



Research for Theory and Practice

Framing the Challenge

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ORGANIZATION AND MANAGEMENT researchers have for decades emphasized theory development and testing with little concern for impact on practice. Why now the increased voicing of concern for relevance? As we look through the rapidly expanding research literature and listen to the voices that are advocating change, multiple rationales for closing the gap between research and practice are apparent. They include instrumental and pragmatic arguments, values-based positions, and methodological and epistemological arguments. The third rationale is based on the artifactual nature of organizations and the need to understand them in relationship to the purposes that people have for their organizations. Although these rationales are not mutually exclusive, each offers a different window on why and how to seek relevance and make a difference to practice.

In this chapter, we first examine these three rationales for focusing on relevance. We then address their key implication for the conduct of research that contributes to practice, specifically, the need to bridge multiple communities of practice. We suggest that relevance depends not only on the content and focus of the research itself, but also on how academics position their work in the broader landscape of actors who generate and develop knowledge to inform organizational practice. Finally, we raise the questions that researchers need to answer as they build their careers.

Why Relevance?

Instrumental Rationales

Instrumental and pragmatic arguments posit that it is in the self-interest of practitioners and researchers to close the relevance gap, because each will then be better able to accomplish their purposes. For example, evidence-based management—practice that is informed by research-based knowledge—is advocated as leading to greater organizational effectiveness (Rousseau, 2007). Rynes (in press) argues that broad social and economic trends in the environment make it important and advantageous for employers to base their human resources practices on research-based knowledge. As an example, she refers to the legal context that requires organizations to be able to demonstrate the validity of their employment practices. For researchers, there is evidence that closer links to practice provide access to high quality data, and that the amount of researcher time in the field is associated with greater academic citations as well as greater practitioner use of the findings (Rynes, in press).

Society has expectations that professional schools will deliver knowledge that can be used in practice. Funding is increasingly being directed to research involving collaboration with companies and defined in a manner likely to be valuable to practice. Examples include the Advanced Institute of Management initiative (AIM) in the United Kingdom that has funded research expressly designed to be more relevant to policy, competitiveness, and practitioner needs. In the United States, both the National Science Foundation (NSF) and the National Institutes of Health (NIH) have funded university-industry research initiatives with similar purposes. This shaping of research priorities through societal funding mechanisms has been linked to the growing importance of the commercialization of knowledge in today's economy, with a seeming acceptance that knowledge has shifted from a public good to intellectual property and a source of competitive advantage.

This shift in the relationship between science and society also relates to changes in the institutional structures of knowledge generation and application that challenge the privileged position of academic research. The generation of knowledge no longer occurs primarily in universities but rather is happening in a more distributed manner involving many stakeholders (Gibbons et al., 1994). Knowledge is being created in new venues closer to use and application—institutes, temporary consortia, venture companies, and consulting firms, to name a few. Nowotny, Scott, and Gibbons (2003) argue that there is a shift from Mode 1 research—university-based knowledge generation incorporating positivistic epistemologies—to a Mode 2. The latter is

characterized by greater institutional and methodological flexibility, co-production among many stakeholders, and greater linkage of knowledge production to application.

Mode 2 knowledge dynamics have become prevalent in the fields of management and organization, where many alternatives to universities—consulting firms, commercial knowledge bundlers and survey researchers, professional societies and consortia—are now providing knowledge that informs practice. Advances in information and communication technology have motivated and enabled a shift to problem-focused research that is no longer defined through the narrow boundaries of disciplines and professions. Practitioners seek information and knowledge relevant to their problems from these many sources and often through new Web-based media that are often disconnected from academia.

One response by university researchers to the changing landscape of organizational knowledge production and consumption is to focus on making their research findings more accessible. The assumption underlying this response is that the work done by academic researchers yields useful knowledge and that the failure is in communication. Researchers are urged to cull through the staggering archives of research and conduct meta-analyses that distill them into clear findings and principles that can be readily shared with practitioners to guide their decisions (Rousseau & McCarthy, 2007; Rousseau, Manning, & Denyer, 2008). Academics are urged to publish practitioner-oriented articles and books and to contribute to Web-based repositories of knowledge that reach practitioners. They are also counseled to write in a compelling and interesting style that captures the minds (through communication based on logos), hearts (through pathos), and consciences (through ethos) of practitioners (Bartunek, 2007, and Van de Ven, 2007, drawing on Aristotle as translated in 1954). As a foundation, academics are urged to have more contact with practitioners to become more aware of their concerns, gain their trust, and establish a relationship with them, so that they will become more capable of crafting research that is useful.

If spending more time with practitioners in the field, learning to write in a compelling manner, and focusing on what we know is useful to practitioners are the keys to doing research that is relevant to practice, then one has to wonder what is keeping academics from doing these things. Pragmatic considerations alone might be expected to motivate academic researchers to close the gap between their research and organizational practice. Yet many who advocate that both academics and practitioners can better achieve their purposes through better connections with practitioners also point to the structural and institutional barriers to such connections. University promotion criteria do not motivate researchers to spend more time in the field,

conduct research on relevant topics, and ensure that the knowledge they produce is disseminated to both academic and practitioner users. Journals do not favor the publication of research that can have impact on practice.

To address an apparent lack of interest by practitioners in most academic research, some advocate measures that would turn management into a profession that depends on and orients itself to a systematic knowledge base. They argue that establishing a professional certification would stimulate greater practitioner attention to research findings, create a greater understanding of research and the principles of management that stem from it, and lead managers to make evidence-based decisions.

Perhaps the most obvious reason for the persistent distance between academic organizational research and organizational practice may be that many academics do not place a value on doing relevant research. The fact that a number of highly respected academics have had very successful careers pursuing dual-purpose research suggests that there are factors beyond institutional barriers that lead to academics not doing useful research. Indeed, those who advocate doing useful research often have a strong values-based argument for doing so.

Values-Based Rationales

Building on personal values, Denise Rousseau, in her 2005 presidential address at the Academy of Management, talked of her early hopes and then disillusionment that the study of organizations would make organizations more fulfilling places to work and eliminate bad management practices (Rousseau, 2006). She argued that academics should develop an evidence-based management infrastructure and build evidence-based management capabilities in order to connect managers with the knowledge they need to become more effective. In Chapter 16, Commentary, Gary P. Latham has stated that “The narrowing of the scientist-practitioner gap through research that is used by the public warrants attention because we are citizens of this globe first and foremost, and secondarily scientists, practitioners, or scientist-practitioners.” He argues that it is unethical for researchers not to communicate to practitioners knowledge that will help organizations become more effective.

Other aspects of the values challenge concern the choice of topics to be researched. A number of studies demonstrate that even when academia has developed, or thinks it has developed, sound knowledge to guide practice, there is often little connection between this knowledge and the concerns of practice (e.g., Cascio & Aguinis, 2008). Furthermore, it has been pointed out that academia is rarely the source of major organizational innovations (Mol & Birkenshaw, 2009; Pfeffer, 2007). In fact, the advancement of practical knowledge often precedes the generation of associated academic knowledge, putting

academics in the position of playing catch-up and not being able to contribute meaningfully to change (Bartunek, 2007; Lawler et al., 1985). Whether this lack of impact on practice is of concern to academics depends on their values, their beliefs about the mission of professional schools, what they feel researchers owe to society, and their personal aspirations for making a difference in the world.

Some researchers argue that since management and organizational studies are applied sciences and are often carried out in professional schools, contribution to practice is inherent in the very definition of good research. In their view, discussions that assume a researcher has to make a choice between doing rigorous research or practice-relevant research are conceptually flawed. Relevance should be a defining characteristic of rigor in the study of organizations (Starkey, Hatchuel, & Tempest, 2009) and should become one of the standards of excellence in the field (Hambrick, 2007; Mohrman et al., 1999).

One of the strongest values-based statements of concern came from Sumantra Ghoshal (2005), who clearly stated that the purpose of researchers in business schools should be to make the world a better place. He pointed out that values are inherent in all theory and research, and he decried not only prevailing methodologies but also the prevailing economics-centric theoretical base underpinning much organizational research. Framing the field in terms of economic models has in his view contributed to a pessimistic view of organizations and people. It also has created a focus on dysfunctions and control, on a self-fulfilling cycle of management behavior based on these pessimistic views, and on research that does not have the potential to make the world a better place. The recent positive organization studies movement tries to set up an alternative to the focus on the sources of dysfunctionality in organizations by conducting research that focuses on positive human dynamics and outcomes. However, it is unclear that this theoretical and empirical focus is associated with a value on the relevance of the research.

Values-based arguments, if internalized, may lead to important changes among academic researchers, including how they spend their time, how they see their responsibility to ensure that knowledge reaches practitioners, and what their criteria are for good research and for the topics they research. Perhaps there may even be changes in the theoretical underpinnings of the field. Our argument in our 1985 book that organizational researchers should be concerned with their impact on theory and practice reflected deep-seated values about the outcomes that define important and good research. How organizations are designed and operate has a fundamental impact on people and society. These values also reflect a belief that organizations are mutable artifacts that can be shaped by knowledge, not simply studied and understood. This perspective has implications for the means—the methodologies and kinds of theories—that should be used to do research.

Organizations as Artifacts Shaped by Practice

Arguments for bridging the gap between research and practice often rest on ontological and epistemological considerations—conceptions of organizations as artifacts that are shaped by practice and associated implications for how organizational knowledge is created and used. According to this view, valuable knowledge can *only* be created when there is a close connection between research and practice. Organizations are not inanimate objects that exist independent of the intentions and understandings of their members. They and their members cannot be studied as subjects in a way that distances the researcher from the context and its participants.

Organizations are socially created and express the purposes of their creators and those who subsequently design and implement their ongoing changes. Organizational and management researchers are not studying stable entities with stable characteristics and dynamics, but rather continually unfolding social systems whose characteristics and dynamics result from the decisions and activities of their members. Practitioners do not respond to “prescriptions” from academic studies as if they are in some sense “right”—but rather in the context of what they are trying to accomplish, the many factors they are considering in the course of carrying out their practice, and the needs of a particular situation (Chia, 2004; Emirbayer & Mische, 1998; Jarzabkowski, 2005).

Starkey, Hatchuel, and Tempest (2009) also point out that methodologies that assume stability are not appropriate for organizations because management is a relatively new practice area that is pre-paradigmatic and new forms of organization are continually being created. In their view, organizational research should focus on new models of organization, since the world we all live in is being shaped by the way businesses decide to operate. Simon (1969) and others (Avenier, 2010; Mohrman, Mohrman, & Tenkasi, 1997; Romme, 2003; Van Aken, 2005) have argued for synthetic rather than analytic approaches to study artifacts and for methods that yield knowledge that contributes to solutions and designs relevant to organizational problems. An organization design orientation requires research to be situated in the organizational context and to apply interdisciplinary knowledge, and multi-method, multi-level approaches that can capture the complexity of the phenomena and the purposes of the various actors. Because these purposes are often in conflict, organizational research necessarily has an ethical element (see also Scherer 2009; Willmott, 2003). Methodologies must be capable of taking into account the viewpoints, values, and intentionality of the stakeholders.

The adaptive research framework (described more fully in Chapter 6, Rigor and Relevance in Organizational Research) used in the Quality of Worklife

(QWL) research program that was conducted at the University of Michigan in the 1980s (Lawler, Nadler, & Cammann, 1980; Seashore et al., 1983) is an example of an approach that recognized the dynamic and continually changing nature of organizations. It systematically studied organizations that were intentionally changing to become high-involvement systems—work systems designed to yield high performance by providing the workforce with greater knowledge and skills, information, power, and rewards. At the core of these studies was a belief that organizational research should yield knowledge about how organizations can be more effective for their various stakeholders. Interventions to alter the work systems were carefully studied by a team of researchers to test their underlying theories and to determine their effectiveness. The methodology involved tracking changes and their impact, including those that were being introduced through intentional interventions, by longitudinally measuring many aspects of each complex system at multiple levels and using multiple methodologies. This approach aimed at both theory development and practical impact.

The arguments for bridging the gap between research and practice, whether based on pragmatics, values, or epistemology, suggest use of research approaches that differ from the traditional university-centered, discipline-based, positivistic approaches that have constituted the prevailing scientific model. Perhaps the most daunting challenge facing academics who aspire to doing research that impacts organizational practice is that to connect with organizational practitioners and other stakeholders who represent different communities of practice. The next section discusses some of the elements of this challenge.

Bridging Multiple Communities of Practice

Core to almost all discussions of the relationship between academic research and organizational practice is that they are two very distinct knowledge and practice communities. The academic community typically develops and publishes theoretically framed generalizable knowledge based on rigorously peer-reviewed research. Organizational practitioners develop and refine knowledge in the course of solving problems and addressing challenges to accomplish their purposes in a particular setting. Each community develops its own language and frameworks of knowledge, its own methodologies for creating and applying knowledge, and its own standards of relevance and rigor. Indeed, the gap between theory and practice—which might be more accurately described as the gap between academic research practitioners and organizational practitioners—stems in part from the different communication systems, ways of knowing, purposes, and criteria for making decisions in the two communities of practice.

At one extreme, academics claim that these two specialized social systems are necessarily self-referential and that the communication elements of one cannot be integrated into the communication system of the other (Kieser & Leiner, 2009). It is therefore impossible for academics, even if they work closely with practitioners, to develop knowledge that is relevant to organizational practice. Other academics, while recognizing that the two communities have different communication systems, believe that each practice-based communication system represents partial knowledge and is incomplete in addressing complex problems. A pluralism is therefore required to investigate complex problems and yield actionable knowledge (Pettigrew, 2005; Van de Ven & Johnson, 2006).

As is pointed out by Van de Ven and Johnson (2006), most discussion of the relationship of theoretically based academic knowledge to practical knowledge concerns how academic knowledge can contribute to practice. Indeed many advocates of bridging the gap assume that practical knowledge derives from research knowledge, and not the other way around. This perspective seems to ignore the fact that any empirically based theoretical knowledge of organizations stems from studies of the knowledge of organizational practice in action and is inevitably influenced by the current state of practical knowledge.

Many recent discussions of relevance acknowledge that the knowledge loop must go in both directions in order for academic research to have impact (e.g., Bartunek, 2007; Pfeffer, 2007; Weick, 1995). Even those who view the movement of knowledge as following a linear path from rigorous academic knowledge generation to practice often recommend that researchers learn enough about practice to contribute to approaches that help introduce such knowledge into practitioner decision-making. They view this as critical to dissemination and adoption. For academic knowledge to influence organizational practice, it must be appropriated by organizational settings that also have their own legitimate and pragmatically tested knowledge (e.g., Rousseau, 2006).

Organizational practitioners act on the basis of empirically developed, even if not systematically rigorous, local theories. Organizational practices also have developed their own systematic, local-knowledge creation mechanisms, such as variance and root cause analysis, cost-benefit analyses, and other local research activities. Rousseau posits that the ideal would be for organizational practitioners to make decisions based both on what she refers to as “E” (evidence from generalizable organizational research findings) and as “e” (evidence from local analysis). This suggests that researchers generate evidence that can be combined with local knowledge.

The view that generating actionable knowledge about complex phenomena requires combining the knowledge from different knowledge communi-

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ties rather than a linear view that academic research knowledge should inform practice sets a high hurdle for bridging the gap. Awareness and familiarity that allow researchers to better transfer knowledge to practitioners are not sufficient. Phenomena cannot be fully understood from any one knowledge perspective because each is partial—limited by the narrow framework within which it operates.

Academic disciplines and subdisciplines, in particular, become increasingly narrowly focused through time (e.g., March, 2004)—and perhaps more distant from the phenomena they purport to understand—as they are shaped by journals that reflect the particular interests and theoretical focuses of the community that forms around them (Daft & Lewin, 2008). Organizational practitioners operate with context-specific knowledge, much of which is tacit and intuitive, and not easily accessible to academics. Advancing organizational knowledge that impacts practice occurs at the intersection of different practices—an intersection that has to be carefully built by the participants.

In our 1985 book we posited that contributing to the advancement of both practice and theory requires combining the knowledge of multiple academic disciplines and the knowledge of practice. We advocated for the diversity of understanding and exploration that is provided not only by multiple disciplines but also through the use of multiple methods, examining phenomena at multiple levels of analysis, and studying diverse practice settings. Similarly, Van de Ven and Johnson (2006) point out the value of knowledge arbitrage and the value of variation in the theories, methods, and knowledge brought to bear in learning about important problems.

The challenges of communicating and combining knowledge are present not only between academics and organizational practitioners; they are also present among academics from different disciplines who apply different theories and frameworks to the study of organizations. In the hard sciences the same challenges exist. For example, physicists, chemists, and material scientists working together to examine nano-scale phenomena take two years or more to learn enough about each other's frameworks to be able to combine knowledge (Mohrman & Wagner, 2006). Yet all of these scientists operate from a positivistic epistemology and value the rigor of theoretically driven empirical research. When it comes to organizations, throwing into the mix the tacit and experience-based knowledge from organizational practice adds to the difficulty of knowledge combination.

There is evidence that social familiarity and working relationships provide a foundation for the transfer of existing knowledge and the combination of knowledge to create new knowledge (e.g., Brown & Duguid, 1991). Thus those who advocate increased relevancy prescribe that researchers spend time in the field to develop deep and lasting relationships that continually

inform their academic perspectives with the perspectives and knowledge of practice.

Key Questions for Researchers

The first relevance question that organizational researchers must answer is whether they aspire to connect their research to organizational practice. We believe that often this question is not even asked. Young researchers are socialized in PhD programs that do not make this option salient nor encouraged. Some researchers pursue careers in which they believe they are investigating important topics and impacting practices, only to realize eventually that their work has not reached practitioners or is not appreciated by them. Impacting practice demands intentional decisions about one's research practice and the gradual building of the resources and capabilities to do so.

If researchers aspire to impact organizational practice, the key questions they must ask and answer include: How might my research impact organizational practice? What kind of research questions should I ask? How can the knowledge from my research reach and influence practitioners? How should I conduct research if I want it to influence organizational practice? How do I learn to do this kind of research? We briefly visit each of these questions in the following sections and thereby introduce some of the major themes that are further developed in this book.

How Does Research Impact Organizational and Management Practice?

For research to impact practice, it has to provide knowledge useful to practitioners as they try to solve problems at hand and perform effectively in a particular context. They are guided primarily by experience-based knowledge that is heavily shaped by the communities of practice in which they exist. Academics, heavily shaped by their own communities, often conduct research that they believe will solve theoretical problems and lead to high-quality publications. The problems being addressed by practitioners in the organizations they study and write about are often irrelevant to academics.

Even when couching research in terms of results that they assume characterize an organization's purposes—such as performance levels, productivity, and utility—academic researchers may find that their theories and empirical results are not compelling to practitioners. Practitioners respond to an ongoing and equivocal stream of events and make decisions based on a broad set of criteria, including their impact on the organizational social system of which

they are a part (Latham & Whyte, 1994; Rynes, in press). Researchers may design a study to discover how particular variables influence profitability, while practitioners may have to worry about how those variables (and many others) also influence other outcomes, such as the well-being and commitment of employees and the company reputation.

Given the complexity of the world of organizational practice, what can researchers contribute to practice? One possibility is that the work of academics can contribute to evidence-based management (Rousseau, 2006). It can help organizational practitioners make decisions that take into account the *evidence*: the “expanding research base on cause-effect principles underlying human behavior and organizational actions” (Rousseau, 2006, p. 256). Similarly, Locke (2002) advocates the transfer to practice of *principles* that are fundamental truths that have been inductively discovered.

Researchers can make practitioners aware of evidence and principles, but there is no certainty that they will act on them. We know that awareness alone does not always change behavior and that practitioners are looking for actionable knowledge that addresses the problems they experience. Addressing what should be taught to students in the classroom, Rousseau (2006, p. 266) suggests that teaching *solutions* should complement the teaching of cause-effect principles in order to have the best chance of leading to application. Formulating solutions is only possible if academics are versed in the problems that practitioners face. Knowledge gleaned from academic research can be transferred to practice in the form of artifacts—*tools, frameworks, and decision aides* that embody knowledge from research and connect to the ongoing decisions that practitioners make (Hodgkinson & Rousseau, 2009; Rousseau & Boudreau, Chapter 14, *Sticky Findings*, this book).

An opposing argument is that academic research is not suited to generate “facts” or “solutions” for organizational practice. In order to transfer knowledge, academics should provide *ways of framing problems* that stimulate practitioners to think about and approach their tasks and decisions differently (Nicolai & Seidl, 2010; March, 2004). This method of impact may face hurdles beyond a straightforward notion of transfer of knowledge. Organizational practitioners have to find the knowledge compelling enough that they are willing and able to step out of the logic of their own practice, reflect on it, and change it.

Members of practice communities deal with “matters at hand” and may even be unaware of the principles that govern them because the logic of their practice is implicit in their actions (Bourdieu, 1977). Efforts, including those of researchers and of the practitioners themselves, to model that logic are likely to change or distort it. The very process of research necessarily results in new representations of the phenomena in question.

Connecting sufficiently to the logic in practice so that research knowledge can contribute to changing it requires active engagement with the practitioners whose practice is being impacted, and who have to develop their own new representations. This nexus is clearly demonstrated in Chapter 8, *Making a Difference and Contributing Useful Knowledge*, by Michael Beer. He describes his approach to creating academic knowledge while bringing academic frameworks to bear on organizational transformation efforts. Managers in the companies he studies are involved in modeling and developing new representations of their system and new approaches to solving its problems. Indeed, the field of organization development, which was once guided primarily by an external diagnostic process that led to the formulation of solutions based on academic knowledge, has changed to become more of a dialogic process in which academic knowledge is only one of the elements of the development work in the organization (see Chapter 12, *Organization Development Scholar-Practitioners*).

Academic knowledge may achieve the biggest impact when it is relevant to discontinuities that are being experienced by organizations. It is then that they may be most open to new ways of perceiving and acting. The knowledge that is produced can connect to the self-designing activities that occur at such time. Self-designing is a continual process in organizations as members adjust their activities to address the challenges they face. For the most part these adjustments result only in incremental changes within the overall logic of their practice. Periodically more fundamental shifts are required to address the problems and challenges that an organization faces. In Chapter 7, *Can Relevance and Rigor Coexist?*, Prahalad described his research career, where he achieved impact by being very close to the problems that organizations were experiencing and by anticipating the big changes that would require new frameworks and knowledge.

Researchers who aspire to careers that influence practice have to develop a perspective on *how* they intend to do so. As is demonstrated in many of this book's chapters, there are a number of approaches to influencing the frameworks, decisions, and actions of practitioners. Actionable knowledge contributes to the ability of organizational actors to redesign the system of practice or their roles within it to accomplish their purposes (Argyris & Schon, 1989; Mohrman, Gibson, & Mohrman, 2001). To be actionable, academic knowledge has to be combined with knowledge of practice and with other knowledge bases that are relevant to understanding the complex problems faced by organizations. They often involve many interacting subsystems and have dynamics far beyond the focus of any particular theory or principle. Achieving relevance requires researchers to consider how they fit into this big picture.

Asking Research Questions That Can Impact Practice

Recent studies have shown that the topics researchers choose to study and the questions they ask are often not well aligned with practitioner concerns. Lack of impact on practice may result as much from what topics are studied as from the failure to make research-based knowledge available, salient, and compelling to practitioners. Research shows that Academy of Management members often miss the opportunity to bridge the gap between research and practice because of the topics that they research (Shapiro, Kirkman, & Courtney, 2007, p. 249).

Most research articles build on the knowledge of previous articles and often simply extend investigations in ways that may more fully develop a theory but do not broaden the understanding of organizations and how they operate. Journal editors' preoccupation with theory, in the eyes of some, precludes the publishing of descriptive work that might form the basis for extending organizational understanding into important new areas (Hambrick, 2007). Current discipline-based positivistic methodologies often constrain the questions that are investigated and limit the value of research. Starbuck (2006), for example, argues that the assumptions of stability and the pursuit of generalizable findings that underpin variance-based research designs lead to the study of uninteresting and commonplace phenomena, and often lead to erroneous findings. He argues that these methodologies are not suitable for understanding the dynamic and complex world of organizations. In his view, researchers should spend more time on predictive research and on research based on intentional change interventions rather than on the naturally occurring flow of events. Starbuck's argument is reminiscent of Lewin's (1948) observation that the best way to understand a social system is to try to change it. Both Starbuck (2006) and McKelvey (2006) argue that current methodologies are generally geared to answering questions about "average" relationships—and that this does not produce information useful to organizations, none of which want to be average. They each propose that we should spend more time studying exceptional organizations to find out what enables them to excel.

Van de Ven (2007) stresses the value of involving practitioners in the selection of research questions. If researchers want the knowledge they create to be relevant to organizational practice, the questions they ask should be formulated in connection to real problems that are being experienced in practice. He focuses especially on "big problems" and argues that today's complex problems cannot be addressed by narrow disciplines. As a consequence, he argues for including perspectives from practice and different academic disciplines in the problem definition phase and in the formulation of research questions.

Contributions to practice might be more likely if researchers think of the impact they would like to have with a program of research rather than focusing on a single study (Mohrman et al., 2007; Van de Ven, 2007). Through a series of related studies, researchers can collaborate with a variety of organizations and researchers from other disciplines, apply multiple theories, and home in on the best understanding of the complex problems and phenomena in question. The QWL studies in Michigan operated in this manner, drawing on the knowledge of dynamic teams of interventionists and researchers who were conducting related studies in multiple organizations, each of which wanted to put in place more effective work systems. These studies brought to bear current academic knowledge from several fields and looked at each organizational context in detail using multiple methods of data collection and different levels of analysis. The research team, working with the interventionists, managers, and union representatives, incorporated learning from each organization in the questions it asked as it proceeded to the next. Together they generated and tested a remarkably robust framework for designing high-involvement work systems that has been used by many organizations over the years (Seashore et al., 1983).

The chapters in this book by Edmondson (Chapter 2, Crossing Boundaries to Investigate Problems in the Field), Mohrman and Mohrman (Chapter 3, Collaborative Organization Design Research at the Center for Effective Organizations), and Gratton (Chapter 4, A Ten-Year Journey of Cooperation) offer examples of research programs that proceed through phases. The studies in each phase yield knowledge but also make the researchers aware of other questions that have to be answered in order to develop a fuller understanding and ability to address important organizational problems.

Pathways to Practice

Asking questions that are relevant to organizational problems does not ensure impact on practice. Research knowledge still has to be made accessible through pathways that lead to awareness, interpretation, and assimilation by practitioners. For knowledge to be used, it must be interpreted and contextualized by the various actors in a network of practice. Change in organizations rarely occurs as the result of the activities of a single person or team. In most cases, it occurs through complex networks of people, knowledge flow, and activities that are internal and external to the organization (Mohrman, Tenkasi, & Mohrman, 2003). Thus, in order to impact practice, academics must find their place in a broad network of influence.

Academic research may have a direct impact on practice in those organizations that participate in a study. These organizations typically receive feedback. In the process, they may engage in dialogue to interpret the find-

ings and may learn by designing new approaches to take advantage of the knowledge from the study (Mohrman, Gibson, & Mohrman, 2001). This stage in the process might be considered the first test of whether knowledge is actionable. But a broader impact on practice occurs only when knowledge pathways that make the knowledge more widely accessible are built. One can conceptualize the pathways to practice as an expanded linear flow of knowledge to practice or as movement and exchange of knowledge among stakeholders in a complex multidirectional network. These are briefly described in the following:

An expanded linear value stream for organizational knowledge. Figure 1.1 depicts the linear knowledge stream that implicitly underlies many discussions of bridging the gap between academic research and practice. The assumption is that knowledge emanates from the different disciplines of academia. This depiction departs from the assumptions of many organizational researchers in that organizational and management research is regarded as practice and application oriented and as building on basic research knowledge from different social science disciplines. This view fits with Simon's (1969) notion that the organizational research that occurs in professional schools should aim at utilizing the abstract knowledge of basic discipline research to inform designing and managing organizations. It is also consistent with the notion from medical schools of differentiating between basic and clinical researchers. A similar differentiation was suggested for business schools by Jim O'Toole and Warren Bennis (Bennis & O'Toole, 2005; O'Toole, 2009; also described in James O'Toole, Chapter 20, *On the Verge of Extinction*, this book). They decry the fact that the extreme discipline orientation of business schools results in research that does not reflect the systemic character of organizations. Differentiating between those doing basic discipline research and those doing research aimed at practice is controversial. This assumption is not necessary to the core notion introduced in Figure 1.1 that there is an increasingly diverse value stream between upstream academic research and organizations.

It should be pointed out that researchers interested in organizations can position themselves at any of the stages of this value stream and at more than one position. Researchers should consider how close to practice they want to be—and this should be congruent with the amount of influence they want to have on practice.

Most commentators on the gap between academia and organizational practice agree that practitioners are not likely to read academic journal articles. These articles are the primary way that academic communities of practice formalize and share their knowledge, but they are not a pathway to influence practice. To be useful, academic knowledge must be embodied in

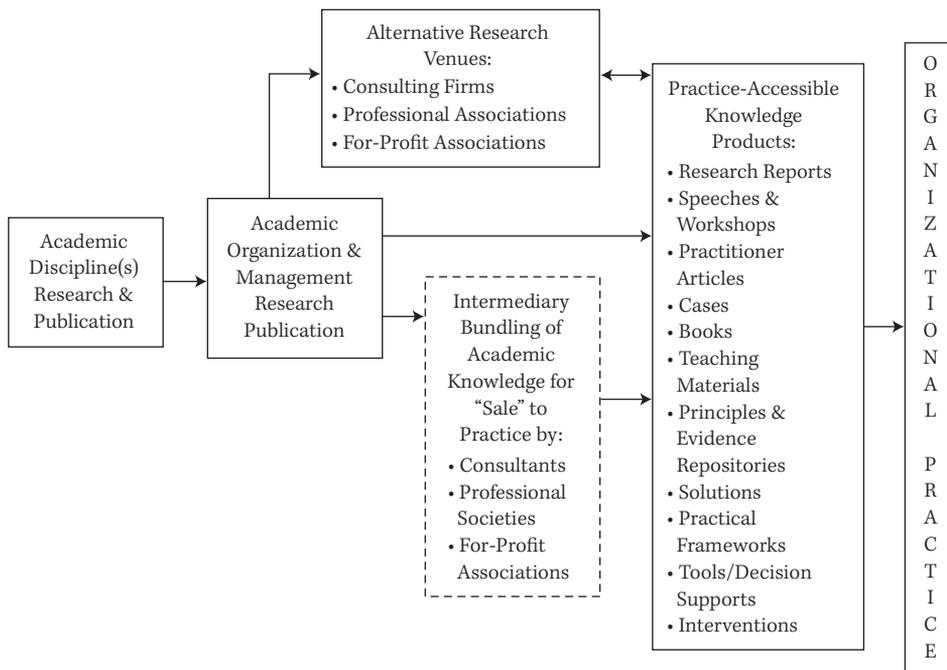


FIGURE 1.1 Linear View of the Knowledge Chain

practice-accessible forms. Some of the forms listed on Figure 1.1, such as the dissemination of research reports and the creation of teaching materials and cases, are consistent with the traditional role of academics, although the extent to which the viewpoints and knowledge of organizational practice are taken into account in preparing these varies greatly. Ironically, teaching materials and cases often do not even focus on research-based knowledge (Rousseau, 2006).

Most researchers do not package their knowledge in forms that are practice accessible. They do not create tools and solutions, planned interventions in organizations, or practitioner-oriented articles, workshops, and speeches. Practice-accessible packaging of research knowledge does not take place in part because these activities are time consuming and difficult, require awareness well beyond the confines of theory and empirical research, and are not rewarded by many universities.

We should not underestimate the extent to which the activities involved in making research knowledge practice-accessible require a transformation of the knowledge. As an example, Bartunek (2007) has noted that academics study how change occurs, whereas practitioners are interested in how they can change an organization. For knowledge gathered to answer the academic

question to be useful to practice, it has to be reframed in terms of what practitioners can do that promotes desired change.

In a 1998 presentation at the Academy of Management meeting, Kathleen Eisenhart, an academic that has influenced both theory and practice, described the differences in how she cast the results from her study of decision making in high-velocity environments for an academic article in *Administrative Science Quarterly* and for a practitioner article in the *Harvard Business Review*. In the former, she aggregated her cases to test and advance theory through the use of rigorous research methods. In the latter, she described particular cases and practices and presented action recommendations.

Transforming academic knowledge so that it is accessible to practitioners is time consuming. It requires substantial contact with the organizational practice community in order to gain insight into the way knowledge is created in practice and how practitioners respond to and incorporate academic knowledge. Academics may choose not to get engaged in these activities and hope that their knowledge will be transformed and disseminated by others in a way that can impact practice. In some rare instances, this transformation does occur. The middle box in Figure 1.1 shows intermediate “bundling” of knowledge by consultants, professional societies, and for-profit membership organizations. These translators are presumably knowledgeable about the world of practice and may be knowledgeable enough about the results of academic research to turn them into practice-accessible products and services.

Both the direct pathway from academic research to practice-accessible knowledge and the indirect pathway through translators require that the academic knowledge has the potential to be described in a way that is perceived as relevant and useful to organizational practitioners who are trying to improve practice. One piece of evidence that academic research may not be perceived that way is that increasingly practitioners are going to other sources for external knowledge. Consistent with the notion of Mode 2 knowledge production, alternatives for knowledge creation are springing up. Often they are much closer to practice, investigate problems of high interest and import and rapidly provide knowledge that practitioners feel is actionable. Groups that started as intermediaries between academic knowledge and practice—consulting firms, professional societies, and for-profit organizations—are increasingly positioning themselves as conducting research and providing research services. Generally their research would not be viewed by academics as rigorous and theoretically driven, but it is viewed by many practitioners as accessible and actionable.

In some cases, consulting firms team with academics to do dual-purpose research. The consulting firms support rigorous research that will be published by the academics in research journals while intending to turn the

knowledge into intellectual property and consulting products. Consortia of companies are also partnering with academics to investigate problem areas in which they share an interest. Wayne Cascio, in Chapter 13, Professional Associations, describes several practitioner and practitioner/academic professional societies that play active roles in shaping and supporting research projects with input and participation from both groups. They also are spearheading the creation of practitioner-friendly articles and tools embodying academic knowledge. Even when partnering with these downstream stakeholders, academics must be sufficiently knowledgeable about organizational practice to generate knowledge in areas relevant to organizational problems—and to know how the knowledge they generate relates to other participants' knowledge.

The complex multidirectional network of knowledge creation. As consortia, consulting firms, professional associations, organizations, and knowledge services groups become involved in doing research and applying research knowledge, the knowledge value stream is best conceptualized as a network of diverse knowledge-related activities with knowledge exchange occurring in all directions. Figure 1.2 provides a less linear (and more idealized) view of a network of connections between academic research and practice. It shows the knowledge of different stakeholders being combined during multistakeholder problem-oriented research and along the value stream to yield and disseminate knowledge. This combinatorial knowledge network fits with the notions of engaged scholarship and adaptive research, and with the characterization of organizational and management research as design sciences. The knowledge of organizational practice is incorporated into the organization and management research process, which is now framed as a combinatorial process focused on problems of mutual interest to academia and practice.

Ideally this network of organizational knowledge results in research that identifies problems, asks questions, uses credible methodologies and yields knowledge relevant to understanding an issue from the viewpoint of organizational practice. As research programs unfold over time, the knowledge of each community of practice increases and altered practice and academic knowledge inform the ongoing investigation of the problem area. Theories are enriched and advanced because they more aptly connect to the evolving nature of practice in complex, dynamic organizations. Even the nature of the problems changes as practice is informed by the knowledge that is developed and as new solutions and designs are put into place. A research program may lead to new designs that incorporate the knowledge from multiple practices and that enrich each practice's knowledge base in an iterative manner.

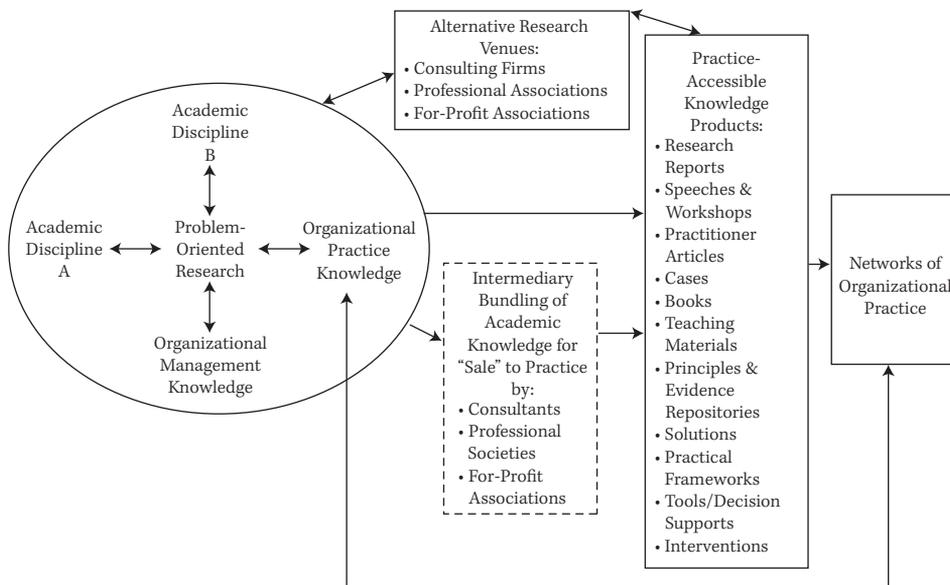


FIGURE 1.2 The Knowledge Network

Broad dissemination is a challenge even within this network view. Many organizations do not actively participate in research programs and do not have the opportunity to learn experientially from them. Practice-accessible knowledge products and services that can reach a more general organizational audience are still required. Figure 1.2 depicts the diverse pathways and actors that reflect today’s world of organizational knowledge production and dissemination. It includes alternative research venues such as consulting firms that do research and create knowledge close to practice. These Mode 2 knowledge producers may well continue to hone their research skills and build an increased capacity to provide knowledge that is valid in the context of practice.

Academics interested in having an impact on practice might consider establishing partnerships and involving consultants and other professional service providers in the multistakeholder problem-oriented research process. Engaging with these intermediaries can bring important knowledge to the research process because their business practices often involve close connections to organizational practice and deep expertise in bringing external knowledge to organizations and creating accessible knowledge products.

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Methodologies for Connecting Research to Practice

It is beyond the scope of this chapter to deal in depth with methodologies for carrying out research in a manner that involves connection to practice and for operating further along the value stream to create knowledge products that enable organizational practitioners to transform that knowledge into applications. We will briefly mention some recurring themes from the literature, in order to give the reader a sense of what might be required.

Participation and Collaboration. A great deal of the literature about bridging the gap calls for academic researchers to develop deeper relationships with practitioners and for active practitioner involvement in research. Van de Ven (does an excellent and insightful job of describing four approaches to engaged scholarship, which he defines as participative research “for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors and practitioners) in studying complex problems” (2007, p. 9). The four approaches are (1) basic research that is informed by knowledge from other stakeholders; (2) collaborative research (also called co-production in other current discussions of research and practice); (3) design/evaluation research that entails eliciting and studying new designs and practices; and (4) action/intervention research that is concerned applying and generating knowledge in the process of solving the problem of a particular client. There is a literature about each of these approaches. Van de Ven delves into the various methodological approaches for conducting engaged research, including engaged approaches to formulate problems, develop theory, design studies, and communicate research results.

Knowledge Combination. The importance of combining knowledge effectively in the course of a research project is a second major theme. Van de Ven refers to the process of knowledge arbitrage—benefiting from the differences in perspective and knowledge of different participants — when trying to understand a complex problem. Combining theoretical knowledge from different disciplines with knowledge from practice is required to guide research and yield research findings that apply to complex, dynamic, artifactual phenomena such as organizations. Knowledge combination requires familiarity with each other’s knowledge and building conceptual bridges such as prototypes or other boundary objects to link the knowledge bases.

Studying Problems in Context. The need to bring context into organizational research is a common theme. Whereas academics tend to ignore or to control for contextual information that is viewed as irrelevant to the theory and variables of interest, practitioners have to understand and reinterpret

abstract knowledge in context in order to act. Organizational members look for contextual similarity in determining whether knowledge from research can be applied in their setting. Rich case descriptions, for example, may provide the detail needed by organizational practitioners to evaluate whether and how otherwise abstract academic knowledge may be applied to their situation.

More Prediction, Less Retrospection. Because organizations are shaped by members' actions and decisions taken to achieve their desired outcomes, research may be most useful if it points to new ways of organizing that can change the dynamics of the organization and its outcomes. Researchers often employ cross-sectional methodologies to find out what patterns of relationships currently exist, rather than what would happen if the organization changed the way it operated. The best understanding and most rigorous test of theory often comes from changing the organization while predicting and then studying the impact of the change, and organizations are most likely to be open to new frameworks and practices during times when they are faced with transitions. New organizing approaches and designs may result, along with the contextual understanding of when they are appropriate.

Implications and The Flow of This Book

Those concerned with bridging the gap between academic research and practice differ in the extent to which they feel that to do so will require fundamental change. Some believe it can be done within the prevailing positivistic paradigm, whereas others argue for a fundamentally different way of doing research. The former advocate greater researcher awareness of the interests and needs of organizational practitioners and more effective communication of research findings to practitioners. They also advocate the professionalization of management so that managers will pay attention to research-based evidence. At the other end of the continuum are those who advocate a more constructivist way of doing research—one that brings practitioners into the research process more fully, combines the knowledge of both communities in pursuing new knowledge, and solves problems and discovers new ways of organizing.

Both these views call for new research skills, spending time differently, and conducting research differently. In either case, a key question remains: How do researchers who have been trained by faculty who are unconcerned with bridging the gap and who are in institutions that do not reward or value doing so learn to carry out more connected research? How will they come to feel that this is a legitimate route to take?

Some claim that connected research must happen in institutional settings that exist expressly for this purpose and where there are role models, mentors, and rewards for creating knowledge that is useful and used in practice. Others argue that universities should change their performance criteria and explicitly place value on doing research that is useful. Another suggestion is for researchers' careers and research programs to be "full-cycle" (Chatman, 2005)—to alternate between observation-based and manipulation-based research thus bridging the gap by going back and forth across it (Tranfield & Starkey, 1998).

This book has been crafted by the editors and authors as a resource to academics aspiring to do dual-purpose research. The chapters in Part II, Bodies of Work That Have Influenced Theory and Practice, and Part III, Pathways, provide examples of research programs and research careers that are characterized by dual purpose research. These concrete examples provide a sense for the different strategies that a researcher can adopt to have a research career that impacts practice. Part IV (Barriers and Enablers) illuminates a number of possible pathways through which academic knowledge can connect to practice and provides scholars with a sense of how they might use these various pathways. The chapters in Part V, Putting It All Together, describe some of the institutional factors that provide a context for choices about crafting research. They also provide overview frameworks that should be useful to young scholars as they consider how to position themselves with respect to organizational and management knowledge creation.

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