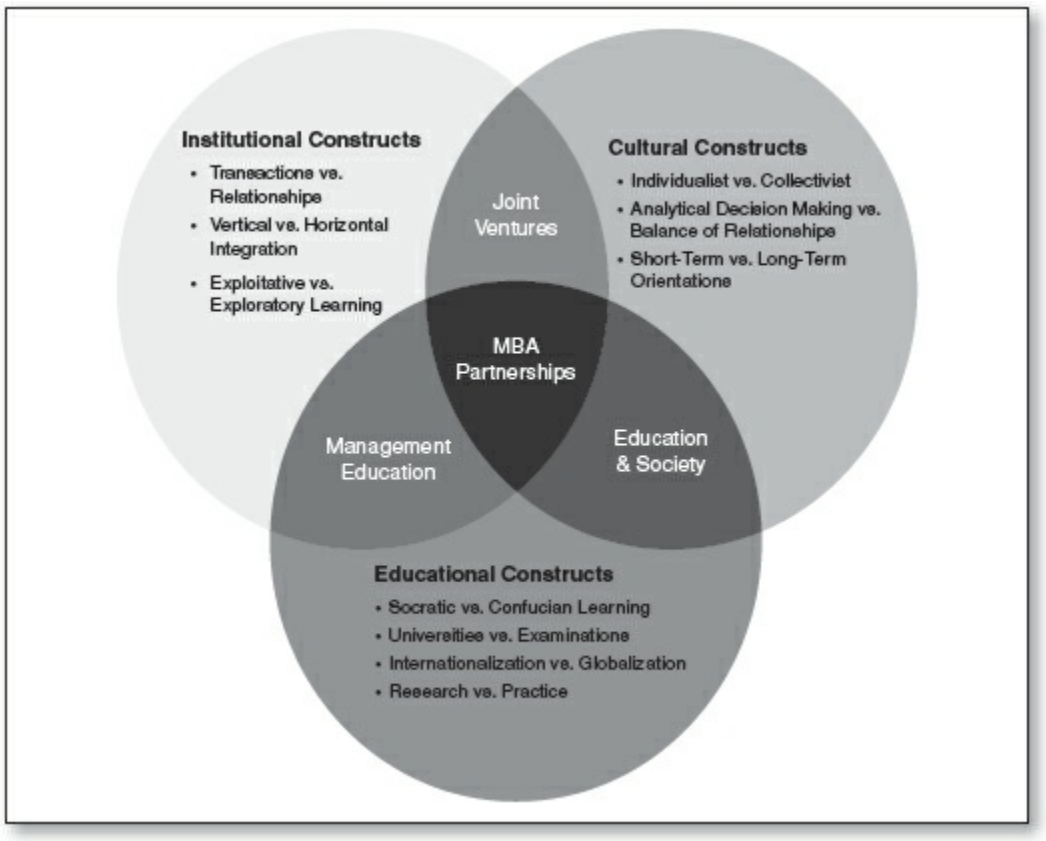
International Management Center (Hungary). He speaks Mandarin Chinese, German, Russian, and French.

Developing a Conceptual Framework for Study

Management education is a growing field in China. In particular, joint MBA partnerships, where a Western institution collaborates with a Chinese partner university (usually a Chinese business school), offer an interesting avenue to understand how Chinese–Western academic partnerships are managed. By the time I was designing my study in 2007–2008, it appeared that a number of MBA partnerships possessed a degree of programmatic and organizational depth that would make them good cases for focused study.

My research questions, which focused on the development of joint MBA partnerships between Chinese and Western business schools, emerged from the theoretical constructs I generated during the course of my review of the literature. The results of this review are captured in Figure 8.1 as the conceptual framework I included in my research proposal. The framework presented a variety of *possible* constructs through which to understand partnerships. Each construct was designed to serve as a lens that filtered various cultural, educational, and institutional forces at play in each society.

Figure 8.1 A Conceptual Map for Viewing Joint Chinese–Western MBA Partnerships



I identified three constructs, or lenses, through which joint Chinese–Western MBA program partnerships could be assessed. MBA partnerships are first and foremost educational ventures, since they attempt to promote learning in the management sphere—a

key objective of the business school enterprise. They are, second, cross-cultural ventures since they serve as a bridge between two very different national cultures. Finally, they are institutional ventures since each university represents the articulation of a unique organizational identity.

The areas of convergence are where the constructs would potentially influence international management education, particularly joint MBA partnerships between China and the West. Though the constructs were composed of strands that represented the tension between opposing poles of Chinese and Western norms, the poles were not meant to be absolutes but rather representation of the extremes of possibility within each construct. Constructs were built by discussion of literature relevant to contemporary and historic differences between China and the West. These differences were further elucidated by exploration of several bridging themes including the general role of education in society, the nature of management education, and the management of joint ventures in China.

Using the Conceptual Framework to Design Research Questions

Many parts of my literature review focused on "what" questions (such as the various "whats" of comparing Chinese and Western culture with regard to education, thought, time, organizational structure, and so on). Building on this, I saw an opportunity to take the "what" questions and to attempt to understand them in the context of how they interplay in practice. Specifically, I sought to understand the way the various cultural, organizational, and educational differences between China and the West played out in the practice of MBA program partnerships. Given the applied nature of my study, my research questions needed to focus more on the "why" and "how" questions regarding ways these differences are manifested in joint MBA partnerships.

I therefore sought to answer a number of questions that explored the reasons behind and development of joint MBA program partnerships over time. Moving on from the "what" questions, I identified the following guiding research questions:

1. Why do Western and Chinese partner institutions engage in joint partnerships for MBA programs?
2. How do actors in these programs attempt to understand and bridge cultural, educational, and organizational differences between China and the West in order to manage the programs effectively?
3. How does each partner learn and change through the process of joint partnership?
4. How do business schools leverage partnerships for MBA programs over time in order to meet the needs of the environment in which they operate?

Research Design 1.0

Since my study set out to answer these how and why questions by examining contemporary events, I concluded that the natural research strategy to use would be a case study approach (Yin, 2003; Crossley & Vulliamy, 1984). The appeal of using a case-study approach was that it would allow me holistic engagement with a wide array of data sources ranging from documents and artifacts to direct observation of events and interviews with the participants involved in those events. Furthermore, since joint MBA programs provide the leading structural context for interaction between most Western and Chinese business schools, it is arguably the best unit—the case—for studying management education: It satisfies the criteria for what Smith (1978) calls a "bounded system" or what Stake (2003) calls an "integrated system."

Armed with the strength of my newly developed Chinese language skills, as well as my research convictions, I set off into the field intent to pursue a case-based dissertation that immersed me in a setting where I would attempt to build applied theory based on my own and my participants' worldviews (Marshall & Rossman, 1999). In my proposal, I took care not to confuse case research design with the study's original research methodology. As Stake (2003) notes, "Case study is not a methodological choice but a choice of what is to be studied" (p. 1). The means by which I sought to interact with the data I uncovered in the case was Grounded Theory Methodology (GTM). Bryant and Charmaz (2007) describe GTM as a systematic, inductive, and comparative research methodology that undertakes inquiry with the end goal of theory construction. My review of the literature related to organizational management had revealed GTM as a preferred method for developing indigenous theory in the realm of management research in China (Tsui, 2004).

Eating Live Shrimps to Get Access: Meeting Resistance in the Field

By the time I moved to China, I had provisional permission from a number of Western business schools to study their partnerships. These schools had also made introductions to their Chinese partners so that I could secure their permission once I arrived in China and could take time to explain my research plans. My proposal envisioned doing case studies on both sides of three different partnerships. To move forward with this plan, I would first need to secure formal, written permission from each school so I could secure Institutional Research Board approval for my study. In the summer of 2008, when I conducted a pilot study in Harbin, China, as part of an intensive advanced language program I was undertaking there, I had been told how needed my study was, and how conscientious I was in my approach. I therefore believed that securing permission would be fairly straightforward. Academic institutions, more than most, should easily see the value of participating in research that would help them form stronger partnerships.

Yet, from the moment I moved into the field, getting access to institutions for data collection proved to be very difficult. I had many conversations with various business

school officials in my efforts to get permission to study their institutions (including one lunch meeting with a dean where I made my pitch while reluctantly swallowing the live "drunken" shrimp he had ordered for me). In each meeting, deans and administrators seemed to be genuinely interested in my study. I was repeatedly told that my research looked very interesting and was much needed. Inevitably, however, things went nowhere. Most of these initial meetings were not the result of cold calls but in fact were based on relationships I had cultivated during several years of traveling to China when I worked for one of the leading U.S. business schools. Others were arranged through a close mutual contact with administrators at other U.S. business schools that had partnerships in China. Regardless of the initial pathway in, I recall just about all of the early conversations being rather engaging. The fact that follow-ups were met with silence confused me.

As my first year in the field drew to a close I still had not secured buy-in from any Chinese business schools. Despite my best efforts at building relationships with business schools and demonstrating the value of my research, I seemed to be getting nowhere. Representatives of the Chinese business schools were particularly impressed by my diligence and the effort I had put into learning Mandarin, especially "at my age." After that, I was ignored. Something clearly was wrong.

Bouncing Off Jello: Repeatedly Setting Myself Up for Failure

I was speaking casually about my growing concerns regarding my research over coffee with a Chinese acquaintance who was trying to move into the executive education field. We had actually met at her request so that I could offer some career advice on executive education. Eventually our conversation drifted to my research, and I told her about an initial meeting I had just had with a business school dean. I explained that as in each introductory meeting I had, I was sure to highlight the knowledge base I had developed through my many years working for and with several major business schools. I was also very clear to talk about the distance I had since put between myself and the business school where I had last worked, lest there be concern that my dissertation research was in fact stealth market research.

The meeting had ended with me asking to include the school in my study, with the dean replying, "Okay, let us think about it a bit and get back to you." I considered this a somewhat positive sign, as at least my request was under consideration. When the acquaintance heard this, however, she saw it as a rejection. She was right, and our conversation was pivotal for it was the first step of a long and slow process of understanding just how different and—relative to where I come from—indirect Chinese society can be. Repeatedly, whenever my Western mind indicated I was getting cues to suggest progress, I was actually hitting a wall.

The fact that I did not view myself hitting a wall was one of many tacit hints of the significant Western bias that continuously plagued me. It would take a journalist—an

American who had lived in China for more than twenty years—to help me realize how I was repeatedly setting myself up for failure. He told me that the best way to think of China was as a pile of Jello. The typical Westerner will look at any opportunity, any point of access—in Western terms, any place where you can run at your target, give it your best shot, charge in with guns blazing, and so on. It shows that you have confidence. If you do that in China, however, you'll bounce off of the target, like you would off Jello, and land on your rear end. In China, you have to ease yourself up against your goal over the long term. Not being too aggressive, but not being too passive either, recognizing your strengths, what you offer to the relationship and what you want to gain from it. Over time, you'll inch closer and closer, and the Jello will start to melt. More opportunities, contacts, and so on, will come out of it than you imagined.

This discussion was the first real exercise in "reflexivity" that I experienced in the field. The vividness of the imagery went a long way in helping me start to understand the impact my Western bias was having on my research as it did—and did not—unfold. In a culture built on relationships (what the Chinese call *guanxi*), the declarations of objectivity I was making about leaving my job to do my research must have come across as akin to career suicide. Most Chinese business schools saw me as a potential *guanxi* bridge to one of the leading business schools in the world, yet I had blown up the bridge for the sake of "objectivity" just when they could see it as a compelling reason to cross it and help me with my research. In my attempts to manage any structural bias in my research, I was in fact setting myself up for failure.

The journalist's insights also made me reflect on the earlier conversation I'd had with the Chinese woman interested in making the career move into executive education. She had sought me out because of my extensive experience in the field, and in the process of offering assistance, I had gotten some valuable feedback. I had inched forward in my research as a result. I learned that, rather than diminish my relationships with business schools back home to demonstrate my objectivity as a researcher, I had to exploit relationships as fully as I could if I wanted to move forward. I was trying to build relationships by positioning the *potential value* of the research I was attempting. In China, however, this meant little since, "people's willingness to talk to you and what people say to you, is influenced by *who they think you are*" (Drever, 1995, p. 31, emphasis added).

I knew I had to fundamentally change in my approach if I wanted to get the data—any data. My conceptual framework proved central in this process.

Biking in Beijing: Learning to Play the Zero-Sum Game

Cross-cultural cues between China and the West may have been proving too subtle to discern easily during the initial phases of my field research. When it came to Beijing traffic, however, the cues were anything but subtle. Any visitor who has ever risked death trying to

cross a busy street in China knows that the country operates under different traffic rules. Stereotypes notwithstanding, I only started to process these differences into broader meaning when I purchased a bicycle to navigate my way around the city.

In Beijing, automobiles, taxis, mopeds, and bicycles all dart toward and away from each other in an amorphous movement forward. Yet, despite this seeming disorganization, there are few accidents. Drivers of all vehicles seem to adjust to the constantly changing circumstances with grace, like they were performing a well-rehearsed ballet. Most traffic continues to flow without interruption. Conversely, I recall lurching in terror as I tried to navigate my way through the flux, rarely observing Chinese cyclists having to do the same unless they were reacting to something stupid I had done.

As my experience on the road grew, my assessment of patterns became more nuanced, and I noticed that categories of drivers seemed to behave differently. Taxi and bus drivers seemed to exhibit a group norm. The exceptions were the moped drivers, who were totally unpredictable: heading into opposing traffic, stopping abruptly in the bike lane to take a call, or darting across lanes of traffic. Despite this array of vehicular adversity, most traffic continued to flow without much interruption.

It eventually occurred to me that I was experiencing something I had read during the course of my literature review, but had never completely understood. Specifically, I was observing Max Boisot's (1987) depiction of degrees of knowledge codification and diffusion, as described in his model of the I-Space.[1] As someone from the United States, I came from a market-oriented society where knowledge is highly codified and highly diffused. Consequently, I tended to look at traffic interactions with the expectation that there were highly codified rules of right of way, with those rules diffused throughout society in the form of licensing exams. In Chinese society, I was observing a different societal norm. Rather than operating on highly codified and diffused information, players seemed to operate more in the moment, adapting to constantly changing circumstances while trying to advance unimpeded toward their individual goals. Moped drivers represented the extreme of this, while pockets of coherence—taxis and busses—seemed to coexist. Still, most drivers operated on the belief that whoever moved first and fastest had priority, as drivers rarely slowed down to turn right on red, even when pedestrians tried to cross the street at a green light.

Reflection on these different patterns, and my own attempts to negotiate them, gave me pause to write an e-mail memo to Max (with whom I had worked previously). In our subsequent exchange, I began to appreciate was the way Western societies tend to view life as a series of *positive-sum* games played out on a *macro* level. Rules of traffic right-of-way may be inconvenient if one is in a hurry to get somewhere, but on a societal level, everyone is safer. Chinese society, from my view, holds a different worldview: Life is perceived as a series of *zero-sum* games played out at the *micro* level. The result is that China seems to operate on the basis of constant change with individuals viewing competition as, "If you get

something, I lose something." What I surmised is that, rather than knowledge being codified and diffused in such a system, it is often held onto to give the one who possesses it greater power. I think this is why drivers operate on the belief that whoever moves fastest has priority, rarely slowing down to turn right on red, even when pedestrians are trying to cross the street. I believe this is also why people I had approached at business schools were not willing to share their views with me: I was not offering anything worthwhile to them in exchange. The immediate benefit of my reflection was that I became a more astute bike rider in China. It would not be until I returned to the United States for a brief visit that I would appreciate the more profound impact my insights would have on my research design. Positionality and its influence on my research was becoming clearer and more focused.

Revisiting Conceptual Frameworks: Turning Artifacts Into Processes

When I returned home for one of my annual visits, I checked in with several of my committee members to update them on my "progress" (more specifically, my ongoing challenges) in the field. These discussions were tempered by the belief that although I had made a breakthrough as a result of my Jello discussion, I was not quite sure what to do next. During that visit, one of my committee members told me of a book she was in the final stages of completing with a colleague. The book—the first edition of *Reason & Rigor*—focused on the use of conceptual frameworks in structuring research, a topic I felt I already understood as a result of my course-work and background research before I had entered the field.

As we discussed my challenges in the field, she made a point of noting the importance of thinking of conceptual frameworks developed through literature reviews as dynamic rather than static tools, an ongoing process rather than an artifact. This was very different than the way I had been approaching my framework in the field. The conversation gave me the impetus to revisit my conceptual framework, using it to seek insight on the challenges that continued to beleaguer me. In my proposal, I had presented my conceptual framework as a way of building on the "what" questions that describe differences in Chinese and Western culture to identify the "why" and "how" questions of how these differences are manifested in joint MBA partnerships. What struck me as I looked at the framework anew was that, for all of my thinking and theorizing about how these processes and tensions would play about between partner institutions, I had not even considered that, in doing field work, I would become enmeshed in, and thus subject to, those very same tensions.

Like a lightning bolt, it hit me that everything I had been doing in the field to that point was done from an implicit (and misguided) belief that my framework and the research design that emerged from it were more or less set in stone. By placing greater weight on the suitability of my design to the questions I sought to answer than on the suitability of the design to the environment where I was trying to answer those questions, I was taking a static "what" view of my research that was blind to the dynamic reasons of "how" and "why" such a design might not work in China. As a result, I had been operating under the assumption that my conceptual framework was a tool to help me cut through uncertainty in the field, rather than the framework serving me as instrument of integration that linked together the disparate experiences I encountered in the research process with the central ideas and questions I hoped to explore.

To move forward, I needed to actively engage in the creative process of my research on the ground in China, rather than seek to impose a research design that was developed to satisfy the norms and values of a Western doctoral program, not to mention the IRB requirements

that went along with it. If I wanted to understand Chinese phenomena, I had to play the game by Chinese rules. I would need to take a longer-term relational view of my research goals and to make flexibility an explicit part of my research design. In my proposal I had discussed going with the flow of my research as it unfolded. Until that point, however, I was not going with the flow, and in fact had been resisting tacit cues in order to maintain my misguided understanding of what integrity of research should mean.

To integrate and make sense of my early attempts at fieldwork, I returned to my conceptual framework, which after all was designed to identify and elucidate the tensions and cross currents shaping Western–Chinese interactions in the context of business schools. Returning to Figure 8.1 above, I had identified the overlap between cultural and educational constructs that might influence Chinese–Western partnerships as "Education and Society," the central idea being that different cultural norms and assumptions might give rise to different ideas about the role and functional of educational institutions, and that these differences could have a profound effect on partnerships. Turning that lens now on my own attempts to gain access to the field, I realized that I had gone into the field and immediately began making choices based on a misguided assumption of the universality of the design I had chosen to answer my research questions, without realistic, informed understanding of the context in which I sought to enact that design. Ironically, in my proposal stage I had gone to great lengths to justify pursuing a case-based design using grounded theory methods, since linkage of the two has been controversial (Backman & Kyngäs, 1999; Hood, 2007). Though I had an intellectual investment in the value of the design I had chosen, I had to be pragmatic in my choices. In light of the situation, there was no compelling reason to keep the case-study design. A traditional grounded theory study, without the *formal* boundedness of a case design, seemed to offer the solution. By removing that formal boundedness and pursuing a traditional grounded theory study that would not paint a picture of specific institutions, I greatly lowered the perceived risk participants might have had about their anonymity being breached.

Nonetheless, since joint MBA programs provide the structural context for interaction between most Western and Chinese business schools, the case would still exist as a point of unofficial coalescence around which participants would likely contextualize their experience and commentary. Consequently, since the case still existed in my study in spirit if not structure, it remained legitimate to pursue my original "how" and "why" questions.

My conceptual framework had also identified the overlap of culture and institutions (what I labeled "joint ventures") as an important factor shaping the development of Chinese–Western partnerships. Revisiting it now, I recognize that it was in this space that *guanxi,* an important cultural construct, governed (or at least mediated) access to the very institutions I was trying to research. Changing the design of my study might have helped me assuage potential participants' fears about their anonymity being broken, but it did not remedy the fact that I no longer possessed the caliber of *guanxi* to secure access to many of those participants. I still had to find pathways into institutions if I wanted to interview Chinese

business school faculty, staff, and students. Without my earlier anchor to one of the leading business schools, I was just another graduate student, trying to be noticed by Chinese deans. I could never change the fact that I was an ethnic outsider in China so I would need to find other ways to reduce the insider-outsider gap.

A major step in my construction of new *guanxi* came less by grand design and more through serendipity. My background in international management coupled with my past employment at several U.S. business schools made me a possible candidate to teach management in China. I had thought about teaching as a way of supporting myself during my field research, though I remained cognizant of wishing to avoid conflicts of interest with institutions where I hoped to collect research. By now, it was clear that that was less of an issue to the Chinese universities than it was to me personally, so it became a matter of finding the right opportunity. About six months after arriving in China, I had been offered the opportunity to teach MBA students in a small lower-tier U.S.–Chinese program in the northeast of China. During the course of the next year, I was invited back to teach on multiple occasions, thereby giving me the opportunity to understand the issues surrounding the Chinese learner first hand.

By the time I moved from Beijing to Shanghai in 2010, my reputation seemed to precede me. Within a matter of weeks, I was contacted by the New York University study center in Shanghai (upon the recommendation of a casual contact I had made), and asked if I would be interested in teaching management to U.S. undergraduates spending a semester abroad in China. With close to a year and a half in the field already behind me, I saw the potential benefits of this opportunity. I quickly accepted and, after proving my value, was named an Adjunct Professor of the Stern School of Business at NYU.

Becoming an NYU professor, even an adjunct, immediately changed perceptions of who I was in China. Professors, as teachers, are held in high esteem in Chinese society. The fact that I was now affiliated with a respected Western business school, with business cards to prove it, anointed me with a degree of credibility that I did not have as a graduate student at an education school alone. It certainly did not hurt that rumors were starting to circulate about NYU planning to build a campus in Shanghai, though the center would not be officially announced for more than a year.

The combination of my newfound identification as a Western professor, coupled with insights I was building by teaching in China's northeast, gave me a degree of expert status. Before, I was a doctoral student struggling to get his dissertation done; now, I was a professor, a researcher. As noted previously, "people's willingness to talk to and what people say to you, is influenced by who they think you are" (Drever, 1995, p. 31). Throughout the one and a quarter years I had already spent in the field, I struggled to build *guanxi,* largely because I misunderstood how it operates. There was a tension between institutions and culture that I had failed to appreciate. Previously, I had been trying to approach institutions. As I engaged with my conceptual framework to make sense of this tension, I

realized I needed to approach—and interest—individuals in my research. By the time I was named an Adjunct Professor of NYU, I had built enough tacit knowledge of Chinese society to know I had achieved a major breakthrough. Now I had to make it work to my advantage.

Though my Western sense of self always limited my ability to fully comprehend the dynamics of *guanxi,* I do understand how to build personal networks. So, that is what I set about doing. Rather than attempt to engage institutions, however, I went back to the essence of *guanxi* and tried to plot pathways to, through, and with individuals who could contribute to my study. During the course of the next year, I tapped into alumni associations, trade associations such as the International Association for Chinese Management Research (IACMR), and other groups such as the American Chamber of Commerce and British Chamber of Commerce. While this ordinarily would be no different than what anyone would do to network, my growing tacit knowledge of Chinese society taught me the importance of reciprocation. In other words, don't expect to get something unless you give something in exchange. I gave lectures when invited to do so, proofread and edited draft research articles written by doctoral students (and professors) at Chinese business schools, and offered free career coaching to people I met here and there. I learned to frame the work I wanted to do in terms of the benefits it would bring to participants; the networks and relationships that I brought to this process were an asset rather than a liability. Some two and a half years after moving to China to begin my research, I was finally melting the Jello.

In sum, revisiting my conceptual framework as a way of understanding my relationship with my research setting yielded two main insights that proved invaluable: the need to shift from a case study approach to a more open, grounded theory inquiry, and the importance of strengthening my own personal network, and using the relationships within that network to expand and deepen my access to the field.

Using a Conceptual Framework to Absorb Bias and Integrate Tacit Knowledge

Even after I changed my approach to my conceptual framework, getting access to qualitative data from Chinese business schools continued to prove very difficult. One reason for this is that, though qualitative approaches such as case studies were understood and valued, other approaches, particularly grounded theory, were not. (This seemed ironic, given the research from a Chinese American professor I had cited in my literature review on the suitability of GTM to the study of Chinese management phenomena). A number of Chinese and Western business school professors (particularly those educated in the United States) implied that my conceptual framework was flawed. They commented that the framework was very broad—too broad actually—and that it was too unwieldy to realize. They didn't seem to accept or understand that the "broadness" was my effort to build a

baseline of understanding of differences that could, over time, help me analyze the data I collected. Despite my attempts to explain otherwise, they seemed to believe I would be hypothesizing each construct in the framework. To counter this, I stressed that grounded theory studies are meant to start out very broad but quickly narrow as one concurrently collects and analyzes data to build axes of meaning that can be saturated through additional data collection. My fundamental argument was that I needed to ensure that I made every attempt to reduce potential bias that I brought into the field as a Westerner and novice researcher. This did not seem to sway them.

Over time I came to feel that maybe my conceptual framework was indeed flawed. The self-doubt started to be demotivating to my ability to move my study forward. As I continued to engage more adaptively with my conceptual framework, however, I focused on another tension: that between educational and institutional constructs, which I had previously labeled "management education." When I began to think of the tension more as "Management *and* Education" I began to appreciate that many business school researchers assess qualitative research differently than do education researchers. The former do so within the frame of their dominant paradigms, specifically scientific positivist models, which they feel are stronger and the norm. Ironically, this issue then started to bias *me* about business schools, with the result that I felt myself becoming too defensive about my conceptual framework.

I finally identified a resolution to the tension when I met with a British management professor I knew. He had been travelling to China for years to teach and conduct research though I had not seen him since our initial meeting shortly after I had arrived in China. When I articulated my challenges and concerns over dinner one evening in 2011, he helped me realize that defensiveness about my conceptual framework was likely anchored in the North American dominance of what counts as global management research. Ironically, it was something I had talked about in my in literature review. What he added, however, was that qualitative methods—grounded theory included—were alive and well in many business schools in Europe and elsewhere. He suggested that as a result of my ongoing struggles, I was becoming frame blind to that. If I framed things explicitly in terms of how management research is in fact more ecumenical than many U.S.-educated business school professors perceive, it would be much easier to discuss grounded theory on its merits.

As I shared some of my insights from living in China as well as some of the other challenges I encountered in my research, he looked at me at one point and said, "Bill, since we first met, it's obvious you have built up an incredible amount of tacit knowledge about business schools, their partnerships, and Chinese management education in general. Now, just go out and get some interviews so you can hang them around what you've learned, and get this damn dissertation done!"

The conversation was a watershed moment. On the one hand, it made me realize that I was still too rigid in how I tried to secure interviews. I had to accept that an interview—any

interview—would be valuable. It would move me forward, and it would push me to continuously engage with my conceptual framework. On the other hand, the conversation liberated me in how I managed those interviews, since it made me reassess what I considered to be data. Until that point, I had tried to reduce the bias of my subjects by attempting to defend grounded theory methods. In doing so, I saw any discussion about my research design more as an antecedent to the data collection process, rather than part of the data collection process itself. To this end, I was acting out the Western predilection to *reduce uncertainty* in situations by negotiating a common understanding of meaning. Specifically, I had been trying to achieve consensus about the suitability of my research design by assertively arguing components of my literature review that built the case for such methods.

This conversation gave me a renewed sense of ownership and excitement regarding my study. In taking renewed ownership, I determined I would no longer feel defensive about a qualitative research approach, particularly grounded theory. After all, it was what excited me about my dissertation in the first place. I just needed to develop a new strategy for managing any bias I encountered. Further reading on grounded theory led me to exhortation about grounded theory that I had not appreciated previously:

> … the beauty of the method lies in its everything-is-data characteristic; that is to say, everything I see, hear, smell and feel about the target, as well as what I already know from my studies and my life experience, are data. I act as interpreter of the scene I observe, and as such I make it come to life for the reader. I grow it. (Stern, 2007, p. 115)

Rather than attempt to reduce bias toward my approach, I began to embrace the "everything is data" view as a way to *absorb* such bias as data in its own right. This aligned to the way East Asian cultures seek to absorb rather than reduce uncertainty. I activated this by thanking individuals for their views, and then moving quickly into interview mode, asking them questions that prompted them to develop *their* views about qualitative methods more explicitly and comprehensively. In many instances, they did not offer compelling evidence to disqualify my research design. If their bias continued to present a tangible obstacle to the interview, I would simply ask for indulgence as I sought to execute my research in the way I (and my committee) felt best. I reminded them that I was pursuing a doctorate in education, not business. Things seemed to fall into place after that and I rarely encountered significant resistance. By making that shift in approach, I started to glean some very valuable insights into how Chinese business school professors view their roles in Chinese society.

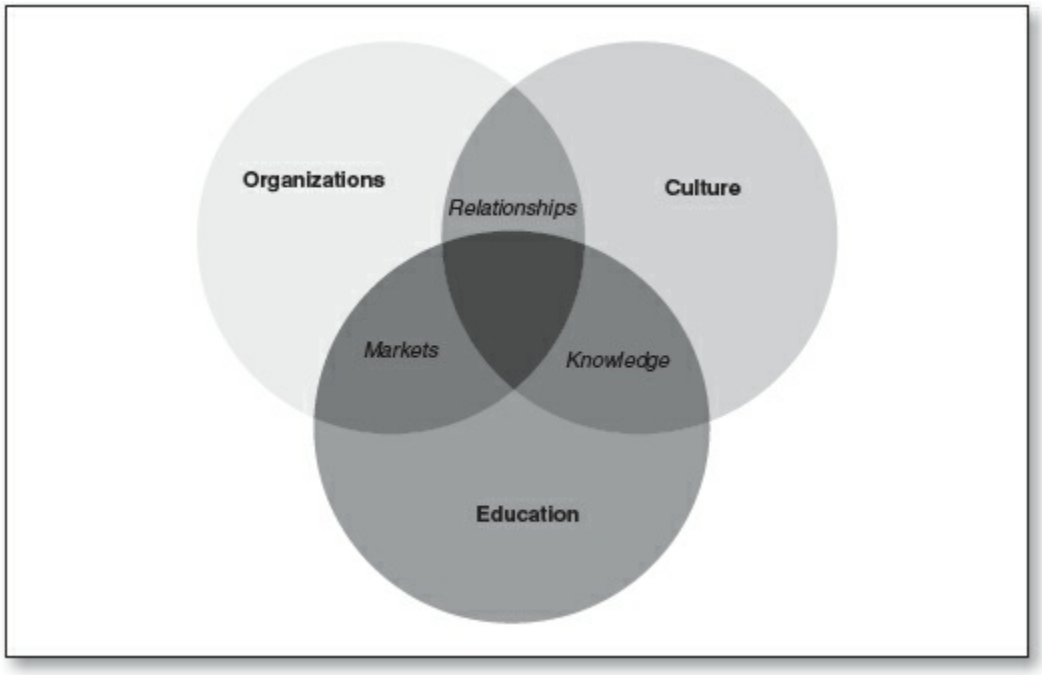
Returning to the Know-What: Using My Conceptual Map to

Build Theory Grounded in Evidence and Experience

In my final 6 months in the field, I was able to secure more than 30 interviews. I increased that total to 40 with subsequent phone interviews conducted during a return to China in late 2012. In total, the entire study yielded 84 sources of data. When I returned to the United States in March 2012, however, I still questioned whether I had actually learned enough to write a thorough dissertation. It was not until I completely immersed myself in my data over the subsequent months, that I began to understand just how much I actually had learned.

A total of 245 final, discrete codes were grounded in the data I collected. This number was the distillation of more than 500 first-cycle codes that emerged as I initially inductively (and eventually also deductively) examined my data sets through the constant comparative method (Grove, 1988). As I explored patterns that emerged from the codes over time, I discovered that many fit into the original three categories of my conceptual map (cultural, educational, and organizational). Three subcategories of codes (markets, knowledge, and telationships), seemed to fit the areas where the broader categories overlapped each other: *Markets* at the intersection of what I had originally called educational/organizational, *knowledge* at the intersection of cultural/educational, and *relationships* at the intersection of cultural/organizational. These could be depicted as follows:

Figure 8.2 Constructing Analytic Categories Grounded in the Data



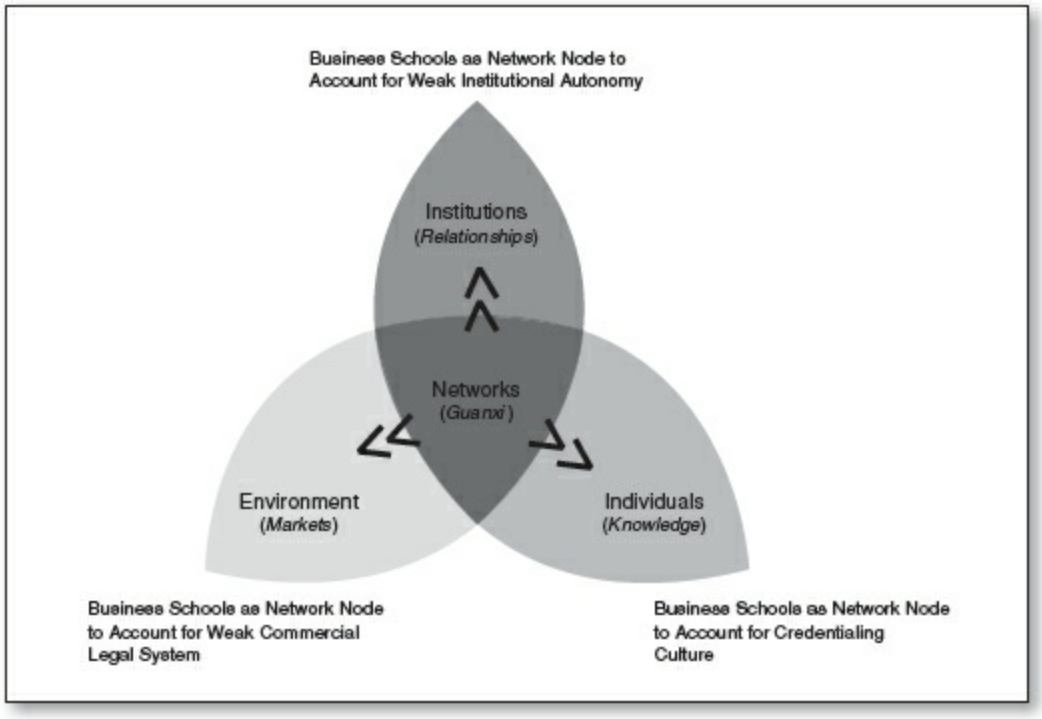
A final sub category, *networks,* also emerged from the data. Given the unique features of Chinese society, this meta-category touched upon the three subcategories, and ergo the larger categories that formed them. As such, I ascertained that they revealed a distinctive feature of MBA program partnerships within Chinese society.

The placement of these interrelated categories within the broader context of my conceptual map, rendered dynamic through placement in the interconnected literature of extant cultural, educational, and organizational theories, as well as the enhanced tacit understanding of Chinese culture and institutions I developed through my labors in the field, enabled me to interpret the dynamic at play in Chinese business schools. The word *dynamic* is the key term, because it reflects the deep complexity of Chinese society and the constantly changing—and unpredictable—milieu in which Chinese business schools (and indeed researchers like me) often find themselves as they try to adapt to the sometimes contradictory local and global communities of practice through which they seek to define themselves. Description of this dynamic—and the way various programs, initiatives and actors fit into it—formed the basis for the grounded theory of Chinese–Western MBA partnerships I ultimately presented in final dissertation.

The bottom line message of this theory was that management education has been embraced by Chinese academic institutions. Rapid growth in the economy has created demand for managers, and Chinese universities have seized the opportunity to create programs that respond to this demand. Overlaid on this demand, however, is fundamental distrust in Chinese institutions, therefore a premium is placed on foreign brands, particularly those from the West. The Western MBA degree is therefore seen as the standard of management education.

Despite this, data showed that the Western MBA is not a good fit to the Chinese environment. It is based on assumptions of student inquiry, empowered decision making, and critical reasoning. Power elites in China perceive these very skills as threats to internal stability and control, and as such, they prevent them from germinating in Chinese MBA programs, with very few exceptions. The result is that Chinese programs remain focused on *explicit* technical knowledge, top-down teaching styles where the professor's knowledge is authoritative, and embedding of risk in group rather than individual opinion. This is seen very clearly in the use of case studies. In Western classrooms, cases are open-ended narratives that students use as the basis to identify and debate problems, analyze causal factors, and make defendable decisions. In Chinese classrooms, they tend to be used as closed narratives or exemplars where the professor determines and teaches how the manager acted appropriately or inappropriately. Since this latter approach places the student in a much more passive role, MBA degrees in China are largely credentialing programs rather than transformative learning programs. In such a credentialing environment, *guanxi* remains a potent force, where advancement is based more on who you know than what you know. Networks not only dictate student learning, but also the way business schools manage their programs.

Figure 8.3 Networks as a Meta-Construct in Chinese Business Schools

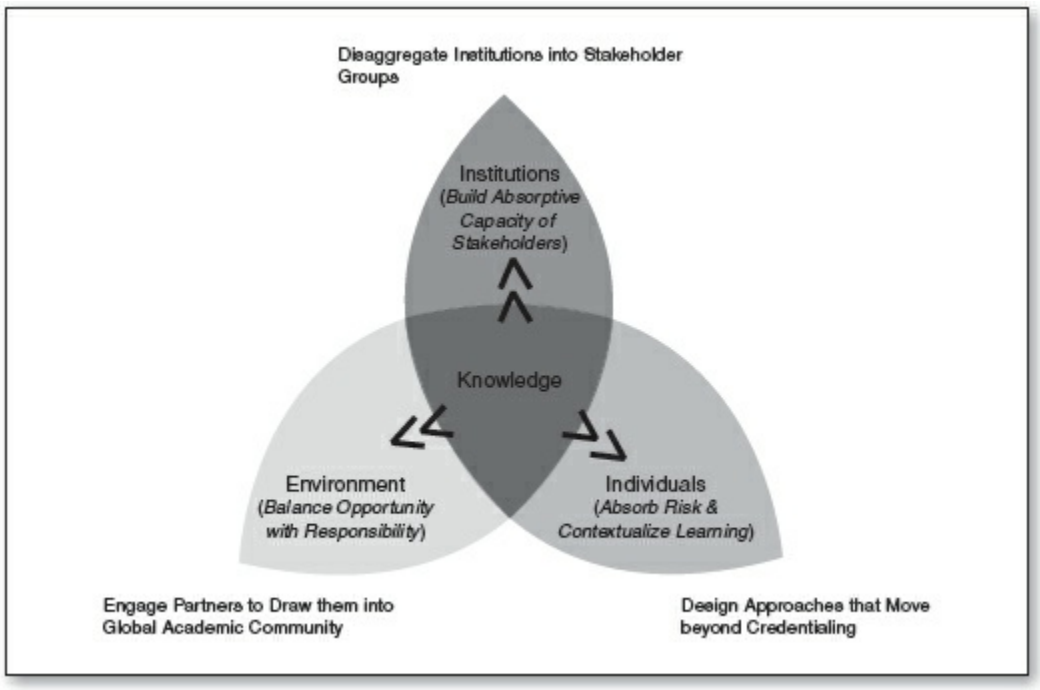


I was able to depict the power of networks visually through the following derivative of my conceptual map, focusing now on the tension areas.

My determination was that the benefits of rigorous knowledge development, be it at the individual level of managerial capability, at the institutional level of organizational capacity, or at the environmental level of knowledge-based market dynamics, gets deemphasized in China. In such a system, business schools default to being network bridges, with Chinese institutions using partnerships with Western business schools as a means of credentialing themselves as portals to outside sources of opportunity. In reality, differences in culture, education, and organizations between China and the West mean that most partnerships fail to realize their potential for knowledge transfer.

Since Chinese business schools are focused largely on networks and risk absorption, I recommended that Western institutions seeking partnerships in China should make particular effort to ensure that they consistently emphasize knowledge and learning as they adapt to changing circumstances over time. My data showed how networks influence institutions, individuals, and the environment. To be effective partners, I argued, Western business schools need to approach China in a way that reinforces knowledge and capacity building in each of those same areas. Western institutions must balance networks as a meta-construct in Chinese business schools. To achieve that outcome, they need to make knowledge a counter meta-construct, as shown in Figure 8.4.

Figure 8.4 Knowledge as a Counter Meta-Construct



My data reveal that when management and execution of a program are left largely to the Chinese partner, any knowledge transferred defaults to testable "know-what" forms, rather than more robust forms that include the "know-why" and "know-how" that build managerial and organizational capacity. Just as I had to learn to approach individuals rather than institutions to gain access to data, I argued, Western partners must be prepared to pursue partnerships on a dynamic and collaborative basis, where diverse stakeholders groups on both sides of the relationship are disaggregated from the larger institution so that they can be embedded in collaborative communities of practice where functional capacity through knowledge transfer could more realistically be nurtured. My data show that Western partners often make assumptions about organizational learning based on their own cultural frames of reference, and as such fail to recognize just how differently knowledge can be absorbed when it crosses cultural boundaries into China. That's exactly the mistake I made when I initially arrived in the country to start my fieldwork.

When honestly grounded in the cultural differences, commonalities, and needs of each partner, knowledge partnerships evolve less like blueprints, and more like mosaics where the long-term trust and value of the relationship emerge and take form over time. That is what I learned about myself as a researcher in the field, and it is ultimately what I attempted to convey to business schools in my final dissertation.

Conclusions

Once I started to make that mental shift, and to use my framework not just for research design or data analysis but also for research process analysis, I began to learn some difficult, yet critical, lessons. First, my initial rigidity about my conceptual framework made me too linear in my approach, with the result that I could not get out of the starting gate. Second, while my research design emerged from the questions I sought to answer, which in turn were based on a comprehensive review of the literature, I gave little consideration to the context in which the research would be done and how that might affect the methodological choices available to me. Third, I was being too Western in my view of time and relationships. I expected to have data collection done within a year and a half, and when I didn't meet that timetable I thought I was failing. In reality, I was making great progress. As it turned out, much of what I would learn through the process—insights that profoundly shaped my final dissertation—was learned during the time I thought I was stuck.

Until I made the mental leap to view my conceptual framework less as an artifact and more as a creative process, many of the insights that became my findings eluded me. I now appreciate that a conceptual framework should facilitate constant *adaptation* to changing environmental stimuli, rather than be a tool for the researcher to impose order on such stimuli. To this end, I initially approached the conceptual framework more as a blueprint of specific steps to be followed in order to reduce any uncertainty I encountered in my research environment. This didn't get me very far. I only made progress when I dropped the blueprint view and recognized that a conceptual framework should ultimately operate as a mosaic of cumulative knowledge and experience that can be used to respond to uncertain situations as they emerge. By viewing my conceptual framework as a mosaic rather than a blueprint, I learned to absorb uncertainty in my research experience rather than continue to make feeble attempts to reduce it. I learned to harness creativity as a tool for engaging with cross-cultural tensions. Ironically, it was the prospect of engagement with such tensions that had initially excited me to move to China. Nonetheless, I stumbled when I failed to recognize and confront the tension between the cross-cultural differences I encountered and my desire to prove myself as an accomplished researcher back home. Recognizing the power of conceptual frameworks not only helped me resolve this tension, but also excited me to move my research forward to a strong conclusion.

Reflection Questions

1. In building your conceptual framework, you have given a lot of thought to the link between your argument for the research (reason) and the way you plan to conduct it (rigor). How might the context in which you plan to collect data influence your approach to methods? To what extent might those opportunities or constraints feed back onto your conceptual framework?
2. What puzzles, dilemmas, or challenges are you encountering in the field? In what ways does your conceptual framework help you to unravel or make sense of them?

Note

1. Max was one of the founding deans of what eventually became the Chinese European International Business School (CEIBS), so he had deep hands-on experience in China. Sadly, he died unexpectedly before I finished my dissertation.

CHAPTER 9 The Conceptual Framework as Guide and Ballast

As we established in Chapter 1, there is considerable confusion and even disagreement about both the content and role of conceptual frameworks in social science research. The ambiguity around the substance, form, and terminology of conceptual frameworks, we argued, leads to an array of terms—*theoretical framework*, *conceptual framework*, *conceptual model*, *theory*, and *literature review*—being used imprecisely or even interchangeably, as well as to amorphous expectations and directives for the conceptual framing of empirical research. Despite all of the attention given to the importance of conceptual framing in master's theses and doctoral dissertations and in academic research more broadly, many academics struggle to explain how such framing occurs, what a conceptual framework comprises, how it influences the research process, and why a conceptual framework is important to the processes and outcomes of empirical work. Throughout this book, we have argued that the conceptual framework organizes and informs research; ensures a close alignment between topic, questions, and methods; and provides a mechanism for integrating and new data, findings, questions, and literatures as a study evolves. We have endeavored to clarify the terminology, functions, roles, and uses of conceptual frameworks through the close examination of real-world research examples, illustrating how each is conceptualized, constructed, and implemented within and across the stages of the research process. Examining each of these six conceptual frameworks as they ground and guide the research projects at the center of *Reason & Rigor*, one of our main points in this book is that the conceptual framework is influenced by, as it influences, the research process within and across all stages.

We have defined a conceptual framework as an argument as to why the topic of a study matters and why the theoretical and methodological tools for conducting the study are rigorous and appropriate. By *argument*, we mean that a conceptual framework is a series of sequenced, logical propositions aimed to convince readers of the importance and rigor of a study. By *appropriate and rigorous*, we mean that a conceptual framework should help the researcher to argue convincingly that: (a) the research questions are an outgrowth of the argument for significance and relevance to the field or fields; (b) the research design maps onto the study goals, questions, and context(s); (c) the data to be collected provide the researcher with the "raw material" necessary to explore and substantively respond to the guiding research questions and topic; and (d) the analytic approach will allow the researcher(s) to effectively respond to the guiding research questions.

The conceptual framework is a guide for research; it serves to situate the research questions and the methods for exploring them within the broader context of existing knowledge about a topic even as the researcher seeks to generate new knowledge about that topic. As

we stated in Chapter 1, carefully examining prior research is not simply a lofty academic exercise, but is also a vital process of learning from the experience and expertise of other experts in the field. A conceptual framework allows you, the researcher, to make informed, reasoned, and defensible choices about how to explore research topics and themes that are underexplored and to explore old questions in new contexts and with new theoretical frames and approaches. A conceptual framework matches your research questions with those choices and aligns your analytic tools and methods with your questions. It also guides the ways that you think about collecting, analyzing, describing, and interpreting your data. Further, a well-articulated conceptual framework helps you to conceptualize, theorize, and critically examine your own social identity and positionality in relation to your choice of research topics and contexts, approaches, and methods.

It is for all of these reasons—the range and variation of crucial roles that a conceptual framework plays—that we view the conceptual framework as a guide and ballast for empirical studies. This range of roles is also why we strongly argue that a conceptual framework is different from—broader than—a theoretical framework. We have argued throughout this book that a theoretical framework—the way in which a researcher engages with, integrates, and argues from existing, "formal" theories within and across relevant fields—is one piece of a broader conceptual framework that also incorporates personal interests and goals, identity and positionality, and topical research.

The role that conceptual frameworks play in research is multifaceted and iterative. An examination of these various roles helps us as researchers to make critical connections between the theoretical and methodological components of our research. A carefully conceptualized and well-articulated conceptual framework helps us to clarify for ourselves and for others what is important to us as researchers about the questions or problems that emerge from our intellectual and practical engagement in the world broadly and in our research contexts specifically. There is great range and variation in the scale of why a study "matters," depending in part on the audience, purposes, and contexts. Developing sound conceptual frameworks allows us as researchers to situate ourselves in terms of what is meaningful in the field or fields that form the context of our studies and questions. Additionally, a conceptual framework consists of our own intellectual curiosity, our personal and professional biographies and histories, and our macro-social (sociopolitical) and micro-social (institutional) locations and positionalities. These aspects of our personal, social, and organizational identities and contexts have much to do with what we choose to study and how we choose to study it. In this sense, our personal interests and stories are a foundational part of our conceptual frameworks and therefore of our research as a whole. Our conceptual frameworks are informed by, as they inform, our ideological, theoretical, positional, and relational worlds. Conceptual frameworks allow for focused, systematic exploration of these aspects of who we are, what we study, why we choose to study it, and how we choose to study it.

Focusing on the work of five highly accomplished contemporary researchers—Angela

Duckworth, Frederick Erickson, Michelle Fine, Margaret Beale Spencer, and James Spillane—we have closely examined the ways in which each of these researchers' conceptual frameworks inform and shape different aspects and stages of the research process. While we have examined the relationship of the conceptual framework to specific stages of the research process in each of these chapters, common across the examples included in the book is an emphasis on the conceptual framework as a pragmatic tool for uncovering and exploring: (a) questions of relevance, applicability, and uses of empirical research; (b) the appropriateness of different types of research questions for specific topics, contexts, and methods; (c) the alignment of data collection and analysis to research questions; and (d) the interpretation and description of findings. William Dunworth's reflections tell a powerful and fascinating story about how each of these themes emerge in the course of planning and conducting an empirical study. Each example in this book shows the direct and significant implications of engaging in intentional and systematic ways in the development and ongoing refinement of one's conceptual framework. Looking across chapters illustrates the ways in which theory, empirical research, and context shape and influence the conceptual framework as that framework guides and grounds the research process. This recursive process of conceptual framework development and research development reflects the iterative nature of empirical research.

In Chapter 3, "Origins of a Conceptual Framework: The Birth of Grit," we told the story of Angela Duckworth's formulation of grit as a concept, and the argument that she developed for it through reflection, dialogue, literature review, and, ultimately, data collection and analysis. We showed how developing and defining a concept shapes and informs methodological decisions and data collection, but also how the analysis of those data feed back into our evolving definitions. "Perseverance and passion for long-term goals" is a simple, even elegant, definition for a complex idea, but it took a long time and a lot of work to get there. Duckworth's story also reminds us that building conceptual frameworks is about experience and intuition in addition to scholarship and methods.

In Chapter 4, "Excavating Questions: Conceptual Frameworks, Research Questions, and Research Design," which focused on the work of James Spillane, we explored the ways that the development of Spillane's conceptual framework influenced his choices about research design. This chapter helps us to understand the role of the conceptual framework in defining, justifying, and contextualizing research questions and in guiding key decisions about the types of data required to explore and respond to those questions. Spillane's research helps us to examine how choices made about the conceptual framework of a study shape research design and significantly influence data collection and analysis. Exploring his work through this lens helps us to understand the interrelated and evolving nature of conceptual frameworks and research design. As we stated in the chapter, "Local Theories of Teacher Change" (the focal study analyzed in Chapter 3) uses the findings from a prior study that Spillane conducted to develop and contextualize a new set of research questions, and while it works from an earlier data set, it employs a new analytic approach—a shift

from an inductive approach to a deductive one in the collection and analysis of his data—that is an outgrowth of modifications and refinements in the conceptual framework. That shift was precipitated by the incorporation of a new theoretical framework into his larger conceptual framework. Chapter 3 helps us to understand that as a result of the close link between conceptual frameworks and research design, development in one leads to development in the other. As we saw in that chapter, the implications of this engagement with his conceptual framework led Spillane to make significant, formative changes in his data analysis, which then led to a different, innovative set of findings and assertions back in the field.

In Chapter 5, "The Role of the Conceptual Framework in Data Collection and Fieldwork," we used the work of Michelle Fine to focus on the iterative, recursive nature of conceptual frameworks as they are developed, challenged, and refuted through reflexive engagement in research fieldwork. This chapter explored the layered and powerful influence of conceptual frameworks on data collection and fieldwork choices. As Fine's work shows, conceptual frameworks are simultaneously guides for and products of an iterative, ever-evolving process of development that happens through critical dialogue and engagement in the research as well as the researcher's reflexive engagement with her own meaning-making processes as she engages in fieldwork. In Fine's work we are able to see, because she makes it transparent, how these meaning-making processes challenge and refute—as well as support and uphold—specific theoretical and ideological influences on the research. We argue that it is precisely through reckoning with the tensions and crosscurrents that arise when you scrutinize the influences—relational, positional, ideological, political, social, national, and transactional—on your research that the most creative, elucidating research findings emerge. Fine's work offers an excellent example of the close, nonlinear relationship between who you are, what you study, and how you study it. As we have argued throughout the book, a conceptual framework is the embodiment of all three. As a researcher, you make choices throughout the research process about what you think is important and interesting, and these choices reflect who you are as a person and what you value as a researcher. They also reflect where and with whom you work. The language you use to describe the research, the methods you employ, and how you write up and present findings are all a function of the social, political, and professional worlds you inhabit as a scholar. Fine's work elucidates that powerfully and stands as a poignant example of the role of conceptual frameworks for examining and thinking through issues of positionality, the relational nature of research and how these are influenced by macro and micro sociopolitical forces and realities.

In Chapter 6, "Conceptual Frameworks and the Analysis of Data," we turned to the work of Frederick Erickson. Based on Erickson's research process, we argued that at its ideal, a conceptual framework informs data analysis in direct, meaningful, and, ideally, transparent ways. We drew lessons from Erickson's example about how a well-articulated conceptual framework helps a researcher to: (a) make decisions about what is most important to pay attention to and substantively focus on throughout the analytic process; (b) choose

appropriate tools for organizing and filtering the data; (c) make informed choices about taking an inductive or a deductive approach to data analysis; and (d) justify and make visible his own interpretive processes and choices, which are themselves shaped by his interests, values, and background. In particular, we highlight how the central constructs or areas of focus identified within a conceptual framework—the timing of interaction, in this instance—are operationalized in the analysis of data.

"Going for the Zone," the empirical work at the heart of Chapter 6, is a particularly compelling example of the role of a conceptual framework in data analysis because it shows how the researcher draws upon, as he enters into dialogue with, multiple intersecting fields that contextualize and frame the research questions and context in focus. Erickson's engagement in multiple fields—sociolinguistics, discourse analysis, neo-Vygotskianism, social interaction theory, music theory, teacher research, and theories of culture and communication broadly—spans four decades and becomes instantiated in an interdisciplinary approach to making sense of data that were analyzed earlier using different theoretical frames. Erickson's own learning on the topic of student–teacher interaction in classroom contexts builds on (as it adds to) generations of field development and influences his approach to analyzing pre-existing data with a new and different focus. His long-standing engagement in iterative and reflexive framework development illustrates the ways in which analysis is a conceptually embedded process that can shift and change as one's theoretical lenses and conceptual framing shift over time. Erickson's consideration of a new theoretical framework led him to view, or review, the data differently, to see new and different things in them, and to recast his argument in an innovative direction. This can teach us a great deal about how conceptual frameworks inform analytic themes or categories as well as about how working theoretical frames influence quite specific moments of data reduction, organization, and analysis. As Chapter 6 presents, data analysis and theory development are, ideally, in an iterative and dynamic relationship.

In Chapter 7, "Expanding the Conversation, Extending the Argument: The Role of Conceptual Frameworks in Presenting, Explaining, and Contextualizing Findings," we focused on the work of Margaret Beale Spencer to discuss how researchers use conceptual frameworks to contextualize and make sense of findings as well as how findings are used to review, revise, and, ultimately, strengthen one's conceptual framework. The study by Spencer and her colleagues shows what can happen when you encounter surprises in your data, and how you can learn from those discoveries. The evolution of the Phenomenological Variant of Ecological Systems Theory (described in Chapter 7) offers an important lesson about the relationship between theoretical frameworks and empirical work. As we argued in Chapter 1, a theoretical framework is not simply applied to a setting —the data and findings constantly reflect and push back on the framework itself, offering valuable feedback about both its utility and its conceptual strength. As we see in Spencer's case, it is crucial to remain open to these discoveries so that you can develop your understanding of your topic and questions. From this perspective it becomes clear that

theoretical (and conceptual) frameworks are *supposed* to evolve, and that you must be attuned to shifts and changes as they emerge. We see in Spencer's work that the presentation and contextualization of findings serves two important functions related to the conceptual framework. First, it extends the argument. If a conceptual framework is an argument about the value of our research questions, discussion of findings can be thought of as an argument about the significance of the answers to those questions, taking the conceptual framework as a point of departure. Second, it provides a vital opportunity to reflect on and engage in data-based critique of the conceptual framework. This applies to both the substantive assumptions and ideas that form the argument (in this chapter, for example, the relationship between stress and response) as well as the methodological approach employed in the study. In this sense, findings are an outgrowth of conceptual frameworks and a response that strengthens and improves upon them.

Finally, in Chapter 8, our colleague William Dunworth pulled all of these aspects of conceptual frameworks together in a first-person reflection on his dissertation research in China. This story links and integrates all of the main lessons about conceptual frameworks that were highlighted in the previous chapters: the various factors and processes that shape our research interests, the ways we go about crafting working definitions and arguments for our topic and methods, the link between those arguments and the ways we collect and analyze data, and the processes through which changes in our methods feed back on and inform our thinking about, and arguments for, our topic. Dunworth's account is also valuable in that it presents a ground-level, student's perspective on the ideas and processes discussed at length in the previous chapters.

Within and across these six empirical studies, we see that the conceptual framework is more than a passive artifact or academic hoop to jump through, more than a static graphic of literatures read or key concepts in a vacuum. Rather, it is a dynamic meeting place of theory and method; it charts and provides a structure in which to analyze, over time, the multifaceted and layered influences on one's research in all of its messiness and complexity. A well-articulated conceptual framework instantiates itself deeply in empirical work, and serves to guide, ground, and challenge us as we develop and refine it. In order for your conceptual frameworks to serve these purposes, however, you must be committed to engaging in a systematic and reflective approach to the development, construction, and enactment of your research. In this sense, the conceptual framework forces you to be intentional in your work. While the six scholars whose work is featured in this book are vastly different in terms of their research interests, disciplines and fields, methodological approaches, and the degree to which they explicitly address issues of ideology and positionality in their research, all six engage in this type of sustained reflection, critique, and, ultimately, revision of their conceptual frameworks. Their work offers powerful examples of how conceptual frameworks provide an interactive conceptual space for you to clarify, first for yourself and then for your audiences, the specific conceptual terrain upon which you build your study. To extend the metaphor, a solid conceptual framework helps

you chart your expedition through theoretical, contextual, and conceptual terrain with increased clarity, depth of insight, and transparency. It helps you to cultivate your tools of conceptualization, articulation, and exploration of critical connections and integrations within and across fields, topics, and emerging understandings more broadly.

Throughout *Reason & Rigor* we have looked deeply into the roles, uses, and applications of conceptual frameworks. In each chapter and across the chapters, our goal has been to develop an understanding of the functional role conceptual frameworks play in organizing and guiding empirical research. A conceptual framework helps you to figure out how to engage deeply with existing knowledge in conjunction with your own interests and observations, and therefore to ask better questions, develop robust and justifiable strategies for exploring these questions, and explain both the value and limitations of your findings. Conceptual frameworks are necessary for developing and planning a study and, as well, help you deal with and address complexity in terms of questions and problems, ambiguity in terms of which fields relate to the topic and how, as well as to respond to changes in the fields your work inhabits, because those fields are not static. Our goal in the next section is to provide some useful questions, processes, and structures that can inform and guide you through various thought experiments and exercises that will help you think about your conceptual framework and its relationship to your study.

Developing a Conceptual Framework

As the preceding chapters show, every conceptual framework has its own story. Together, the six stories presented in this book offer a number of useful lessons about how to develop, use, and refine a conceptual framework. What we offer below is not a how-to guide. Just as there is no single, best format for making an argument, so there is no single "right" way to build a conceptual framework. Indeed, one of the overarching themes of this book has been the role of the researcher's judgment in making decisions in ambiguous circumstances: How does who I am—as an individual whose history, perspectives, decisions, assumptions, and experiences are shaped within large-scale sociopolitical forces—affect what I study? Where and when do I engage in data collection? What kinds of data do I need in order to answer my guiding research questions? How will I know when I have enough data? How do I know when to revisit or reconsider my theoretical framework or to introduce new theoretical perspectives in my analysis? Each of these questions appears in the preceding chapters. In each case, the researcher had to make a reasoned, principled choice about how to answer each question as it arose. And in each instance, the conceptual framework for the study helped to anchor their considerations.

In the remainder of this chapter, we combine lessons from these six scholars, our own experiences, and those of our students to offer guidelines for developing and using conceptual frameworks. We first highlight several overarching themes that appear across chapters: the personal and autobiographical nature of conceptual frameworks, the role of conceptual frameworks in making and changing research plans, and the process of simultaneously being open to and pushing back on existing theory. We then offer suggestions about how to develop and refine your own conceptual framework. We think of this process as one of *reflexive engagement*—thinking iteratively about the connections among our own interests and values, what we are learning in the field and from our data, and what that tells us about the topic or phenomenon we are trying to understand. While this term reflects language more frequently employed in qualitative methods, we hope that by this point it has become clear that mixed methods and quantitative researchers often engage in a similar type of reflective thinking and analysis. And that reflexive engagement is an important, generative, and valuable approach to research within and across methodological approaches (Alvesson & Sköldberg, 2010; Ravitch & Carl, 2016)

Starting Points: Self and Audience

As each of the chapters in this book shows, there are really two primary ways of thinking about the starting point for a conceptual framework. The first is a careful consideration of where and how you began to think about what you want to study. One of the more striking aspects of the six research stories told in this book is how frequently and powerfully autobiographical the origins of research can be. In telling us about the origins of their

research interests, three of the five scholars featured told us stories about their childhoods and their families, while another traced the genesis of researcher's interests to her work before she became an academic. These stories remind us that however technical and complex the work of research becomes, it is also fundamentally human. The larger point here is not that all research needs to be deeply and personally meaningful. Curiosity, interest, and a sense of what types of research are needed are all perfectly reasonable rationales for selecting a particular topic or question. What is needed, however—and this is especially true for dissertation work, which can be an endurance test—is a critically conceptualized and carefully articulated personal connection to the work. (Dunworth provides an exceptional example of this in Chapter 8.) Knowing what you want to study is obviously the starting point for conceptual frameworks and research in general, but being aware of why you, personally, want to study it is equally important. Engaging in this discovery process can help you as a researcher to develop a working sense of your own intuitions and motivations as well as the assumptions or biases you may be bringing to the work. This book is built upon several perspectives on empirical research, among them that: (a) research is not neutral or apolitical; it does not happen in a vacuum, but rather, it is directly shaped and influenced by sets of broader contexts ranging from the personal to the political, social, and institutional; (b) there are most often autobiographical motivations for research, be they personal, professional, or some combination thereof; and (c) all researchers (indeed all human beings) are informed by personal biases, presuppositions, and assumptions, and these must be carefully uncovered and critically engaged with in order for research to be as authentic and trustworthy as possible (Nakkula & Ravitch, 1998; Ravitch & Carl, 2016). As we have stated throughout the book, we see developing and refining a conceptual framework as an ongoing process of critically examining and reckoning with these forces and their influence on our empirical work.

The second "point of departure" is where you ask your reader to begin, and that is largely a question of audience. All six of the empirical studies discussed in this book assume something about the reader: what they know or do not know, or what interests they might bring to the text. Because each of the works presented here was published in an academic journal, as a chapter in an edited volume, or as a dissertation, all assume that their typical reader is academically oriented and likely somewhat familiar with and interested in their field. For example, Spillane does not try to convince his readers that education policy is important, nor does Duckworth feel the need to argue that it is important to understand what makes people successful. More subtly, at least two of the articles anticipate a certain political orientation from their readership. Neither Fine nor Spencer spends much time trying to convince the reader that academic work has traditionally aided in the misrepresentation (at best) and oppression (at worst) of marginalized populations. They assume that this is largely understood, and instead begin by explaining to the reader how they engage with and counter that dynamic in their work.

Making—and Breaking—Your Plans

Each of the six conceptual frameworks presented in this book clearly shows how the framing of arguments about what to study has significant implications for the design and execution of empirical research by highlighting how this works for specific phases of the research process. But an equally important point is made across all six chapters: Research is dynamic, not static. The more expert we become in a topic, the more nuanced our view becomes, and the more we expose ourselves to observations or findings that challenge and raise questions about our original assumptions. For example, Fine's expanding understanding of the significance of "the hyphen" as both metaphor and method reflects this natural progression, as does Spillane's convergence on theories of learning as central to understanding local implementation of state reforms. Likewise, Dunworth's evolving understanding of *guanxi* and its impact on access and data collection totally reshaped his view of what it was he was studying. Additionally, because the conceptual work of research unfolds over time, there is always the possibility that the work of others shapes our own. All six of the scholars featured in this book told stories about how their peers, colleagues, and mentors shaped and reshaped their thinking over time. Erickson, for example, recounted how conversations with friend and colleague Ray McDermott led him to see what was happening in his data through a lens that more explicitly focused on power and influence. Finally, just as our thinking changes as our research unfolds, so do our understandings of the physical context in which the research is conducted. This has profound implications for the data we collect, even if our instruments or procedures for collecting it remain unchanged. In each of these six cases, changes in thinking about the researcher's topic or the context of the research precipitated changes in methods. For Spillane, it precipitated a shift to a deductive analytic process using a new theoretical framework. For Dunworth, it meant reimagining his interviews as a networking activity. For Fine, it meant shifting into more mixed methods work and involving participants more fully in the research design and development process. For Erickson, it gave rise to an innovative concept, the relational concept of "turn sharks," and a different way of analyzing timing in interactions. For Duckworth, it led her away from using performance tasks to measure grit and toward creating a survey scale. These types of shifts are a natural, and often desirable, part of the research process. A good conceptual framework provides a clearly articulated reference point from which we can observe, and make sense of, these changes as they unfold.

The Conversation: From Listening to Speaking

In each of the works discussed in this book, we (and the authors themselves) show how previous research and theory shaped their thinking about what to study and how to study it. Once these researchers established their own starting points (as described above) they opened themselves up to be influenced by others. This is evident in the way Spencer defines identity, perceptions of experience, self-organization, and risk. It appears in Erickson's invocation of neo-Vygotskian theory, in Spillane's extension of the arguments of Deborah Ball and David Cohen, and in Duckworth's reading of William James. It also emerges in the stories these six scholars told us during their interviews about their own learning; each

could readily recite their intellectual autobiography, recounting changes in their own thinking as they engaged with different bodies of theory and research as well as in dialogue with others.

As Maxwell (2009) and Dressman (2008) point out, however, the relationship of research to theory is not unidirectional. Just as theory shapes our work (and our thinking about doing the work), what we learn through research leads us to revisit and reconsider established theory. As researchers, our job is not only to draw on theory but also to engage with and critique it. It is significant, then, that Spencer's research not only builds on theories of identity but also critiques their lack of reference to social context and power, and that her findings about links between risk exposure and attitudes led her to significantly revise her own theoretical framework. In the case of Erickson, it is important that looking at his data through a neo-Vygotskian lens led him to interrogate what he viewed as the interactional naïveté of existing theories. For Duckworth, realizing that grit and ability were not in fact related represented the crystallization of a decade of work.

In Chapter 2, we highlighted the question of when and how to enter "the conversation already happening" as represented by academic literature. The six examples presented in this book suggest that the answer may be far from simple. On the one hand, you make an initial foray into the conversation when you justify the study. This constitutes a first full articulation of your conceptual framework. But to continue the metaphor, you should not simply enter the conversation and then withdraw. Rather, it is vital to remain fully engaged, interjecting your voice where you see it as needed or appropriate. Further, what you choose to add to the conversation may be quite different at the end of your study than it was at the beginning. It is important to engage in this process as a critical, active interlocutor rather than a passive, disengaged consumer of others' work. Working to develop and articulate your conceptual framework can be thought of as a way to engage in meaningful dialogue with other thinkers; it can and should be a structure that encourages and supports critical, integrative sense making that is connected to the work of others. What follows are examples of specific approaches to engaging in this multilayered process.

Strategies and Exercises for Developing Conceptual Frameworks

Reflexive engagement requires that you create structures in which you can, from the outset of the research development process and incrementally over time, examine your own assumptions and motivations for studying a particular topic in a specific context, to ask broader questions about where the field is in terms of what you think of as "the conversations already happening," and to examine the relationships of research questions and methodological approach. In the discussion that follows, we offer strategies to assist in cultivating and sustaining a reflexively engaged approach throughout the research process, including the development of prompted research exercises, concept maps, research memos, and maintaining a research journal. The ideas below are intended to sketch out possibilities for structured thought experiments; they are not meant to be exhaustive or prescriptive. We strongly encourage you to engage in these exercises individually as well as in dialogue and collaboration with others who will engage thoughtfully and critically with you as you design and carry out your research, pushing you to examine parts of yourself and your research that you might otherwise take for granted or leave unexamined. As the examples from the previous chapters show, dialogue and exchange are essential to the trustworthiness of your empirical work, and we strongly encourage an approach to research that is dialogical and relational as well as internally engaged. The two go hand in hand as means of conducting the most rigorous, credible research possible. Conceptualizing and carefully documenting these processes is an important part of your methodological approach.

It is important to engage wholeheartedly in asking questions—sometimes sequentially and sometimes iteratively—about what is of value to you as a researcher and why it is valuable, useful, and important. What follows are broad areas for examination and reflection, with sets of possible questions to explore in each realm (though we would argue that these areas bleed into each other and should not necessarily be compartmentalized). Ideally, you would return to specific questions at various stages throughout the research process.

Identifying Your Interests, Beliefs, and Motivations for Doing Research

The following are questions that we encourage you to explore in order to engage in a process of self-examination at the outset of your research and then iteratively throughout the research process. These questions can be addressed in memos, through dialogue with thought partners and in inquiry groups, and in research journals or other ways of documenting your thinking as it emerges in real time and over the span of your study.

- What is interesting to me and why?

- What personal and professional motivations do I have for engaging in this research? How might these motivations influence how I think about and approach the topic?
- What are my beliefs about the people, places, and ideas involved in and related to my study? Where do these beliefs come from? What assumptions underlie these beliefs?
- What orientations to the topic, setting, and concepts do I have? Where do these ideas come from?
- What is my sense of the relationship between the macro and micro sociopolitical circumstances in which people make meaning and choices in their lives? With respect to the participants in my study specifically?
- What is my "agenda" for taking up this topic in this setting at this time? (Having an agenda is not necessarily a bad thing. This may be the foundation of your argument!) What influences this agenda? What biases shape this agenda?
- How might my guiding agenda contribute, both positively and negatively, to my research design? Implementation? Analysis? Findings?
- What hunches do I have about what I might find and discover? What informs these hunches?
- What concerns, hopes, and expectations do I have for this research?

Examination of the "Conversations Already Happening"

The following questions relate to how your proposed research fits into the landscape of what is already known about that topic, phenomenon, or population. As with the section above, these questions can be addressed through the writing of memos, through engaging in dialogue with thought partners and in inquiry groups, and in a research journal or other ways of documenting your thinking as it emerges throughout your study.

- What are the major conversations in the field or fields that form the context for my research topic and questions?
- What are some of the major arguments and positions in these fields?
- What do I think about the various strands of these conversations?
- What is the next critical set of questions to ask within these fields?
- Is the next set of questions about theory testing? Is it to contribute to a field or fields by studying something already researched with new methods or in a new setting?
- Which fields and disciplines intersect in ways that contextualize and frame my research questions or topic?
- What are the major tensions and disagreements within and across these fields? What is my critique of these various overlaps, tensions, and disagreements?
- What do I hope to contribute to these conversations?
- What are my concerns about my possible contributions to existing research?
- How do I intend to include these various conversations in my examination of the existing literature?
- What are my thoughts and concerns about how these fields have constructed the issues at hand?
- Are there voices or points of view left out of or marginalized within these conversations? If so, who is left out and why might that be the case? And how might that influence my own construction of this topic or my research questions?
- How do I conceptualize and position my research in relation to the conversations already happening? And why am I making these choices?
- Looking within and across fields and disciplines, what are some of the differences in how these topics and questions are framed? How do I relate that to my own thinking?
- What methodological approaches do various researchers in these fields use in their research? Why? How do these approaches relate to my own methodological choices?
- What are the methodological strengths or weaknesses of the work that has already been done? How have methodological trends influenced what is known about this topic?

- Which parts of the conversation are grounded in solid empirical evidence, and which have a thinner evidence base?

Ongoing Questions and Concerns About the Research

The following questions can be asked throughout the process of engaging in research fieldwork. In essence, these are ways of "checking in" with aspects of your conceptual framework throughout the process of data collection and analysis. These questions can be addressed in multiple ways as the research progresses, in memos, through dialogue with thought partners and in inquiry groups, and in research journals or other ways of documenting your thinking over time.

These types of questions, if asked in ongoing and systematic ways, help lead us as researchers to critically reflect on and gain insight into the motivations for and the findings of our empirical work. This reflexive process is in part about engaging in ongoing reflection and in part about challenging oneself to stay tuned into the research on multiple levels as it develops. Again, we urge researchers not only to engage in this kind of structured, prompted reflection in writing (since writing engenders a focused commitment to examination and critical inquiry), but also to engage in dialogue with colleagues and peers who will challenge us to examine these issues in layered, complex, constructively critical ways (Leshem, 2007; Ravitch & Carl, 2016). Complicating our research in these ways is essential to its reliability and constructive development. What follows are some written structures and processes that can assist researchers in engaging in focused, critical, systematic sense making in relation to their empirical research.

- What do I tend to gravitate to in my observations and interpretations, and why? What can I learn from this about my approach to research? About my own subjectivity?
- To what extent are these proclivities informed by my conceptual framework? To what extent do they help me cultivate a better sense of influences on my thinking, both broadly and specifically in the field? Do they constrain my thinking and, if so, how?
- What emerging hypotheses or hunches do I notice? How might I theorize these in relation to the literature? In relation to my data?
- Is my conceptual framework limiting or shading my view of my setting, participants, or data? (Again, this is not necessarily a bad thing, but it is important to be aware of.) If so, in what ways?
- What am I learning through data collection, and am I contextualizing and problematizing my learning as I go? In what ways? How might I endeavor to do so more fully?
- What assumptions am I making about local meaning making and knowledge? Am I making sure to understand that local knowledge is not monolithic? What do I actually mean by "local"?
- To what extent might participants' perspectives differ from my own interpretations as a researcher? And what do I do about that?
- What biases might I have in relation to local meaning making and knowledge? How can I best interrogate my assumptions as I move through the research process?
- How does what I am learning from my data inform or push back on elements of my conceptual framework? On existing conceptualizations of the phenomena under study?
- To what extent are the assumptions I made in the design phase about what was important or relevant to my study supported by my data? What blind spots might I have overlooked?

- What alternative interpretations or explanations exist for what I see in the data?
- What other kinds of data might I need to be able to more fully respond to my research questions?
- What issues of validity or trustworthiness are emerging, and how am I engaging with and addressing them?
- How does my identity and positionality—psychological, social, and institutional—influence the research process? How can I get feedback on this throughout my research? And how can I address the aspects of this that need to be attended to?
- What disconfirming evidence can I find that challenges my existing understanding and interpretations of the data?
- What are alternative interpretations of the data? How can I seek those out as a part of the research process?

Concept Maps

Concept maps have been around for decades. There are a number of valuable texts that offer suggestions for concept mapping broadly and the visual representation of conceptual frameworks specifically. These texts have a variety of definitions of conceptual frameworks (as reviewed in Chapter 1) and approach the creation and development of conceptual frameworks and concept mapping from a variety of vantage points. Shared across them is the idea of visually mapping the various components of your conceptual framework as a means to clarifying connections between the various conceptual, contextual, and theoretical influences on a research study. The concept map examples in William Dunworth's research in Chapter 8 show this in action, and help us understand the value, roles, and uses of a conceptual framework throughout the research process. Specifically, they illustrate the overarching categories that frame his study, the specific concepts or ideas that reside within those categories, and the overlap among them. It is also important and interesting to compare the concept map that Dunworth began with and the one that eventually appeared in his writing—in a concise and powerful way, these two pictures tell the story of what he learned about his topic through the process of rethinking his approach to his fieldwork.

Two of the most popular books that provide both novice and experienced researchers with tools for developing conceptual maps (and the broader conceptual frameworks in which they are nested), as mentioned earlier, are Maxwell (2013) and Miles, Huberman, and Saldaña (2014). Maxwell defines concept maps in this way:

> A concept map of a theory is a visual display of that theory—a picture of what the theory says is *going on* with the phenomenon you're studying. These maps do not depict the study itself, nor are they a specific part of either a research design or a proposal. However concept maps *can* be used to visually present the design or operation of a study…. Rather, concept mapping is a *tool* for developing and presenting the conceptual framework for your design. And like a theory, a concept map consists of two things: concepts and the relationships among these. (p. 54, emphasis in original)

Maxwell (2013) asserts that the two main reasons for developing concept maps are (a) "To pull together, and make visible, what your implicit theory is, or to clarify an existing theory. This can allow you to see the implications of the theory, its limitations, and its relevance to your study"; and (b) "to *develop* theory. Like memos, concept maps are a way of 'thinking on paper'; they can help you see unexpected connections, or to identify holes or contradictions in your theory and help you to figure out ways to resolve these" (p. 54). Maxwell argues that concept maps require an iterative development process, and his book offers several structured exercises that can help researchers develop concept maps that are

fitting and useful for their studies.

Miles, Huberman, and Saldaña (2014) suggest that conceptual frameworks can be developed as both graphic representations and narratives, and suggest that concept maps are a critical tool in the development of a conceptual framework. They assert that concept maps are best developed graphically rather than in narrative form because that allows the researcher to visually lay out sets of relationships to explore and make sense of. They argue that mapping concepts is foundational to solid working theories in empirical work:

> Conceptual frameworks are simply the current version of the researcher's map of the territory being investigated. As the explorer's knowledge of the terrain improves, the map becomes correspondingly more differentiated and integrated. Thus, conceptual frameworks are developed at the beginning of a study and evolve as the study progresses. A conceptual framework forces you to be selective—to decide which variables are most important, which relationships are likely to be most meaningful, and, as a consequence, what information should be collected and analyzed—at least at the outset. (p. 20)

While Miles, Huberman, and Saldaña (2014) speak directly to qualitative researchers, we have argued throughout this book that the development of conceptual frameworks is a critical process for researchers using qualitative, quantitative, and mixed methods approaches. Whether your work is qualitative, quantitative, or mixed methods, mapping relevant central concepts visually can help to refine your working understandings of the topics and contexts at play in your research by forcing you to represent relationships visually as well as in narrative form. For example, in Chapter 7, we include an example of a concept map in an excerpt from Spencer's chapter "A Phenomenological Variant of Ecological Systems Theory." This concept map is integrated into the text as a figure (Figure 7.1) and is titled "Model of relationship among female, headship, stressful events, perceived social supports, general positive attitude, and learning attitude" (p. 149). In addition to illustrating hypothesized relationships between various factors, the figure also illustrates the relevant constructs employed in data collection and analysis and implies particular, quantitative analytic approaches focused on the strength of those relationships.

This particular concept map both contributed to Spencer and her colleagues' development of their framing of the sets of relationships constitutive of their overarching analytic argument and, as well, provides readers with a visual mapping of the study's key concepts and their dynamic and, as the authors argue, critical interrelationship. This example of a concept map illustrates how it can represent relationships among foundational concepts that, when considered and mapped out together, comprise the core conceptual framework of an empirical study. Using this example helps us to understand that multiple aspects of a researcher's conceptual framework can be mapped out—and worked through—visually and

that taken together, these constitute the overarching conceptual framework for the study.

We argue less for a strong emphasis on visual concept mapping per se, believing that researchers have preferred styles of framework development. While we agree with Maxwell (2013), Miles, Huberman, and Saldaña (2014), and others that visually mapping conceptual frameworks can be a valuable and clarifying process, we caution students about becoming too focused on the maps at the expense of realizing the value of developing a framework. To the extent that concept maps are generative and focusing, we wholeheartedly support them. When they become an end unto themselves—in other words, when they become viewed as a product rather than a process—we recommend a more narrative approach to concept mapping and conceptual framework development. Ideally, these two approaches go hand in hand. Some of this is determined by how you wrap your mind around the concepts in play (some of us are more visual learners than others) and some of it is shaped by the audiences, both real (such as a dissertation committee) and perceived (such as the audiences you envision for your published work). However you approach the construction of concept maps, they are an important building block of your conceptual framework and of empirical research more widely. Be sure that when they appear in your final works, that they are narrated since others reading them need to understand the connections you are making in the visual form.

Research Memos

Research memos are a long tradition in qualitative research (for discussion and examples of research memos, see Emerson, Fretz, & Shaw, 2011; Maxwell, 2013; Miles, Huberman, and Saldaña, 2014; Ravitch & Carl, 2016; Strauss & Corbin, 1990). Research memos have different purposes and formats, but the common goal is to create conscious moments of structured, systematic reflection during the development and implementation of your research project. For example, Maxwell discusses the Researcher Identity Memo as a way to document and examine your intentions, thoughts, goals, and interests as you enter into your research. This type of reflexive memo can be an early-stage approach to research design that helps you identify and engage with aspects of your relationship to your research, but it can also extend well into the research process as it unfolds over time. It can help you focus on your particular, individual influences and contextualize the research endeavor and your researcher identities in relation to broader spheres of influence such as social location and social identity. More broadly, many researchers discuss the use of memos to develop research questions, explore issues of validity, examine the dynamics and undercurrents of research relationships, engage in proposal development, and support and provide structure to the analytic process. For example, Emerson and colleagues conceive of three primary types of analytic memos: *initial*, *in-process*, and *integrative*. For them, memos are largely focused on the coding of data at the various stages of the analysis process. Memos become a structured place for systematic, structured data analysis at the early, middle, and late stages of coding, theme development, and the emergence of analytical categories and findings. Miles, Huberman, and Saldaña (2014) cogently describe the role of memos in the analytic process:

> An analytic memo is a brief or extended narrative that documents the researcher's reflections and thinking processes about the data. These are not just descriptive summaries of data but attempts to synthesize them into higher level analytic meanings. They are first-draft self-reports, of sorts, about the study's phenomena and serve as the basis for more expanded and final reports. Memos are typically a rapid way of capturing thoughts that occur throughout data collection, data condensation, data display, conclusion drawing, conclusion testing, and final reporting. Later in the study, however, memos can be more elaborate, especially when they piece together several strands of the data or look across multiple measures of a construct. … Analytic memos are primarily conceptual in intent. They don't just report data; they tie together different pieces of data into a recognizable cluster, often to show that those data are instances of a general concept. Analytic memos can also go well beyond codes and their relationships to any aspect of the study—personal, methodological, and substantive. They are one of the most useful and powerful sense-making tools at hand…. (pp. 95–96)

Research memos allow you to choose strategic moments across the research process to delve deeply into specific, substantive issues and layers of analysis in the research. When you examine your research in these kinds of incremental ways throughout the process, the relationships between the various aspects and stages of the research become more visible and valuable. Take for example the following memo written by Michelle Fine concerning her emerging understanding of the guiding concept of hyphenated selves:

> Research Memo: 2/15/07, Musings About Hyphenated Selves
>
> Why use hyphen as the metaphor—does it reflect a space between like Anzaldúa, that connects and separates; that marks fluidity and silos? Does the hyphen serve as an ironic link between two overessentialized identity categories? Might a verb or ellipsis … be better, or a hypertext form in which each slice of self is superimaged over/through/with the others, reflecting more creative fusion? But we need a metaphor that has room for the wide range of social psychological furniture these young people move into the space; the narratives from the young women and men reveal so many wild/contradictory/varied ways to conceptualize how they live the hyphen, what meanings they impute, how they perform in this contentious space between.
>
> In the focus groups, I was just struck by the performance/ choreography of diverse social psychological labors at this hyphen—some dance, protest, shiver, hide, invent something new, place scarf on head while others remove, some don a Catholic cross and others grow more religious.
>
> The hyphen offers a theoretical space that can hold politics, ideologies, institutions, relationships, pain, desire, subjectivities, and the intimacies of lives; the metaphor might do us well, as it holds the ambivalence that we need to excavate—a social psychological landscape where those who wander, or are exiled, can choose how they negotiate the land. And then I found material from Roosevelt and Wilson, suggesting the hyphenated identities have long been contested in U.S. debates about citizenship and where threat lies, and for that reason perhaps most significantly it seems important to queer, or reclaim the term. … Check this out: Former President Theodore Roosevelt in speaking to the largely Irish Catholic Knights of Columbus at Carnegie Hall on Columbus Day 1915, asserted:
>
> There is no room in this country for hyphenated Americanism. When I refer to hyphenated Americans, I do not refer to naturalized Americans. Some of the very best Americans I have ever known were naturalized Americans, Americans born abroad. But a hyphenated American is not an American at all. … The one absolutely certain way of bringing this nation to ruin, of preventing all possibility of its continuing to be a nation at all, would be to permit it to become a tangle of squabbling nationalities, an intricate knot of German-Americans, Irish-Americans, English-Americans, French-

> Americans, Scandinavian-Americans or Italian-Americans, each preserving its separate nationality, each at heart feeling more sympathy with Europeans of that nationality, than with the other citizens of the American Republic. … There is no such thing as a hyphenated American who is a good American. The only man who is a good American is the man who is an American and nothing else.
>
> President Woodrow Wilson regarded "hyphenated Americans" with suspicion, saying, "Any man who carries a hyphen about with him carries a dagger that he is ready to plunge into the vitals of this Republic whenever he gets ready."

As we can see in this example, memos both result from and contribute to the development of your conceptual framework. They help you maintain focus on your own positionality and the dynamic aspects and issues of research, to delve into the substance of your study as well as your design, to examine your data using different analytic tools and taking different analytic slices of your data to analyze at various stages along the way, and to engage in formative data analysis. Memos, as we can see in Fine's case, are an enormously valuable, generative means of engaging in systematic reflection, analysis, and overall meaning making in your research. They also serve to chronicle and preserve your meaning making as it unfolds, in effect creating a narrative of your analysis process. As we suggested earlier, there are many kinds of and approaches to research memos, from descriptive to analytic, memos that focus on researcher identity, the development of conceptual frameworks, ideological issues, methodological concerns, thematic issues like how issues of power and authority or researcher positionality are instantiated in our research design, implementation, and data analysis (for particularly useful discussions and examples of these kinds of memos see Emerson et al., 2011; Maxwell, 2013; Ravitch & Carl, 2016). This is not to say that you will need to develop memos on all of these topics. Which memos prove most fruitful will most likely be a function of your research design and the kinds of questions and puzzles you encounter in your data. In each instance, however, the goal is the same: memos are used to both reflect and build on emerging understandings and conceptual frames as researchers engage in the research process.

Research Journal

The research journal is, from our perspective, a generally underused but important and valuable research tool. It is a place to examine—in an ongoing and oftentimes unstructured and informal way—thoughts, questions, struggles, ideas, and experiences with the process of learning about and engaging in various aspects of research. A research journal provides a space to engage in ongoing critical questioning as it relates to all facets and stages of the research process. Research journals allow you to: (a) develop the good research habit of documenting various aspects of your thinking and your work in real time; (b) create opportunities to develop and reflect on questions, concerns, and ideas about any and all aspects of the research as they emerge; (c) keep and critically engage with valuable references from the literature in relation to the research topic and methods, which you can incorporate into your emerging theories, your analysis, the final product, and future research; (d) reflect on your thoughts, interactions, and practices with respect to your role as a researcher, the setting and participants, and the overall research process; (e) chart your developing interpretations and analysis of the data; and (f) formulate and develop ideas for action or changes in approach as they relate to the research process.

For example, in James Spillane's interview about his research, he told us that in the research project that was the focus of Chapter 4 he used what he referred to as "notes to [him]self" (or what we would call a research journal) to chart the development of his understanding of the role of theory in his developing conceptual framework. In describing his more recent work, in which the research is conducted by a team and technology is more evolved than in years passed, Spillane told us that the handwritten notes of years past have been replaced by newer, technology-based strategies. As he shared,

> In this new study I'm doing, we have a conceptual framework document that's a living document, and it's added to, and we know when it's added to, and we make these decisions and we try and write them down and keep them explicit.

The technology of having a research journal as a public, shared document allows for a more dialogic, generative team approach and makes the insights accessible—and therefore subject to shared inquiry—between and among researchers as the process unfolds.

Similarly, in the interview with Frederick Erickson about his research, he stated that the evolution of his thinking about the conventions and non-neutrality of the transcription process—which significantly influenced the taking up of new directions in his research—emerged through engaging in dialogue with colleagues and in reflective analytic writing over time. From Erickson we can learn an even finer distinction about the role of formalized, written reflection in the generation of data. In his interview, Erickson stated:

> I've been now for some years, as I teach participant observation research … I've been saying that field notes, your stack of field notes aren't data; they're an information source, and you discover data in them by linking pieces of a research question, or an assertion you want to make in, not in question syntax, but in declarative sentence syntax—when you connect an information bit to a research question, then it becomes a datum. While it's just sitting there in the corpus of information materials, it isn't data yet. And so the people who talk about the audiotapes as data—or even field notes as data—I think are actually mistaken.

In this point, we can see the powerful role of a researcher's process of explicating the interpretive process and, even more, the important role of formalizing and chronicling that process of interpretation by writing about it throughout the research process. As Erickson makes clear, analytic meaning making is central to the content and quality of a researcher's data. We argue that this interpretive process must be documented through an organic approach that can capture the complex and often intersecting influences on our thinking as they reside in the nexus of theory, research, and, at times, practice.

As a psychologist using quantitative methods, one might expect Angela Duckworth to be less engaged in this type of interpretive reflection. Yet in our interview, she spoke eloquently about the role and importance of research journals in chronicling her process, and especially in developing theory over a long period of time. She shared,

> If you look at those lab notebooks, I kept all of my lab notebooks for scientific integrity; I want to make sure I'm not cheating anyone. But, in the back of them, I would start making these charts, here's effort, here's motivation, here's volition. I think every year there's new versions, slightly different versions of these overarching theory.

As we understand from these reflections on the role of writing in the interpretive process, research journal entries provide you with an opportunity to engage in less structured but still focused thinking about your research and the literature that forms its context, and, over time, allow you to make deeper connections between the substantive, relational, and contextual issues and realities that emerge throughout the research process. There is not a specific set of rules or guidelines for research journals (unlike memos, which each have a specific set of purposes and goals), but the goal is the real-time, incremental charting of insights and questions as they emerge over time. Some have argued that these entries can be viewed as phenomenological notes that chart your interpretations of the research process, including your own embeddedness in that process (Nakkula & Ravitch, 1998). Others consider them a crucial part of the data collection and analysis process and, in that sense, an essential source of data in empirical studies.

Together, the set of tools we describe here is intended to help you to develop and to get the best possible use out of a conceptual framework. Orienting questions help you to both refine and position your work, while reflective and analytic questions aid in making sense of the research as it unfolds. Concept maps offer a medium for developing and testing ideas about how the main topics or ideas in your research relate to one another. Research memos and journals are tools for diving deeper into specific aspects of your work as it unfolds and for documenting the process itself. Among other things, they help you to chronicle and tell the story of your conceptual framework as it grows and evolves.

Reason and Rigor

As professors and researchers ourselves, we think a great deal about the research process and how to create the conditions necessary for the most rigorous, valid, reliable, respectful, vibrant, authentic, and engaged research possible. We have found in our work that the connective tissue of solid research is the conceptual framework. As guide and ballast, the intentional development of a well-articulated conceptual framework supports your development as a researcher and a scholar. It drives you to articulate your reasons for doing the research you choose to do, and helps you to understand what it means to do that work rigorously. Both are necessary to do exceptional research. Reason without rigor is editorializing; rigor without reason is irrelevant. Ultimately, the usefulness and impact of your research will be determined by what you have to say, how clearly you can say it, the strength of your argument, and the evidence that supports it. The conceptual framework, we argue, is the clearest, most direct way to produce research that rises to these demands.

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