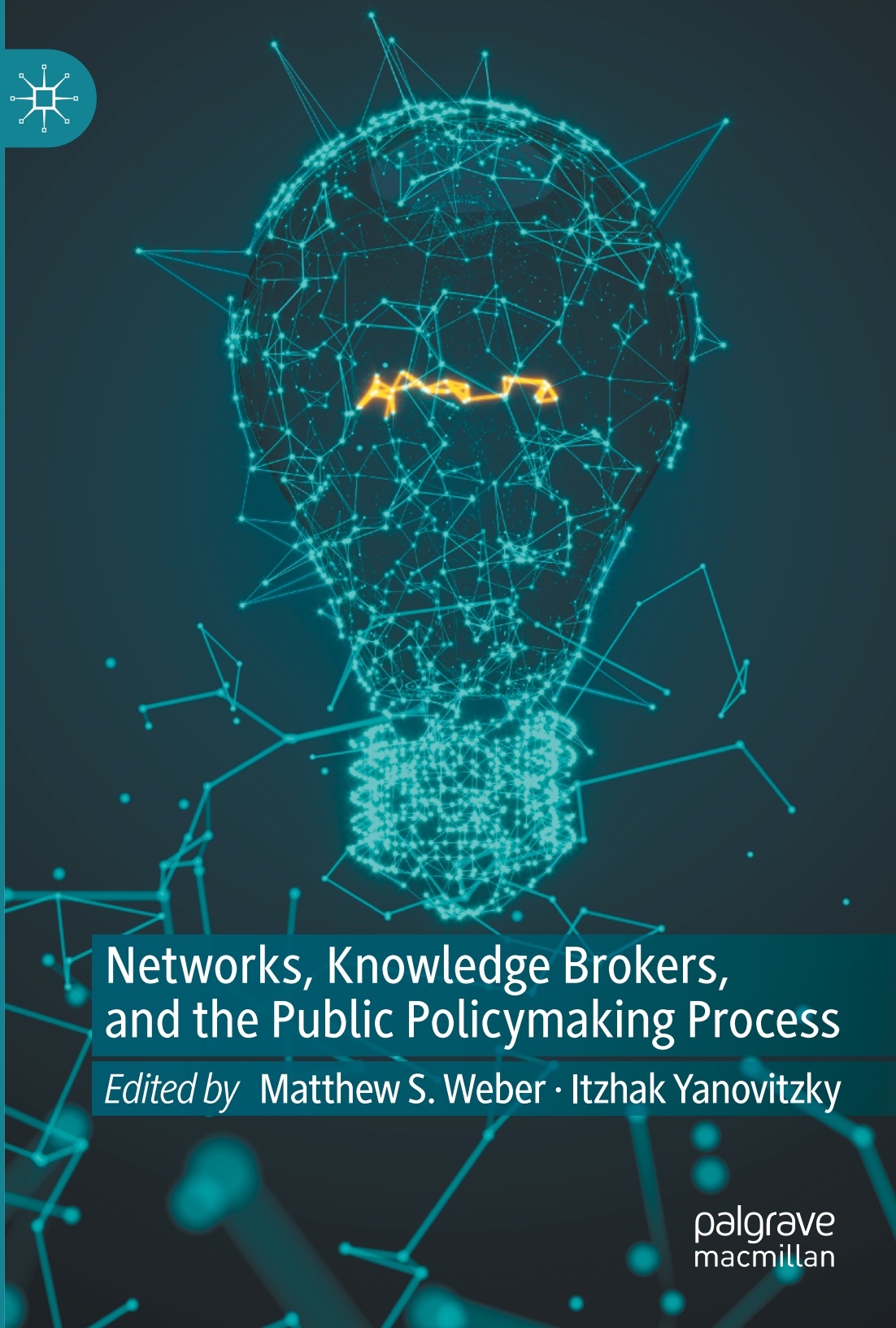

Networks, Knowledge Brokers, and the Public Policymaking Process

Edited by Matthew S. Weber · Itzhak Yanovitzky

palgrave
macmillan

Networks, Knowledge Brokers, and the Public Policymaking Process

"This edited collection provides a major contribution our understanding of the use of research evidence in policy making. Weber and Yanovitzky have curated a fascinating set of accounts of social network analysis as a tool for exploring knowledge brokerage and policymaking. The collection helps us to move forward both in terms of research methods for this important emerging area of scholarship and also in terms of our analysis of knowledge brokerage within complex systems. I shall be keeping a copy on my shelf and look forward to sharing it with my students and colleagues in years to come."

—Annette Boaz, *Professor of Health and Social Care Policy, London School of Hygiene and Tropical Medicine, UK*

"Relationships shape what we know and how we share information, and conversely what knowledge and individuals are isolated and excluded from social systems. Knowledge brokers, Networks, and the Policy Process brings together a collection of essays and empirical studies that add much-needed ideas to our understanding of how brokers of knowledge, individual and organizational networks, and the policy process interact. The range of theoretical and analytic approaches examined will help us better navigate evidence use in power structures, nested structures, and politics varied policy areas. This book is a must read for those who have not yet discovered the critical role knowledge brokers and networks play in the many facets of policymaking."

—Kimberly DuMont, *Vice President, AIR Equity Initiative, American Institutes for Research (AIR)*

"Researchers have for some time considered how knowledge is utilized in policymaking, but less is known about the oil that lubricates the transfer of information in the policymaking machinery. In this illuminating volume, Weber and Yanovitzky assemble leading thinkers to consider the role of knowledge brokers in facilitating movements of information through policy networks around various but related topics—education, immigration, nutrition, healthcare, and the timely issue of misinformation. These outstanding scholars provide us with methodological breakthroughs that shed light on types of knowledge brokering, transactions, preferences, and behaviors of network actors in think tanks, the media, research and policymaking. Networks, Knowledge Brokers, and the Public Policymaking Process advances the field not only on the structural issues of networks and

knowledge brokering on different issues, but even on the nature of knowledge on these issues."

—Christopher Lubienski, *Professor of Education Policy, Indiana University*

"Using social network analysis, this book demystifies how research makes it way into public policy and shines a bright light on the knowledge brokers who make it happen. Network analyses enable us to see the complex web of relationships between researchers, policymakers, advocates, think tanks, journalists, and the public that shapes how research is applied in policy. Spanning health and education policy, the chapter authors describe different types of knowledge brokers, ways to identify them in the policy ecosystem, and how to understand their roles in spreading research ideas in policy circles. They also provide keen insights into strategies for building more robust networks that connect research and policy. This is the authoritative text on how to apply network analysis to improving the use of research evidence in policy."

—Vivian Tseng, *Senior Vice President, Program William T. Grant Foundation*
www.wtgrantfoundation.org

Matthew S. Weber · Itzhak Yanovitzky
Editors

Networks, Knowledge Brokers, and the Public Policymaking Process

palgrave
macmillan

Editors
Matthew S. Weber
School of Communication
and Information
Rutgers, The State University of New
Jersey
New Brunswick, NJ, USA

Itzhak Yanovitzky
School of Communication
and Information
Rutgers, The State University of New
Jersey
New Brunswick, NJ, USA

ISBN 978-3-030-78754-7 ISBN 978-3-030-78755-4 (eBook)
https://doi.org/10.1007/978-3-030-78755-4

Cover illustration: gettyimages/Viaframe

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Foreword: Multimodal, Multidimensional, and Multilevel Social Network Systems

Knowledge Brokers, Networks, and the Policy Process is a collection of largely empirical studies that examines how institutional brokers utilize network strategies to help people in their social systems learn about, obtain, and benefit from receiving resources that are potentially available under public policy. The articles vary widely in terms of the social systems and policy domains they study. And, they vary considerably in terms of the theories they test and the analytic techniques they employ. An interesting first chapter written by the editors sets the context and expectations for the volume and a final chapter, written by the same authors, summarizes the findings, offers helpful critiques, and uses this platform to articulate an agenda for future work. The chapters are well written by highly competent scholars in related but different fields and provide an excellent representation of scholarship in this complex and diverse area. If you are interested in aspects of knowledge brokerage, networks, and the policy process or how these three phenomena interact, you will find this an excellent volume on the current state of this genre of research. In what follows I review several network developments that expand our collective ability to examine more complex and intricate networks and network properties. In my view, this is one important way in which this corpus of research can take the next big step forward.

Historically, social scientists have studied human attributes, like education, gender, race, and socioeconomic status, to explain how humans behave. An important departure from this tradition occurred in the

middle of the twentieth century when scholars began to focus on relationships, the network of connections that people build, maintain, and dissolve with others in their social worlds. Over the years scholars have championed one approach or the other. But, it is not difficult to see that both approaches have merit and can contribute to our understanding of human behavior. In fact, it is easy to make the case that both approaches should be used, and where possible, used together. Over the last two decades scholarship has shifted in this direction, using network models that incorporate human attributes or, alternatively, models that study human attributes in the context of social networks. Importantly, most of the chapters in this book focus on both networks and human attributes.

This is a departure from prior traditions and norms as early network scholars studied networks that were restricted to three major network properties. These properties are centered on nodes, relationships (links), and levels. The nodes of a network are the objects that are linked together to create the network. Almost exclusively, early scholars studied unimodal networks that represented only one kind of node, like the networks among students or links that tied together administrators. Current research has moved toward *multimodal networks*, those that contain multiple kinds of objects like people and data bases or brokers and knowledge objects.

Similarly, early studies were limited to studying single relations such as friendship, collaboration, or teamwork relations. These were called unirelational networks. Of course, we know that most complex systems contain multiple kinds of relations that exist among the nodes at the same time. Today, studies are being conducted on several relations simultaneously as *multidimensional* (or multirelational) *networks,* such as office, social, and professional relations.

In the early days of network research scholars were also only able to study networks that occurred on one level at a time, called unilevel networks. However, we know that many networks operate on multiple levels in the empirical world such as educational systems. In this social system students are nested within classes, classes are nested within schools, schools are nested within districts, and districts are nested within statewide educational systems. These are called *multilevel networks*. Today we have the ability to capture and analyze the influence of nesting in real world networks, which improves our ability to explore and understand the complexity of multilevel nested networks.

When taken together, these developments mean that we are no longer limited to studying single object type networks, with only one relation, at

only one level. Rather, we can now theorize, operationalize, and analyze brokers, networks, and the policy process with multiple types of nodes, say people and knowledge objects, multiple types of relations, say brokering relation links and knowledge transfer links, and at multiple levels, like classrooms, schools, and school districts.

Almost all of the studies in this book focus on large scale social issues, what De la Haye et al. call "a whole-of-system" approach. This approach attempts to capture as much of the working apparatus of the entire system as possible. Needless to say, this is a daunting task. Although the details differ from study to study, most of them report trying to capture how different sets of people are tied together with resources of one form or another. One set constitutes the brokers who are affiliated with the societal institutions. The other set is the people who are being served by these institutions, whether education, health, or some other social service. There is a set of links within the people who are identified as brokers and another set of links within the people who are being served, such as students and/or parents. And there is a set of ties between brokers and recipients. This latter set of links provides the mechanism for transferring the resources from the educational or medical or employment institutions to those who are in need of them. The resources take many different forms including knowledge artifacts, financial assistance, social support, etc. Brokers are key people in helping to transfer these resources, and different strategic practices that make things work as smoothly as possible abound.

What does this idealization of the research reported in these chapters show? First, a case can be made that the networks are multimodal, that is, there are more than one type of objects. For example, some people are brokers and some are recipients. But these are not the only possible types of objects. For example, Lawlor et al identify the components of their research as contributor, knowledge objects, and recipients. In this representation, knowledge can be considered another type of network node and formally analyzed as part of the overall network giving researchers an opportunity to see how different knowledge objects are tied to brokers and recipients and influence the outcome of brokering processes. Similarly, Flannigan et al. discuss how brokers facilitate access to research knowledge for educational leaders. Clearly, brokers are one type of node in the network and educational leaders are another nodal type. But research knowledge can also be treated as a nodal type and linked to both brokers and educational leaders to provide the network that ties these all together.

Second, although most of the studies are unirelational in that they examine only one relation in the networks, there are clearly multiple relations that are both possible and likely. For example, it would be informative to create relationship linkages showing the different types of resources transferred from the institutions to recipients.

Third, it is clear that there is at least some level of nesting in the networks studied here, so the real social system is constituted as a multilevel rather than a unilevel network. Although none of the studies incorporated this feature, it is now possible to analyze multilevel network data to capture the influence of different levels on the operation of the network, and this would be a good analytical strategy for future research.

A major part of this book focuses on brokers and their efforts to broker knowledge in the context of policy processes. As is the case in the majority of brokerage studies, the papers in this collection by and large assume that brokerage is a positive thing for the people being brokered, what we might identify as a positivity bias. In many cases, including several of the research projects reported in these chapters, that is a reasonable assumption. But, it is important to remember that not all brokers and not all brokerage engagements are beneficial to the people being brokered. Ron Burt's view of brokers such as those in his studies of bank managers, largely views brokers as exploiters who use the structural holes between others in the network as their opportunity to gain power and material benefit by keeping the holes open and the others disconnected. Another example is the case of the "Cupid Broker," where a broker deliberately links to two or more others in the network not for the benefit of the others but for the benefit of the broker. These cautionary tales point to the importance of assessing who benefits from the brokering, the broker, or the brokered. Of course, brokering need not be a one-sided affair. There may be situations in which brokering that benefits the broker only is a good thing. And there are brokering circumstances in which keeping others disconnected is a good outcome as in those attempting to keep warring parties separate or preventing the flow of contagious viruses between disparate individuals. And there is no reason not to consider the possibility that both broker and brokered may benefit from brokering activities.

A good example of a study that uses all of these multiple features is an article published by Woody Powell and colleagues in the American Journal of Sociology in 2005. It focused on the emergence, evolution, and entrenchment of the biotechnology industry from late 1980 to 2003. Needless to say, this is an extraordinarily large and complex

social system. They studied the networks among five different nodal types: (1) University biology departments and biotechnology centers, (2) Dedicated Biotechnology Firms (Startups) (3) Venture Capital Firms, (4) Pharmaceutical Companies, and (5) Governmental Regulatory Agencies. The four multiple linkages they studied among these five types of nodes were (1) Research and Development, (2) Finance, (3) Commercialization, and (4) Licensing (largely by government agencies). They also examined data over time between the late 1980s and 2003. By studying five different nodal types and four different relations together they were able to provide a much more complex and integrated analysis and understanding of how the biotechnology industry was launched, transformed, and embedded into society than studying this process as separate nodal networks, based on separate sets of relations and separate network levels.

The study of communication and other social networks has grown exponentially during the twenty-first century. Brokerage roles and knowledge brokering processes have become important objects of significant empirical investigation to the role of public policy, as this book amply demonstrates. And policy processes have never been more important in societies around the world than they are during the present era. *Knowledge Brokers, Networks, and the Policy Process* could not have been published at a better time. And, as described above there is considerable room for future scholarship to grow in this area by theorizing, operationalizing, and analyzing multimodal, multidimensional, and multilevel network models of these important aspects of policy processes.

Peter Monge
Emeritus Professor of Communication,
Annenberg School of Communication
Emeritus Professor of Management and Organization
Marshall School of Business
University of Southern California
Los Angeles, CA, USA

Acknowledgements

The editors would like to thank the authors for the enthusiasm, time and energy that went into the chapters in this edited volume. We are particularly grateful for the inspiring conversation that took place at the workshop held at University of Minnesota in September 2019, which helped spark the development of this book. In the process of editing this book we were fortunate to be part of a network of forty one authors, each of whom brought a unique perspective to this work and helped to make this volume complete. Special thanks are due to the University of Minnesota for hosting the workshop and supporting the development of this edited volume. In particular, we acknowledge the support of Dr. Elisia Cohen. In addition to providing additional resources to support the workshop, Dr. Cohen was an active participant in the conversations and helped to push the boundaries of this work. We are also grateful to Dr. Jennifer Watling Neal and Dr. Zachary Neal, both of whom helped with the planning and organization of the workshop, and also contributed to the early conceptualization of this book. Most importantly, we acknowledge the generous support of the William T. Grant Foundation, including Dr. Adam Gamoran, Dr. Vivian Tseng, Dr. Kim DuMont and Dr. Lauren Supplee. The William T. Grant Foundation has encouraged this research and the development of this book since it began during a coffee chat at a conference in 2018.

Contents

List of Contributors

Susanna L. Benko Ball State University, Muncie, IN, USA

Cristina Brinkerhoff School of Social Work, Boston University, Boston, MA, USA

Anita Caduff University of Rochester, Rochester, NY, USA

Laura Carter-Stone Vanderbilt University, Nashville, TN, USA

Alan J. Daly University of California At San Diego, San Diego, CA, USA

Kayla de la Haye Department of Population and Public Health Sciences, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA

Elizabeth N. Farley-Ripple University of Delaware, Newark, DE, USA

Joseph J. Ferrare University of Washington Bothell, Bothell, WA, USA

Kara S. Finnigan University of Rochester, Rochester, NY, USA

Kayo Fujimoto The University of Texas Health Science Center at Houston, Houston, TX, USA

Sarah Galey-Horn University of Edinburgh, Edinburgh, UK

Camden J. Hallmark The University of Texas Health Science Center at Houston, Houston, TX, USA

J. W. Hammond School of Education, University of Michigan, Ann Arbor, MI, USA

Emily M. Hodge Montclair State University, Montclair, NJ, USA

Minh Huynh School of Education, University of Michigan, Ann Arbor, MI, USA

Lorien Jasny University of Exeter, Exeter, UK

Mariah Kornbluh Department of Psychology, University of South Carolina, Columbia, SC, USA

Lisa M. Kuhns The University of Texas Health Science Center at Houston, Houston, TX, USA;
Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, USA

Jacky Kuo The University of Texas Health Science Center at Houston, Houston, TX, USA

Carl Lagoze School of Information, University of Michigan, Ann Arbor, MI, USA

Jennifer A. Lawlor School of Information, University of Michigan, Ann Arbor, MI, USA

Christina C. Leal University of California At San Diego, San Diego, CA, USA

Rebecca L. Mauldin The University of Texas at Arlington, Arlington, TX, USA

Sydney Miller Department of Population and Public Health Sciences, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA

Pamela Moss School of Education, University of Michigan, Ann Arbor, MI, USA

Rosalyn Negrón Anthropology, University of Massachusetts, Boston, MA, USA

Katherine Ognyanova Rutgers University, New Brunswick, NJ, USA

Kathryn Oliver Public Health and Policy, London School of Hygiene and Tropical Medicine, London, UK

Jonathan Purtle Dornsife School of Public Health, Drexel University, Philadelphia, PA, USA

Serena J. Salloum Ball State University, Muncie, IN, USA

John A. Schneider The University of Texas Health Science Center at Houston, Houston, TX, USA;
University of Chicago, Chicago, IL, USA

Eduardo Siqueira School for the Environment, University of Massachusetts, Boston, MA, USA

Connor Smith Houston, TX, USA

Linda Sprague-Martínez School of Social Work, Boston University, Boston, MA, USA

Thomas W. Valente Department of Population and Public Health Sciences, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA

Natascha Del Vecchio University of Chicago, Chicago, IL, USA

Peng Wang The University of Texas Health Science Center at Houston, Houston, TX, USA;
Centre for Transformative Innovation, Swinburne University of Technology, Melbourne, Australia

Matthew S. Weber Rutgers University, New Brunswick, NJ, USA

Itzhak Yanovitzky Rutgers University, New Brunswick, NJ, USA;
Department of Communication, Rutgers University, New Brunswick, NJ, USA

Ji-Young Yun Johns Hopkins University, Baltimore, MD, USA

List of Figures

An Ego-Network Approach to Understanding Educator and School Ties to Research: From Basic Statistics to Profiles of Capacity

A Multi-Level Framework for Understanding Knowledge Sharing in Transnational Immigrant Networks

Promoting Healthy Eating: A Whole-of-System Approach Leveraging Social Network Brokers

Brokerage-Centrality Conjugates for Multi-Level Organizational Field Networks: Toward a Blockchain Implementation to Enhance Coordination of Healthcare Delivery

Platformed Knowledge Brokerage in Education: Power and Possibilities

Network Approaches to Misinformation Evaluation and Correction

List of Tables

Measuring Issue Preferences, Idea Brokerage, and Research-Use in Policy Networks: A Case Study of the Policy Innovators in Education Network

Broken Bridges: The Role of Brokers in Connecting Educational Leaders Around Research Evidence

An Ego-Network Approach to Understanding Educator and School Ties to Research: From Basic Statistics to Profiles of Capacity

A Multi-Level Framework for Understanding Knowledge Sharing in Transnational Immigrant Networks

Brokerage-Centrality Conjugates for Multi-Level Organizational Field Networks: Toward a Blockchain Implementation to Enhance Coordination of Healthcare Delivery

Platformed Knowledge Brokerage in Education: Power and Possibilities

Knowledge Brokers, Networks, and the Policymaking Process

Matthew S. Weber and Itzhak Yanovitzky

The public policy process is a complicated labyrinth of competing actors, interests, and agendas. Policymaking occurs in an ecosystem where policymakers, advocates, think tanks, the public, journalists, and researchers engage and interact in order to craft new policies. From this perspective, interest in knowledge brokerage as a mechanism for impacting the policymaking processes has grown in recent years. Knowledge brokers are key intermediaries who facilitate the exchange of knowledge between individuals or organizations who do not already have direct relationships or established mechanisms for connecting with one another (Lomas, 2000; Ward et al., 2009). In theory, knowledge brokers are positioned to connect actors, including policymakers and practitioners, and can be particularly influential in the context of acquiring, interpreting, and using evidence to support arguments for or against adopting proposed policies or recommended practices.

M. S. Weber (✉) · I. Yanovitzky
Rutgers University, New Brunswick, NJ, USA
e-mail: matthew.weber@rutgers.edu

I. Yanovitzky
e-mail: itzhak@rutgers.edu

M. S. Weber and I. Yanovitzky (eds.), *Networks, Knowledge Brokers, and the Public Policymaking Process*,
https://doi.org/10.1007/978-3-030-78755-4_1

This book is about knowledge brokerage and its potential to impact public policymaking and practice through the lens of social network analysis. In the following chapters, we balance a number of different epistemological perspectives, research domains, and methodological approaches in order to present a holistic perspective of knowledge brokerage. As a focal point, we advocate for a networks perspective in part because of the power of network analysis to unpack both the structural aspects of knowledge and information exchange, as well as the ability of network analysis to capture the social context and social interactions that impact those interactions (Oliver & Faul, 2018). Throughout, we make the case that a networks perspective provides a critical avenue for investigating the conditions and actions that can promote more frequent and informed use of research in policy and practice settings.

Knowledge Brokerage and Use of Research Evidence

Knowledge brokers occupy a critical role in bringing research evidence into a policymaking ecosystem. Research evidence (i.e., empirical findings derived from systematic research methods and analyses) has significant potential to improve both public policy and professional practice. It is rarely the only, or even the most important, form of knowledge considered in these settings, yet it is frequently present and routinely invoked when decisions are made and actions are justified. As such, persistent gaps between what research shows to be effective and the actual policies and practices that are adopted and implemented may be due to *how* research is used in decision-making processes rather than whether research evidence is used at all. The fundamental challenge of improving the use of research evidence (URE) in policy and practice extends beyond the effective translation and transfer of scientific knowledge to promoting an informed URE and facilitating its infusion into decision-making routines. A central conundrum for many policy and practice fields, including the ones represented in this edited volume, is how this may be accomplished.

Our point of departure is the growing interest across academic disciplines in creating robust mechanisms for improving knowledge brokerage and URE in policy and practice. Historically, research on this topic was motivated by the "two communities" metaphor or the notion that scientists and policymakers (but also practitioners) occupy separate communities, with distinct languages, values, and reward system, with little or no

meaningful opportunities to interact with one another (Bogenschneider & Corbett, 2010). Accordingly, considerable investments were made in making relevant research evidence more accessible to policymakers and practitioners as well as in programs and interventions designed to facilitate direct interactions between scientists and policymakers or practitioners. Some of these approaches, such as research-practice partnerships, show significant promise, as current thinking has evolved to recognize that, at least in the policy domain, URE unfolds within a complex web of relationships, settings, and contexts (Tseng, 2012). These complex webs, referred to as policy ecosystems, comprise a space within which actors both inside and outside of government (e.g., policymakers, bureaucrats, advocates and interest groups, think tanks, scientists, journalists, and ordinary citizens) interact in complex and dynamic ways to craft and enact public policies. Consequently, URE in policymaking looks nothing like the orderly, systematic, and calculated process that is often envisioned and/or prescribed in research. One important implication of this is that leveraging existing pathways and mechanisms through which research routinely makes its way into policy decision-making processes may not always lead to an increase in the likelihood that research is utilized.

To more fully appreciate the importance of knowledge brokers to promoting evidence-based policymaking, consider the following example taken from a study that examined URE in the context of the formulation of federal policies to address the epidemic of childhood obesity in the United States (see Yanovitzky & Weber, 2020).. Rates of childhood obesity had already reached an alarming level when the U.S. Surgeon General issued the now famous "Call to Action to Prevent and Decrease Overweight and Obesity" in 2000. In the wake of the Surgeon General's call to action, and following the subsequent push for remedies by a broad coalition of policy actors and interest groups, the period from 2000 to 2014 saw intense legislative efforts in the U.S. Congress which produced policy solutions to the problem, including reforming school nutrition and physical activity guidelines, regulating consumption of sugary snacks and drinks, and mitigating the harmful effects of advertising and marketing of food directly to children (Brescoll et al., 2008).

A document analysis of Congressional legislative activity during this period revealed 224 congressional bills, 190 committee hearings and reports, and 372 records of floor debates focused on the issue of childhood obesity-related policies (Yanovitzky & Weber, 2020). These document texts were coded to extract information about the scope, type,

and timing of research evidence use in the formulation of these policies, including all sources and suppliers of research evidence. Network analysis was employed next to map and analyze nodes (actors) and ties (relationships) that were highly instrumental in introducing and facilitating URE in this context.

For instance, on March 26, 2009, Representative Joe Baca (D-CA) chaired a hearing of the Subcommittee on Department Operations, Oversight Nutrition, and Forestry of the Committee on Agriculture in the House of Representatives. In his prepared opening remarks, and in an effort to quantify the scope and magnitude of the obesity problem, Baca noted, "The problem of obesity plagues all Americans, and I state all Americans, either directly or indirectly. Statistics indicate more than half of our population is considered obese. That, in and of itself—is a shocking number." The statistic included a reference in the prepared and filed remarks, and cited a study published in *Health Affairs* (Thorpe et al., 2004). To date, this particular study, which details the relationship between obesity-related illnesses and rising medical costs, has been cited more than 500 times.

Baca repeated the same statistics twice in his opening remarks, and three other Congressional representatives who were present went on to reference the same statistic and citation in subsequent hearings that year. Thorpe, who had written the original study, had testified before the U.S. Senate Committee on Health, Education, Labor, and Pensions Hearing in 2008, citing the same piece of research (*Prevention and Public Health: The Key to Transforming our Sickcare System*, 2008). William Dietz, Director, Division of Nutrition, Physical Activity, and Obesity National Center for Chronic Disease Prevention and Health Promotion, also testified to the Subcommittees on Health, and Oversight and Investigations of the Committee on Energy and Commerce in the United States House of Representatives in December of 2009, again reiterating the same statistic (*Innovative Childhood Obesity Practices*, 2009). However, a network analysis of legislators connected to this particular piece of research evidence flagged Baca as a knowledge broker, with a critical role regarding drawing other legislators' attention to this particular statistical fact and ensuring its reuse by leveraging his leadership position and connections to other legislators who are active in this policy space.

This specific example illustrates one path by which knowledge brokers are able to routinely influence URE in the policymaking process. Knowledge brokerage is often described as the iterative process of translating,

synthesizing, disseminating, and exchanging research evidence to inform the decisions and actions of practitioners and policymakers (Lomas, 2000; Ward et al., 2009). Knowledge brokers therefore play several crucial knowledge translation and transfer roles, including knowledge management (providing users with research-based insights tailored to their unique settings and needs), liaison (facilitating direct contacts and collaboration between producers and users of research), and building users' capacity to access, evaluate, and implement research-based knowledge (Bornbaum et al., 2015). Beyond knowledge transfer, knowledge brokers also have an important role in building relationships and mobilizing for actions that can improve the likelihood that relevant and credible research evidence is considered and discussed in the course of decision-making processes (Yanovitzky & Weber, 2019). Knowledge brokers can help to promote mutual understanding between diverse stakeholders and key decision-makers (Lomas, 2000), and help users navigate barriers to effective URE (Neal et al., 2015). To do this, knowledge brokers must acquire a diverse set of skills and competencies related to evidence gathering, critical assessment of evidence, and mediation (Meyer, 2010; Ward et al., 2009).

In addition, a complementary view on knowledge brokerage emphasizes the central network position that knowledge brokers occupy regarding the flow and exchange of information within a network of actors. This conception of knowledge brokerage has a rich history in social network theory (Burt, 2001). Through this lens, brokers are viewed as organizations or individuals who bridge structural holes, defined as a gap between two actors with complementary resources or information. Knowledge brokers "use their in-between vantage points to spot old ideas that can be used in new places, new ways and new combinations" (Hargadon & Sutton, 2000). A more recent conception of knowledge brokerage in this tradition recognizes the value of decoupling a brokerage position from brokering activity (Obstfeld et al., 2014). That is, knowledge brokerage can occur in a wide variety of structural contexts, including closed, dense networks, and that opportunities to broker knowledge are not entirely contingent on structural holes; brokers can (and do) broker knowledge between actors who are already connected (Gould & Fernandez, 1989). Further, opportunities to broker knowledge do not automatically imply motivation to broker knowledge. Even when a given structural pattern provides opportunity for some kind of brokerage, the intent and intensity of brokering will vary as a function of brokers'

goals and intentions. Thus, knowledge brokerage is more complex than simply considering an actor's network position. Knowledge brokers may occupy specific network positions, but brokerage roles are actually fluid and change over time as a function of actions taken by brokers and other actors in the network (Fritsch & Kauffeld-Monz, 2008; Gould & Fernandez, 1989; Obstfeld et al., 2014).

Knowledge Brokerage in Policy and Practice Settings

In recent decades, scholars across diverse academic disciplines and fields of practice have turned an eye to knowledge brokerage. Serious efforts to theorize and study knowledge brokerage have emerged in sociology, political science, education, public health, criminal justice, and communication and information sciences, to name a few. A major thrust of this work involves situating knowledge brokerage in the context of dynamic processes, relationships, and routines. In general, policy-focused scholarship seeks to position knowledge brokerage relative to the policy process (agenda-setting, policy formulation, policy implementation, and policy evaluation) and critical points of entry into the process (e.g., policy windows, see Kingdon, 1993). This work stretches across multiple levels of policymaking (local, state, national, and international) and considers a multitude of diverse actors (both inside and outside of government) who are active in the policy ecosystem and their complex relationships in an effort to identify and leverage knowledge brokers.

Extending from this body of work, practice-oriented knowledge brokerage scholarship is research that focuses on a primary concern of successfully building knowledge brokers' capacity, crafting explicit brokerage roles, and infusing knowledge brokerage into existing systems and decision-making routines, particularly those that touch on problems of practice. Practice-oriented work is geared toward the development and testing of knowledge brokering interventions. As a consequence, knowledge brokerage research in the policy domain tends to be relationship-focused whereas practice-oriented knowledge brokerage research places greater emphasis on the role and functions of knowledge brokers.

The complexity of knowledge brokerage as a subject of research is particularly apparent in fields where policy and practice are intertwined. The three we chose to feature here—health, education, and communication—are at the forefront of knowledge brokerage scholarship and