

Toward interdependent organizing and researching

Authors: John McGuire, Charles J. Palus, William R. Torbert

Persistent link: <http://hdl.handle.net/2345/4062>

This work is posted on [eScholarship@BC](#),
Boston College University Libraries.

Published in *Handbook of collaborative management research*, pp. 123-142

HANDBOOK OF
COLLABORATIVE
MANAGEMENT
RESEARCH



A. B. (Rami) Shani • Susan Albers Mohrman
William A. Pasmore • Bengt Stymne • Niclas Adler

Toward Interdependent Organizing and Researching

JOHN MCGUIRE

CHARLES J. PALUS

BILL TORBERT

ABSTRACT

This chapter introduces both the theory and practice of developmental action inquiry, along with the notions of engaging in (1) 1st-, 2nd-, and 3rd-person research/practice; (2) single-, double-, and triple-loop learning; and (3) an interweaving of collaborative research and collaborative practice that attempts to help move individuals, leadership cultures, and whole organizations from a dependent, through an independent, to an interdependent orientation. These notions are illustrated through a longitudinal case study of individual, interpersonal, team, and organizational transformations.

This chapter illustrates how developmental action inquiry (DAI) theory, method, and practice (Torbert, 1991; Torbert & Associates, 2004) can be used both to assess and to transform leaders, teams, and organizations simultaneously, through a participatory action research process (Reason, 1994; Reason & Bradbury, 2001) that attempts to become increasingly

self-transforming and collaborative as it evolves. The chapter first introduces the DAI theory and method. Next, we introduce the case example of a leadership development organization we have worked with, which we will call LDR (an actual case with some confidential details changed). We show the application at LDR of DAI as a theoretical lens as well as a source of modes of intervention,

leadership practices, and research methods that interweave efforts at individual, interpersonal, and organizational transformation. In conclusion, we suggest that we have illustrated how interweaving 1st-, 2nd-, and 3rd-person research in the midst of practice can generate both valid knowledge and transforming action.

A central aim of collaborative management research is to overcome the barriers that tend to divorce research from context, action, results, and learning in organizational settings. In this chapter we explore a further aim supported by DAI, in which the interdependence of the various organizational actors, including researchers, is developed as a new long-term capability of the organizational system. In the case of LDR—and in many other organizations also grappling with complex knowledge work in contexts of organizational and social transformations—mere cooperation or local alignment of interests is not enough. We define *interdependence* in stage-developmental terms, as action-logics that allow groups of people with shared work to deliberately integrate and mutually transform toward desired ends their otherwise fatally diverse roles, functions, identities, visions, and worldviews (McCauley, Drath, Palus, O'Connor, & Baker, in press).

DAI requires and cultivates a high voluntary commitment by all its actors, as well as increasing mutuality and collaboration among them. According to developmental theory and our previous findings (Torbert & Associates, 2004), only under such conditions will the trust develop that is necessary for sustainable individual, team, and organizational transformations. In this chapter and especially in the case illustration we explore practical issues of leadership associated with DAI, such as building and sustaining commitment and trust among diverse actors; collaborating with (and telling truth to) those in power; and building coalitions in support of deep change.

DEVELOPMENTAL ACTION INQUIRY AS A COLLABORATIVE RESEARCH METHODOLOGY

The theory, practice, and research methods associated with DAI originate in the work of Bill Torbert and his colleagues (Torbert, 1976, 1987, 1991; Torbert & Associates, 2004). DAI integrates developmental theory (Kegan, 1994; Loevinger, 1976; Piaget, 1954) with action science (Argyris, Putnam, & Smith, 1985). DAI is a model of research that integrates the ongoing development of its subjects, including the researchers themselves. While having much in common with other models that stress collaborative forms of inquiry coupled with action (Reason, 1994) and reflective practice (Schön, 1983), DAI is distinctive in its rigorous developmental emphasis and its integral awareness (Wilber, 2000) of the interplay of subjective, intersubjective, and objective qualities in experience. Especially, DAI supports the awareness, development, and enactment of mature “postformal” stages (Commons & Richards, 2003) or modes (Basseches, 1984) of human development as necessary for mindful and sustainable individual, organizational, and social transformations.

DAI has four distinct features as a research model. In this chapter we will focus on two of these (the first and last as presented below) as windows into the model illustrated by the case. The reader will find further elaboration of all features of the model in Torbert and Associates (2004).

The first distinctive feature of DAI is that its theory, practice, and research methods all point toward the capacity of individuals, teams or communities of practice, and larger organizations and institutions to interweave 1st-person, 2nd-person, and 3rd-person research *in the midst of their daily practice* (Chandler & Torbert 2003; Foster & Torbert, 2005; Torbert, 2000).

First-person research here refers to studying “myself” in the context of the overall

inquiry, in the midst of practice. First-person research serves the related purposes of self-understanding, self-development, presence of mind, and being able to effectively apply one's own subjectivity to the larger research effort. Thus 1st-person research connects the researcher's inner self with the outer research project and its larger aims, and in general requires reflecting on and adapting one's own thoughts, emotions, intuitions, behaviors, and effects. Without a 1st-person research aspect, the process of action inquiry can become stuck in the limits, lack of integrity, or blind spots of its individual actors.

Research groups with various collaborating actors are inevitably diverse in perspectives and worldviews. *Second-person research* refers to studying and developing "ourselves"—as a social body with integrity—in the midst of practice and in the context of the overall inquiry. Developing the collective abilities of inquiry partners as reflective practitioners allows more sufficiently complex, accurate, nuanced, and mutually shared understanding and coherent action to be constructed. Without a 2nd-person research aspect, the process of action inquiry can too easily become trapped in unexplored assumptions and norms, be limited in perspective, and lack the mutual trust that underlies commitment to larger aims.

Third-person research refers to studying and developing "it" and "them"—the world as relatively objective systems, structures, and processes. Third-person research ranges from empirical measurement and analysis of defined objects (as in "traditional" research) to the creation of sustainable systems and institutions beyond the local subjective worlds of the researchers and actors. Without a strong 3rd-person research aspect, inquiry becomes divorced from its extended effects in space and time.

The interweaving of 1st-, 2nd-, and 3rd-person research in action (hence "action inquiry") creates useful triangulations in

perspectives and methods. For example, DAI encourages all participants in a given action inquiry project to self-diagnose their individual "action-logics" (1st-person), compare their self-diagnosis to a reliable and valid leadership development profile (LDP) (3rd-person), and explore the action implications with a coach or community of practice (2nd-person). Likewise, in the case of LDR we will see how the development of the shared and individual (1st-person) perspectives in a strategic team (2nd-person) accompanies the reform of organizational systems (3rd-person). Overall, such interweaving of stances aims at evolving more adequate and transformative marriages of objectivity, subjectivity, and intersubjectivity, and thus more adequate ways of deeply paying attention to what we are doing and the effects we produce.

A second distinctive feature of DAI's epistemology and ontology is that instead of seeing "outside reality" as the "territory" where research is done and science as the "map" of that territory, DAI holds that there are four distinct "territories of experience." These may be found either to be aligned with, or incongruent with, one another at any given moment or period of time, and thus are the basis for learning, knowledge creation, and effective action. For the individual, these four territories or qualities can be thought of and experienced as (1) the outside world, (2) one's own sensed behavior, (3) one's thinking and feeling, and (4) one's attention and intention. To listen in to all four territories at once now means that you, our reader, become aware, not just of your thinking of these words, but also of this page as a physical presence, while sensing your breathing, and playing with your newly widened attention. For an organization, these same four territories are likewise the basis for learning, knowledge creation, and effective action and can be thought of and experienced as (1) the organization's tangible inputs, outputs, and environment; (2) its operations

or performance; (3) its espoused strategy and structure, as well as its norms-in-use; and (4) its vision and mission.

A third distinctive feature of DAI is that progress occurs not just by incremental single-loop hypothesis testing but also by double-loop (Argyris & Schön, 1974) and triple-loop learning and change. When, during our personal, relational, and collective actions and inquiries, incongruities are found across the four territories of experience (e.g., an unintended result, an ineffective performance, a strategy that feels inconsistent with one's integrity, a lie), action inquiry gradually generates the capacity for these three distinct orders of change. First, we may master (relatively speaking) a capacity for reliable *single-loop change*, whereby unintended outcomes lead us to experiment with changes in our performance to achieve our goal. Next, we may develop a capacity for occasional double-loop change. *Double-loop change* occurs when the human system's enacted strategy or action-logic transforms (with associated changes in goals, performance choices, and outcomes). Finally, *triple-loop change* occurs when the human system's very way of attending (the fourth territory) itself changes, acquiring greater capacities for intentionally moving among the other three territories and across more than one at a time. For example, instead of blinding or defending itself against the incongruities in its practices, an organization and its members might actively seek them out, based on an ongoing commitment to greater integrity of mission, strategy, performance, and outcome.

The fourth distinctive feature of DAI (the D in DAI) is the developmental theory shown in Table 6.1. This version of constructive-developmental theory (McCauley et al., in press; Piaget, 1954) hypothesizes a specific sequence of action-logics through which any human system can (but perhaps may not) transform as it gradually gains the capacity to monitor all four territories of its activity

and to develop greater congruity and integrity among them. According to this theory, human systems develop a reliable capacity for intentional single-loop learning at the *Achiever/Systematic Productivity* action-logic. (Any level of learning may occur sporadically at earlier action-logics but without the ability to sustain or intentionally direct it.) At the *Strategist/Collaborative Inquiry* action-logic the person or organization develops the capacity for intentional double-loop learning, and finally, at the *Alchemist/Foundational Community* action-logic, the capacity for triple-loop awareness and learning. A 3rd-person psychometric measure of developmental action-logics—the LDP—has shown high validity and reliability in predicting which individual CEOs and consultants have developed to the point of double-loop, transformational learning and of successfully leading organizational transformation (Rooke & Torbert, 2005; Torbert & Associates, 2004). A growing body of empirical research confirms that only those few leaders and organizations that reach the *Strategist/Collaborative Inquiry* action-logic can reliably create conditions for their own and others' transformation (Bushe & Gibbs, 1990; Fisher & Torbert, 1991; Manners, Durkin, & Nesdale, 2004; Merron, Fisher, & Torbert, 1987; Rooke & Torbert, 1998; Torbert & Fisher, 1992).

The overall path of development, as illustrated in Table 6.2, is from relatively "dependent" orientations that tend to resist change (up through the *Diplomat* action-logic), through relatively "independent" orientations that support incremental, single-loop change (*Expert* through *Individualist* action-logics), to relatively "interdependent" orientations that welcome not just incremental change but also transformational, double- and triple-loop change when appropriate (*Strategist* action-logic and above).

To summarize, DAI represents a scientific and political paradigm for integrating inquiry and action, profoundly different from

Table 6.1 Parallels Between Personal and Organizational Developmental Action-Logics

<i>Personal Development</i>	<i>Organizational Development</i>
1. Impulsive Impulses rule behavior	1. Conception Dreams about creating a new organization
2. Opportunist Needs rule impulses	2. Investments Spiritual, social network, and financial investments
3. Diplomat Norms rule needs	3. Incorporation Products or services actually rendered
4. Expert Craft logic rules norms	4. Experiments Alternative strategies and structures tested
5. Achiever System effectiveness rules craft logic	5. Systematic Productivity Single structure/strategy institutionalized
6. Individualist/Pluralist Reflexive awareness rules effectiveness	6. Social Network Portfolio of distinctive organizational structures
7. Strategist Self-amending principle rules reflexive awareness	7. Collaborative Inquiry Self-amending structure matches dream/mission
8. Alchemist Mutual process (interplay of principle/action) rules principle	8. Foundational Community of Inquiry Structure fails, spirit sustains wider community
9. Ironist Intergenerational development rules mutual process	9. Liberating Disciplines Structures encourage productivity and transformational learning through manageable conflict and vulnerable power

SOURCE: Adapted from Torbert and Associates (2004).

modernist empiricism, postmodern constructivism, and “realpolitik.” DAI leads to increasingly timely and transformational action across multiple time horizons of particular situations, not just to valid generalizations or to instrumentally efficient actions.

THE LDR CHALLENGE

LDR is a medium-sized company providing leadership development services and research-based knowledge to organizations

and individuals. For several years, LDR had faced a changing marketplace. Client demand for the development of individual leaders had become a slower-growth and more saturated market. Demand was accelerating for forms of development that integrate the development of leaders with the strategic development of organizational culture and human systems. Individual leader development was increasingly viewed as quite necessary but insufficient in itself for meeting complex organizational challenges (Day, 2000; Van Velsor & McCauley, 2004). This market shift had been recognized

Table 6.2 The Relationship Between LDR’s Three Leadership Cultures and Torbert’s Developmental Action-Logics

<i>Leadership Cultures</i>	<i>Individual Action-Logic</i>	<i>Organizational Action-Logic</i>
Dependent	Opportunist	Investments
Foundational Learning as Survival	Diplomat	Incorporation
Independent	Expert	Experiments
Functional Learning as Utility	Achiever	Systematic Productivity
	Individualist	Social Network
Interdependent	Strategist	Collaborative Inquiry
Future Learning as Desire	Alchemist	Community of Inquiry

by LDR executives for several years through strategic investment in research and development toward a new business with the capability to deliver organizational leadership development products and services.

However, this shift in focus from the core business of individual leader development to include the new business of organizational leadership development would prove to be a complex organizational challenge itself, with both technical and organizationally adaptive aspects (Heifetz, 1994). The challenge was threefold. First were the technical business challenges of implementing a new line of services. Second, the new business capability needed to include and integrate the existing core capability in order to provide comprehensive solutions. Finally, a shift toward interdependence was needed in the culture of LDR. That is, a shift was needed beyond the existing action-logics of *Experimentation* (supporting initial development of the new business prototypes) and *Systemic Productivity* (supporting productivity of the core business), and toward *Collaborative Inquiry*

(supporting long-term, mutually transformational engagements inclusive of diverse client constituencies and of LDR core and new capabilities; see Table 6.1).

LDR’s new business in organizational leadership seemed to require advancement to an interdependent stage of culture and to late-stage action-logics for two reasons. First, the nature of long-term, transformative client engagements is dialogical, aimed at cultural root causes and deep assumptions, rather than solely transactional. Therefore, LDR’s staff and its systems needed the capability to sustain this dialogue across complex organizational boundaries over time. Second, the complexity of the work in organizational leadership requires a horizontal business-process orientation that is inherently interdependent. Developing new products and services requires a client-centered flexibility that crosses most boundaries within the organization (Womack & Jones, 2003) and explores cultural root causes and deep assumptions within one’s own organization.

In response to this new strategic direction, the R&D division formed a workgroup tasked with creating new knowledge, practices, and prototypes for this emergent market where leadership and organizational development had merged. This group adopted grounded theory and action-research methods (Eisenhardt, 1989; Strauss, 1987) coupled with rapid prototyping methods (Schrage, 2000) for the development of research-based tools and services. The group conducted its initial research within highly customized client contracts that promised collaborative learning for both clients and LDR.

Based on the first year of collective work, this R&D group decided to explore three different, but related, promising avenues. They divided into three workgroups and assigned a project manager to maintain the core of an integrated project. But after about a year they were struggling with how to more deeply integrate the work of the three R&D teams. One key area of common ground was that most core team members had been using constructive-developmental theories as part of the foundation for building this new capability for several years (Drath & Palus, 1994; McCauley et al., in press; Palus & Drath, 1995), including Robert Kegan's constructive-developmental theory and practices (Kegan, 1994; Kegan & Lahey, 2001; Drath, 2001); Bill Torbert's DAI theory and practices (Torbert & Associates, 2004); Clare Graves's meme theory (Beck & Cowan, 1996); and Ken Wilber's integral theory (Wilber, 2000). Therefore, constructive-developmental theory in the form of DAI was an attractive organizing principle for the growing community of practice. The group decided to adopt the DAI model and to incorporate Bill Torbert's parallels between personal and organizational stages of development (Table 6.1), with LDR's stages of culture theory and practice (Table 6.2). The shared intent

among the three R&D teams was to understand and develop leadership in organizations as it functions interdependently. It was also the stated aspiration of the three R&D teams themselves to work together interdependently, moving their subcultures from Independent to Interdependent, for reasons including authentically participating in the change envisioned for the LDR culture at large, as well as to effectively address the complexity inherent in the new business.

But the teams fell frustratingly short of this aspiration. They also had doubts as to whether the LDR executive team and the organization as a whole would continue to endorse the degree of change required to integrate the new business into the core business.

LDR MEETS DEVELOPMENTAL ACTION INQUIRY

At this point, the research and development group at LDR invited Bill Torbert to visit for a two-day retreat, seeking input and feedback to their projects and the challenges of integrating the three workgroups.

As his way of introducing DAI to the retreat as a "live process" rather than as a "canned product," Torbert played back his initial interpretations of both the culture of the three teams and the culture of the executive leadership of LDR. Having reviewed a 30-year history of LDR and its presidents, Torbert suggested that LDR had mastered the industry niche of its core business and was functioning at the *Systematic Productivity* organizational action-logic (see Table 6.1). If this was so, then LDR's leadership culture as a whole was likely of an Independent orientation and therefore, theoretically, not likely to support the Interdependent culture and the *Collaborative Inquiry* orientation that the three teams were seeking.

The inability of the three teams to ally strongly with one another, as well as the fact that they felt more stymied than challenged by a lack of systemic support for their strategic initiative, suggested that they were themselves operating at the *Individualist/Social Network* action-logic. This orientation placed the larger R&D group and its three teams on the cusp between the Independent and Interdependent cultures (again, see Table 6.2), but falling short of the *Strategist/Collaborative Inquiry* action-logics necessary to sustain the new and more complex business model. Torbert predicted that the three teams would not succeed in influencing the larger organization's operating structure unless they found a stronger common cause, common theoretical foci and methodological tools, and a common strategy. These ideas were emerging in dialogue at different meetings during the day, with Torbert asking all present to offer evidence that they saw as confirming or disconfirming his interpretations. Partly because of this 2nd-person-in-the-present form of research, a convergence of shared commitment around this diagnosis, and a commitment to using DAI emerged among the three teams.

LDR WORKSHOP

Soon, a three-day workshop was organized for 18 members of the organization (most of them members of the three R&D teams). During the workshop each member filled out and received feedback and coaching on the LDP (Cook-Greuter, 1999; Rooke & Torbert, 2005). Each member also began to learn how to diagnose the action-logic informing his or her choices during actual "difficult conversations" with colleagues at the workshop and clients (Argyris & Schön, 1974; Rudolph, Taylor, & Foldy, 2001). Moreover, the group as a whole used the organizational action-logics to help them

design and implement further strategic steps toward LDR's new business.

Not too surprisingly, given their interests and vocations, the 18 LDR leaders scored, on average, at much later action-logics than larger professional and managerial samples. Whereas the larger samples (Rooke & Torbert, 2005) found 85% of respondents at the early action-logics up to *Achiever*, with the *Expert* action-logic as the mode, 66% of this LDR group scored at the post-*Achiever* action-logics. The average score for the group was *Individualist*, eight scored as *Strategists* (median and modal group score), and two scored as *Alchemists*.

All participants were asked to make an estimate (*1st-person*) of their own action-logic before they received the feedback (*3rd-person*) from the LDP. Then, part of the coached debriefing session (*2nd-person*) was devoted to exploring the difference, if any, between the 1st- and 3rd-person estimates. Each participant maintained control of whether others learned his or her score on the LDP (supporting a proactive rather than a merely compliant 1st-person stance).

To get an impression of how 1st-, 2nd-, and 3rd-person research can interweave to generate personal and organizational transformations, we can follow one thread of the action. During the first day of the workshop, one participant whom we will call Ray became distressed when the LDP measured him at the *Achiever* action-logic, whereas he had diagnosed himself at the *Alchemist* action-logic, three transformations later. The visibly distressed but nonetheless professional participant (1st-person) asked for a public discussion of the validity and ethics of the LDP measure (3rd-person). All agreed to such a discussion, scheduled after small group work on each participant's "difficult conversation" case (2nd-person). During the subsequent public discussion, the group was thus able to actively triangulate among

1st-, 2nd-, and 3rd-person forms of research (Reason & Bradbury, 2001; Reason & Torbert, 2001; Chandler & Torbert, 2003).

Ray's "difficult conversation" case showed that he felt like a "lone ranger" committed to creativity within a larger organization that expected him to conform in a number of ways. Strikingly, Ray felt isolated and powerless in spite of having so many

late action-logic colleagues who were participating in this strategic initiative, one of whom he was in fact addressing in his difficult conversation. Here is the difficult conversation case Ray wrote up, followed by a summary of the small group discussion of the case by another member of the small group, and concluding with Ray's afterthoughts.

"Difficult Conversations" Case From the Workshop

Ray himself wrote both columns in the grid below describing the brief episode, or "case," as he remembered it.

Ray's Challenge: To find a way to influence LDR's ability to be customer-focused.

Context: LDR is intent on routinizing its business practices, policies, and systems. This can conflict with the creative, entrepreneurial instincts of employees, so that some of them at times become disengaged, angry, and less productive.

Ray's thoughts and feelings (unspoken "left column" from a remembered discussion)

From the first weeks that I came to LDR I was encouraged to bring my creativity and business experience to my work. Yet time after time I feel isolated, angry, unappreciated, and wondering how to influence this organization. Do they even want my ideas?

Framing my frustration in the context of the "church of enlightened leadership" helps me to put a frame around my frustration, but it does not help me to work more effectively within the organization. Am I so underdeveloped with a sense of the body politic that I continue to just make the same mistakes over and over? It is just not good enough to feel that you are right!

Whether I fit is a lifelong struggle no matter what organization I have been in. I see things differently, I have good intentions to bring this sense to the organization, and I have been ineffective.

This is good advice . . . do what you can do well. If you can't do that, then consider a change in work.

The remembered discussion between the participant Ray and his LDR colleague "George." Speaker in italics.

Ray: George, I'm going crazy again. I just don't understand why LDR does not get the customer focus proposition.

George: Ray, when are you going to get it? You work for the "church of enlightened leadership." It has its high priests, its rules, and its inner circle. And you are not in it yet.

Ray: I don't know if I fit here any more. LDR doesn't value what I bring to our work. I wonder if I will ever be accepted for what I bring?

George: Why not just keep turning (as you've always done at LDR) your focus to the clients you serve. When that doesn't work any more, then it may be time to consider other options.

Our work at LDR has the potential of bringing real change into the world. We touch thousands of leaders each year. Yet we do not engage them on the issues of the day. We are happy to bring them to new levels of self-awareness and not fully draw out their potential to act as awakened and conscious leaders regarding the environment or in the pursuit of their own sense of purpose in this earthly walk.

It helps to realize that many of us who work for LDR may feel the same way. However, it's hard to realize that those in control don't really care about whether we feel connected to them and their purpose.

When I was in my own consulting practice I operated as a "lone ranger." It was lonely work and I realize I had never worked for such a hard boss: myself. I came to LDR to be part of a posse. I came to LDR to not feel isolated. How is it that I find myself isolated again? Is there something about me that brings isolation and rejection about?

I feel for the first time in a while that a person of substance (yourself) recognizes that I have something to bring to the party. I feel gratitude for this comment. I also wonder what is behind the reference of being years ahead of the organization.

My hunger for intellectual intercourse with my colleagues is high. I see George as a big thinker. I see him as deeply engrossed in the interdependent leadership work. Yet I wonder if he too has short patience for my push to have influence in LDR? Is my need to be recognized within LDR really impacting my one relationship of depth within LDR? There are so few at LDR that I can have a focused, rich discussion with. Everyone is just too busy.

Ray: I have worked to bring new approaches to leadership around newer methodologies for systemic change. But there doesn't seem to be much interest in these ideas. Am I off base?

George: It's hard to have much influence in LDR's culture. We were often hired because we are strong independent practitioners. And at the same time we have developed a centralized control structure that often disenfranchises people. I don't think you are alone in your feelings.

Ray: Sometimes it feels like the only way to survive here is to be a lone ranger, riding off to do good without much alignment with others. (Without a posse!) But I would still like to have influence within our organization. More and more, I am feeling isolated from others.

George: Ray, you may not perceive it, but your ideas on newer methodologies for systemic change may have their day yet. You are years ahead of the organization.

Ray: Even with you, George, I wonder whether you prefer that I shut up about these newer models and methods. You are so focused on your own work you don't seem to have patience for other ideas.

Ray's framing assumptions in the case did not seem *Achiever*-like, either to him or to his colleagues; rather, they seemed *Individualist*-like. The dialogue shows that Ray was enthusiastically willing to critique his own assumptions and outcomes ("whether I fit is a lifelong struggle . . . I have good intentions . . . and I have been ineffective"). At the same time, Ray was effective in engaging the group to go more deeply into learning. Moreover, he and those with whom he was

debriefing the case felt an analogy between his attitude of isolation within the larger organization and the situation of the team as a whole in the larger organization. This reignited the question of how the R&D work-group could move beyond its three-team confederation with its *Individualist* (and therefore personally isolated) way of operating within an *Independent* culture, and move toward a more unified strategy for influencing the larger organization.

During the public conversation that occurred after the small group meetings, Ray's initial distress had transformed into a display of humor, tears, and positive passion in leading a discussion about

1. the change of perspective he had personally experienced, from viewing himself as enacting an *Alchemist* action-logic to viewing himself more realistically as enacting an *Individualist* action-logic (still post-conventional as he had believed, but now with a clear developmental agenda of actually learning to exercise the political skills of mutually enhancing, transforming power);
2. the importance to the community of practice gathered at the workshop of interweaving 1st-, 2nd-, and 3rd-person action and research in an artistic, compassionate, timely manner; and
3. the need for the community to take a more proactive, influential stance with LDR's senior management.

Consistent with his open approach to life, Ray subsequently requested peer coaching from his colleagues.

Buoyed by a strongly positive participant assessment of the workshop, the DAI methodology became central to the R&D group's research and its simultaneous efforts to shift LDR's culture.

LDR'S R&D-DRIVEN STRATEGY FOR CHANGE

LDR's research and development effort then was redesigned to integrate the three R&D subteams as a single team. The goal was to establish a practice emphasizing development toward more interdependent leadership cultures and leadership practices in client organizations and in global society. Yet it was now even more clearly understood within this community that for LDR as a whole, the organizational action-logic of

Systematic Productivity and its Independent culture would have to advance toward an Interdependent culture with a *Collaborative Inquiry* action-logic in order to rise up to the challenges inherent in the new business.

The newly integrated R&D group faced three related challenges:

1. to conduct valid research and develop related services and tools for the benefit of clients and constituents;
2. to foster change in basic systems, business processes, and associated organizational capabilities such that the core business integrated effectively with the new business; and
3. to support the development of LDR's culture.

Because these challenges were understood to be constructive-developmental in nature, combining LDR's new methods and tools for organizational leadership with DAI methods and tools (Table 6.3) provided a promising pathway for sustained progress.

The following five initiatives were explicitly defined within LDR's R&D-driven change effort:

1. Establishing a new community of practice
2. Cocreating the organization's new business strategy and plan
3. Developing requisite organization capabilities
4. Pursuing an integrated research agenda
5. Transforming the organizational culture

With emphasis on the first two initiatives, we will discuss how they have been informed and enhanced by DAI.

Initiative 1: Establishing a New Community of Practice

The R&D project's overall mission had been to establish a new professional practice

Table 6.3 Methods and Tools Supporting Developmental Action Inquiry and Interdependent Organizing in the LDR Case

<i>Method or Tool</i>	<i>Description</i>	<i>Source or Reference</i>
Difficult Conversations (two-column exercise)	Examining the assumptions, frames, and feelings left unspoken in a conflictual conversation	Argyris, Putnam, & Smith, 1985; Senge et al., 1994
Learning Pathways Grid	Systematic analysis of a difficult conversation in terms of actual vs. desired frames, actions, and outcomes	Taylor, Rudolph, & Foldy, 2006
LDP instrument with coaching groups	Assessment of individual action logics, supported by trained coaches and peer dialogues	Rooke & Torbert, 2005; Cook-Greuter, 1999, 2004
Mapping organizational action-logic history	Understanding LDR by tracing its history of development in action-logics	Torbert & Associates, 2004
Culture Mapping Tool	Group exercise in which the “Culture Crew” at LDR mapped, and reflected upon, their appraisal of the organization’s actual and desired culture, according to two dimensions and four types	Cameron & Quinn, 1999; Slobodnik & Slobodnik, 1998
Business Process Analysis & Mapping	Analysis of value-creating activities for specific products and services and aligning them into a “value stream” while eliminating activities that don’t add value	Womack & Jones, 2003
Culture Evaluation Tool	Survey instrument developed at LDR for assessing the relative strength of current organizational action logics; used as an internal assessment at LDR, with coaching	Ongoing research at LDR
Team Workstyle Continuum	Tool that helps a team self-assess current and future required functioning on a continuum from earlier to later action-logics; used in the LDR culture-change discovery process	Tool created by LDR
Four Parts of Speech	Encourages <i>framing</i> , <i>illustrating</i> , <i>advocating</i> , and <i>inquiring</i> for effective communication in support of collaborative inquiry	Torbert & Associates, 2004
Group Dialogue	Conversation models that support the construction of shared meaning through exploring diversity in assumptions and perspectives	Isaacs, 1999; Palus & Drath, 2001; McGuire & Palus, 2003
Visual Explorer	A tool that uses visual imagery and the resultant metaphors to mediate group dialogue	Palus & Horth, 2007
First- and second-person journaling	Research staff keep personal as well as group journals of observations and experiences related to projects	LeCompte & Schensul, 1999

<i>Method or Tool</i>	<i>Description</i>	<i>Source or Reference</i>
Body Sculpting of Roles and Relationships	Group workshop exercise in which people from diverse roles in LDR collectively, physically modeled their actual and desired interdependencies with each other, using physical postures in relation to one another as a metaphoric device to support group reflection	Moreno, 1977
Culture Walk-About Tool	LDR-designed ethnographic tool to capture subjective and objective observations in 1st-, 2nd-, and 3rd-person modes	LeCompte & Schensul, 1999
Open Space Technology	A tool for establishing effective affinity groups amid diverse interests; used in a variety of ways at LDR, including forming discussion groups at workshops and seeding idea communities	Owen, 1997
Idea Communities	Interest- and passion-driven greenhouses of future R&D efforts, leading in some cases to fully established communities of practice such as the one described in this chapter	Lave & Wenger, 1991

area in the development of leadership cultures and leadership practices (Drath, 2003). Essential to this had been the growth of a community of practice to collectively own the work (Lave & Wenger, 1991; Wenger & Snyder, 2000). LDR has for some time been intentional about fostering internal, voluntary “idea communities” around shared professional interests and passions and across functional roles, with the goal of innovation. This latest community-building initiative used three additional techniques:

1. *Formal project assignments.* These included a significant number of faculty from across diverse functions and geographies. In addition, there were a number of volunteers who became involved simply based on their interests. This was becoming less of a “project team” and more of a confluence of interests, opportunities, and abilities.
2. *Differentiating and integrating community membership.* The original R&D group of 15 faculty started making progress when subgroups were formed around promising avenues of specific ideas, grounded

theory, and rapid prototypes within the larger (and more vague) whole. At this earlier point the R&D project group was understood as a “federation” of three independent teams with related interests, rather than a true community of practice. Total membership expanded as people both internal and external to LDR were drawn to work with specific prototypes in these increasingly successful subteams. Subsequent steps for including DAI within capability development efforts have substantially reintegrated this body of people under shared frames and purposes.

3. *Shared client work.* The most powerful impact on group cohesion and extended community building has been the result of tangible shared work, typically driven by client engagements. The abstract and conceptual part of the R&D-generated frameworks has not been sufficient to unite a diverse community. Tangible client work around rapid prototyping, on the other hand, has the potential to draw people into common experience and shared language (Schrage, 2000). The danger was that the specific prototypes would produce cliques

of enthusiasts, generating independent groups, rather than an interdependent community and a unified practice. Steps were taken to avoid this danger and are woven throughout the five initiatives.

Initiative 2: Cocreating the Organization's New Business Strategy and Plan

A detailed strategy and plan for the new business was still missing. The new business would require not only a whole new depth and range in human resources but also significant business investments in systems, structure, and business process creation. Core members of the R&D group thus engaged key directors and vice presidents in a strategy and planning process by creating a new cross-functional Strategy Team. The work of the team was first to inform and engage each other (2nd-person) and then target the Executive Team and provide the objective business case (3rd-person), leading to ways that would shift the understanding of each individual (1st-person).

One difficulty was that the *Systemic Productivity* action-logic of LDR primarily supported the core business. Innovations outside the core required heroic advocacy and fostering of an Independent culture. This naturally generated a “them versus us” competitive mindset. The Strategy Team, mindful of these cultural patterns at LDR, explicitly aspired to a *Collaborative Inquiry* action-logic, in part by using DAI methods as leadership practices. In its first meeting, a profound reframing occurred within both several individuals and the group as a whole. While previously the mental model of the shift in services was understood as “from individual to organizational leadership,” the co-inquiry process and consequent reframing resulted in the recognition that we are in “the transformation business” at both the individual and collective organizational levels simultaneously. This “transcend and include”

recognition was a significant breakthrough from either/or thinking toward both/and, more complex thinking among a group of independent, largely siloed players.

Initiative 3: Developing Requisite Organizational Capabilities

The new business at LDR needed new organizational capabilities to support new knowledge, services, and tools, as well as enhancement of the existing core capability (Beer & Nohria, 2000). These capability development efforts at LDR had three primary aspects. First, a client-services architecture was built in support of a client strategy focused on broad and deep, long-term, research-grounded client relationships. The growing R&D-generated body of experience, knowledge, tools, and services was organized around a small number of specific client problems and LDR's solutions to those problems. Next, the core systems, structures, and business processes of LDR needed to interact with this new services architecture in a way that would transform old and new into one whole. Third, and to these ends, a series of workshops were held in order to provide organization-wide awareness of the emerging practice and its frameworks, along with the new business opportunities. Competencies, people needed to staff the new work, and pathways for further development were identified. These workshops combined 1st-, 2nd-, and 3rd-person inquiry using methods and tools from LDR's and DAI's repertoire (Table 6.3). Each capability-development workshop became a learning forum that furthered the development of individuals, the community of practice, and LDR's approaches to the new business.

Initiative 4: Pursuing an Integrated Research Agenda

Most of the people in the broader community of practice do not identify themselves

as researchers. Rather, they identify themselves as educators, designers, or client-relationship specialists. For many the notion of “research” includes some negative connotations as an esoteric notion that excludes their own expertise and gets in the way of pragmatic client relations. The question for them becomes “How do I participate meaningfully in research?” Thus DAI has begun to serve as a research framework that honors their (considerable) 1st- and 2nd-person inquiry skills in support of the creation, testing, and refinement of objective knowledge. The participative and developmental nature of DAI has helped to unify the broader community.

As the R&D subgroups were integrated, DAI was explicitly adopted as an overarching methodology for primary research projects. For example, a new series of case studies included not only 3rd-person methods of surveys, assessment instruments, and subject matter interviews but also the intra- and intersubjective 1st- and 2nd-person methods of journaling, cultural ethnography, and dialogue (Table 6.3). Measurement tools (3rd-person) conceived within the practice were focused on the existence and nature of interdependent leadership cultures and practices. One of these measures is a 10-question Cultural Evaluation Tool (CET) that asks respondents to allocate 10 points among three answers to each question. In each case, one of the answers reflects a more Dependent orientation in the organization, one reflects a more Independent orientation, and one a more Interdependent orientation.

Initiative 5: Transforming the Organizational Culture

Following some disturbing results from an internal climate survey, the LDR president decided to apply R&D’s organizational leadership development services approach to developing the culture of LDR. An internal team including one of the authors entered into a consultative relationship with the senior management team and a representative

stakeholder group (“the Culture Crew”) made up of directors, vice presidents, and board members. A discovery and diagnosis process for LDR’s culture, incorporating 1st-, 2nd-, and 3rd-person action inquiry methods combined with LDR’s new business services and tools, revealed largely Dependent cultural systems within headquarters and administrative staff, and a primarily Independent culture within the faculty, business managers, and campuses. These Dependent and Independent action-logics often clashed, and yet the learning opportunities in this were muted by strong norms of conflict avoidance. To begin to address these gaps between the actual cultures and the desired culture of interdependence, and in an effort to “practice what we preach,” a discovery process and a workshop were held with the Culture Crew for identifying and understanding the organization’s future core capability and strategic direction (3rd-person), while also engaging team development (2nd-person) and the evolution of individual points of view (1st-person). As a result, the president sponsored a series of activities to better define leadership strategy, customer identity, vision, core capabilities, and cultural norms. Within a few months, these project groups made significant progress with the issuance of a vision statement and the identification of seven cultural pillars, or normative behaviors, which were then tied to the organization’s performance and development process.

Whether LDR can fully realize an interdependent culture and integrate its core and new businesses remains to be seen. It has done so in pockets, and for periods of time, directly leading to positive results in each of the five change initiatives described above. But there are both encouraging and disappointing results from these efforts. LDR continues to maintain a hierarchical, Dependent-type structure that harbors silos and disables cross-boundary work. Senior management is in flux with the imminent retirement of a senior executive. Action-logics variance in management appears to forestall a robust and

aggressive advancement toward the new business. Readiness is appropriately questioned as a new flagship service launch is postponed. The threat of evolving from LDR's core identity gives pause to management's considerations of change; and the commensurate investments required are considerable.

And yet there have been substantial advances. As of this writing, LDR's executive team has significantly engaged in the process, deepening their knowledge of the business challenge, and has accepted the initial business strategy and plan. A dedicated team has been assigned to advancing the work in interdependent process creation and services development. LDR's culture work has advanced a set of values tied to performance management, and the research work has a coherent center of gravity. In fact, the postponement of the key new service has reverberated throughout the organization, which is actively questioning "why wait?" There seems to be a reinvigorated collective expectation that we will move in this new business direction toward organizational leadership development.

CONCLUSION

As both the extended personal case of Ray at the initial DAI workshop and this latest example of the Strategy Team suggest, the Interdependent action-logics, beginning with *Strategist/Collaborative Inquiry*, generate transformation not by elaborating and selling a plan and then implementing it via the use of unilateral forms of organizational power, but rather by beginning to enact collaborative inquiry from the outset. Individuals, teams, and larger systems increasingly experiment with and may begin to adopt a *Strategist/Collaborative Inquiry* action-logic as they experience incidents such as Ray's and the Strategy Team's creation of new insight and shared vision.

The special challenge of the Interdependent action-logics is that they cannot be routinized. They invite and require all participants to seek repeated, ongoing contact with the four territories of experience (vision, strategy, performance, outcome) in order to express in a timely manner the mutual dilemmas and incongruities that can motivate incremental and transformational change. This does not mean that the Interdependent collaborative inquiry approach is powerless to influence the earlier, more unilateral action-logics. Collaborative inquiry uses all available forms of unilateral power to invite organizational members into collaborative modalities, while simultaneously using multiple 1st-, 2nd-, and 3rd-person inquiry methods to confront gaps in organizational efficacy, to explore incongruities among mission, strategy, performance, and outcomes, and to test the efficacy of the new modalities themselves. According to developmental theory and to our prior statistical findings (Torbert & Associates, 2004), unilateral power alone is powerless to transform individuals, teams, or organizations. While collaborative inquiry cannot guarantee transformation, it is the only process that makes it possible.

Since this 18-month organizational transformation process is still very much under way at LDR, perhaps the most powerful conclusions we can offer at this point are the 1st-person reflections of two of its most engaged internal participants and of the external researcher/consultant.

First-person reflection #1 (internal LDR participant): Prior to the first DAI workshop, we had long been cultivating a 2nd-person practice of working collaboratively with clients, with goals of mutual learning and development, using forms of action research including rapid prototyping. But we had found that 2nd-person practice seemed to pull us away from 3rd-person research or what we sometimes refer to as "traditional research." Also hampering 3rd-person

research was a diversity of expert models within our community so that realms of expertise would compete, or be insensible to one another. The dilemma was, How could we create shared frames of expertise for our traditional research while sustaining the mutual inquiry we value in our action research process with clients? The DAI framework allowed us to prioritize 3rd-person methods in our Case Studies Project (e.g., building survey instruments; coding and analyzing interviews), while also using 1st-person methods (e.g., journaling by investigators; using personal perceptions and hunches as a source of raw data) and 2nd-person methods (e.g., dialogue sessions between investigators and subjects, and between pairs of investigators). DAI is useful in observing and interpreting, in a systematic way, my own and others' actions, and highlights the ongoing dilemmas that Dependent and Independent action-logics can create. I notice that I am asking myself more often: What would an Interdependent action-logic intervention look like, right now? I notice others doing the same, and sometimes enacting those action-logics. At the time of writing this it is still not clear whether we will attain and sustain the needed level of interdependence and integration of our work (or even what that level should be at any time).

First-person reflection #2 (internal LDR participant): The three R&D teams were formed as semi-independent subteams from a

core group that decided differentiation and experimentation were in order. Splitting up seemed paradoxical and even troubling to us at the time because our task implied collaborative work. Were we simply feeding our inclination toward independent work? Torbert's notion of collaborative inquiry helped us think about these issues without stopping our momentum.

In the capability-development work we encountered the fact that our colleagues varied in the roles they wished facilitators to play. What I have had to begin to learn more about recently is how to combine the "expert" leadership role that colleagues and clients often expect in a workshop or meeting with the *Collaborative Inquiry* action-logic. I have to remember that each new meeting or organizing process will proceed through the developmental action-logics all over again. While we often attempted to lead with a co-inquiry style, many audiences insisted that we play at least two other roles. Often we were led to take on a subject matter expert role for more Dependent audiences. Other more Independent audiences requested that we just supply them with the data, and they would independently use the information as required. Even though I can exercise Interdependent action-logics within myself at any time, the question of how to act in a group and organizational setting is also influenced by the developmental trajectory of the other persons, groups, or organizations involved.

REFERENCES

- Argyris, C., Putnam, R., & Smith, D. (1985). *Action science: Concepts, methods, and skills for research and intervention*. San Francisco: Jossey-Bass.
- Argyris, C., & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.
- Basseches, M. (1984). *Dialectical thinking and adult development*. Norwood, NJ: Ablex.
- Beck, D., & Cowan, C. (1996). *Spiral dynamics: Mastering values, leadership and change*. Malden, MA: Blackwell Business.
- Beer, M., & Nohria, N. (2000). Cracking the code of change. *Harvard Business Review*, 78(3), 133–141.

- Bolman, L. G., & Deal, T. E. (2003). *Reframing organizations* (3rd ed.). San Francisco: Jossey-Bass.
- Bushe, G., & Gibbs, B. (1990). Predicting organization development consulting competence from the Myers-Briggs Indicator and stage of ego development. *Journal of Applied Behavioral Science*, 26(3), 337–357.
- Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. Reading, MA: Addison Wesley Longman.
- Chandler, D., & Torbert, W. R. (2003). Transforming inquiry and action: Interweaving 27 flavors of action research. *Journal of Action Research*, 1(2), 133–152.
- Commons, M. L., & Richards, F. A. (2003). Four postformal stages. In J. Demick & C. Andreoletti (Eds.), *Handbook of adult development* (pp. 199–220). New York: Kluwer Academic.
- Cook-Greuter, S. R. (1999). Postautonomous ego development: A study of its nature and measurement. *Dissertation Abstracts International*, 60, 06B. (UMI No. 993312)
- Cook-Greuter, S. R. (2004). Making the case for a developmental perspective. *Industrial and Commercial Training*, 36, 275–281.
- Day, D. V. (2000). Leadership development: A review in context. *Leadership Quarterly*, 11(4), 581–613.
- Drath, W. (2001). *The deep blue sea: Rethinking the source of leadership*. San Francisco: Jossey-Bass.
- Drath, W. (2003). Leading together: Complex challenges require a new approach. *Leadership in Action*, 23(1), 3–7.
- Drath, W., & Palus, C. J. (1994). *Making common sense: Leadership as meaning-making in a community of practice*. Greensboro, NC: Center for Creative Leadership.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14, 532–550.
- Fisher, D., & Torbert, W. R. (1991). Transforming managerial practice: Beyond the achiever stage. In R. Woodman & W. Pasmore (Eds.), *Research in organizational change and development* (Vol. 5). Greenwich, CT: JAI Press.
- Foster, P., & Torbert, W. R. (2005). Leading through positive deviance: A developmental action learning perspective on institutional change. In R. Giacalone, C. Dunn, & C. Jurkiewicz (Eds.), *Positive psychology in business ethics and corporate responsibility* (pp. 123–142). Greenwich, CT: Information Age Publishing.
- Heifetz, R. A. (1994). *Leadership without easy answers*. Cambridge, MA: Harvard University Press.
- Isaacs, W. (1999). *Dialogue and the art of thinking together*. New York: Random House.
- Kegan, R. (1994). *In over our heads: The demands of modern life*. Cambridge, MA: Harvard University Press.
- Kegan, R., & Lahey, L. L. (2001). *How the way we talk can change the way we work: Seven languages for transformation*. San Francisco: Jossey-Bass.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- LeCompte, M. D., & Schensul, J. J. (1999). *Analyzing and interpreting ethnographic data*. Walnut Creek, CA: AltaMira Press.

- Loevinger, J. (1976). *Ego development*. San Francisco: Jossey-Bass.
- Manners, J., Durkin, K., & Nesdale, A. (2004). Promoting advanced ego development among adults. *Journal of Adult Development*, 1(1), 19–27.
- McCauley, C. D., Drath, W. H., Palus, C. J., O'Connor, P. M. G., & Baker, B. A. (in press). The use of constructive-developmental theory to advance the understanding of leadership. *Leadership Quarterly*.
- McGuire, J. B., & Palus, C. J. (2003). Using dialogue as a tool for better leadership. *Leadership in Action*, 23(1), 8–11.
- Merron, K., Fisher, D., & Torbert, W. R. (1987). Meaning making and management action. *Group and Organizational Studies*, 12(3), 274–286.
- Moreno, J. L. (1977). *Psychodrama* (4th ed.). New York: Beacon House.
- Owen, H. (1997). *Open space technology* (2nd ed.). San Francisco: Berrett-Koehler.
- Palus, C. J., & Drath, W. H. (1995). *Evolving leaders: A model for promoting leadership development in programs*. Greensboro, NC: Center for Creative Leadership.
- Palus, C. J., & Drath, W. H. (2001). Putting something in the middle: An approach to dialogue. *Reflections: The SoL Journal*, 3(2), 28–39.
- Palus, C. J., & Horth, D. M. (2007). Visual explorer. In P. Holman, T. Devane, & S. Cady (Eds.), *The change handbook: The definitive resource on today's best methods for engaging whole systems* (2nd ed.). San Francisco: Berrett-Koehler.
- Piaget, J. (1954). *The construction of reality in a child*. New York: Basic Books.
- Reason, P. (1994). *Participation in human inquiry*. London: Sage.
- Reason, P., & Bradbury, H. (2001). *Handbook of action research: Participative inquiry and practice*. London: Sage.
- Reason, P., & Torbert, W. R. (2001). The action turn: Toward a transformational social science: A further look at the scientific merits of action research. *Concepts and Transformation*, 6(1), 1–37.
- Rooke, D., & Torbert, W. R. (1998). Organizational transformation as a function of CEOs' developmental stage. *Organization Development Journal*, 16(1), 11–28.
- Rooke, D., & Torbert, W. R. (2005, April). Seven transformations of leadership. *Harvard Business Review*, 66–77.
- Rudolph, J. W., Taylor, S. S., & Foldy, E. G. (2001). Collaborative off-line reflection: A way to develop skill in action science and action inquiry. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice*. London: Sage.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schrage, M. (2000). *Serious play: How the world's best companies simulate to innovate*. Boston: Harvard Business School Press.
- Senge, P. M., Roberts, C., Ross, R. B., Smith, B. J., & Kleiner, A. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. New York: Doubleday.
- Sherman, F., & Torbert, W. R. (2000). *Transforming social inquiry, transforming social action*. Boston: Kluwer Academic.
- Strauss, A. L. (1987). *Qualitative analysis for social scientists*. New York: Cambridge University Press.
- Taylor, S. S., Rudolph, J. W., & Foldy, E. G. (2006). Teaching reflective practice: Key concepts, stages, and practices. In P. Reason & H. Bradbury (Eds.), *The Sage handbook of action research* (2nd ed.). London: Sage.

- Torbert, W. R. (1976). *Creating a community of inquiry*. London: Wiley.
- Torbert, W. R. (1987). *Managing the corporate dream: Restructuring for long-term success*. Homewood, IL: Dow Jones-Irwin.
- Torbert, W. R. (1991). *The power of balance: Transforming self, society, and scientific inquiry*. Newbury Park, CA: Sage.
- Torbert, W. R. (2000). A developmental approach to social science: Integrating first-, second-, and third-person research/practice through single-, double-, and triple-loop feedback. *Journal of Adult Development*, 7(4), 255–268.
- Torbert, W. R., & Associates. (2004). *Action inquiry: The secret of timely and transforming leadership*. San Francisco: Berrett-Koehler.
- Torbert, W. R., & Fisher, D. (1992). Autobiography as a catalyst for managerial and organizational development. *Management Education and Development Journal*, 23, 184–198.
- Van Velsor, E., & McCauley, C. D. (2004). Our view of leadership development. In C. D. McCauley & E. Van Velsor (Eds.), *The center for creative leadership handbook of leadership development* (2nd ed., pp. 1–22). San Francisco: Jossey-Bass.
- Wenger, E., & Snyder, W. M. (2000). Communities of practice: The organizational frontier. *Harvard Business Review*, 78(1), 139–145.
- Wilber, K. (2000). *Integral psychology*. Boston: Shambhala.
- Womack, J. P., & Jones, D. T. (2003). *Lean thinking: Banish waste and create wealth in your corporation*. New York: Simon & Schuster.