

# The call to bridge knowledge and action: The response of the Boston College doctoral program in organization transformation

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# **13 THE CALL TO BRIDGE KNOWLEDGE AND ACTION: The Response of the Boston College Doctoral Program In Organization Transformation**

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This chapter proposes that a new kind of social science, along the lines described as *Cooperative Inquiry* and *Developmental Action Inquiry* in Chapter 5, is necessary if we are to bridge knowledge and action in our real-time work and in our families in ways that contribute to human flourishing. The aim of this new kind of social science is not just to inform detached readers, but also to create conditions for transformation of the participants and/or the organization at the site studied (Bradbury, et al., 1998).

The chapter begins by describing some of the conceptual differences between this kind of social science and modernist social science. It then illustrates an early effort at this kind of science through the study of the first decade in the development of a doctoral program in Organization Transformation. This doctoral program does not just describe organization transformation at a distance, but is actively engaged in repeated and ongoing transformation itself. This illustration is particularly fitting, for, if social science is to change fundamentally from an “ivory tower” concern with knowledge separate from action, to a “real world” concern for integrating knowledge and action in real time, then doctoral programs in the social sciences must change fundamentally.

The author is a (senior, faculty) participant in the program, and he describes the ten-year evolution of the program in three distinct but interwoven “voices”—the common, impersonal, third-person voice of modernist social science, the direct second-person voices of colleagues (senior and junior, faculty and students), and his own first-person voice. The author describes how his own view and feelings about the program have changed as a result of the study. He also describes what conversations have recently been occurring in the department in relation to the study. Altogether, the study is meant to illustrate one way of creating a transformational social science, as described in greater detail in Chapter 5.

## WHAT BRIDGES KNOWLEDGE AND ACTION?

The theme of the 1997 Academy of Management meeting, for which the original version of this study was prepared, was “The Call to Bridge Knowledge and Action.” A marvelous critical review of the symposium asked bluntly, “What bridges knowledge and action? After reading these papers, I still don’t know.”

Hopefully, this question will startle all of us out of our continuing reveries long enough to realize that the true answer, at least 99% of the time is nothing.

Most of the time—moment-to-moment—our minds and our bodies are living in disconnected universes. We daydream as we drive to work. We speak earnestly about what we are thinking, not noticing that we are mumbling. Smilingly, we unilaterally insist on collaboration.

Sometimes, though, what bridges knowledge and action is a horrifying feeling—awareness that we are in self-contradiction—that we are pretending to be honest, or that we are advising someone not to take anyone’s advice. Of course, we don’t like this kind of bridge between knowledge and action, and we generally try to get off it as soon as possible, either by correcting the incongruity (that’s the hard way), or by destroying the awareness of the incongruity (by far the easier and more common way, if my personal experience generalizes to you).

Thus, the call to bridge knowledge and action in a harmonious, aligned way is a call, first and foremost, to a new kind of *awareness*—a new kind of *attention*—that can interpenetrate our thinking, acting, and effects in real time. To cultivate and sustain this new kind of attention requires, in turn, a new discipline of suffering and loving. We must suffer our lack of awareness and love differences. For example, we must suffer and love incongruities, not turn away from them. Only then (check me on this!) can we cultivate an awareness within ourselves, in our significant relationships and communities of practice, and in the wider institutions in which we participate that gradually comes to harmoniously interweave four distinct “territories of experience” (see Figure 5.2; also, Torbert, 1991):

- 1) our highest intuitions of mission (‘attention’), with
- 2) our best strategizing/theorizing (‘knowledge’),

- 3) our most artistic performances ('action'), and some semblance of
- 4) our aimed-for results in the objecting, outside world ('assessment').

In other words, the call to bridge knowledge and action is a call not just for a bridge, but for a new kind of knowing, a new kind of research, and a new kind of acting. For example, knowledge in contemporary social science is primarily explicit, propositional theory and secondarily explicit, empirical data that are captured (hence, more accurately described as "capta" than as "data") via an analytic methodology intent upon minimizing incongruities between descriptive theory and descriptive data. Thus, it concerns territories 2 and 4 above in "analytic time," but not territories 1 and 3; and it engages none of the four territories in real time. In contrast, Heron and Reason (1997; Heron, 1996; Reason, 1995) describe four kinds of knowing—experiential, ■presentational (artistic), propositional, and practical—ranging from the more implicit to the more explicit, with congruent bridging across all four necessary if our practical knowing is effectively to guide our action in the present. Although the specifics of their four kinds of knowing and what I call the four territories of experience are interestingly different in some ways, they both sketch a similar challenge to create a new kind of social science practiced by persons in the midst of their real-time action.

## WHAT KINDS OF RESEARCH BRIDGE KNOWLEDGE AND ACTION?

Unlike Empirical Positivism which separates research from action and focuses exclusively on third-person research, research that cultivates bridging between knowledge and action will occur:

- 1) primarily *in real time* (for when else but now can the bridge exist?);
- 2) *within research/practitioners who cultivate self-and-other awareness as they act* [i.e., through what I call "first-person research/practice" (see Chapter 5 for more complete discussion of this and other methodological terminology in this chapter)];
- 3) *in meetings where participants develop the meta-norm that actions observed and norms inferred can be discussed at the time* (i.e., through "second-person research/practice"); and
- 4) *in organizations where visioning/strategizing /performing and assessment data and processes become co-created and co-interpreted* (i.e., through "3rd person research/practice");
- 5) *with increasingly timely single, double, and triple-loop feedback* see Figure 5.2 that:
  - a. tests the reliability, validity, and efficacy with which performance goals are actually achieved (i.e., the degree to which the learning system responds to single-loop feedback);

- b. generates critical/creative dialogue that tests to what degree strategies are congruent with mission, to what degree the espoused strategies are actually being enacted, and to what degree new strategies are worth testing [i.e., to what degree the learning system seeks double-loop feedback in guiding itself (Argyris & Schon, 1974)];
- c. reawakens active, inquiring visioning from moment to moment that both tests, and is supported by, philosophical/spiritual traditions that seek integrity across personal and organizational visioning, strategizing, performing, and assessing [i.e., triple-loop feedback (Bartunek & Moch, 1994; Nielsen, 1996; Torbert, 1994; Torbert & Fisher, 1992) across the four territories of experience]; and
- d. invites change and transformation toward increasing inquiry and mutuality on the part of the initiating research/practitioners as well as other participants and their communities of practice and organizations.

**DO UNIVERSITIES OR BUSINESS ORGANIZATIONS IN GENERAL, AND THE BOSTON COLLEGE Ph.D. PROGRAM IN PARTICULAR, SYSTEMATICALLY ENCOURAGE SUCH RESEARCH/PRACTICE AT PRESENT?**

In response to this question, I am confident that the overwhelming majority of my readers (both in general and within our department) will intuitively agree with my assessment that the answer to this multi-pronged question is quite simply: *No*.

This is why some of the most expensive and popular scholarly consulting approaches today (e.g., Argyris, 1994; Nonaka & Takeuchi, 1995; Senge, 1990; Senge, et al., 1999) concern the question of how to integrate inquiry/research/action/transformation in real time "learning organizations." Research findings in recent years (Lawler, Mohrman & Ledford, 1992; Niven, 1993; Total Quality, 1994), as well as many failed attempts at continual quality improvement and developmental organizational change to create learning organizations, confirm that for a manager or an organization to make a qualitative change toward learning orientation—where there is continual, timely interaction between inquiry and action—is a major challenge that requires a two to five year commitment of time, not to mention the commitment of rare facilitative, consultative, and leadership skills (Torbert, 1994; Fisher & Torbert, 1995; Rooke & Torbert, 1998). And all this . . . just to *begin*. Neither a semester-long university course, nor a typical six-month or one-year consultative relationship can possibly deliver such personal or organizational change. Moreover, there is no a priori reason to think that an "ivory tower" university department is any more likely to become good at balancing and integrating action and inquiry than a "real world" business department or a religious sect.

Indeed, over the past half century, even though a serious conversation has grown in Europe and the US over the nature of social science and its relations to social action (Argyris, Putnam & Smith, 1985; Bernstein, 1985; Gadamer, 1982; Reason, 1995; Reason & Rowan, 1981; Schumacher, 1977), doctoral programs in management in the United States that have attempted to bridge action and inquiry have found it difficult to survive. The program at Case Western Reserve University has probably been the most successful, but it long struggled with a reputation of not producing first rate academic researchers. The program at Yale was administratively destroyed. The program at UCLA bifurcated, and the action-theory-oriented faculty played a diminished role. At MIT, most of the action-focused faculty gradually left and were not replaced by others of similar commitment (and today the Senge-inspired Society for Organizational Learning is better described as tangential to MIT—indeed it has physically moved out this year).

In the case of the doctoral program in Organization Transformation at Boston College, the evidence that it does not systematically encourage the above-defined kind of real-time research/practice includes such data as: 1) only one of the six doctoral dissertations already completed explicitly and critically encompasses first-, second-, and third-person research/practice; and 2) although a number of faculty engage in various elements of real-time research/practice, only one of eleven explicitly engages in all elements of the type of research just defined in all the real-time institutions and communities in which he participates.

(As you may already have inferred, I count myself as that faculty member. This, in turn, makes it easy for my readers and colleagues to attribute bias, defensiveness, and offensiveness to my rhetoric here. Which, in turn, puts a special spotlight on whether and how I illustrate my claims and whether and how I introduce the voices of my departmental colleagues. For example, although I offer #2 above as a descriptive statement, one departmental colleague responds, "This sounds like you are making the others wrong, and that anyone who doesn't do your kind of research is a primitive nontransformed Neanderthal/positivist.")

Some qualities of the Organization Transformation doctoral program may initially make it seem surprising—even ironic—that the answer to this question should be "No" for our department in particular. First, four of the five senior faculty referenced above as contributing to the early development of the concept of triple-loop feedback and learning are members of the Boston College Organization Studies (BC OS) department (Moch is the exception) and all four are committed, not just professionally to conventional types of third-person social science research, but also personally to various forms of first-person research/practice. Second, the mission of the program as a whole is the study of organizational transformation. Third, many department members have pioneered innovative and eclectic combinations of quantitative, qualitative, and action research practices. And fourth, all four of the senior faculty referenced as contributing to the concept of triple-loop feedback have acted as Department Chair or Ph.D. Director (leading to the attribution that they are not a powerless minority).

Two years ago, I myself thought it ironic that members of our program were not more attracted to the new kind of research/practice I am describing here. But through this research on the history of the program my own point of view has transformed, so that the answer “No” now seems neither surprising nor ironic to me. I will describe below in my brief “first-person history” of the department how my view has changed, and then outline a second-person and third-person history of the department. But before these specifics, I offer a more general view.

## WHY NOT? WHY IS RESEARCH THAT BRIDGES KNOWLEDGE AND ACTION NOT MORE PREVALENT?

Why are we—both we in general and we in particular in the BC OS Department—not in fact encouraging more real-time research/practice that bridges knowledge and action?

I have already mentioned the most general, third-person reason why we do not—neither in research nor in action, neither in universities nor in businesses or other organizations—encourage real-time research/practice that generates timely, transforming action. Namely, our modern paradigms of science and action *split* mind (visioning and strategizing/theorizing) from body (performing and empirically assessing)—*split* observer/researcher from participant/practitioner—in order to increase the validity of knowledge (make it more objective and dispassionate) and in order to increase the instrumentality of action (make it more technically efficient for achieving pre-determined ends) (Abram, 1996; Argyris, 1980; Berman, 1989; Mitroff, 1974; Needleman, 1975). As stated earlier, modernist social science treats reality as composed of two territories of experience [the map (mind) and the territory (the externally apprehensible world)], rather than four.

Over the past five hundred years, this modernist paradigm of science, technology, and economics has gradually (and not yet quite completely) supplanted traditional paradigms of reality. Traditional paradigms of reality intertwine the four territories of visioning, strategizing, performing, and assessing, but in ways that encourage introjection of, rather than inquiry about, the paradigm (in this avoidance of inquiry about the paradigm, they are no different from modern science) and in ways that do not reliably digest even single-loop feedback (Berman, 1981; Reason, 1995). By contrast, modern science, technology, and economics systematically encourage single-loop learning (empirical testing of propositions and market testing of products). During the past quarter century, the modernist paradigm has reached such maturity that it is increasingly being described and partially transcended by a Postmodern Interpretivist critique (Bernstein, 1985; Denzin and Lincoln, 1994; Pitkin, 1972; Sprenak, 1996).

A multi-paradigmatic, developmental theory that I have been studying and contributing to for thirty years (see Chapter 5) distinguishes seven distinctive paradigms of scientific inquiry. According to this view, modernist science covers

only the first four paradigms. Hence, the next equivalent to the modern era (i.e., the next 500 years or so) can entail three paradigm transformations beyond the modernist paradigm boundaries, *if we wish* to develop persons, institutions, and sciences that support first-, second-, and third-person research/practice that generates transforming single-, double-, and triple-loop feedback and learning.

The emphatic "if we wish" in the previous sentence highlights some of the primary qualities of all postmodern paradigms: that they are not implicit paradigms that can be inculcated into children or other neophytes; but rather that they can be taken on only explicitly and voluntarily by adults with a concern for encouraging greater voluntariness in self and others, greater mutuality in relationships, and greater ability to transform toward one's own, continually revised version of a good life. Thus, the aim of this multi-paradigmatic developmental approach is not to create an implicit and imperial "grand design" that imprisons its readers and practitioners, but rather to create an explicit vision of a "grand design" that can be subject to continual testing in further personal and organizational research/practice and that requires all participants' full fledged partnership and leadership—not passive conformity. My point here is that the most general reason why we do not encourage real-time research/practice that bridges knowledge and action and encourages transformation (rather than certainty, stasis, conformity) is that we are just at the outset of envisioning what may well be a multi-generational, global effort to do so.

Some persons criticize developmental models on the grounds that they are "individualistic," "linear," "hierarchical," and "elitist"; and they further object to the claim I seem to be making that my work (Developmental Action Inquiry) represents the latest developmental form and hence the "best" kind of research/practice. I want to respond very briefly to these objections in the hope of encouraging such persons to "look again." First, it is true that much of the research on human development has taken place in psychology and has had an individualistic bias to it (Kohlberg, 1981; Piaget, 1965), but my own colleagues and I (Fisher & Torbert, 1995; Rooke & Torbert, 1998) have explicitly extended the developmental logic to the social level, as has recent psychological theorizing (Kegan, 1994; Overton, 1997), and Chapter 5 in this volume extends the developmental approach to epistemology and methodology as well.

Second, the initial appearance of developmental theory as linear and hierarchical is belied by actual experience within any of the later action-logics. As stated at the outset of this chapter, the increasingly intensive awareness generated by the later action-logics across four territories of experience and across the many interacting persons, groups, and organizations in real-time settings introduces one to suffering (and loving!) a chaos of interweaving and mutually interrupting actions and interpretations. At the same time, the later action-logics introduce one to the inefficacy of hierarchical, unilateral power for generating genuine transformation, voluntariness, and mutuality, which are increasingly prized. Thus, although only small minorities of humanity have pursued late-stage development to date, those



who do are shown not to act in elitist fashion; they act inclusively rather than exclusively, collaboratively rather than hierarchically.

Third, the normative quality of developmental theorizing that makes the later positions in some way “better” is one that one can only commit to for oneself and offer as an invitation to dialogue with others. I commit to the awareness-and-action-challenge of the latest action-logic I can imagine (Developmental Action Inquiry) as an *aim*, not as an accomplished fact that makes me better than others. Indeed, both psychological measures and personal experience suggest that in personal developmental terms I am *at least* one transformation away from practicing the Developmental Action Inquiry action-logic. This aim shows me mainly my poverty. I experience this “poverty” in this research project, for example, as I struggle through revision after revision in an effort to write in a way that generates more dialogue with my colleagues.

So, let us turn to a brief and incomplete sketch of the actual state of affairs in the BC Organization Transformation doctoral program.

### **A FIRST-, SECOND-, AND THIRD-PERSON HISTORY OF THE BOSTON COLLEGE ORGANIZATION TRANSFORMATION DOCTORAL PROGRAM**

I originally began to construct the ten-year history of our Organization Transformation Program in response to the invitation to participate in the Academy of Management symposium carrying the title of this chapter. I also began it as a first-person research/practice exercise intended to address, clarify, and possibly transform the mixture of pride and frustration I felt about my relationship with the program. The following two pages offer a summary of my personal experience in the department in a first-person voice. I offer this personal reflection for three reasons. First, this summary, in tandem with the later multi-voiced outline of our ten-year history, is intended to help readers disentangle the subjective, the intersubjective, and the objective aspects of this case (in order to appreciate more clearly how they are actually interwoven). Second, it is intended to show how this study transformed my understanding of, and feelings about, the department—transformation of the researcher being among the aims of Developmental Action Inquiry. Third, this first-person summary meets some of the validity demands of the Postmodern Interpretivist paradigm (namely, reflexive validity and situated validity, see Chapter 5).

After the first-person summary, I offer the ten-year history of the Ph.D. program, as developed with written and verbal input from well over half the members of the department.

## ONE FIRST-PERSON HISTORY OF THE ORGANIZATION TRANSFORMATION PROGRAM

*As a twenty-year member of the department, I was among the founding faculty of the doctoral program. I had not suggested the Organizational Transformation theme near the outset of visioning the program, but was delighted when someone else did and when we rather easily achieved consensus on the idea. We have always been a department somewhat unusual in operating in a truly collaborative fashion and dealing well with single-loop feedback (for example, the entire faculty meets each year to develop the schedule of courses and times for the following year and does so in a friendly, fluid, adaptive fashion). At the same time, we had never worked closely together on an operating program and (perhaps for that reason, but in any event like most organizations) had never developed an organizational culture of double- or triple-loop feedback with one another.*

*I imagined that, like most of the MBA students I had ever worked with, many of the Ph.D. students would be deeply interested in the call to bridge knowledge and action. There is no question that many of them are; but, to my surprise and consternation, I found our early classes very cautious about engaging in action-oriented research. I gradually induced three reasons for this. A first reason was that, for the first time in a quarter century, management enrollments were declining and the market for new Ph.D.'s was frighteningly tight, encouraging conservative views of what kind of scholarship would "sell." A second reason was that the Ph.D. courses I taught did not entail as frequent or as encompassing action projects as my MBA courses, so instead of practicing action inquiry in their own real situations and gradually developing an increasing taste for it, the Ph.D. students tended more toward critiquing what they imagined its premises to be and developing a distaste for it (and I was obviously less than facile at identifying and adjusting to this double-loop feedback).*

*A third reason was that my most recent book at the time (Torbert, 1991), which had most fully embodied and illustrated my own efforts to integrate first-, second-, and third-person research/practices, had proven to be more controversial than I had expected. Although the book received generally superb reviews in many major journals in management and education and was a finalist for a national award, its foreword by my longtime colleague Donald Schon was uniquely confronting.*

*Both he and some of my departmental colleagues viewed the book as fundamentally unscientific because one of its three sections was explicitly presented in a first-person voice and some of the experiences described seemed shocking (as double-loop and triple-loop feedback sometimes is). Gradually, I came to recognize this reaction made perfect sense, given that (1) I have been attempting to develop and demonstrate an alternative paradigm that bridges knowledge and action, (2) different paradigms ordinarily seem illegitimate to one another, and (3) in the context of the doctoral program, with its explicit focus on methods of research and practice, I explicitly articulate the Developmental Action Inquiry paradigm as distinctive, rather than simply using it quietly to guide my own action, as I have through most of my prior career. This third reason for the disjunction between my sense of direction and that of most of my departmental colleagues reflects on a personal scale the more general phenomenon mentioned earlier that bridging knowledge and action requires a different paradigmatic approach to science from the modernist, positivistic, third-person approach. In any event, during the early years of the doctoral program, my work was viewed as outside the mainstream and perhaps dangerous, despite some indications that it "works" (e.g., research awards, teaching awards, consulting fees, documented organizational transformations, board positions, etc.). I was perceived as over-advocating this approach, and I felt more systematically frustrated and unsuccessful in communicating with departmental colleagues than ever before in my career (by contrast to more fulfilling relationships in other settings where I exercised, but did not explicitly advocate, Developmental Action Inquiry).*

*I was fortunate enough to be able to take on the Directorship of the doctoral program from 1994 to 1997. This gave me the opportunity for more real-time, organizational interactions with both faculty colleagues and doctoral students, and I experienced a gradual and partial transformation of my prior image within the department. In my role as director, I came to be viewed as reliable, as able to hear and address concerns, and as focused on helping students complete the program and market themselves successfully (though some of my colleagues have questioned whether I "spoiled" the students to some degree). During this time, students in the department won a wide range of national distinctions and awards, and these were obviously timely actions from the point of view of establishing a collective belief in the*

quality of our program as recognized from beyond its boundaries.

As director, it was prudent for me to reflect more about what was timely action in the context of our historical development. This reflection, along with the more disciplined and explicit effort to construct an outline of our history for the first version of this chapter, eventually opened me to the in-retrospect-blindingly-obvious realization of a fourth reason why our doctoral program was not instantaneously encouraging of single-double-, and triple-loop research/practice from its inception. Namely, in my own theoretical language, the program was evolving through the early developmental steps that eventually can lead to successful goal achievement based on single-loop feedback (the fifth stage in Table 13.4). Moreover, the senior faculty was simultaneously attempting to create fertile developmental conditions, not only for the doctoral program and students, but also for four, tenure-track junior faculty members. According to a developmental understanding, double- and triple-loop feedback may operate implicitly, within individuals or subgroups, during the early years of a new organizing process and new careers, but the organization as a whole can systematically choose to foster double- and triple-loop feedback processes explicitly and successfully only upon the foundation of single-loop feedback signifying relative success. For our doctoral program, this has happened only during the past year, when the first Ph.D's have been granted and our graduating students have received offers of university positions, as had been their and our aim. For our junior faculty, there are currently many positive interim signs of accomplishment, but their tenure decisions—the important single-, and double-loop feedback that transforms their status at the university—do not begin to occur until this coming 98-99 year (as this book goes to press, the two faculty members standing for tenure this year have won it).

Thus, my choice to study the history of our program eventuated in a transformation of my own intellectual and emotional appreciation for our department's accomplishments and direction. I am currently engaged in a continual recrafting of this chapter in response to departmental members' feedback in the hope that this process invites new insights for others as well.

## A SECOND AND THIRD-PERSON HISTORY OF THE BOSTON COLLEGE Ph.D. PROGRAM

My original historical outline of program events (see Table 13.1), divided into two-to-three year "eras," was based on: 1) my continual presence throughout that history (first-person data); 2) my at least relatively high ability to develop relationships of trust and confidentiality that generate valid data about others' views (second-person data); and 3) my own and the program's archival files (third-person data). Next, I asked five other members of the department (two faculty and three students) to respond and amend the outline (second-person validity test) before an initial paper was presented at the Academy of Management. Six months later—in order to explore and improve the validity of my initial history of the program, and simultaneously in order to encourage first- and second-person research/practice within the program itself around the questions of where we've been and where we're going—I circulated the original historical list of events to all department members. I asked for additions or revisions they would offer, with the promise of discussing this history and our present situation at an informal "brown bag" lunch seminar. This seminar will be described below.

Nine more students and one more faculty member responded in writing, providing the multi-voiced quotes in the current historical outline (see Table 13.1). Nineteen of twenty-one students and six of eleven available faculty attended the brown bag lunch seminar (it was noticed that none of the junior faculty were present; but while this may attest to their pressures and priorities, it does not reflect hostility or indifference, as I know from ongoing conversations with various ones of them). Fifth and finally until the present, I have received ten sets of comments on this paper from: two senior faculty members, two junior faculty members, four 3-6 year students, and two 1-2 year students, and all these have influenced the present manuscript in many ways, some of which become explicit below.

The following table (Table 13.1) results from these five iterations of history-construction. The table is not significantly different from the original in terms of sheer content. Indeed, it includes only one more item (a faculty member added "Board of Trustees support" to the 1989-91 period) other than student quotations and one date change. The change in voice resulting from the inclusion of student quotations is, however, a significant change. Quotes from individual students in italics (divided into two subgroups, "3-6 year students" and "1-2 year students") convey student experience of the program. The quotes are all from students because they were the prime contributors at this point in the research and because it seemed to me valuable for their colleagues and for the faculty to hear their perceptions and differences (e.g., the three final quotations in the 1996-98 period represent three quite different views). Each quotation is, of course, neither objective, nor representative, but rather one person's voice.

Table 13.1

**Significant Events/Patterns during the First Decade of the  
Boston College Organizational Transformation Doctoral Program**

- |                |   |
|----------------|---|
| <b>1987-89</b> | <ol style="list-style-type: none"> <li>1. University planning process "Goals for the Nineties" recommends Ph.D. in Management</li> <li>2. Initial design of possible Organization Studies program by department</li> <li>3. Department agreement on Organizational Transformation theme, balancing an action orientation (in research/consulting/teaching) with a strong quantitative and qualitative research emphasis</li> </ol>  |
| <b>1989-91</b> | <ol style="list-style-type: none"> <li>1. Approval of program by School of Management faculty</li> <li>2. Delay in funding while Finance Ph.D. program goes forward</li> <li>3. Distinguished outside scholar calls department "Best Organization Behavior program in Boston"</li> <li>4. Board of Trustees support</li> <li>5. "Confrontative" meeting with Academic Vice President establishes funding for following year</li> </ol>  |
| <b>1991-94</b> | <ol style="list-style-type: none"> <li>1. Recruitment of new and different faculty (more quantitatively oriented, but not hostile to multi-methods)<br/><i>"New faculty are different from each other and from faculty already present. Is this a conscious choice? Is it a deviation from the transformation theme?"</i> (3-6 year student)</li> <li>2. Required courses in Change, Transformation, Consulting, Teaching &amp; Qualitative Methods (as well as the more conventional Micro &amp; Macro Theory, Statistics, and Quantitative Methods)</li> <li>3. Equal financial awards offered with admission (usually differential awards are offered separately from admission)</li> <li>4. Qualifying exam at end of first year (instead of Comprehensive exam after all course work is completed)</li> <li>5. Compete successfully with top tier doctoral programs recruiting students</li> <li>6. First director creates infrastructure and sense of legitimacy, working closely with Ph.D. Committee</li> <li>7. <i>"Move to St. Clements (when Management School being rebuilt) brings culture together through greater contact and more separation from others"</i> (3-6 year student)</li> </ol> |

**1994-96**

1. Tenured faculty change from 88% to 25% of department (with influx of new junior faculty and full complement of doctoral students)
2. Student-faculty participatory decision-making re guidelines, offices, assistantships (e.g., regular Director/Student meetings, faculty flexibility re student assistantship hours)
3. *"From my perspective as a member of the 2nd class, all '1sts' were crucial to the development of the program—e.g., 1st 2nd yr. research presentations, 1st Best Paper award (Benyamin), 1st dissertation defense (Go Karen!)"* (3-6 year student)
4. Marketing the program through annual newsletters & local and national student organization activism  
*"The proactive stance that Benyamin & Danna (& later Karen, Barbara, and Kate) took to the field (e.g., organizing students nationally into the Interdisciplinary Students Organization, creating the New Student Consortium at the Academy of Management) established a high profile for the BC program and encouraged others of us to 'seize the field'"* (3-6 year student)
5. Intellectual Evenings for peer-like conversation of broad themes 4 to 6 times/yr.
6. Research on the program itself by students; concern among students about "undiscussables" among faculty
7. Second director nurtures both experiments and timely completion, with support of Ph.D. Committee
8. Every year at least one student drops out/leaves
9. June 1996: Entire class fails one or more parts of Qualifying Exam. (All who choose to retake the exam pass two weeks later.)

**1996-98**

1. Dissertation topics on change & transformation, using multiple research methods (quantitative, qualitative, participatory)
2. Five of six in first two classes win Best Paper Awards
3. First doctorate awarded 1997, in four years; first Ph.D. represents Carroll School of Management at university commencement
4. First three classes on 5 year average completion schedule, with four more doctorates achieved in 1998
5. First five on market receive multiple offers & placement at universities
6. *"The reality that some students will leave the program before finishing is better understood now than a few years back."* (3-6 year student)
7. Appointment of third Ph.D. Director  
*"The transition (of directors) has had an effect on community both salutary and negative and is evolving"* (3-6 year student)

8. Concern among faculty that entering students are making a lower commitment to developing departmental synergies than earlier classes invites new conversation about the meaning, measurement indices, and ways of encouraging "community":

*When I spoke with students here during the application process, one of the strong points about the program (they said) was the community. Boston University students, on the other hand, felt that the strong point of their program was its entrepreneurial spirit. "We could never adapt to that paternal culture at Boston College," they said in so many words. BC appeared as an outsider to be a little more clubby, more of a neighborhood. Having been here for a while, I have not had a sense of community, in which we spend time together because we simply like each other. I expected more get-togethers, more collegiality with the faculty. The faculty keeps to itself. All are friendly one on one, but there is little group awareness.*

*(1-2 year student)*

9. Some see movement from a balanced Action/Academic orientation to a focus solely on Academic orientation:

*The Ph.D. program has promoted itself with a focus on organizational change and transformation and this label may apply to certain faculty but others have emerged. Action research/action science is the focus of Torbert's and Nielsen's work (a subcategory of change and transformation?). The students view it as a unique discipline. Stevenson, Jones, and Borgatti focus on social network analysis, and teaching is a major focus as well, which could be tied together into a multi-theme department. The scale has also been moving back toward the middle in terms of qualitative and quantitative research with the addition of new faculty (1-2 year student).*

*The current preliminary proposal to reconfigure the research methods courses and move the Consulting course from the first to the third year would send an important symbolic message about the role of action skills in the program. I have found that Consulting had an important influence on how I do my research and on how I teach and interact. I think a unique aspect of this program is getting us to develop experiential skills that enhance and complement other research skills (3-6 year student).*



This table is by nature somewhat frustrating to read because its outline form raises many questions that are not answered in greater detail. The intent is: 1) to create just enough sense of the qualitative differences among the eras to permit the reader to compare each era to the characteristics of organizational structure and culture named later in Table 13.4; and 2) to invite members within the department to speak at greater length with one another and me about whichever incidents they wish. Here, we see a tension between a typical third-person history where the attempt is to offer a finished, authoritative account, and a history such as this which is meant to augment an ongoing second-person process of history-making-and-interpretation, as well as to serve as an illustration of this kind of scholarly work for third-persons.

### **CURRENT EVENTS (MARCH—AUGUST 1998)**

After the “brown bag” lunch seminar had been planned and the initial draft of the history had been sent out for response (resulting in the expanded outline, with quotes, above), a faculty subcommittee circulated a preliminary proposal to amend the design of the program in an effort to strengthen the research methods sequence (this proposal was influenced by student input and is referred to in the next-to-last quotation in Table 13.1). Also, students called and held a student meeting about the program in response to faculty concern, expressed at a faculty meeting which includes a student representative, about students recently making a lower commitment to common activities (see #7 in 1996-98 section of Table 13.1).

So, the issue of how to interpret what is occurring in the program at present and how we wish it to evolve from here is currently “alive.” The expansion of the list of historical events generated by the additional participation from the department, along with recent events, puts a stronger focus on the question of how to interpret current events and how to act in the coming days, months, and year. In order to indicate the level of controversy that such a list generates, I share the following comments offered by a junior faculty member and a senior faculty member after reviewing a draft of this (whole) chapter in July 1998:

Junior faculty member: “I experience the junior faculty as somewhat demonized in this story—characterized as ‘different’ and as washing out a focus on change/transformation without a recognition of what has been brought in a positive way.”

Senior faculty member: “Why are all the quotes from students? I would think they would be the least informed informants concerning the history of the program. I think some of their

comments are misinformed. The most misinformed and perhaps inflammatory comment suggests the program has drifted from consulting to research. This appears to me to be a comment without any validity. From the start we have made it clear that this a research oriented program. This has been reaffirmed ad nauseam in faculty meetings. Bill, is there any faculty member who has seen this shift?"

I will respond briefly to each of these comments, not in an effort to have the final word, but rather in an effort to indicate the importance of a continuing second-person research/practice conversation about such matters. The junior faculty member's comment is certainly a plausible interpretation of the few references to junior faculty in a prior draft; it has influenced me to add: 1) the very-much-deserved positive comment about the junior faculty in my first-person historical summary above; 2) the explanatory parenthesis concerning the absence of junior faculty at the March 25 meeting; and 3) a brief interpretation below of the positive significance of having sought out "different" junior faculty.

In response to the senior faculty member's comment, I have now offered a brief explanation for having only student quotes before the table and have added the two faculty comments. In response to the senior faculty member's concluding inquiry, I would answer simply, "Yes, a few." But more important, the sense of a shift from a balance between action and research to an emphasis on research apart from action has been a continuing topic of student concern since the early days of the program. I think it is worth asking why. And I believe the response will reflect back on all of us in the program, refracting different lessons for each of us. Moreover, while I can see why student views of third-person research methodologies may in general be less developed and less valid than faculty members' views, it is not so clear to me why their versions of the history of the program are likely to be systematically less valid. It is true that none were present during the first two eras, but some have participated in it longer than some faculty. Also, students are required by their courses, papers, assistantships, and exams to interact repeatedly and rather intensively with most of the faculty and one another, whereas faculty have the freedom to conduct most of their interactions alone and in small subgroups, and their positions of relative power within the department can also potentially insulate them from valid data.

In any event, at the March 25 "brown bag" lunch seminar, I presented not only the outline of the program's history in Table 13.1, including the new quotes, but also the outline of personal, organizational, and scientific developmental paradigms shown in Table 5.2. Further, I suggested my view of how each of our short organizational eras represents an organizational transformation to a different operating paradigm (see Table 13.2, and compare names of eras to fuller descriptions in Table 13.4). Table 13.2 also highlights a few decisions or activity patterns of each era from Table 13.1. In my judgment, these events envision and/or enact themes and skills that reflect late developmental action-logics, indicating the

potential for future evolution of the organization as a whole toward the later action-logics.

### **Table 13.2**

#### **Historical Events, by Developmental Era (as per Table 13.4), that Facilitate Further Transformation of the Boston College Organizational Transformation Doctoral Program**

##### ***Conception 1987-89***

1. Department agreement on Organizational Transformation theme, with attention to both research and practice

##### ***Investments 1989-91***

1. 'Confrontation' with Academic Vice President

##### ***Incorporation 1991-94***

1. Recruitment of new *and different* faculty
2. Structural elements that empower students to operate relatively self-directingly (e.g., qualifying exam at end of first year; equal financial awards determined at admission)

##### ***Experiments 1993-96***

1. Student-faculty participatory decision-making re guidelines, offices, assistantships (regular director/student meetings)
2. Student activism in national student organizations
3. Research by students on the program itself

##### ***Systematic Productivity 1996-98***

1. Multiple offers to, & placement of, first five on the market
2. Five of six in first two classes win Best Paper Awards

##### ***Collaborative Inquiry 1999-2002???***

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For example, the two items highlighted during the 1991-94 Incorporation era represent demonstrations of a willingness to encourage autonomy and difference among students and junior faculty. These structural commitments to valuing difference strike me as promising precursors for later-stage development of the program, when, not just single-loop feedback based on common standards of excellence, but also double- and triple-loop feedback based on different frames (such as this research explicitly introduces), become regular operating characteristics of an organization. The events highlighted in Table 13.2 can also often be construed as turning points in the program. For example, if the faculty had not initiated the

characteristics of an organization. The events highlighted in Table 13.2 can also often be construed as turning points in the program. For example, if the faculty had not initiated the meeting with the Academic Vice President and pushed for a specific commitment at that meeting during the 1989-91 Investments era, the program might well never have achieved Incorporation.

Finally, in Table 13.3, I listed what seemed to me the foremost factors currently *facilitating* or *impeding* development by the Ph.D. program to the Collaborative Inquiry stage organizationally. (In response to an earlier draft of this paper, one faculty member suggests an additional “inhibiting” factor: the tendency toward social isomorphism through imitation of current high status programs.)

My only action recommendation to the participants at the “brown bag” seminar was for each individual energized to do so to initiate an evening of dialogue among a mixed group of perhaps four faculty and students, thus providing many local, decentralized occasions for relationship development and diverse conversation. This recommendation represents an attempt to address in a decentralized, voluntary, and mutual fashion (i.e., in a Collaborative Inquiry fashion) the final inhibiting factor identified in Table 13.3—the relative lack of visible cultivation of second-person research/practice among the faculty.

**Figure 13.3**  
**Most Significant Factors that *Support* or *Inhibit***  
**Further Transformation of the BC OS Ph.D. Program**  
**(as adduced by the author to encourage further inquiry)**

<i>Support</i>	<i>Inhibit</i>
1. Whole faculty actively involved in Ph.D.	1. Dominant paradigm(s) of field (see Table 5.1)
2. High profile of faculty and student 3rd-person research in field	2. Early stages of program until now & degree to which emphasis on successful market competition crowds out developmental time (see Tables 13.2, 13.3, and 13.4)
3. Lifetime dedication of three full professors to 1st-person research/practice (real-time, triple-loop learning)	3. Relative lack of visible cultivation 2nd-person research/practice skills among faculty
4. Engagement of about 1/2 of the students in interweaving 1st, 2nd, and 3rd person research/practice	

The second half of the "brown bag" seminar became a vivid illustration of the potential usefulness of such second-person research/practice in real time. A dialogue developed, led primarily by student contributions attesting to the significance for our good organizational health of: (1) having departmental members offering one another more direct feedback, so that one didn't learn of criticisms distortedly from third parties; and (2) recognizing and testing one's own attributions with the other participant(s) in occasions before reaching conclusions. One student offered a memorable "learning story" in this regard. She reported that she had been disturbed by reports that some students had acted rudely toward faculty members. Feeling that this very much hurt collective student credibility with faculty and committed to confronting whoever was responsible in as effective a manner as possible, she inquired about the particulars. To her astonishment, she discovered that she was one of the students alleged to have been rude. (She proceeded to discuss the incidents with the relevant faculty members.) There was some discussion about how this kind of daily second-person research/practice discipline could contribute to creating an atmosphere which, even more than at present, welcomes attempts, both informally and in formal written research products, to be explicit about and to interweave first-, second-, and third-person research/practice. [How differently this conversation could be interpreted by different participants is indicated by the comment of one senior faculty member afterwards that the students did not seem to care about my study of the department at all because they took the subsequent discussion (the one I have just reported) off in a different direction entirely.]

In the two months that followed, numerous small group dinners occurred. In addition, two junior students chose to conduct small interview research projects on department members' views about "feedback" and "community." Also, a small group of three advanced students who had been meeting for two years to develop their skills in "action science" [a second-person of research/practice (see Chapter 9, as well as Argyris, Putnam & Smith, 1985; Torbert, 1976)] invited others to form similar small groups, and twelve persons expressed initial interest. Meanwhile, the Consulting course has not been moved to the third year of the program; instead, a name-change to "Action Research Methods" has been approved, and it is to remain in the first year of the program. On a lighter note, students created, rehearsed, and performed a "departmental song" for the annual end-of-year departmental luncheon, thus directly and collectively making a generous and joyful contribution to the quality of second-person rhetoric in the department.

The junior student who studied department members' perceptions and conceptions of our "community" interviewed six of eleven faculty and nine of twenty-one students. She offered all members of the department the following executive summary of her findings:

"... Results indicate many more similarities in our views than differences. (Shared) opinions about the characteristics of our community (included):

- positive aspects of the department: we are committed to and care about each other.

- negative aspects of the department: we are fractured by subgroups which are inherent in both the content and process of our work.

- the ideal type community: many would like more sharing, respect, collaboration, and engagement.

- barriers to the ideal type: we feel constrained for time and energy, and sense that the gap between our current community and ideal community is too big for us individually to impact.

"The biggest difference in our ideas deals with the normative definition of community and the requisite behaviors. Some indicated that community is singular, and that participation is a prime behavioral indicator of community. Others feel that there are multiple communities and that contribution, not participation, is the prime behavioral indicator of community.

"Regardless of respondents' positions on the normative definition, the most frequently mentioned descriptor of our community represented the idea of fragmentation (mentioned by 5 of 6 faculty and 7 of 9 students). Its prominence in interviews suggests that for some, there may be cognitive dissonance in thinking about the department as an oxymoronic 'fragmented community.' (Beatty, 1998, p.1)

## **FURTHER REFLECTIONS ON THE BOSTON COLLEGE DOCTORAL PROGRAM AND ON ORGANIZATIONS AND RESEARCH PARADIGMS MORE GENERALLY**

During 1996 and 1997, tremendous emphasis was placed within the BC Organization Transformation doctoral program on helping students complete the program and obtain university-based positions. You can well imagine how different the program would feel to its members and how differently configured their sense of the challenges ahead would be, if we had *not* graduated our first student in May 1996, or if our first six students on the market had *not* received multiple academic offers, including pursuit and offers from top tier schools such as Texas A&M and Case Western Reserve University. These outside world results, along with the astonishing record of five of six members of the first two classes winning Best Paper Awards during the prior three years (not to mention a whole gamut of faculty successes), now provide the program with externally-validated confidence of its relevance to our field. In developmental terms, we appear to have reached the Systematic Productivity stage (see Table 13.2 and Table 13.4). This organizational action-logic parallels the Multi-Method Eclectic paradigm of science (see Table

5.2), which broadly encompasses the approach to dissertation research taken in five of the first six dissertations.

**Table 13.4**

***Characteristics of Each Stage of Organizational Development***

**(drawn from Rooke & Torbert, 1998)**

Stage	Name	Characteristics
1	<b>Conception</b>	Dreams, visions, informal conversations about creating something new to fill need not now adequately addressed; interplay among multiple "parents"; working models, prototypes, related projects, or business plans developed; critical issues—timeliness and mythic proportions of vision.
2	<b>Investments</b>	"Champions" commit to creating organization; early relationship-building among future stakeholders; peer networks and parent institutions make spiritual, structural, financial commitments to nurture; critical issues—authenticity and reliability of commitments; financial investment appropriately subordinated to structural and spiritual investments.
3	<b>Incorporation</b>	Products or services produced; recognizable physical setting, tasks and roles delineated; goals and operating staff chosen; critical issues—display of persistence in the face of threat, maintaining or recreating consistency between original dream and actual organizational arrangements.
4	<b>Experiments</b>	Alternative administrative, production, selection, reward, financial, marketing and political strategies practiced, tested in operation and reformed in rapid succession; critical issues—truly experimenting, taking disciplined stabs in the dark, rather than merely trying one or two preconceived alternatives; finding a viable, lasting combination of strategy and structure for the following stage.
5	<b>Systematic Productivity</b>	Attention is legitimately focused only on the systematic procedures for accomplishing the pre-

defined task; marketability or political viability of the product or service, as measured in quantitative terms, is the overriding criterion of success; standards, structures, and roles are taken for granted as given and formalized, usually in deductive, pyramidal terms; reality is usually and most easily conceived of in deductive terms as dichotomous and competitive: win-lose, rational-emotional, leader-follower, personal-professional, practical-theoretical; critical issue: whether earlier development has provided a strong and appropriate analogical system that frames, and is not distorted by, the deductive systems developed during this stage.

**6 Collaborative Inquiry**

Explicit shared reflection about the corporate dream/mission and actuality/history in the wider social context; open rather than masked interpersonal relations, with disclosure, support, and confrontation of apparent value differences; systematic evaluation and feedback of corporate and individual performance on multiple indices; direct facing and creative resolution of paradoxes (which otherwise become polarized conflicts): inquiry-productivity, freedom-control, quantity-quality, etc.; interactive development of, and commitment to, unique, self-amending strategies and structures appropriate to this particular organization at this particular historical moment.

**7 Foundational Community**

Political friction within organization and with different norms of behavior in wider environments; regular, personal, shared research on relations among spiritual, theoretical, and behavioral qualities of experience; structure fails ('dies'), phoenix rises from the ashes, shared purpose (spirit) revealed as sustaining; transcendence of pre-existing cultural categories, appreciation of continuous interplay of opposites: action/research, sex/politics, past/future, symbolic/diabolic, etc.; new experiences of time: history becomes my-story: interplay of creative timeliness, timeless archetypes, and timebound needs.



## 8 **Liberating Disciplines**

Leadership practices deliberate irony; tasks incomprehensible and undoable without reference to accompanying processes and purposes; premeditated and precommunicated structural evolution over time; constant cycle of experiential and empirical research and feedback; leadership uses all available forms of power to support the previous four qualities, consistent with while also meeting the next three conditions; organizational structure open, in principle, to inspection and challenge by organizational members; leadership becomes vulnerable to attack and public failure in practice, if tasks, processes, and mission become incongruous and leadership does not acknowledge and correct such incongruities; requires leadership committed to, and highly skilled at seeking out, recognizing, and righting personal and organizational incongruities.

As a Ph.D. program, we now have choices which we will make more or less explicitly and more or less collectively. Will we push ourselves to burnout repeating this successful systematic productivity performance, while losing our implicit transformational "feel"? Will we challenge ourselves toward further timely transformation by revisiting the question of whether we do or can share a vision? Will we relax just a little on our laurels and lose our edge? Will we define some fourth or fifth alternatives? Somewhat ironically, but not really very surprisingly if one steps back to reflect, the very success of the program in generating relatively high quality outcomes in the past year and a half has consumed energy that before was devoted to building some of our first- and second-person research/practice community infrastructure. This in turn means that our most recent two entering classes have in some respects been introduced to a more conventional and more pre-structured Ph.D. environment than those before them. The sudden spurt of student, faculty, and student-faculty meetings and departmentally-focused research projects at the end of the 1997-98 academic year, have in effect introduced our newest students to qualities of the department they had heard about but scarcely experienced (see Table 13.1). At the same time, the results of the student-initiated study of community within the department highlights a sense of fragmentation. Following the relatively centralized "corporate" reality of the Systematic Productivity stage, a sense of fragmentation is a necessary (though by no means sufficient) condition to motivate decentralized work on shared vision leading toward the next, Collaborative Inquiry organizational action-logic (see Table 13.4).

Thus, at this point, we have the possibility of developing from an *implicit* sense of community in building the organization to an *explicit* sense of a real-time community of inquiry that engages its members in the ongoing transformation of

their sense of themselves, of the organization, and of the very institution of science. Such a community of inquiry is explicitly committed to exploring through first-, second-, and third-person research/practice how to manage the ongoing dilemmas of generating excellence and creativity, discipline and flexibility. In my understanding, we will not become a doctoral program that successfully bridges knowledge and action unless we take the step toward the later developmental action-logics. Nor can any other academic department, business organization, or not-for-profit agency bridge knowledge and action except through the later developmental action-logics. But the transformation from a Stage 5, Systematic Productivity organization, to a Stage 6, Collaborative Inquiry, organization is never mandated by an already constructed market. Nor are any of the postmodern action-logics blueprints that can simply be copied. The Collaborative Inquiry and other late stage action-logics always involve a voluntary, mutuality-enhancing restructuring of socially-received reality into unique configurations which share only the most abstract characteristics (see Table 13.4).

## CONCLUSION

This chapter began with the notion that bridging knowledge and action requires a new kind of inquiring awareness that operates in the midst of real-time knowing and acting. The middle and end of the chapter concern a real-time process of inquiring into the knowing and acting of members of an organization, of whom the author himself is one. With all its incompleteness, my hope is that the work re-presented in this chapter can be of use to any person, group, or organization that values bridging inquiry and action and wishes to envision and enact organizing initiatives that integrate research and practice. At the same time, it matters even more to me that this rhetorical re-presentation of the underlying work engage the members of my own department in ways that are fruitful for them and for our episodic conversations. I have already commented briefly on the benefits of this historical and current work to this "first-person."

Does this work leave you with questions you will pursue? What do you see as the prospects for, and impediments to, paradigmatic, organizational, and personal transformation in your own social context toward serious engagement with research that bridges knowledge and action?

## REFERENCES

- Abram, D. (1996). *The spell of the sensuous*. New York: Vintage.
- Argyris, C. (1980). *Inner contradictions of rigorous research*. New York: Academic Press.
- Argyris, C. (1994). *Knowledge for action*. San Francisco CA: Jossey-Bass.
- Argyris, C. & Schon, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.

- Argyris, C., Putnam, R., & Smith, D. (1985) *Action science: Concepts, methods and skills for research and intervention*. San Francisco: Jossey-Bass.
- Bartunek, J. & Moch, M. (1994). Third-order organizational change and the Western mystical tradition. *Journal of Organizational Change and Management*, 7(1), 24-41.
- Beatty, J. (1998). Perceptions and conceptions of community in the organization studies department: a project designed to provide feedback about "community" to members of the community. Unpublished manuscript, Boston College, Chestnut Hill, MA.
- Berman, M. (1981). *The reenchantment of the world*. Ithaca NY: Cornell University Press.
- Berman, M. (1989) *Coming to our senses*. New York: Simon & Schuster.
- Bernstein, R. (1985) *Beyond objectivism and relativism: Science, hermeneutics and praxis*. Philadelphia: University of Pennsylvania Press.
- Bradbury, H., Bravette, G., Cooperrider, D., Ludema, J., Reason, P., & Torbert, W. (1998). "Creating a transformational science: dissertations that both inform and transform." Academy of Management Symposium, San Diego, CA.
- Denzin, N. & Lincoln, Y. (1994). *Handbook of qualitative research*. Thousand Oaks CA: Sage.
- Fisher, D. & Torbert, W. (1995). *Personal and organizational transformation: The true challenge of continual quality improvement*. London: McGraw-Hill.
- Gadamer, H. (1982). *Truth and method*. New York, Crossroad Publishing
- Heron, J. (1996). *Cooperative inquiry: Research into the human condition*. London: Sage.
- Heron, J. & Reason, P. (1996). "A participatory inquiry paradigm." *Qualitative Inquiry* 3(3), 274-294.
- Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA. Harvard University Press.
- Kohlberg, L. (1981). *The philosophy of moral development*. San Francisco: Harper & Row.
- Lawler, E., Mohrman, S. & Ledford, G. (1992). *Employee involvement and total quality management: Practices and results in Fortune 1000 companies*. San Francisco: Jossey-Bass.
- Mitroff, I. (1974). *The subjective side of science: A philosophical inquiry into the psychology of the Apollo moon scientists*. Amsterdam: Elsevier.
- Needleman, J. (1975). *A sense of the cosmos: The encounter of modern science and ancient tradition*. Garden City, NY: Doubleday.
- Nielsen, R. (1996). *The politics of ethic*. New York: Oxford University Press.
- Niven, D. (1993). "When times get tough, what happens to TQM?" *Harvard Business Review*, 71(3), 20-34.
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company*. New York: Oxford University Press.
- Overton, W. (1997). Developmental psychology: philosophy, concepts, and methodology. In R. M. Lerner (Ed.), *Theoretical models of human development* (Volume 1 of W. Damon (Ed.-in-Chief) *Handbook of child psychology* (5th Ed.) New York: Wiley.
- Piaget, J. (1965). *The moral judgment of the child*. New York: Free Press.
- Pitkin, H. (1972). *Wittgenstein and Justice*. Berkeley CA: University of California Press.
- Reason, P. (1995). General Medical and Complementary Practitioners Working Together: The Epistemological Demands of Collaboration. Paper presented at the Symposium on Transforming Self, Work, and Scientific Inquiry, Academy of Management national meeting, Vancouver.
- Reason, P. & Rowan, J. (1981). *Human inquiry: A sourcebook of new paradigm research* London: Wiley.
- Reason, P. (1995). *Participation in human inquiry*. London: Sage.
- Rooke, D. & Torbert, W. (1998). Organizational transformation as a function of CEOs' developmental stage. *Organization Development Journal* 16(1), 11-28.
- Schumacher, E. (1997). *A guide for the perplexed* New York: Harper & Row.
- Senge, P. (1990). *The fifth discipline* New York: Doubleday Currency.
- Senge, P., Kleiner, A., Roberts, C., Ross, R., Roth, G., & Smith, B. (1999). *The dance of change: The challenges to sustaining momentum in learning organizations*. New York: Doubleday Currency.

- Spretnak, C. (1991). *States of grace: The recovery of meaning in the postmodern age*. New York: HarperCollins.
- Torbert, W. (1976). *Creating a community of inquiry: Conflict, collaboration, transformation*. London: Wiley Interscience.
- Torbert, W. (1991). *The power of balance: Transforming self, society, and scientific inquiry*. Thousand Oaks: Sage.
- Torbert, W. (1994). Cultivating post-formal adult development: higher stages and contrasting interventions. In M. Miller & S. Cook-Greuter (Eds.) *Transcendence and mature thought in adulthood: The further reaches of adult development*. Lanham MD: Rowman & Littlefield.
- Torbert, W. & Fisher, D. (1992). Autobiographical awareness as a catalyst for managerial and organizational development. *Management education and development*, 23(3), 184-198.
- "Total Quality" Special Issue of the *Academy of Management Review*, 9(3), 1994.