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ESSAYS

On the Relationship Between Research and Practice

Debate and Reflections

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This article offers a lively and spirited debate on the pros and cons of relating research to practice. The authors' goal is to illuminate fundamental issues in the debate in detail, consider a variety of prescriptions, and then come to a mindful conclusion about a course of action. The article begins with a point–counterpoint debate to make sure that scholars fully understand the issues in play. Mike Tushman starts off by arguing for an emic approach. He believes that scholars are most effective when they closely work with management and organizations. John Kimberly counters with an etic perspective. He argues that scholars need to keep their distance. Two attempts to make sense of the many issues raised in the debate close the article. First, Bill Starbuck steps back and offers his ideas about what the debate means for continuing scholarship. And then Sue Ashford brings the exchange to a conclusion. She draws on her many years in the dean's office to offer her wisdom about how to best organize business schools in the coming years. In the end, the authors know that there will be nearly as many errors as trials when the world's business schools determine how best to proceed. Their aim here is to minimize the effects of these errors. If and when schools do err, the authors want to be sure that they do it with their eyes wide open.

Keywords: *practice; relevance; rigor; theory*

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ADDRESSING THE EMIC–ETIC OSCILLATION IN BUSINESS EDUCATION

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American business schools were established a little more than 100 years ago. The University of Pennsylvania's Wharton School was founded in 1881, graduating its first five undergraduates 3 years later; Dartmouth College's Tuck School was the nation's first graduate school of business, opening its doors in 1900, graduating its first four MBA students a year later. These institutions, and those that quickly followed, emerged in response to the profound economic changes unleashed by the Industrial Revolution. Their goals, of course, were both to understand these changes and to prepare individuals to lead the firms created by this revolution. Students came to understand management both as a noun—understanding the phenomenon of business, and their leadership role in it, in all its economic, political, and social complexity—and as a verb—using this understanding to guide action, to manage these enterprises.

The Tuck School describes their early curriculum in this way:

> The first-year courses were taught by Dartmouth instructors from fields such as law and political science, history, sociology, rhetoric and oratory, economics, and public speaking; the second-year courses drew heavily on outside business people, such as an export merchant, an attorney, an insurance company president, and an accountant. Edward Tuck was pleased as he wrote to President Tucker in February 1902, "I am glad that it will be the aim of the school to bring students in touch with practical businessmen. (Dartmouth College, 2007)

Paradoxically, this laudatory connection to "practical businessmen" almost destroyed business schools a half century later. Bennis and O'Toole (2005) put it this way: "For the first half of the twentieth century, Business schools were more akin to trade schools; most professors were good ole' boys dispensing war stories, cracker barrel wisdom, and the occasional practical pointer" (p. 98). Midcentury, the Ford and Carnegie Foundations challenged business schools to do better. Gordon and Howell (1959) captured their dissatisfaction and offered a new, scholarly direction. The new professors began to distance themselves from the day-to-day experience of business. They embraced the scientific method, brought formal analytical sensibilities to the study of business, and, in so doing, trained the next generation of students to become professional managers.

Subtleties of all kinds distinguished the many business schools that formed throughout the century (Spender, 2007). Nevertheless, it is fair to say that this first half century was marked by what anthropologists call an "emic" perspective on business, insights born from an insider's point of view. The limitations of that perspective eventually culminated in the 1959 protest movement and a switch to an outsider's point of view, the "etic" perspective. The pendulum seems to swing every 50 years. Living in the moment, it is difficult to know which event will later be recognized as opening the next chapter in business education, but it is clear that change is in the air. Signs of dissatisfaction with the 1959 model abound.

The Association to Advance Collegiate Schools of Business (AACSB) counts 511 accredited business schools worldwide. According to the AACSB's 2004-2005 survey, these schools just graduated 180,376 BBA and 57,125 MBA students. These impressive numbers suggest that all is well in our world. It is not. The dissatisfaction takes many forms. Ghoshal (2005), for example, argued that "bad management theories are, at present, destroying good management practices" (p. 86). He believed that the notorious Enron and Tyco scandals were rooted in the "ideologically inspired amoral theories" (p. 76) that we teach in our classrooms. He was particularly hard on agency theory and transaction cost theory. Pfeffer and Fong's (2002) critique was different. Ghoshal presumed that business people pay attention to what business school professors write and say; Pfeffer and Fong were not so sure. They showed us that only a few of the best-selling management books written since 1984 were written by business school professors. Shifting from a demand-side analysis of what business people read, they looked at the supply side as well, examining the legacy of the award-winning books that business professors write. They studied the citation patterns for the Academy of Management's (AOM) Terry Book Award winners from 1991 to 2001. It turns out that these books receive only 6.86 citations per year. Our best books are not particularly read by business people or by their scholarly peers. Hambrick (1994) caused a commotion when he delivered his now-infamous AOM presidential address titled "What if the Academy Actually Mattered?" A dozen years later, Bennis and O'Toole (2005) looked back on the results of the 1959 revolution and argued that "by allowing the scientific research model to drive out all others, business schools are institutionalizing their irrelevance" (p. 100). They concluded that "business schools are on the wrong track." Pfeffer and Fong (2004) observed that "all is not well in the business school world" (p. 1517). Henry Mintzberg (2000) was despondent. Indeed, he argued that "it is time to close down conventional M.B.A. programs" (p. 65). Strong words.

What happened? The conventional wisdom is that as the pendulum swung away from the promulgation of the midcentury's "cracker barrel wisdom," it swung too far into an arcane world of academic business scholarship. Ghoshal (2005) has little use for agency theory (p. 80), but his diagnosis of our problem sounds very familiar to anyone who has studied agency costs:

> I believe that as academics, we may have been guilty of overexploiting our freedom. In the desire to create and protect the pretense of knowledge—in our venture to make business studies a science—we may have gone too far in ignoring the consequences not only for our students but also for society. (p. 881)[2]

Bennis and O'Toole (2005) agreed with Ghoshal's view of professorial self-dealing. They argued that "the dirty little secret at most of today's best business schools is that they chiefly serve the faculty's research interests and career goals, with too little regard for the needs of other stakeholders" (p. 103). What is to be done? Mintzberg (2000) wants to shut down most MBA programs. Short of that, Ghoshal (2005) argues that a "powerful countervailing force" (p. 88) is needed to counteract these self-serving business professors. What could it be?

I suspect that when our time is considered 50 years from now, most historians will point to the many contemporary business school rankings as the catalyst for change. Like it or not (and most do not), business schools deans and faculty live at the mercy of these multiple rankings. I would not be surprised if they are the harbinger of a more grassroots, technology-mediated evaluation of business school activity. "Smart mobs" (Rheingold, 2002) may someday soon rise up against the status quo. In any event, the current rankings are enormously influential. Every school readies itself for the results of the *Business Week*, *Financial Times*, *U.S. News & World Report*, and *Wall Street Journal* evaluations. And these rankings are just the beginning. There are more. We know that our schools are also ranked in terms of our attention to social and environmental justice and our treatment of women, minority, and gay students. These business periodicals often ask students and the companies that hire them to evaluate the quality of the business school education experience. The market is speaking.

Some people decry this kind of market assessment of an educational experience. Jim March (2003) may be the most passionate, and articulate, critic of this phenomenon:

> A university is only incidentally a market. It is more essentially a temple—a temple dedicated to knowledge and a human spirit of inquiry. It is a place where learning and scholarship are revered, not primarily for what they contribute to personal or social well being but for the vision of humanity they symbolize, sustain, and pass on. . . . Higher education is a vision, not a calculation. It is a commitment, not a choice. Students are not customers; they are acolytes. Teaching is not a job; it is a sacrament. Research is not an investment; it is a testament. (p. 206)

This kind of orientation no doubt guided his earlier thinking about whether or not we in business schools should strive to be more "relevant" to practicing managers. Again, let me quote him at some length. His ideas run counter to the current grain, the sentiment that presses us to be more relevant:

> Unfortunately, we are engulfed in a contemporary enthusiasm for immediate relevance. That enthusiasm is not new, and the reasons we attend to relevance are salutary, but our enthusiasm has become excessive. It is an enthusiasm that I believe threatens to make business schools and management research minor contributors to the development of ideas about business management and organizations, condemned to the role of pursuing short-run research on questions of minuscule importance, contributing little to intellectual life, and therefore to business life. In the long run, if business schools cease to be effective as intellectual institutions, they will not thrive as economic institutions. (Huff, 2000, p. 55)

March's ideas were born in his Stanford University setting. Interestingly, for all the talk of relevance in the air right now, Stanford may be the center of contrarian thinking. Pfeffer and Fong (2004), March's colleagues, also decry this headlong rush to relevance. They argue, "In their adherence to a market-like ideology of responsiveness to customers, presumably students and recruiters but alumni as well, business schools may have lost their bearings" (p. 1503).

Neither March nor Pfeffer and Fong are enamored of the drift, if not embrace, of market-based relevance. So what is their response to our current crisis?

All three articulate the perils of walking down a path toward relevance and then use this fear to motivate their vision of a future. First, let's look at the fear. Pfeffer and Fong (2004) argued that

> to be a smaller version of McKinsey or some other consulting firm seems like a losing proposition. It is only by rediscovering some core purpose more consistent with a professional ethos that business schools may be successful in standing apart from their many various competitors. (p. 1517)

March argued that "researchers who pursue immediate relevance are likely to produce knowledge that is both redundant with what managers already know and useful only over a limited time and under limited conditions" (Huff, 2000, p. 55). They offer an iconoclastic "back to the future" prescription for us to consider.

March asks us to pursue fundamental knowledge. He encourages us to look for "basic ideas that shape the discourse about management" (Huff, 2000, p. 55). He points to our ideas about information and incentives, bounded rationality, diffusion of legitimate forms, loose coupling, liability of newness, and more as illustrative of the kinds of impactful ideas that we have already developed. He further argues that

> managers are not stupid. They recognize or can be led to recognize that the primary usefulness of management research lies in the development of fundamental ideas that might shape managerial thinking, and not in the solution of immediate managerial problems. (Huff, 2000)

Coincidentally, John Reed, the longtime chairman and chief executive officer of Citibank and later CitiGroup, agrees with him. He argues that

> if the academic community, for ease of simplicity of whatever, were to move away from the tradition of standing back and trying to develop big ideas and instead got caught up in trying to generate short-term techniques, summarize best practices, or make other interpretations of business problems, we will lose some of the dynamism that has characterized the U.S. private sector. (Huff, 2000, p. 62)

How are we to get there from here? Pfeffer and Fong (2004) direct us to March's Promised Land. They argue that business schools need "to rediscover their roots as university departments and to become more like other university-based professional schools" (pp. 1514-1515). They need to "look less like the firms they teach about and more like educational and research institutions" (p. 1515). Dick Scott (2004, p. 16), another Stanford colleague who sat in their sociology department for many years, would no doubt approve. He recently took stock of 50 years of research in organizational sociology and ended with a concern about the movement of organizational sociologists to professional schools (business schools in particular). He worries that the coming work will be more problem driven than theory driven and too influenced by economics, the dominant paradigm in these schools today.

We are hooked on the horns of a dilemma. How should we best study organizations and share our wisdom with those who will lead them, regulate them, and live with them? How can we best serve society with our work? In the name of relevance, do we return to our early emic roots and get much closer to the world of business? Or should we embrace the midcentury's etic reform movement and keep our distance? The excesses of the early model became apparent in the 1950s. Perhaps we are living with the excess of its reform movement.

Clearly, there are people who argue that we have become too solipsistic for our own good. Notwithstanding our noble etic aspirations, some argue that we have devolved into a world that serves our own interests at the expense of others. Bennis, Ghoshal, Gosling, Mintzberg, and O'Toole argue that we are heading down just such a path to professional suicide. Our Stanford colleagues disagree. Fong, March, Pfeffer, and Scott might have us reread Gordon and Howell (1959), take their lessons to heart, and recommit ourselves to this fundamental vision of what business education can be. Paradoxically, our problem of relevance may be that we are drifting too close to the world of practice. They believe that we need to keep our distance.

How should we think about all of this? In hindsight, it is clear that business schools dramatically changed 50 years ago. It is also clear that business schools are under assault right now. Just as our original business school model suffered in the extreme after 50 years of use, it may be that the reform movement itself is suffering 50 years after it was born. We have no paucity of ideas about how to proceed. Our problem is that we need to decide what to do.

Augier, March, and Sullivan (2005) recently reviewed the evolution of organizational scholarship since World War II. They concluded that "the future of organization studies will undoubtedly reflect the multicontinental and multilingual nature of scholarship in the twenty first century, and the brief period of North American hegemony and isolation will end" (p. 91). They remind us that the business school "industry" has been largely shaped by the American experience. Obviously, this will change. Of the 511 AACSB-accredited business schools, 76 are now located outside the United States. They also remind us that, our best ideas notwithstanding, we will redesign our educational experiences by trial and error.

ON THE COEVOLUTION OF KNOWING AND DOING: A PERSONAL PERSPECTIVE ON THE SYNERGIES BETWEEN RESEARCH AND PRACTICE

Michael L. Tushman, Harvard University[3]

The current rigor–relevance debate is a central strategic issue for business schools and their faculty. I argue that ongoing relationships with firms, rooted on the joint acknowledgement of the importance of faculty research by firms and respect for practice by faculty, increase the quality and impact of faculty research. With roles and boundaries clear, such ongoing relationships with firms, particularly those rooted in executive-education venues, increase the insightfulness of our research questions and the quality of our data. Furthermore, to the extent that these relationships help faculty translate our field's research into practice, we are able to live in our institution's promise to shape managerial practice. These engaged relationships with firms help faculty and their business schools excel in both rigor and relevance. This article provides a personal example of these synergistic relationships and discusses boundary issues associated with these faculty–firm collaborations. Executive education in general, and custom programs in particular, may be an underleveraged vehicle in reducing the rigor–relevance gap between business schools and the world of practice.

The Challenge of Knowing and Doing: A Personal Context

My career has been one of deliberately linking research (knowing) and practice (doing). As an undergraduate student at Northeastern University, I worked for 5 years as a co-op student at the General Radio firm. During this period, this distinguished electronics firm (it was one of the first electronics firms and was, at the time, the leading test equipment firm in the industry) failed in the face of technological change and the entrance of new competition (HP, etc.). My carpool friends were about to be laid off. They faced the trauma associated with a historically dominant firm floundering in the face of a rapidly shifting competitive arena. As it turned out, making the same products better simply drove the firm more quickly out of business. I observed General Radio's inertial responses to these competitive shifts and the disastrous consequences for its employees and stakeholders.

These experiences at General Radio led me to leave an electrical engineering career and move to graduate school to try to understand just what happened. For 30 years now, I have been working to answer the question my carpool colleagues asked so many years ago. Just why do successful firms often fail at technological transitions? Why were seasoned executives rendered so incompetent at this particular transition? Although my specific research questions have evolved over time, the central theme of my research has been rooted in this General Radio experience, on trying to better understand how and why firms fail to adapt in the context of technological transitions.

After Northeastern, I went to graduate school at Cornell University. At the School of Industrial and Labor Relations, I worked with a heterogeneous faculty committee (William F. Whyte, Leo Gruenfeld, and Mike Beer). Although these colleagues could not have been more different as scholars, they were each interested in research shaping the real world. My master's thesis on leadership and change in a Corning manufacturing plant built on the extant literature on change. But it was also substantially informed by emergent political and cultural issues that I observed in the field (Tushman, 1978). This experience illustrated the benefits of a close relationship between the world of research and the world of practice. The phenomena taught me to look in places and at questions that were not central to the field at the time. I also experienced issues and tensions that occur at this boundary between knowing and doing. For example, early in my field work, I was pressed by the plant general manager to shape my research to his needs and to provide him with inside information gained from my interviews. My committee helped me sort through these boundary issues associated with the locus of data and research question ownership.

		Considerations of Use?	
		No	Yes
Quest for Fundamental Understanding?	Yes	Pure Basic Research (Bohr)	Use-inspired Basic Research (Pasteur)
	No		Pure Applied Research (Edison)

Figure 1: Stokes's quadrant model of scientific research
Source: Pasteur's Quadrant: Basic Science and Technological Innovation (p. 73), by D. E. Stokes, 1997, Washington, D.C.: Brookings Institution. Copyright 1997 by the Brookings Institution. Reprinted with permission.

Because of my interest in technology, innovation, and organizations, I left Cornell and enrolled in a PhD program at Massachusetts Institute of Technology. Working with another heterogeneous faculty committee (Tom Allen, Paul Lawrence, Ed Schein, and Ralph Katz), I replicated this work at the interface between the phenomena and research.[4] My dissertation explored the relations between informal communication networks and performance in R & D settings. I gathered network data from Owens Corning and was able to show that differential performance in R & D teams was associated with communication networks that were contingent on task characteristics (e.g., Katz & Tushman, 1979; Tushman, 1977). Although the research was academically well received, I was challenged by several R & D managers to translate my research in a way that might be useful to them. I was further challenged by these managers to broaden my work from simply studying R & D settings. These managers observed that if I was really interested in understanding innovation, understanding R & D settings was insufficient. They pushed me to move from the R & D laboratory to the organization as the unit of analysis.

These early experiences made clear the benefits (and threats) of having the phenomena shape the questions I asked and the data I gathered. During the past 30 years, I have, with colleagues and PhD students, worked at the interface between research and practice, between building our field's stock of knowledge of innovation and organizational change and accentuating our field's impact on practice. I have been working out my own research-based responses to my carpool friends and to those R & D managers who challenged me to link our field's research to their real-world innovation issues.

In distinct contrast to this active linking between research (knowing) and practice (doing), our field has been drifting toward a greater bifurcation between research and practice. Knowing has been increasingly uncoupled from doing. This increasing gap is problematic. It has the potential to push our research to greater internal validity at the cost of stunted external validity. Our field runs the risk of having great answers to less and less interesting problems. As our field retreats from relevance to practice, other disciplines and professions move into that vacuum (Bazerman, 2005; Bennis & O'Toole, 2005; Pfeffer & Fong, 2002). This lack of coupling between our research and our ability to speak to practice affects our legitimacy with our students and with our external constituencies (also see Khurana, Nohria, & Prenrice, 2005; Rynes, Bartunek, & Daft, 2001).

Business Schools: Toward Knowing and Doing

To fairly evaluate the relative importance of business schools' research and impact on practice, we must first be clear about the role of professional schools in general and business schools in particular. What, if anything, differentiates a business school (or school of medicine or law) from conventional academic departments? To understand these differences, we draw on insights from the history of science where there has long been a tension between "basic" and "applied" research (Stokes, 1997).

In his book *Pasteur's Quadrant*, David Stokes (1997) draws on the history of science in general, and on Louis Pasteur's contribution in particular, to develop a taxonomy of types of research (see Figure 1). In this framework, research is categorized as to whether it is conducted in a quest for fundamental understanding (basic research) and/or whether it is motivated by considerations of use (applied research). Stokes shows how some research is simply driven by a quest for understanding, with no thought of specific use (e.g., Neils Bohr and the discovery of the structure of the atom). Other research can be simply undertaken to develop applied uses (e.g., Thomas Edison and the invention of the phonograph), whereas other research, which Stokes favors, proceeds with both a quest for fundamental

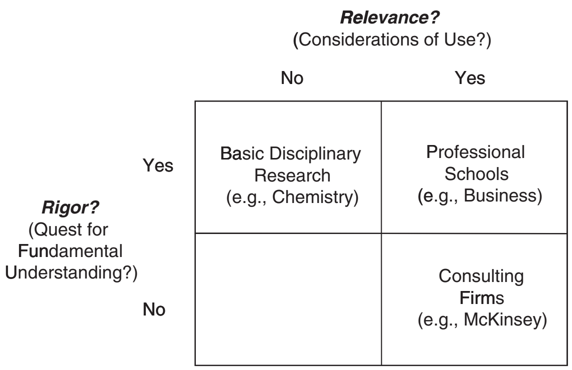

Figure 2: Business school research
Source: Pasteur's Quadrant: Basic Science and Technological Innovation (p. 73), by D. E. Stokes, 1997, Washington, D.C.: Brookings Institution. Copyright 1997 by the Brookings Institution. Reprinted with permission.

understanding and a desire to apply the findings (e.g., Pasteur and the development of microbiology).

Stokes's (1997) classification scheme can be used to inform the debate on the aspirations of business school research (see Figure 2). Although conventional academic disciplines are typically about a quest for understanding (rigor) with little thought of use (relevance), business schools, and professional schools more generally, are about both, about operating in Pasteur's quadrant. Consulting firms, unlike business schools, are about meeting clients needs (relevance) but have little concern with carefully controlled research (rigor). The implication of this taxonomy for business schools is straightforward. In business schools, research should be judged both by its quality—how rigorously it is designed and conducted—and by the degree to which it provides understanding of the phenomena being studied. Stokes refers to this as "purposive basic research" (p. 60) and observes that this research can be highly fundamental in character in that it can have an important impact on the structure or outlook of a field (e.g., Porter's work on competitive strategy, Bazerman's work on decision making and systematic deviations from rationality, or Kaplan's work on activity based accounting). The fact that research can be applied does not mean that it is not also basic.[5]

Consistent with Mintzberg's (2004) and Bennis and O'Toole's (2005) call for relevance and rigor and with Ghoshal's (2005) plea for faculty research that respects discovery-driven research and integrative and application-oriented research, Stokes's framework imposes high standards on faculty in professional schools. Although the evaluation of rigor is straightforward in traditional academic domains (Does the research meet the standards of peer review?), the evaluation of professional school research is more complex in that this assessment must attend to both academic rigor and managerial relevance. In the business school context, this implies that our research must meet the joint criteria of internal and external validity.

A Point of View on Knowing and Doing

My early research experiences at Corning and Owens Corning illustrated the benefits and costs associated with research informed by conversations with the phenomena. Encouraged by my faculty advisors to work at this boundary, I have evolved an implicit model on the coevolution of knowing and doing. These knowing–doing relationships have had an important effect on my research and on my MBA, executive, and PhD teaching (also see Tushman, O'Reilly, Fenollosa, & Kleinbaum, in press). Although these experiences are idiosyncratic, to me, my students, and my colleagues, they may have broader implications.

During the past 25 years, I have experimented with several executive-education program designs with colleagues at Columbia, INSEAD, Stanford, and Harvard (most intensively, with Jeff Pfeffer and Charles O'Reilly). These alternative designs have had important impacts on our research streams and on our ability to affect practice. Our early, more traditional, executive-education designs were loaded with content; faculty delivered their material during a 5-day program. We quickly received feedback that although the content was of interest, participants wanted to link our field's researched-based knowledge to their own unique innovation, leadership, and change issues. In response to this request, we built in more application work and began to encourage intact teams to come to campus to work their issues throughout the program. We encouraged both intrateam and interteam sharing and collaboration. This active link between knowing and doing was highly valued by participants, even as we learned more about the relevance of our research. Furthermore, these more engaged relationships brought us closer to those leadership, innovation, and change issues where our field's research had little to say.

More recently, O'Reilly and I have developed both custom and open executive programs for senior teams.

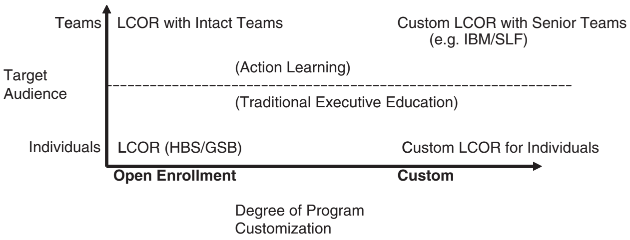

Figure 3: Experimenting in executive-education designs

In these programs, content is tailored to a particular firm, and senior teams come to campus for 3 or more days to work their specific innovation and change issues. Roughly half the time is spent in content sessions; the other half is spent in facilitated teams linking faculty content to their specific issues. Although interacting with executives in our traditional executive-education design enhanced our sense of important research questions, these more action-oriented, senior team–sponsored executive programs provided a context where we were able to sharpen and extend our research questions, improve our access to the field, and directly shape practice.

The most extensive and sophisticated action-learning version of our executive-education work has been with IBM. Under the sponsorship of Bruce Harreld, IBM's senior vice president of strategy, we have collaborated during a 4.5-year period on Strategic Leadership Forums (SLFs). Although we learned how to construct these workshops over time, the fundamental design was composed of senior teams sponsored by a corporate executive (e.g., Harreld). The senior sponsor commissioned the scope of the work, chose the teams, and agreed to sponsor the changes associated with the workshop. The SLFs often had a corporate or line-of-business issue as a theme (e.g., cross-line of business innovation, developing emerging business opportunities).

For these IBM SLFs, senior teams came to campus for 3 days, armed with prework and a preliminary performance or opportunity gap articulated by the senior sponsor and general manager. During an SLF, faculty present and link content to cases for roughly half of the SLF. The rest of the time is spent in facilitated workshops where these intact teams directly link material in the plenum to their specific managerial challenge. Teams present their diagnostic work and their implementation plans to each other. There is much learning in the feedback sessions where each team gets feedback from the other teams on the depth and quality of their diagnostic and change work. During this 3-day workshop, teams and their leaders gained substantial consensus on root causes, action plans, and next steps. Not only do the feedback sessions help individual teams with their strategic issues, but hearing a multiple set of teams helps senior executives to induce IBM-wide issues relating to innovation and change. Senior IBM executives initiated each workshop, were involved for the 3 days, and were, in turn, actively involved in following up on work initiated at these workshops.

In return for this long-term faculty involvement, IBM's senior leadership provided support and access for faculty and PhD student research projects. Although these research projects were distinct from our executive-education work, the results of the research were reported back in subsequent SLFs. We have replicated these senior team–action learning relationships with a range of firms including BOC, U.S. Postal Service, Siebel Systems, Irving Oil, Ameriquest, and Agilent Technologies.

These senior team–action learning executive-education designs facilitate a virtuous cycle between faculty collaborating with managers in research and managers collaborating with faculty in shaping practice. This type of executive-education design has had an important impact on our ability to shape practice and on the participants' ability to shape and host our research. The more action oriented the program, the greater the quality of our relationship with these teams. In turn, the more senior teams trust us, the more they understand our research agenda, the greater our ability to affect practice and the greater their ability to connect with and help support our research (see Figure 3).

Some Observations

1. Through executive-education programs, I have been able to leverage our field's research to influence practice. My most productive relationships with executives are all rooted in using our field's frameworks and literature to help solve real managerial issues. Because our field's work does add value, these relationships open up the opportunity for faculty to learn not only what is managerially important but also where our literature is silent. This ability to be taught what phenomena are important and then to use these relationships to explore these phenomena is one of the great benefits of engaged scholarship. Those most productive knowing–doing

relationships start with our adding value through researched-based insight (doing) and then moving to our research (knowing).

2. The more PhD students are involved in these executive-education workshops, the more they interact with managers who are grappling with the phenomena, the more they understand the reality of innovation, leadership, and change. This deeper understanding leads, in turn, to well-anchored and insightful research questions (Lawrence, 1992). Although it is clearly not necessary to be in the field to induce important research questions, those doctoral students who know both the literature and the phenomena may be better equipped to ask relatively more provocative research questions. Finally, direct access to managers facilitates our students' access to high-quality data.
3. The longer the relationship, the greater the trust and respect between managers and researchers. The more faculty understand and respect the practitioners' need for performance and the more practitioners understand and respect the faculty's need to ask important research questions and gather reliable data, the more these relationships provide a setting for the coproduction of knowledge and organizational impact.
4. These knowing–doing relationships affect our MBA, executive-education, and PhD teaching. As executive education–research relationships have matured, we have been able to write cases, create leadership videos, bring executives to class, and have executives host student field projects. Furthermore, to the extent that our work with firms shapes those firms, we are more deeply informed on the phenomena we teach. These rich examples infuse and enliven our abilities as teachers.
5. The greater the action orientation of executive-education programs, the greater the potential to develop relationships such that our research and impact on practice are both enhanced. Executive-education programs differ by degree of customization and level of participant. The most action-oriented form of executive program we have employed is the custom program oriented to senior teams (see discussion of our IBM custom program above). These programs have been associated with the greatest impact on practice and with the greatest involvement of senior executives in our research questions, our data, and the interpretation of those data. It is in these action-learning settings that we have coproduced action in these firms and coproduced innovative research (see Tushman et al., in press).

Yet Some Concerns

With all the benefits of active collaboration between faculty and practitioners, there are also important boundary issues and areas of concern associated with these collaborations. These issues are rooted in the potential blurring of boundaries between the university's independent pursuit of research and the firm's local pursuit of practice, the possible distorting effects of faculty incentives in executive-education programs, asymmetries in required skills and the associated need for faculty development and mentoring, and executive-education administration in action-oriented executive programs.

1. Who owns the research question; who owns the data; who has access to the data; and who controls the interpretation, writing, and publication of the research associated with these faculty–firm collaborations? Is it possible to test research questions in settings where the firm is buying executive education? These are all fundamentally important questions that address the roles and boundaries between universities and external organizations (e.g., Bok, 2003; Brief, 2000). For these engaged scholarship relationships to flourish, they must be rooted in the firm's respect for independent faculty research. Independent research requires that faculty own the research question, the data associated with addressing the research question, and the decision where to publish the research (while protecting the firm's confidentiality). Custom clients must understand that an important piece of the relationship with the business school is to support and encourage faculty research. It is vital to have PhD students well integrated into these relationships between business schools and executive-education clients. PhD students need to have access to custom program work on campus. These boundaries were tested several times. For example, a custom client balked when we asked that a PhD student sit in on our content sessions. We reiterated the importance of our research to the custom program client and our doctoral student's centrality to this research. We observed that if the student could not sit in on the meeting, neither could the faculty. These misunderstandings were resolved in a fashion that clarified the synergistic relationships between the firm's need for confidentiality and impact and the faculty's research requirements.
2. Another major boundary issue is the question of consulting on campus. To what extent is action learning the same as faculty consulting? Does action research on campus inappropriately use the university to host faculty consulting projects? Although custom programs do have an action component, they are not consulting projects. Work on campus may be facilitated, but it is limited to the work on campus. Where faculty control the content in traditional executive-education programs, they share

control with custom clients in action-learning programs. Indeed, one of the reasons that firms would use these modes of executive education is to get access to faculty research and the independence of faculty who have no vested interests as consultants. Although relations on campus may well lead to subsequent consulting relationships (where the client has the control of the questions and pace of the relationship), these subsequent relationships are distinct from the faculty, PhD student, and executive-education participant roles in on-campus programs.

3. For action-learning relationships to flourish, faculty must be willing to cocreate these executive programs with the client firm. Custom programs inherently give more power to the client firm in both content delivered and program design. Furthermore, faculty must be willing to teach for practice as they actively facilitate the linking of the program's content to the participants' specific needs. Furthermore, faculty must not only be willing to teach their material but also be prepared to create linkages across faculty content domains. This mode of teaching and program administration is more difficult than traditional executive-education programs. The roles of faculty director and program administration are much more client focused in these action-oriented custom programs. Faculty compensation models must be adjusted to account for the extra time involved in the teaching, facilitation, and design involved in action-learning programs.
4. Finally, faculty interest and skills in these active collaborations are not equally distributed. If these action-oriented executive-education programs are to flourish, all faculty must be given the opportunity to work at the knowing–doing boundary. Issues of inequity of opportunity will dampen these boundary-spanning experiments. As some senior faculty will be differentially capable of working these interfaces, they must take a proactive role in helping their senior and junior colleagues develop their integrative skills, their skills in translating research in ways that managers can understand, and their skills in actually helping managers solve real problems informed with our field's research.

Toward Knowing and Doing: Executive Education as a Lever in Shaping Practice and Research

Given the reciprocal relationships between knowing and doing and doing and knowing, executive education is of particular relevance to business schools and their faculty. Executive education is a setting where practitioners come to campus to create a connection between faculty research and their own managerial challenges. In these settings, there is an enhanced opportunity to forge long-term, collaborative research–practice relations. Because these relationships develop on campus, they can be rooted both in research and in managerially anchored issues. Executive-education settings are then a potentially important venue for developing engaged scholarship (Van de Ven & Johnson, 2004). Executive education is a natural context for creating externally valid research projects and making the connection between our research and managerial practice. This potential to further the coupling between research and practice is accentuated as firms ask for more return from their executive-education investment (e.g., L. Anderson, 2003; Conger & Xin, 2000).

Rigor and relevance, then, need not be separate but can rather be seen as interdependent activities in service of powerful theory and informed action (Huff, 2000; Weick, 2004). This form of engaged scholarship, where faculty and thoughtful practitioners coproduce knowledge and practice, is underleveraged within business schools and in the larger academy (Van de Ven & Johnson, 2004). The action-learning executive-education workshop is one concrete way to embody this coproduction of knowledge and practice. These enhanced individual learning and organizational outcomes are built on active collaboration between faculty and firms in program design and in linking program content to organizational outcomes. Through action-learning workshops, we have been able to develop relationships with a set of firms such that our field's research has had a real impact on practice. As important, this interaction with practice has had a substantial impact on my research and that of my students and has increased the quality of my teaching.

These relationships between business schools and specific firms have the potential to create virtuous cycles of knowing and doing. A meta–research question anchored these cycles for me (e.g., What is the relationship between technical change and organizational evolution?) and hosted a range of more concrete research questions (e.g., What is the relationship between competence-destroying change and executive team succession?). Our field knows much in these broad domains (Tushman, 2004). Executive education provides the setting where we can share this research with practitioners. In these educational settings, we can make the knowing–doing link.

Relationships formed in action-learning settings in turn have shaped my research questions, even as they have affected how I understand innovation and organizations. Doing has directly affected my knowing.

Finally, both my action-learning work and my research directly affect the quality of my MBA, PhD, and traditional executive-education work. As these business school–firm relations matured, the linkage between my research and practice became tighter and the coproduction of research became more effective. Executive-education workshops are contexts that help forge research–practice partnerships that permit these virtuous cycles to flourish (for a discussion of this virtuous cycle in the accounting and control area, see Kaplan, 1998).

Yet business schools systematically underleverage executive education. At a time where firms are calling for more relevance and more customization, business schools remain in the modular, lecture-discussion format. Although this traditional approach is often associated with participant satisfaction, the impact of these traditional executive programs on practice is equivocal (L. Anderson, 2003; Conger & Xin, 2000; Pfeffer & Fong, 2002). Furthermore, because traditional executive programs do not encourage the development of relations between faculty and participants, the link to faculty research is stunted.

The concept of action-learning workshops, of active collaborations between business schools and firms, is quite generalizable. This action-learning approach requires clear and well-defined relationships and expectations. Faculty must take practice seriously and firms must take seriously the importance of supporting faculty research. This action-learning model is not new. It is similar to action-learning approaches hosted within firms (e.g., GE's workout and IBM's ACT; Kuhn & Marsick, 2005; Tichy & Sherman, 1993; Ulrich, Kerr, & Asheknas, 2002). It is also similar to the consulting and executive-education practices of a range of consulting firms (e.g., Argyris & Schon, 1996; Beer, 2001). What is different about action-learning workshops hosted within business schools is their emphasis on generating powerful ideas and subjecting these ideas to rigorous inquiry. Although consulting firms do generate powerful ideas, they are less equipped or motivated to subject these ideas to rigorous testing. Action-learning workshops position business schools to operate in Pasteur's quadrant, to be able to excel in both research-based insight and practical impact.

Although action-learning workshops may be an underleveraged opportunity for business schools, there are important issues that these executive-education designs raise. Action-learning designs raise issues on the appropriate boundary of business schools (Kaplan, 1998). For research to flourish in action–learning relationships, faculty must own the research questions and own the data gathered in service of these research questions. Bartunek (2002) observes that faculty must be in the firms, not of the firms. As faculty get co-opted by the sponsoring firm, the quality of the research will suffer (e.g., Bok, 2003; Brief, 2000; Hinings & Greenwood, 2002). Furthermore, these action-learning workshops should not be confused with faculty consulting. Rather, action-learning workshops are cocreated workshops, conducted on campus and managed by executive-education staff. Faculty present content tailored to the client's issues, teach to practice, and actively facilitate the linking of content to practice. Finally, these boundary-spanning opportunities must be made available to all faculty who are interested in developing their skills to work at these interfaces. Issues of faculty inequity will ensure that these experiments will fail.

Although action-learning workshops are associated with a set of issues and concerns, they are vehicles that show promise of bridging the divide between our research and the world of practice, between rigor and relevance. This form of executive education complements traditional executive-education formats. Action-learning is a highly generalizable activity for business schools and business school faculty. Firms want more customization, and our field has generated enormous knowledge that deserves the opportunity to shape practice. Action learning promises high leverage for both faculty and firms. With this leverage also comes the opportunity for increased faculty insight and provocative research. Although there are real boundary issues to be resolved, my experience suggests that executive education in general and action-learning workshops in particular have the potential to move business schools more firmly into Pasteur's quadrant of knowing and doing, toward building powerful theories and fundamental ideas that affect practice.

SHIFTING BOUNDARIES: DOING RESEARCH AND HAVING IMPACT IN THE WORLD OF BUSINESS EDUCATION

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The motivation for the reflections that follow initially came from an invitation to enter a debate with Mike Tushman on the question "Can researcher/manager interaction increase research quality?" a question we were asked to address on the occasion of BillFest, a conference held at New York University in May 2005 in honor of Bill Starbuck and his many contributions to the world of management research and education. I am grateful for this invitation because it caused me to examine choices I have made as my career has unfolded and to reflect on some of the forces that may have influenced the choices made. I am also well aware of what my friend Karl Weick would whisper in my ear at this point. Yes, Karl, I am unquestionably engaging in retrospective sense making and probably in a certain amount of retrospective rationalization as well. But here goes. . . .

Introduction

"Can researcher/manager interaction increase research quality?" On the surface, the answer to this question seems to be painfully obvious. Yes, of course. After all, how could the quality of research on managerial issues *not* be improved through contact by the researcher with the phenomena being examined?

However, it's not that simple. Interaction per se is no guarantee of enhanced research quality. In fact, particularly when the researcher is a faculty member in an academic institution, there are likely to be mixed motives and conflicting incentives when that interaction becomes *too* close and when it unfolds during a long period.

My colleague Hamid Bouchikhi and I have argued elsewhere (Bouchikhi & Kimberly, 2001) that the role of "professor" in schools of business is likely to change dramatically in the next 20 years. We are in a period of transition in the world of business education, a period in which "partnerships" between business schools and businesses generally, and between some business school faculty and some businesses more specifically, are becoming increasingly common. These partnerships generally involve a relationship in which the knowledge-based assets of the faculty partner are focused on the particular problems the business partner is facing in exchange for financial contributions of one sort or another. And they are fueled by the seemingly insatiable search by the schools of business for revenues on one hand and the needs for training, executive education, and advice on the part of business on the other.

It is against this backdrop of increasingly close ties between businesses and business schools in general that I offer some personal reflections on researcher–manager interactions and on the broader question of doing research and having impact in the world of business education. All are, of course, influenced by the context in which they take place, and it is important to recognize both how this context has changed over time and the consequences of this change for behavior in both the macro and the micro; that is, the behavior of those institutions in which researchers are embedded and the behavior of the researchers themselves. In the paragraphs that follow, I briefly touch on elements of the university and business education context and how they have changed, before turning to how my own work and thinking about how researcher–manager interactions have evolved.

The University and Business Education Context

1. During the past 35 years, since I completed my doctorate, universities and their budgets have grown substantially, and most, if not all, have begun using managerial tools and practices formerly reserved for the world of business. Some observers (e.g., Readings, 1997) paint a bleak picture of the consequences of this pattern, whereas others applaud the movement of universities from administrative ineptitude to greater managerial efficiency. In the midst of legitimate disagreement over the likely consequences of growth and increasing "corporatization," the fact is that universities have had to develop multiple strategies to generate the resources to fuel ever-increasing capital and operating budgets. These resources typically come from some combination of tuition, research grants, and contracts from both public and private sources, returns from the commercialization of university-developed intellectual property, and donations from wealthy alumni and corporate benefactors. Now more than ever before, universities are experimenting with new ways to generate revenues and in their enthusiasm are creating ties with outside entities that push the boundaries of their thoughts about the importance of independence and the proper role of the university in society.
2. During this time, the nature of the relationship among business schools, their universities, and the world of business has been hotly debated. Business schools have been desperately seeking academic legitimacy on their campuses, trying to recast their trade-school image in the direction of greater intellectual respectability. In this search for legitimacy, they have recruited large numbers of discipline-based faculty, many of whom more closely identified with their particular discipline than with the more applied mission of their school, with the inevitable consequence of moving further from, rather than closer to,

the concerns and priorities of their constituents in the world of business. Recently, the pendulum has begun to swing in the other direction. Business schools have been taken to task for the alleged irrelevance of much of their faculty's research and for their apparent insulation from the real world of business (e.g., Bennis & O'Toole, 2005; Ghoshal, 2005; Pfeffer & Fong, 2004; Starkey & Madan, 2001), and many schools have made it a priority to address this criticism by developing closer ties with this world.

3. Ironically, during this period of ambivalence about mission (or at least about the extent to which their own activities should be shaped by the priorities of their corporate constituents), business schools have grown dramatically, and the MBA degree has become highly valued, both by employers and by individuals seeking to advance their careers. As competition among business schools has accelerated, fueled by the proliferation of institutional rankings in the media, new markets with new programs and revenue streams have been developed, including distance learning, the "executive" MBA, and, most significantly for present purposes, shorter, nondegree courses or programs for executives. These latter programs have grown rapidly and have become huge revenue producers with very attractive margins for many business schools, in some cases accounting for more than half of total revenues. The programs typically are of two sorts, open enrollment and custom, and recently custom programs, designed to meet the particular needs of particular clients, have come to dominate the market. The explosive growth of custom programs has raised a number of important boundary issues, some of which I will address later in this article.
4. During this period of growth in the business education industry, and as business schools struggled with the issue of their own identity (What does it mean to be a professional school in a larger university?), they made a range of choices about how close a relationship they wished to develop with various segments of the business world and what the terms and conditions of those relationships would be. At the heart of each and every choice, either implicitly or explicitly, has been the issue of the school's independence and autonomy. In the case of company-sponsored research, what limitations, if any, would be put on publication of results? In the case of corporate contributions to development campaigns, what special access, if any, might contributors have to the recruitment process? In the case of custom executive-education programs, to what extent do clients define the nature, scope, and content of what is delivered? These choices, often made in various parts of the school and sometimes made quite independently of any overall strategy, in aggregate define a posture that the school has toward its constituents in the business world. And although these postures may vary from one school to the next, the overall trend is toward much closer ties between the two, ties whose consequences for individual faculty members are rarely examined.

It is in the context, then, of shifting boundaries, of explosive growth of universities and of business schools, of debate about the proper role of universities and business schools in society at large, of debate within business schools about "knowing versus doing," and of the incessant search by business schools for additional sources of revenue that I begin to reflect on the question posed at the outset, "Can researcher/manager interaction increase research quality?" and on the larger question of doing research and having impact in the world of business education. My views have been shaped by this larger context and its evolution, I am sure, and probably in ways of which I am not completely aware.

Initial Experiences, Fresh Out of Graduate School

I completed my doctoral work in organizational behavior at Cornell in 1970. My dissertation on organizational structure and innovation had been funded by a large grant from the National Institutes of Health and was based on a mail survey of a national sample of hospitals. I was encouraged to publish the findings, and the only requirement from the funder was that the grant support be acknowledged on anything that was published.

My dissertation was enthusiastically received by my committee. I, however, was less enthusiastic. I realized that I had done everything "right" from a research point of view: a reasonable theoretical framework, a solid research design, appropriate use of survey methodology, reasonably skilled application of statistical techniques, obligatory acknowledgement of study limitations, and carefully worded conclusions. But I also realized that I didn't have a whole lot to say when people asked me how innovation in hospitals might be stimulated. So although my doctoral research met one test, it failed a second. I sensed the "knowing–doing gap" but didn't have a label for it, and, besides, my academic colleagues were almost entirely lined up on the "knowing" side of the gap.

Fortuitously, soon after arriving in Champaign-Urbana as a "rookie" in the Sociology Department and the Institute of Labor and Industrial Relations at the University of Illinois, I met the dean of the brand new medical school on campus. A cardiologist, he had never worked with a social scientist before but felt that it would be useful to have someone with no particular vested interest in the venture help him track its progress. The school he was building was highly innovative in its approach to medical education, and I was attracted by the opportunity to see innovation up close. The research approach I developed with him fell somewhere between evaluation research and action research and was what I called at the time "process research" (Kimberly, Counte, & Dickinson, 1973). One central feature of the design was provision of feedback on a regular basis to the dean and his staff about what I and my team of two doctoral and two master's students were learning about the students, the faculty, the community physicians, and the school as a whole through our interviews and surveys. The research itself was funded by a series of grants and contracts from what was then the Department of Health, Education and Welfare in Washington.

The experience confirmed for me the potential benefits to both parties of relatively frequent researcher–manager interaction. The dean made several administrative and operational adjustments in the school on the basis of findings from our research, and I was able to adjust our data collection strategy as necessary as a result of our discussions. It also further shaped my view about research funding. It was up to me as the principal investigator to determine the focus of the research, the methods to be used, and the time frame for completion. Although I discussed these matters with the dean to keep him informed, there was never any question about decision rights. The project also reaffirmed the initial sense about intellectual autonomy I had developed at Cornell. The deliverable was a final report to the funding agency; however, as principal investigator, I was free to publish what and where I wished, and indeed several articles were published based on the data the team collected (e.g., Counte & Kimberly, 1974, 1976; Kimberly, 1976, 1979; Kimberly & Counte, 1978). I was sensing norms and boundaries with regard to funding and to publishing: Third-party funding preserved intellectual autonomy regarding research content and allowed me, as principal investigator, to make all publication decisions. Articles would be reviewed with the dean and his staff for factual accuracy, but decisions about content and interpretation were ultimately mine.

Yale and Diagnosis-Related Groups (DRGs)

In 1976, after spending a year in Paris, I moved to New Haven and the new School of Organization and Management (SOM) at Yale, where, again fortuitously, I met Bob Fetter and John Thompson. Bob was in operations research at SOM, whereas John was the head of the hospital administration program in the Department of Epidemiology and Public Health in the medical school, and both were involved as co–principal investigators in a major research project on the relationship between patterns of resource consumption and types of conditions treated in hospitals. This research had a strong "applied" focus and involved closely working with practitioners—initially clinicians and subsequently managers. I became involved when the research led to the development of a tool that could be used by hospital managers and when the challenge was to "sell" both the tool and the thinking behind it to them. One dissemination approach that our team used was executive education, and we designed and launched the first program to introduce hospital managers to DRGs in the summer of 1978. This program ran on an annual basis through 1986 and was offered in England, Australia, New Zealand, and a number of other countries. The tool developed was initially tested in New Jersey and subsequently adopted in 1983 at the national level as the Prospective Payment System. By any measure, its impact was huge.

A number of things about my experience at Yale with the development and diffusion of DRGs influenced my thinking about researcher–manager interaction and shifting boundaries. First, the project itself was viewed with ambivalence within the school. On one hand, the Dean's Office was happy to have the significant overhead dollars that accompanied the federal grants, but on the other hand, the faculty tended to devalue the project itself because of its applied orientation. Clearly, the project was on the boundaries of academic respectability, and the commercial potential of the tool and the underlying software raised a whole set of boundary questions that were new to me at the time. Second, the publications that came out of the project were principally practitioner oriented, and I felt that opportunities to make more general contributions were missed. And finally, discussions with participants in the executive-education programs that we ran helped me understand the magnitude of the challenge of change. The worlds of these hospital managers were being potentially uprooted by the implementation of DRGs, and their hesitation or resistance was palpable. To summarize, my time at Yale brought me closer to certain tensions on the boundaries of relationships among universities, business schools, individual faculty members, and external constituencies that I had not previously experienced, and I saw firsthand the kinds of conflicts and identity issues that beset individual faculty members as a result. I saw ambiguity in the relationship between the university and the school: Does a business school really belong at Yale? I saw ambiguity in the identity of the new school: What kind of school are we, and how should we value research that speaks to very practical real-world problems? I saw great variety in the way this ambiguity played out at the level of individual faculty members: What does it mean to be a full-time member of the standing faculty, and what rights and responsibilities go with the position? How much consulting should I do? Where should I be publishing? Should I be using doctoral students on consulting projects? These certainly were not new questions, but they were new to me and to many in the context of Yale and SOM and were hotly contested.

The Wharton Years

I moved to Wharton and Penn in 1983, intrigued by the prospect of being at a university where there was a history of collaboration among researchers in the business school and the medical school. Once again, I arrived just prior to a transition in deans. The new dean, formerly the CEO of Touche-Ross, had a very ambitious agenda for the school and aggressively moved to enhance the school's reputation. One of his priorities was executive education, and extensive efforts were made to develop the faculty's ability to deliver in this domain. As is the case at most business schools, some faculty were more effective with executive audiences than were others, and people responsible for running programs quickly identified the "stars" and got them involved in multiple programs on a regular basis. All executive teaching was done for extra compensation, and it soon became apparent that this kind of teaching could be both lucrative and, because it was done on campus, convenient. Individual faculty, confronted with opportunities to supplement their income without leaving campus, had to decide how to manage the boundary between executive teaching and other uses of their time. Although it was not a zero sum situation, many faculty avoided executive education altogether, whereas others became heavily involved.

In 1986, I agreed to become chair of the Management Department. One experience in that role has particular relevance for present purposes. My predecessor, Peter Lorange (now president of IMD), had started a corporate sponsors program as a way of raising discretionary funds for the department. To become sponsors, companies would pay a yearly fee, and Peter had used his network of personal contacts to develop an initial roster of 10 participants. Although the program did raise money, and although it did increase interaction between some faculty and practicing managers, I ultimately shut it down because the underlying value proposition for both parties was ambiguous at best. The companies were invited to semiannual meetings on campus for research briefings by faculty and were included on mailing lists for faculty research. But those managers who attended the meetings found the research typically distant from their immediate concerns and found the research similarly problematic. Faculty, on the other hand, found the meetings burdensome and without any intellectual payoff. As broker between the two groups, I found the whole arrangement to be more trouble than it was worth. This experience was significant for me because it highlighted the problem of relevance for both parties. What was clearly missing was an agenda that was mutually rewarding.

In 1992, I got involved in executive education in a significant way as academic director of Wharton's 2-week program for managers who were making a shift from functional to general management responsibilities. This open enrollment program consistently drew 40 or more participants and moved from being offered once a year to twice a year and ultimately to four times a year and, in the process, became one of the school's flagship executive-education offerings. As academic director, I valued the opportunity to interact closely with the participants, and I also felt the pressure to involve faculty who I knew would be well received by them. I wanted the program to be successful, and the most obvious measures of success were enrollments and participant evaluations. Both personally and as an inducement to other faculty, I experienced the attractiveness of additional income, and I saw how the boundary between the school and the business world was shifting in the direction of closer ties between the two, with what I believed to be both positive consequences—faculty becoming more directly knowledgeable about the business of business—and negative ones—faculty potentially losing intellectual autonomy.

I saw the boundaries shift even further when I became involved in 1998 as co–academic director of a custom program for Toyota with my colleague John

Paul MacDuffie. At the time, the company was expanding rapidly and wanted a program that would meet the challenges they were facing in preparing senior management for this rapid growth on a global basis. The school saw the relationship with Toyota as strategically important, and John Paul and I heavily invested in working with their staff to design and implement a very high-quality program that would be valued by all parties. Toyota has the well-deserved reputation of being a very demanding customer, but it also has a reputation of being committed to the principle of continuing improvement. The program has been carefully evaluated and modified each year in the process of *kaizen*, or continuous improvement, and today it bears little substantive resemblance to the original design. This process, though time-consuming, afforded us an extraordinary opportunity to work with and learn about a remarkably successful company. We were privy to briefings to the program participants by very senior executives from the CEO down during the week of the program that was held in Japan. We were asked to undertake a consulting engagement that examined a series of issues in the relationships between headquarters in Japan and the North American affiliates and that required us to interview senior executives in both locales. And we consulted with the European affiliates, developing and running workshops for senior management in those affiliates. So far, however, we have not published any of our analyses of or insights into the company, underlining one of the potential trade-offs that often arises as boundaries and priorities shift. The boundary between executive education and consulting needs to be carefully drawn and rigorously respected. Because our insights into the company come from both sources, and because we respect the difference between the two, we have taken a very conservative approach to publication.

In my view, the risk with custom programs is that although they are great revenue generators and profit makers, and although they enable faculty to see the clients from the inside, they put business schools and their faculties in an ambiguous position. The line between custom executive education and outright consulting can become blurred, and faculty time can be overcommitted to a set of activities that may pull them away from research in service of other objectives. So at the end of the day, paradoxically, increased researcher–manager interaction can actually lead to a decrease in research productivity.

So What do I Conclude?

I have had the good fortune during the past 30-plus years to have been witness to and part of an extraordinarily rich and complex set of evolving relationships among universities, business schools, and the business world. My conclusions about these relationships in general and about the implications of increasing researcher–manager interaction in particular are as follows. In my view, the quality of management research can be seriously compromised when researcher–manager interactions unfold under conditions of role confusion or role ambiguity, when it is not clear whether the faculty member is acting as a researcher (whose role is to discover new insights about the way the world works) or as a consultant (whose role is to provide advice to a client). I would argue that role confusion is likely to be found in cases where there are long-term, close relationships between the researcher and the organization in which the work is being carried out. In fact, I would argue that role confusion is virtually an inevitable consequence a long-term relationship between the two parties. Remember, the fundamental question here from the perspective of the faculty member is "When am I acting as a researcher, and when am I acting as a consultant?" When the answer to this question is unclear, role confusion results.

Role confusion may compromise the quality of research carried out. On the basis of my own experience, I would suggest that five issues (at least) ought to be seriously considered: the issue of *cognitive and emotional distance* between the researcher and what is being researched, the issue of the *motives and rewards* that drive the researcher, the issue of *basic competencies* that researchers can be expected to exhibit, the issue of the *time horizon* for the completion of scholarly research, and the issue of *how the work product is used*. These five are discussed below in no particular order of priority.

Cognitive and emotional distance. The craft of research heavily depends on the ability of the researcher to maintain a certain degree of cognitive and emotional distance from the phenomena being examined. In an ideal world, the researcher is a dispassionate investigator, motivated by a deep and abiding interest in understanding something new or different about the way the world works. In an ideal world, the researcher is able to maintain a healthy skepticism about the phenomena under investigation and to leverage his or her critical faculties when appropriate. I'm not talking about "objectivity" here. Objectivity is a myth. Rather, I am talking about the perspective the researcher brings to the work.

When researcher–manager interactions become too close, it is not clear whose agenda is being followed. Nor is it clear that the advantages of an outsider's perspective can be maintained, that serious questioning of the status quo can be effectively voiced. It is too easy to be captured—little by little—by the very system being researched and to lose the dispassionate edge. In some cases, this unintentionally happens, as the simple byproduct of sustained interaction. In other cases, intentionality plays a more significant role. In either case, however, the end result is the same. The researcher loses both cognitive and emotional distance, putting the quality of the work done at risk.

Motives and rewards. The motives and rewards that engage the researcher are an important piece of the puzzle. To the extent that the researcher's behavior is motivated by the prospect of immediate financial return, and to the extent that the relationship between the researcher and the setting in which the work is being carried out involves direct financial return to the researcher, there is risk that the researcher's capacity for skepticism and critical analysis will be compromised. Absence of direct financial ties to the setting (by *direct financial ties*, I mean those in which the more the researcher does, the more he or she gets paid) allows the researcher to exercise acquired skills and competencies more effectively. Direct financial ties more closely equate with consulting. Although consulting can certainly be high quality, high-quality research and high-quality consulting are two different things, the former being motivated by a wish to understand some general things about the way the world works and the latter motivated by finding solutions to the client's immediate problem or problems.

Basic competencies. University-based researchers have a set of skills and competencies in theory development, theory testing, and research methods that well serve the research community but that do not easily and naturally transfer into settings that demand effective, client-oriented problem-solving skills. The latter often require pragmatic, time-driven, necessarily partial solutions to real client needs. They require compromise, often serious compromise, with the criteria of research excellence and integrity with which university-based researchers are inculcated during their training and that, I would argue, often require researchers to behave in ways that contradict what they teach their students about research design. Excellence in research and excellence in consulting, in other words, require different competencies, sometimes overlapping but never perfectly symmetrical.

Time horizons. The time horizons involved in scholarly research are typically long and often conflict with the needs of managers, who typically are concerned with immediate issues. Researcher–manager interactions can make each party aware of the time constraints of the other but cannot resolve them. To the extent that the researcher's work is driven by the shorter-run needs of the manager, the quality of the research is likely to suffer.

Dissemination of results. Perhaps the most serious issue the researcher faces when roles get confused is how the results of the work are disseminated. The norms of university-based research place a high priority on the widespread diffusion of research results. In fact, a researcher's reputation is based on how widely disseminated and how frequently cited his or her work is. By contrast, consulting work is typically proprietary, and the consultant is rewarded for doing work that is highly effective and that diffuses only to the extent that others are willing to pay (dearly) for it. The difference here is somewhat similar to the "open sourcing" issue in computer software, with the academic researcher squarely in the open sourcing camp. Researcher–manager interactions can deepen the researcher's appreciation for and depth of understanding of the setting in which he or she is working but may place real restrictions on what may be published as a result. This directly limits the possibilities for others to learn, thus confronting the researcher with a professional dilemma of the most serious sort.

So what does all of this imply? Am I saying that researchers should not interact with managers, that such interaction inevitably and invariably diminishes the quality of the research product? Of course not. My own experiences have convinced me of the important potential benefits of such interaction. But I am pointing out some fundamental tensions in the relationship between the two parties, tensions that certainly can, if not openly and honestly acknowledged and discussed, lead to the sort of compromises that will diminish quality and that may, as boundaries shift, ultimately compromise researcher and institutional independence.

I believe that it is the interaction among the five issues discussed above that puts quality of research at risk. It is not interaction between researchers and managers per se that is the problem, but the confusion about roles that can arise when this interaction unfolds in the course of long-term partnerships. We do ourselves and our profession a disservice by being confused about roles. Researchers and consultants both create value, but the value created by each is different. The way in which researchers influence practice is not by trying to be consultants; it is by leveraging their distinctive strengths as researchers.

Interaction between managers and researchers is not neutral and is likely to have measurable consequences at both the macro and micro levels over time. In our effort to be responsive to the priorities of our constituents in the business world, we need to maintain what is distinctive about a professional school that is part of a university, the capacity for critical appreciation. This capacity can be maintained only by acknowledging boundaries, by being aware of the consequences of shifting boundaries, and by not unwittingly compromising our intellectual autonomy and independence as these shifts occur. Faculty who help design and deliver executive education need to be in conversation with their colleagues who do not and with their colleagues who have administrative responsibility not only for executive education but also for the full range of partnerships with those in the world of business. We need to constantly challenge the assumptions, both explicit and implicit, about mission that undergird the partnerships we form. We need to be responsive to the needs of the business world, but at the same time we need to maintain our independence. In the long run, it is through maintaining a self-conscious, carefully considered balance between the two that we will create the most value for all concerned.

WHY RESEARCHERS SHOULD SOMETIMES SEEK OUT OPPORTUNITIES TO COOPERATE WITH MANAGERS

Bill Starbuck, University of Oregon

I see an academe in which many researchers try to extract meaning from very bad data. As a result, people having great ability and much education are wasting their time and generating research "findings" that have little or no long-term value. Indeed, the flood of meaningless, noise-laden "findings" is probably obscuring the small percentage of truly useful findings. I would like to find ways both to use more productively research potentials and to raise the quality of research outputs.

Some researchers mail out questionnaires that are then filled out by very small percentages of the recipients. When I studied sampling methods, one ground rule we were taught was that any survey should be suspect if the responses came to less than 70% of the intended sample. Much management research has return rates around 15% to 25%, which raises the question of why these respondents had the time to waste filling out questionnaires. Were the actual respondents merely secretaries or public-affairs personnel?

Other researchers try to analyze data that are widely available from various databases. Virtually none of these researchers make allowance for the high error rates in such data. San Miguel (1977) found a 30% error rate in Compustat's reporting of R & D expenditures. These errors arose both from firms' reporting and from Compustat's processing. Rosenberg and Houglet (1974) examined the stock prices reported by Compustat and by the Center for Research in Security Prices at the University of Chicago. They remarked, "There are a few large errors in both data bases, and these few errors are sufficient to change sharply the apparent nature of the data" (p. 1303). Rosenberg and Houglet advised researchers to pinpoint errors by comparing data from different sources.

In 1990, a prominent business magazine quoted Richard West, dean of the business school at NYU, as having said of the writing in management journals, "It's often crap. They say nothing in these articles, and they say it in a pretentious way" (Byrne, 1990, p. 62; also see M. Anderson, 1996). Then shortly afterward, in a long interview in the *New York Times*, West stated that nearly all business school faculty are unqualified to teach because they lack firsthand experience in business. I do not agree with West that one needs to work in business to pose meaningful questions relating to business, but I have seen enough silly academic research that I can appreciate West's impatience. Much management research poses questions in ways that guarantee that the answers will be meaningless (Starbuck & Mezias, 1996).

Cooperation with managers can help researchers to ask better questions, to obtain better data, and to more meaningfully interpret their findings more meaningfully.

In 1961, Wharton's dean asked several business firms to become ongoing members of a new organization. This new organization, the Marketing Science

Institute (MSI), would encourage academic research in marketing that related to contemporary managerial problems and have potential for application.

MSI has had ups and downs over the years. It moved from Wharton to Harvard and later established separate offices. It incorporated, expanded, and then spun off the Profit Impact of Market Strategy database project. Its membership has fluctuated.

However, during recent years, MSI has had more than 60 member firms, and its influence in the field of marketing has been remarkable. During the 1990s, projects that MSI sponsored won every award for outstanding research in marketing, and they composed 60% of the articles in *Journal of Marketing* and *Journal of Marketing Research*. During 2003, MSI-sponsored projects won two awards for research that had had significant impacts over long periods and won one of two awards for the best research published during 2003. Perhaps more importantly, MSI has sponsored two-way dialogues between executives and professors. MSI's premise is that theory and practice can and should reinforce each other: Good theory can improve practice, and good practice can lead to good theory. Of course, the auxiliary verb *can* is essential because mutual benefits are far from automatic.

MSI's member firms identify research priorities, which it circulates to 2,000 academic researchers. Approved research projects receive modest financial support. Around 30 to 35 new projects begin each year, so about 90 projects are underway at any time. Because the projects generate written reports that tend to be technical and academic, MSI employs journalists to restate the reports as executive summaries that draw out their implications for practice. MSI's mailings reach around 2,000 professors and 2,000 executives. Member-only conferences and implementation workshops also discuss research findings and explore their practical implications. A typical conference involves 40 executives and 20 professors and emphasizes dialogue among the participants.

The benefits of MSI sponsorship are mainly conceptual and facilitative. Sponsored projects receive only modest financial support. MSI's activities mainly produce better research by helping researchers to ask better questions, to make better analyses of questions before they gather data, to obtain better data, and to make better analyses of the implications of research findings. Of course, not every question that companies find interesting is important from a theoretical point of view, but companies ask questions because the answers are not obvious to them. This implies that the questions touch on core issues that challenge accepted beliefs. Discussions between researchers and managers about research designs help to clarify what issues can be investigated from a practical viewpoint. The support of participating companies can improve the quality of data by raising response rates, by phrasing questions more intelligibly, and by motivating respondents to respond sincerely. Discussions between researchers and managers about research findings can both help researchers to understand the value and limitations of their work and help them to pose better questions in the future.

Few executives express interest in sponsoring research as such. Nearly all new ideas about how to manage arise from actual practice, as do the challenges that business people confront. However, many executives would like to contribute to management education, and member firms have opportunities to participate in research projects that will be highly visible to professors and students. Executives understand that the best way to get current and useful content into courses is to facilitate good research on contemporary issues. The findings of such research go into textbooks and teaching cases and set the priorities for curricula. Also, executives are looking for inexpensive, time-efficient ways to obtain professional development and continuing education for themselves and their colleagues. Business people do not have enough time to keep up with the journals and books that constantly pass across their desks, yet professional development and intellectual rejuvenation are critical to personal and organizational performance. Seminars and two-way conversations with professors about the results of research can serve this purpose. MSI's meetings and reports pinpoint major trends and new ideas, and they involve the leading academic and executive thinkers in marketing.

MSI influences the careers and attitudes of professors by sponsoring research, by making awards for the best dissertation and for the best paper published in the *Journal of Marketing*, and by creating interaction between professors and executives. MSI sponsorship helps research projects to gain access to firms and to obtain higher quality data.

My own experiences suggest that the goals of nearly all researchers can be rendered compatible with the goals of business firms that serve as research sites. The main reason is that the issues that academic researchers want to investigate are nearly irrelevant from the companies' viewpoint, and the issues that companies want to investigate are nearly irrelevant from the viewpoint of academic researchers. For example, companies usually focus on immediate, short-term issues that change often, whereas researchers are primarily interested in long-term issues that slowly evolve. Such mutual irrelevance makes it possible to construct research designs that satisfy the needs of both. Researchers can help companies to find answers they seek while also asking questions that interest the researchers themselves, and, conversely, companies can help researchers to find answers they seek while also getting answers that interest the companies. Mutual compatibility is especially likely when researchers want to study prevalent, general human behavior because such topics can be investigated in diverse settings. However, it does require a bit of imagination and flexibility to develop research plans that frame researchers' questions within the applied perspectives of companies. Both researchers and companies must be willing to give something to get something.

For example, John Mezias and I wanted realistic data about the accuracy of managers' perceptions (Mezias & Starbuck, 2003). We approached a senior corporate executive in one of the world's largest companies, and after 8 months of negotiations, we gained the company's support for our project. The senior corporate executive said that the company's top priority was quality improvement and that we could gather data if the data would tell the company how it was doing in that domain. Had we been designing a study without concern for its relevance to anyone else, we would not have chosen quality improvement as the target subject. But managers have perceptions in this domain, and the company was spending a lot of resources trying to measure quality, so we would have access to good measures of "objective reality" to compare to the managers' perceptions. Personnel in each of four large divisions helped us to design questionnaires that suited the managers in their divisions. The senior corporate executive personally delivered our questionnaires to the top managers in these four divisions, we had a 100% response rate, and the respondents completed our questionnaires themselves instead of delegating them to their secretaries.

THE DIFFERENCE LEADERSHIP COULD MAKE: A COMMENT ON THE CURRENT DEBATE

Susan Ashford, University of Michigan

Perhaps the most surprising aspect of the debate currently being waged in various publications about the conditions, future, and fate of business schools has been the silence of business school deans. Few deans have weighed in on the issues raised, including those reviewed in the current discussion. Given the not-so-thinly veiled charges of pandering (Pfeffer & Fong, 2004), irrelevance (Bennis & O'Toole, 2005), and cowardice contained within these articles, you'd think deans would have something to say. If nothing else, sitting deans might object to the portrayal of deans as crassly gaming the system while they skip through their short-term appointments with a short-term focus, without seeming concern or love for the sacred pursuit of education and longer-term issues such as the scope and meaning of professional education, how we should go about the process of educating business professions, and how we can meet our dual mission of both training the next generation of managers and contributing to our understanding of organizations and management (DeAngelo, DeAngelo, & Zimmerman, 2005). Surely, there is more leadership occurring within business schools than public accounts would have us think!

This essay, more informal than the ones that precede it, briefly comments on both the broader and the narrower aspects of the debate formally conducted at the celebration of Bill Starbuck's retirement (in May 2005). My main purpose is to articulate a set of ideas for deans and other academic leaders who care about the subject of management and business and are dedicated to the education of future professionals and ideas about how to bring theory and practice together. In addition to being an avid follower of the recent discussions, these comments are informed by my work as the University of Michigan's Ross School of Business senior associate dean from 1998 to 2002 and as associate dean for the PhD program in 1994-1995 and by my close observation of the two academic leaders who served as deans during those periods.

The Debate

The deans of several top business schools have grounds to vigorously argue that the characterization of business schools has been overdrawn in the current debate. For although symptoms of all the maladies identified (e.g., ivory tower, no relevance, no connection to the real world, faculty with no interest in same) can surely be found, there is also much going on at many leading business schools that is inconsistent with this portrayal. Let's look at the top three business schools as ranked by their faculty research (Trieschmann, Dennis, Northcraft, & Niemi, 2000): the Ross School at Michigan, Wharton, and Harvard. In the Ross School, scholarship is valued and promoted, excellent PhDs are produced, academic values are maintained, and yet MBA students are given plenty of opportunities to learn by doing through a broad program of project work in organizations. Cross-disciplinary teams of faculty interact with MBA students trying to influence practice and the practicing managers who sponsor them. Faculty members are thus put in situations where they see their ideas at work (for good or for bad). Wharton has a similar, though less extensive, project focus and a multifaceted research center structure in which companies and executives not only fund research and programs but also extensively interact with faculty. And Harvard is renowned for the close connection between faculty and the world of practice. Clearly, it is not absolutely true that faculty are removed from, and have no interest in, practice. Rather, these three schools are tackling the same issue (having some creative interface with practice) in different ways.

In general, we might move far more productively forward on the issues raised in these debates if we would stop drawing boundaries so starkly. Pettigrew (2001) notes the long-standing tradition in social sciences and management of "using bipolar modes of thinking" such as dichotomies. He comments that these "powerful simplifiers and attention directors" are remembered and influential but may "conceal as much as they reveal" (p. S61). I believe that this applies in the current debate regarding rigor *or* relevance and theory *or* practice.

I know of few business school faculty members who care nothing for practice. I know plenty of junior faculty members who know very little about practice and are putting their emphasis elsewhere to get tenure and survive. But they do care. If they don't care on their own, they care because they face classes of practice-oriented students in a larger school environment that values teaching. This reality well aligns incentives so that faculty members both do research and think about its practical importance. Many junior faculty worry that they need to maintain a focus that does not allow them to take advantage of opportunities to teach in the type of custom executive-education programs that promote application and practical extension such as the ones that Tushman describes at Harvard Business School. However, I know many in the management field, at least, who would gain many benefits from his model of executive-education interaction and from participating if the opportunity were appropriately structured (i.e., time managed well and taken for load, not extra pay). Prime among the benefits would be access to data and samples, one of the trickiest problems in today's research environment where companies are "too busy" to participate and support faculty research.

I know of few practice-oriented senior faculty members who are not interested in new ideas. In fact, they have great incentive to know the latest ideas as they are often in the business of selling ideas on the open marketplace through their consulting and in dealing on an ongoing basis with powerful executives in their executive-education classrooms. They are in the hot seat to have something new and relevant to say. If they don't have ideas, they don't have much. That said, I know plenty of practice-oriented senior faculty members who no longer have the patience for or the discipline to tackle the morass of journal articles necessary to get at that particular source of new ideas. If we recognize these realities—research-oriented junior faculty without the experience to effectively interact with practitioners and practice-oriented senior faculty without the patience or discipline to scour journals for new ideas—we gain some leverage regarding possible actions.

For if we were to stop drawing the lines of this debate so starkly, we would recognize that people are a mix and business schools are a mix and that the problems lie elsewhere. The problems lie in the culture that we've created in business schools and the lack of forums and structures to support a dual focus. This is good news for deans as it suggests things that are amenable to intervention. It suggests that starting with faculty leaders such as Tushman, Kimberly, Starbuck, and Walsh, and supported and enabled by deans, we can create what we collectively want to create in the business school's internal environment.

Foundation

Before we turn to possible interventions or remedies, I'll advance one final, central tenet. That is, it is important to note that Kimberly (and the others who have said it before him; e.g., Grey, 2001; March, 2003; Weick, 2001) is right—the production of knowledge is a sacred pursuit. A dean's most central responsibility is to support it, celebrate it, and be a spokesperson for it. This point is worth noting first because, although it is portrayed in the current debate as all powerful, it is actually quite fragile. Although it is the case that there is a power structure that supports this truth (Bennis & O'Toole, 2005), it is fragile in that is so easily attacked, so patently absurd on the surface. However, there is no other institution in society that is so purely aimed at the pursuit of truth and the production of knowledge than the university. It is, as Grey (2001), comments, what is "special and distinctive about [universities]: the things which they uniquely, can do" (p. S29). It is no wonder that March (2003) likens the university to a temple that should be kept free from market pressures:

> The university is only incidentally a market. It is more essentially a temple—a temple dedicated to knowledge and a human spirit of inquiry. It is a place where learning and scholarship are revered, not primarily for what they contribute to personal or social well-being but for the vision of humanity that they symbolize, sustain, and pass on. (p. 206)

Universities have been entrusted with a particular role in society, one of great value. The university

> stands for things that are forgotten in the heat of battle, for values that get pushed aside in the rough-and-tumble of everyday living, the goals we ought to be thinking about and never do, for the facts we don't like to face, and the questions we lack the courage to ask. (Gardener, 1968, quoted in Weick, 2001, p. S71)

And in today's uncertain world, we surely need a place where questions that trouble us are asked, where knowledge with no immediate applicability is pursued, and where findings with no immediate relevance are permitted and considered.

With such a mission, there will always be inefficiency. As Grey (2001) puts it,

> The production of useless knowledge is a public good because it is the price to pay for the possibility of producing useful knowledge. Much knowledge will, quite rightly, only be used by other academics during the process of refining, testing, criticizing and discarding. (p. S29)

In addition, value often can't be immediately determined but will only be realized later as conditions change, such as in the case of several strands of esoteric mathematics that became relevant only when the world of computers exploded. The process is also messy because it is indeed true that alongside a faculty working hard to create new knowledge exists another faculty who have long lost a sense of mission and are pursuing their own ends or are pursuing no ends (no output) at all. In short, the creation of knowledge is incredibly messy, costly, inefficient, and risky. And it is valuable nonetheless. It is worth our efforts to protect and encourage this pursuit.

Having said this, business schools are professional schools and are held to a dual standard—to produce knowledge and to prepare people for practice. Two things, two foci, are not too much to ask of an institution as well endowed with financial and human capital as business schools. In this dual focus, business schools may be just slightly ahead of where universities are going more generally. Lee Bollinger, president of Columbia University (quoted in Kanter, Khurana, & Nohria, 2005), recently stated, "We are now at a new period where universities are reentering the world" (p. 9). Kanter et al. (2005) laud Bollinger's statement because they believe the task for universities at this historical moment is to "again become proactive in the ongoing effort to achieve and maintain alignment between its internal structures and culture in the needs and demands of society" (p. 9). If universities seriously take on the task of "justifying their prerogatives and access to resources through service to society" (p. 9), a heightened sense of dual focus will mimic that played out in business schools during the past several decades.

Interventions

To make a dual focus work, it is important to keep in mind that it's not critical to the success of the business school that every single faculty member in the school be one way *or* another—be practice oriented *or* basic-research oriented (or even to be both). There is room within a business school for different types of people and for valuing different types of people. For example, at Michigan, Weick is highly esteemed as a faculty member. Karl has produced some of the most important foundational knowledge in the management field. His work would be mysterious to most practitioners, and yet his insights show up in the writings of Tom Peters and others who are regularly read by practitioners. Bob Quinn is also highly esteemed as a faculty member. Bob has been highly influential in the world of practice (focusing on leaders and leadership). He writes more books than articles, is extensively involved in executive education and work with companies, and yet he teaches one of the most transformative sessions our highly research-oriented PhDs ever experience. There are others who do fundamental research, some whose research influences practice and some who are passionate about their teaching who are also valued within the school. The more we resist making a "once and for all" defined mold to which all business school faculty members must conform, the better. For deans, the job is to inspire excellence in all faculty members, despite their stripe, and to affirm what's best in each. For deans and department chairs, the job is to understand the range of competencies needed and to select the people who are most needed in the mix of faculty and to develop those faculty over time. It is possible to find pure researchers, practice-oriented professors, and those who can do both extremely well. I know because I've recruited them and battled other schools to keep them.

Second, it may be that there is a career progression for many faculty members, with the need to focus on more fundamental (perhaps more esoteric) research early in a career and the growing ability and desire to branch out into more practical concerns later in a career. Junior faculty just exiting PhD programs know a lot about the former and very little about the latter. Why not play to their strengths? For a faculty member, the trick is to not so starkly make the decision about "who to be" that he or she stops growing. Tushman clearly benefited from his interactions with practice as a young faculty member. Tushman also generated the type of vita that warranted tenure at a top business school. It is possible to do. If we decide that junior faculty can only do one thing and not the other, we set a pattern that can lead them away from opportunities to grow during a life span of a career. And that would be a great shame. For the worst that academia has to offer is not an avid basic researcher or an enthusiastic practice-oriented teacher or scholar. The worst academia has to offer is a faculty member who is burned out—no longer writing, no longer interacting with practice, no longer teaching well, and no longer growing.

Deans can help by seeking out and structuring small opportunities for junior faculty members to interact with practice in ways that promote their growth. I suspect that the junior faculty members who work with Tushman on the executive-education programs he describes in his essay do really grow. They get new ideas. They get access to data from which they can publish and develop a tenurable record. Deans can also help by recognizing, honoring, and valuing a career progression—creating small opportunities for interaction with practice early on and helping to promote larger opportunities later on.

Third, the business school culture would be helped by the creation of forums that enable an exchange among and between these two (or more when you consider various permutations) camps of people. I have watched practice-oriented faculty listen with delight to a well-crafted research talk in which an excellent idea is developed and made accessible. Practice-oriented faculty, in turn, can create minioccasions for interacting with practitioners by inviting more research-oriented faculty into their executive-education efforts in ways that makes sense. It might be an evening lecture on some new research idea or in a smaller role on the faculty teams working with senior management in the way that Tushman describes. The goal isn't simply to bridge a divide in the faculty ranks. For those who love academia and what it has to offer, there is something of real value here on the sacred level. That is, these interactions can enrich the offering to the executives and enrich the thinking of faculty.

But the true transformative power of this practice will only be realized if a school broadens the set of opportunities beyond the base of the "usual suspects" who get tapped over and over again to do the executive teaching of a school. In this regard, executive MBA (EMBA) teaching is another great forum for interaction with practitioners. Because the EMBA is a degree program that spans more time (e.g., 21 months) than the typical executive-education program (e.g., 1 to 2 weeks), younger faculty have a better chance to be successful teaching in it. The power relationship is more balanced in that EMBA participants can value or not value the faculty member, but that faculty member also gives a grade. These two factors make the EMBA a tantalizing possibility for promoting faculty interaction with practitioners in ways that the faculty member can be successful and preserve his or her time for research (as this teaching can be part of his or her regular academic load). These classrooms share many of the characteristics of the executive-education work that Tushman describes (such as interaction with people 10 to 14 years out who are actively working on problems) but have qualities that make them viable teaching possibilities for younger faculty members.

Fourth, deans who desire to see more interaction with practice need to foster the active mentoring of more faculty (junior and senior) to create greater ability and capacity to do so. If there were a career progression toward broadening one's thinking during the career span, then maybe more senior faculty would develop an active interest in interactions with practitioners later in their careers, just when business schools as institutions have stopped thinking about any sort of mentoring or development for them at all. It is at just that point that these faculty may be most amenable and open to increasing interactions with practitioners and most able to develop in that arena. But if no one is thinking of them or thinking of reaching out to them, then the potential lies fallow. A dean's primary responsibility is the development of the faculty over the long run and in accordance with some vision of the ideal faculty member—or, more appropriately, the ideal mix of faculty.

Another potential for cross-connection and impact that often lies fallow is that there are many fabulous ideas in more traditional academic research just waiting to get out to a practice-oriented audience, but often the faculty member himself or herself is the worst communicator of these ideas to this broader audience. Business schools can hire translators to help market the knowledge that exists in academic research to people who might benefit from it. We have such translators in our field right now, with Tom Peters translating Weick, as mentioned, and Malcolm Gladwell translating all sorts of basic psychological research in ways that make it not only highly palatable but also attractive to a broad public. Wharton has an established program of translation of faculty ideas into layman's terms that they then sell as an online subscription service to 400,000 subscribers worldwide. The addition of such people within the business school does two things. First, it allows faculty to do what they do best (continue to produce knowledge) while also still creating a desirable impact on practice. And second, it helps more basic research-oriented academics come to see over time what they are not naturally inclined to look for—the practical import of their work. This growth happens by osmosis and incrementally rather than by demeaning one aspect of faculty work and demanding another.

An additional dean responsibility in today's world, I believe, is to foster interdisciplinarity. The world of practice today doesn't show up in disciplinary silos and probably never did. Problems in the world are complex and multifaceted. And yet the academy often operates within very rigid boundaries where academics only read "their own" literatures and talk to their own colleagues. One of the hallmarks of University of Michigan is the low boundaries between schools and colleges. Organizational scholars from 11 different schools and colleges come together weekly for a seminar, for example. PhD students cross boundaries. Faculty members coauthor with faculty members in various disciplinary departments. An issue in today's world is that academics not only need to interact more extensively with practice but also need to both understand and take into account the theories and findings from other disciplines. Making this happen requires academic leadership—first, to make the case for its importance and, second, to make sure that our reward structures take into account the greater complexity of doing research in this way. Theoretically, it's a longer path with a greater reward at the end of it. But most academics need to see some reward along the way as well.

A final intervention involves deans becoming more effective spokespersons for the importance of developing generalizable knowledge about business and management. To my mind, the most inspirational example offered in these essays is the story of MSI described by Starbuck. That institute was the idea of a dean, and its creation was the result of that dean's proactivity. It clearly was respectful of the work of academia, and yet it brought about structured interactions with practitioners that have been highly influential in the field of marketing. I know of few academics who would sign up for interactions with practitioners where the focus is on how silly and irrelevant their work is. I know many academics would love to sign up to interact with practitioners who are interested in talking about the important ideas of the day and how the practitioners might facilitate the accomplishment of research on them. It is this kind of leadership from deans with the broader business community and society that we need to see a lot more of. If it takes courage today to be willing to loudly and proudly state who we are and what we offer society and the world, then I would like to see more of that courage.

I think there is a lot of hope in business schools today—hope in the willingness to have a mix of models regarding what is a successful academic, hope in the cross-disciplinary bridges between business schools and academic departments, hope in faculty leaders such as Tushman who are willing to be the bridge between practitioners and their junior academic colleagues, and hope in the numerous possibilities for intervention on the part of academic leaders to set high aspirations and to create more of the culture that we like to create within our schools. I agree with Pfeffer and Fong (2004) when they state that we need to focus on caring about the *subject matter* of business and management. I think that deans can play an important role in making the case for what we're about as an institution, both in society and within the university, and setting up structures and systems to reinforce it over time.

NOTES

1. I would like to thank Joe Mondello at the Association to Advance Collegiate Schools of Business for providing the contemporary portrait of business schools and their graduates.

2. Walsh, Weber, and Margolis (2003) showed us how our collective research interest in human well-being significantly declined during the past 25 years.

3. This essay builds on my Organization and Management Theory Distinguished Scholar presentation at the Academy of Management (Tushman, 2003), on my presentation at the Bill Starbuck celebration (Tushman, 2005), and on Tushman, O'Reilly, Fenollosa, and Kleinbaum (in press).

4. Massachusetts Institute of Technology is rooted in its history of respect for research affecting practice. Indeed "mens and manus" is embedded in the Institute's history and symbols.

5. Indeed, Stokes (1997, p. 31) argues that the distinction between so-called "basic" research and "applied" research is both inaccurate and pernicious. It is inaccurate in that a careful examination of how science proceeds in disciplines as diverse as physics, biology, chemistry, demography, and economics reveals that innovation almost always reflects a combination of basic and applied research. It is pernicious in that it promotes an artificial status hierarchy in which basic research is seen as superior to applied research.

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