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CHAPTER SEVEN

Cultivating Postformal Adult Development: Higher Stages and Contrasting Interventions



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For the last several years, the senior management at Pilgrim Health Care—the most rapidly growing Massachusetts health management organization in the early 1990s, ranked first nationally in customer satisfaction by the August 1992 *Consumer Reports*—has been engaging, as a team, in early episodes of *action inquiry* (an approach to organizational change, scientific research, and personal transformation described in this chapter, as well as in Torbert, 1987a, 1991, 1992a). The best articulated motive for this practice on the part of Pilgrim's senior management is its commitment to engage in continual quality improvement in terms of its own practice, as it simultaneously implements an organization-wide quality improvement program.

During the same time period, the senior management of ABB—the highly successful Swedish-Swiss conglomerate that employs some 200,000—has been, as a team, practicing Vedic Transcendental Meditation (see Chapter 2 in this volume). As with any significant organizational initiative, many motives fuel this practice; one motive is to appreciate more deeply what ABB's espoused corporate commitment to "Life-Long Learning" for all employees means (Gustavsson, 1991; Philipson, 1992).

As this chapter will discuss, the practice of action inquiry and the Vedic/TM method are the only two educational interventions that have empirically been shown to facilitate adult developmental transformation beyond formal operations. The primary concern of this chapter is to present experiential tastes, theoretical outlines, and empirical findings of the action inquiry approach to adult learning, adult development, and leadership. The

Vedic/TM approach and the empirical research relating to it is well discussed in Alexander's chapter in this volume and will be reviewed only briefly later in this chapter in order to compare its educational process and documented outcomes to the action inquiry approach.

The Action Inquiry Approach

The action inquiry approach to adult learning, development, and leadership is to integrate inquiry into action, rather than separating them into reflection, on the one hand, and action, on the other hand—into “ivory tower” vs. “real world.” On a personal scale, this implies an attempt to widen and deepen one's awareness meditatively in the very midst of one's workaday action (Torbert, 1992b, 1992c, 1994). On an interpersonal scale, integrating action and inquiry implies speaking in ways that simultaneously assert, illustrate, and inquire into others' responses (Argyris et al., 1985; Torbert, 1981a, 1987a). On an organizational scale, integrating action with inquiry results in the creation and re-creation of liberating structures that simultaneously increase participants' awareness, empowerment, and productivity (Torbert, 1991). On all three scales, the action inquiry approach is intended to invite reframing of assumptions and developmental transformation at appropriate moments.

The action inquiry approach is based on a model of experiential reality that posits (and shows how to test for) four qualitatively distinct, yet simultaneously present “territories of experience” (Torbert, 1973, 1991):

- 1) the outside world (e.g., empirical data, organizational outcomes);
- 2) one's own behavior as self-apprehended (e.g., one's own organizational action as it occurs);
- 3) one's own and others' feelings and thoughts (e.g., organizational norms and strategies); and
- 4) transcognitive consciousness, or attention, which can potentially embrace all four territories at once.

The model of four “territories of experience” draws attention to the possibility that one's attention may focus:

- 1) predominantly, or alternatively, on any one of the other three territories of experience; or
- 2) on analogies or incongruities among any two of the above territories; or
- 3) unitively on the simultaneous coexistence and interplay among all four territories of experience.

This theory of learning from experience addresses the current concern in the field of postformal adult development (Marcus & Wurf, 1987; Alexander, Druker et al. 1990) for learning theory that embraces the capacities for empirical, operational knowing, for abstract, hypothetical

reasoning, and for subjective self-knowing. This theory also provides a viable substructure for early-stage developmental theory through formal operations: developmental progression can be understood to involve successive concentration on developing reliable operational awareness of an additional territory of experience, or on the interplay among several. More specifically:

1. Knowledge and behavioral control of one territory of experience—the outside world (as in learning to ride a bike)—are the primary objectives during the Imperial or Opportunist stage of development (stage names taken from Kegan [1982] and Torbert [1987a]—see Table 7.1 below).

2. Knowledge and cognitive-emotional control of a second territory of experience—one's own behavior (in relation to subsidiarily inferred group norms)—are the main objectives of the Interpersonal or Diplomat stage.

3. Knowledge and logical control of a third territory of experience—thought itself—are the primary objectives of the Technician stage.

4. Hypothetical reasoning that coordinates these three territories of experience—thought, action, and outcomes—is the primary objective of the Institutional or Achiever stage.

5. Explicit concern with the fourth territory of experience—transcognitive awareness—and with the actual, existential interplay among all four territories of experience in the midst of one's daily actions commences only at the postformal stages of development, particularly the Magician and Ironist stages. (Approaches such as phenomenology, symbolic interactionism, and postmodernism, with their analytic acknowledgment of the role of perspectival awareness, are characteristic of the Strategist stage.)

Western scientific thought over the past five centuries is itself a creature of the formal operations stage of development. It has generally assumed that only two of the four layers discussed here exist: 1) the outside world or "territory," which is assumed to include one's own behavior since that is externally visible; and 2) the thinking process or map, which is assumed to include consciousness as some form of self-reflective representation.

Beyond Formal Operations

According to the theory of learning from the four territories of experience, adult development beyond formal operations, when it occurs at all, is catalyzed by the interplay of existential awareness and unique historical circumstance. "Existential awareness" means awareness of the consciousness territory, not as a hypothetical possibility in the thinking territory, but as a vivifying reality in the present moment.

The content of any moment of such existential awareness may be primarily "positive," primarily "negative," or it may be primarily "reconciling." "Positive" moments of existential awareness include the

Table 7.1
Stages of Development according to Different Theories

Stage	Torbert	Kegan	Loevinger	Vedic
1	Impulsive <i>Impulse rules reflexes</i>	Impulsive	Impulsive	Early representations
2	Opportunist <i>Needs rule impulses</i>	Imperial	Opportunist	Concrete thinking
3	Diplomat <i>Norms rule interests</i>	Interpersonal	Conformist	
4	Technician <i>Craft logic overrules group norms</i>	(transition)	(transition)	Abstract reasoning
5	Achiever <i>System effectiveness rules logic</i>	Institutional	Conscientious	
6	Strategist <i>Principle rules system</i>	(transition)	Autonomous	Advanced development of affect and ego
7	Magician/ Clown <i>Process rules principle</i>	Interindividual	Universal (Cook-Greuter, 1990)	Cosmic consciousness
8	Ironist <i>Intersystemic development rules process</i>	—	—	Refined cosmic consciousness

meditative contemplation of the consciousness territory, or a sense of alignment and congruity across several territories (e.g., saying what one means and doing what one says). “Negative” moments include moments of

conscience when one recognizes an incongruity between two or more territories (e.g., hearing oneself espouse one value, while enacting another). "Reconciling" moments occur when the very act of reframing one's own awareness from immersion in one territory to a more inclusive awareness of multiple territories itself transforms a sense of stuckness into a nonproblematic flow of experiencing.

The immediate effect of such a moment of existential awareness—whether positive, negative, or reconciling—may be either to motivate and facilitate further such moments (further ongoing learning from experience) or to accelerate action in the other three territories and disengagement from the consciousness territory, thus discontinuing the process of learning from experience.

The long-term effects of repeated moments of such existential awareness include recognition of:

- 1) the uniqueness of relationships and contexts (Gilligan et al., 1990);
- 2) the importance of timing (e.g., finding teachable moments) and placing (e.g., creating unique market niches) in relational, organizational, and social initiatives;
- 3) the multiplicity and relativity of different frames or paradigms (Perry, 1970);
- 4) the dilemmic (rather than problematic) and paradoxical (rather than well-defined) nature of social life (Basseches, 1984);
- 5) the primacy of integrative, analogical, or metaphorical thinking (over analytical, deductive thinking) in comparisons across territories of experience (Torbert, 1989); and
- 6) inquiry as a primary life-value—as a political type of action, a spiritual type of search, and an aesthetic taste—not just as a scientific, intellectual value secondary to some answer; inquiry as primarily action inquiry and only secondarily as reflective inquiry (Torbert, 1991).

The Strategist Stage

In the first postformal stage of development (subjects in action inquiry research measured at Loevinger's [1978] stage 4/5 transition and stage 5 Autonomous), the person is inspired by moments of existential awareness to construct an explicit and distinctive integrative theory of self and world that recognizes development (e.g., theories such as those of Hegel, Marx, Freud, or Kohlberg). The value of existential awareness, or the integration of principle and practice, may (or may not) be the primary espoused value; but the dominant enacted value will be the imposition of a (sophisticated) language on experience, not the simultaneous tasting of preconceptual, conceptual, and postconceptual experience. This stage corresponds closely to Richards and Commons's (1990) "metasystematic" stage and to the stage

called “dialectical operations” (Fowler, 1981; Basseches, 1985). Torbert (1987a) offers the following summary characterization of this Strategist stage:

Aware of paradox; Process oriented as well as goal oriented; Enjoys variety of roles; Relativistic; Witty; Values individuality, unique niches, historical context; Recognizes importance of principle, contract, theory, judgment for making good decisions, not just rules and customs; Fascinated by complex interweaving of emotional dependence and independence in relationships; Creative conflict resolution; Aware of dark side, of profundity of evil, and tempted by its power. (p. 149)

The Magician/Clown Stage

The second postformal stage of development is most closely approximated by Kegan’s Interindividual stage and by Loevinger’s 5/6 transition and Loevinger’s stage 6 (especially as reconceptualized by Cook-Greuter in Chapter 5 as the Universal stage). In this stage, the person moves from being in the “right” frame of mind to having a reframing mind that repeatedly subordinates itself to the existential awareness of this moment, divesting itself of its presuppositions. Allegiance to the consciousness territory and to awareness of the actual interplay in real time among the four territories becomes primary. A journal excerpt of a person measured at the Magician stage appears below, by way of illustration.

If one thinks of each territory as a system, then this stage is consistent with Richards and Commons’s (1990) next postformal stage, which they call “paradigmatic,” where the relations between systems come to be recognized as a unified paradigm. The Richards and Commons language has a predominantly “metasystematic” tone, however, and is at some distance from the existential “feel” of this next stage—a feel that perhaps may be conveyed by the phrase “indomitable vulnerability.”

This vulnerability to constant self-transformation generates a capacity to meet others of any station in life in their full height and depth—to meet others as evolving selves preeminently and as inhabitants of a particular role or stage logic only secondarily. Such true mutuality in meeting is key to the very possibility of exercising developmentally transforming power (which is never unilateral, always mutual [Torbert, 1991]). Such is the power of the court jester, the clown, the Trickster God, the consummate consultant, the wounded healer, the true magician. Torbert (1987a) aptly characterizes this Magician/Clown stage of development in the following summary phrases:

Ego-identity disintegrates, near-death experience; Impression of spirit rising from ashes; Participates in historical/spiritual transformations; Creates

mythical events that reframe situations; Exercises attention, researching thought, feeling, action, and effects; Anchors in inclusive present, seeing light and dark, order and mess; Blends opposites; Shamanistic body-mind integration; Treats time and events as kairatic, symbolic, analogical, metaphorical. (p. 214)

The Magician recognizes that the polarization between good and evil—between victory and defeat, between the sacred and the profane, between classes, races, or sexes, between I and Thou—is recreated in each moment by our relatively fixed and one-sided perspectives on the world. Evil emanates from the character of our fallen, passive attention; it cannot be permanently defeated. Indeed, to fight against it as though it were only outside ourselves reinforces it. Action inquiry becomes, for the Magician, not so much a theory of managing as an ongoing jousting, at one and the same time, with one's own attention and with the outside world. (p. 213)

These relatively abstract ways of describing Magician/Clown-stage experiencing can be complemented by the following illustration from the journal of a person measured at the Magician/Clown stage by the Loevinger sentence completion form:

Some days he would pick up a book by one of the great philosophers—it might be Hegel talking about our upside down world or Wittgenstein demonstrating how much more subtle and complex our everyday language is than our attempts abstractly to “understand it all”—and the book would come alive to him. He would turn the pages as though reading an adventure story, stirred to see these philosophers struggling with the same questions he felt. But other days he'd open the same book and see an impenetrable haze of gobbledygook.

What really began to confuse him, though, was the thought that occurred to him as he was accelerating for the second time during his jog—that second acceleration after the initial stiffness loosens and after the first breath deepens, then rasps, and after the ensuing surrender to a slower pace brings that delicious sense of liquefaction—that second acceleration when one is momentarily running so strongly that one believes one could go on forever and effortlessly turns one's attention away from the running which is taking care of itself, to “eternal” questions. The thought that occurred to him then and that very quickly demonstrated itself as his chest filled with pain (and thus began to remind him again of what he was actually doing) was that he was only interested in the eternal questions at rare moments.

Others thought of him as of an unusually philosophical turn of mind and this may indeed have been true, but the fact remained that however much more than “the man in the street” he may have mused on the eternal questions (he was “the man [running] in the street” now, he mused, the car exhaust beginning to penetrate unpleasantly to the pit of his stomach, distracting him from his pleasure in the river flowing past on the other side), he did not think

of them often. He sometimes went for four or five hours wholly immersed in whatever he was doing without wondering about the meaning of it all—sometimes, in fact, for days at a time (although it was difficult to remember such times when he was thinking about the eternal questions since the questions seemed so inescapable and all-embracing when they did manage to attract his attention at all).

Now the pain in his chest led him to sight a bench two hundred yards ahead and aim resolutely to maintain his pace till he reached it—which resolution led him to wonder whether he was being lazy to stop so soon or masochistic to press himself so hard—which led him to concentrate on breathing more intentionally rather than letting his breath tear at him involuntarily. At any rate, he managed to forget his perplexities of the moment before as effortlessly as he had encountered them.

Later that day, though, he was reminded of the episode when he picked up Bergson's *The Creative Mind* and discovered with mounting excitement that it began:

What philosophy has lacked most of all is precision. Philosophical systems are not cut to the measure of the reality in which we live; they are too wide for reality. Examine any one of them, chosen as you see fit, and you will see that it could apply equally well to a world in which neither plants nor animals have existence, only men [sic], and in which men would quite possibly do without eating and drinking, where they would neither sleep nor dream nor let their minds wander.

The further he read into the book, however, the more disappointed he became, for he found no more references to eating or drinking, or to the different ways of going to sleep, dreaming, and waking, or to the purposes and effects of jogging or chanting, or to going to the bathroom, or to the fundamental fickleness of attention as it ranges among these concerns, and so he began to wonder whether he had missed the point, which made him wonder, a bit more urgently than before, what the point of this story, as a whole, is. . . .

The Ironist Stage

In the third postformal stage (not represented in the Loevinger and Kegan schemes, but parallel to the Vedic refined cosmic consciousness stage), the person learns to clothe (to mask, to shield) his or her transformational vulnerability and charisma and to create institutional vehicles for encouraging development whenever another is ready for and seeking transformation. The person comes to value the distances and incongruities among the territories of experience, and the contingent validity of the earlier developmental crystalizations, as much as the moments of alignment and congruity among the territories and the moments of transformation. In Richards and Commons's (1990) terms, this is the "cross-paradigmatic"

stage, when different paradigms are comprehended and related. But where their language stresses unification (as does Loevinger's Integrated stage), this theory highlights the values of stress and contrast, calling this the Ironic stage:

The belief that all distances and tensions could be permanently obliterated in an effortless, classless utopia strikes the active attention as mere passive lunacy. Quite the contrary, the Ironic leader cultivates a quality of awareness and action that highlights the dynamic tensions of the whole enterprise—not so starkly as to engender terror and hopelessness—but rather in just the tones that can make their significance visible to other members and challenge them to higher performance and further development.

To help achieve this kind of super-vision, the Ironic leader often takes on an outer role as a mask—does the opposite of what would be “natural” for him or her—just as the monkish Dag Hammarskjöld did in becoming the world's first global politician. In this way, the executive is exposed at every moment to just those realities to which, by inclination, he or she would remain blind.

Thus, Jean Riboud—long an avowed socialist and supporter of the Mitterrand government in France—served as CEO of Schlumberger, Ltd., by several measures the best-managed capitalist company in the world. Thus, the debonair Gandhi doffed his three-piece lawyer's suit and donned a primitive loin cloth, taking a lead role in transforming India from colony to nation.

Thus, a saint at the Ironic stage of development could be expected to take the role of a devil in public. Among several of the Middle and Far Eastern religious traditions, this process of masking one's charisma—one's sacred caring—has a name: “the Path of Blame.” As a way of combating the dependence of the student and encouraging independence, the spiritual teacher who chooses this path acts in precisely ambiguous ways—in ways of questionable taste, devilishly—and attracts either questions or blame. (Torbet, 1987a, pp. 218–219)

Comparison to Vedic Postformal Stages

The action inquiry approach of learning from four territories of experience, along with the three postformal stages of development outlined above, is structurally consistent with recent research on the Vedic Psychology of human development, though they appear to be processually and descriptively different (see Alexander's chapter in this volume, as well as Alexander, Davies et al., 1990). Both approaches posit a transcognitive consciousness as different from the ordinary daytime waking state as that is from nighttime sleep. Both also posit three postformal stages based on an increasing apprehension and appropriation of the omnipresence of such a consciousness (the three Vedic stages are named cosmic consciousness, refined cosmic consciousness, and unity consciousness). Here, however, the similarity between the two approaches ends.

Each approach offers a very different sense of how transcognitive consciousness may be approached. Consequently, it is not surprising that the descriptions of the three stages along the path of approach also differ. Some of this difference in description of the three stages may be due to the fact that the Strategist stage described above seems to correspond best to a stage that Alexander, Davies et al. (1990) briefly allude to as preceding the three Vedic postformal stages. If so, then the Magician stage may correspond most closely to the Vedic cosmic consciousness stage and the Ironist stage may correspond most closely to refined cosmic consciousness. Even with this adjustment, however, a major difference in flavor between the two approaches remains. This difference may be the basis for a fruitful complementarity between the two in future work.

The Vedic theory and Transcendental Meditation procedures are first accepted on priestly authority (whether that authority be conceived of as the millennial Vedic tradition, as the personal authority of the Maharishi, or the scientific authority of the hundreds of TM studies). The theory claims that there is a "natural," "spontaneous," "effortless" tendency for consciousness to evolve that is usually blocked by psychobiological stress. The Vedic theory and the efficacy of Transcendental Meditation are then tested in terms of self-reports by those engaging in TM and the consequences that follow from engaging in TM. The consequences—in terms of enhanced development, lowered recidivism in prison studies, enhanced longevity in elderly studies, etc.—are most impressive (see Chapter 2 this volume; Alexander, Dixon et al., 1989; Alexander, Langer et al., 1989; Alexander, Davies et al., 1990).

The self-reports highlight the calm, relaxed, unitive nature of the awareness attained during the practice of TM, but these reports are less persuasive than the experimental studies for two reasons. First, TM practitioners may be learning this language for describing their meditative experience from books and TM teachers as much or more than from the meditative experiences themselves and may therefore be unintentionally suppressing other elements of their experience. Second, the self-reports are predominantly about "relaxing" meditative experiences rather than experiences when the person is under greater stress. (This critique of the possible incompleteness of the self-reports does not, of course, in any way vitiate the impressive findings about the outcomes of Transcendental Meditation practice.)

By contrast to the Vedic approach, in the theory of learning from four territories of experience through action inquiry, the primary emphasis falls not on the spontaneous, effortless, and dogmatic nature of postformal development, but rather on its voluntary, intentional, and idiosyncratic nature. Postformal development is seen as occurring through a process of action inquiry in everyday life. As such, action inquiry can include, but is

not limited to, forms of solitary or group meditation; more generally, it involves meditation-in-action that embraces stress and contradiction as well as relaxation and unity. Of course, there may be other efficacious approaches to postformal development besides these two; in this early period of exploration of the phenomenon of postformal development, it will advance the field to articulate each.

Let us characterize the action inquiry approach a little more and indicate some of the empirical findings of action inquiry research, before comparing the effects of the Vedic approach and the action inquiry approach to cultivating postformal development.

Testing the “Four Territories” Paradigm and the Postformal Stage Characterizations through Action Inquiry Research

Action inquiry research, or collaborative inquiry (Reason & Rowan, 1981), is a form of research that persons, groups, or organizations undertake with others and in relation to their social and natural environments. Action inquiry studies the interplay among one's own internal practice of attention, one's thinking/feeling, and one's own action and outcomes in everyday life; analogously, at the organizational scale, action inquiry studies the interplay among mission, strategy, operations, and outcomes (Torbert, 1976, 1981b, 1983a, 1987a, 1991). It is *not*, in other words, primarily an academic form of research, nor primarily a spiritual belief system. The researchers are themselves also subjects and practitioners; the subjects are also researchers; and the aim is to create communities of inquiry within communities of social practice (Argyris et al., 1985). Insofar as external empirical research instruments are used, they are developed with or agreed to by the subjects. The subjects also are offered feedback on their own performance on measures, as well as on the general results of the study. Because the initiators of empirical research are also practitioner-colleagues of the other subjects, they have access to observations of the subjects that range far beyond the formal empirical measures.

The theory of learning from four territories of experience invites each potential participant to begin by an action inquiry process of testing in any one or any combination of the four territories whether and how action inquiry works. For example, in the “consciousness” territory, the individual may test the intuitive plausibility for himself or herself of the primitive, paradigmatic claim that four such territories exist (directions for such testing are offered in Torbert, 1991). For example, let us follow Descartes's test for the existence of the thinking territory.

In his *Discourses on Method and Meditations* (1637/1960) Descartes develops confidence (indeed, certainty) about the proposition “I think:

therefore, I am." He demonstrates that in attempting to doubt that one is doubting, one can "see" with ineradicable certainty that one is doubting (i.e., thinking). This effort served *for him* as a test of the intuitive plausibility of the thinking territory and of his existence in this territory.

His own writing about this test, however, is not very clear and does not explicitly invite his readers to conduct the same test for themselves. Others conducting Descartes's test may agree with the result without finding it of great significance (not serving either to shake or to construct the foundations of their personal paradigm because they are not at a developmental point where their current paradigm is at risk for them). Yet others conducting Descartes's test may recognize that it, in fact, confirms the intuitive plausibility of *two* territories of experience:

- 1) the thinking territory (since the attempt to doubt one's doubting is undeniably [in that moment] thinking); and
- 2) the consciousness territory (since the "seeing" of one's doubting is not the same quality of experience as the doubting itself) (Torbert, 1991).

Does the reader follow this demonstration, not merely in terms of its logic, but by actually trying to doubt that one is thinking, thereby "seeing" one's doubting (one's thinking)?

Empirical Findings about the Effects of Postformal Development

Let us now examine empirical tests of how managers measured at postformal stages actually perform, in order to see whether there is evidence that late-stage managers integrate action and inquiry rather than splitting them. Table 7.2 offers an overview of developmental distributions of managers and professionals at different hierarchical levels in organizations in six different studies (Study 1—Smith, 1980; Study 2—Davidson, 1984; Study 3—Torbert, 1983a; Study 4—Gratch, 1985; Study 5—Quinn & Torbert, 1987; Study 6—Hirsch, 1988). The findings are generally consistent with other "ego demographic" studies. In every sample except the small sample of entrepreneurial professionals, the modal category is the Technician stage (Loevinger's 3/4 transition). Also, managers at postformal stages are rare in every sample: only 8% of all those tested measured at the Strategist stage; and only one Magician/Clown-stage score was found in all the samples (see Torbert, 1994, for a study of six executives at the Magician/Clown stage). At lower levels of organizational hierarchies there is a high proportion of early-stage (Diplomat and Technician) managers and a low proportion of later-stage (Achiever and Strategist) managers (Studies 1, 2, 3). These proportions gradually reverse themselves as the study samples reflect the upper levels of organizational hierarchies (Studies 4, 5, 6). However, even at the senior-most organizational levels only 15% of those sampled are at the Strategist stage (on the other hand, 78% of those

Table 7.2
Percent Distribution of Managers by Developmental Position in Six Studies

N=497	Impulsive	Opportunist	Diplomat	Technician	Achiever	Strategist	Magician	Ironist
Study 1: First Line Supervisors (n=37)	0	0	24	68	8	0	0	0
Study 2: Nurses (n=100)	0	2	9	54	31	4	0	0
Study 3: Jr./Middle Managers (n=177)	0	5	9	43.5	40	2.5	0	0
Study 4: Senior Managers (n=66)	0	0	6	47	33	14	0	0
Study 5: Sr. Mgrs. & Top Executives (n=104)	0	0	3	43.5	39.5	14	0	0
Study 6: Entrepreneurial Ophthalmologists (n=13)	0	0	0	38.5	38.5	23	0	0

measured as Strategists are in the three senior manager samples). There is no significant correlation between age and stage of development; for example, most of the subjects over 60 are found in the supervisory sample where the modal stage is Diplomat.

A natural question is whether and how managerial behavior and outcomes differ by stage of development. A number of studies have now addressed this question and have yielded the following findings:

1. At each successive stage of development, a higher proportion of managers ask for a personal feedback session on their Loevinger sentence completion form ($n=281$) (Torbert, 1987a; Quinn & Torbert, 1987).

2. On a 34-item in-basket test, early-stage managers tend to handle items one at a time, whereas later-stage managers are more likely to organize the items strategically, are less likely to take the presented framing of problems for granted as correct, and are more likely to delegate in a collaborative and inquiring fashion ($n=49$) (Merron et al., 1987).

3. When managerial project groups include one or more managers measured at the Strategist stage, group task performance is more effective, group time-use is more efficient, and members perceive greater group support for their own learning ($n=16$ groups) (Torbert, 1987b).

4. In a regulated, stable-frame industry (public utilities), executives measured at the Strategist stage report feeling isolated and ineffective at persuading others to take their business concerns seriously. At the same time, on a battery of physical health questions, those measured at the Strategist stage rank as being in the best health ($n=104$) (Quinn & Torbert, 1987).

5. In a small ($n=13$), intensively studied sample of entrepreneurial ophthalmologists, those measured as Technicians, Achievers, and Strategists exercised significantly different business strategies from one another, with widely different results in terms of gross annual revenues. (There was a small negative correlation between revenues and both age and years in practice.)

For the Technicians ($n=5$), technological expertise was the key to success in their practice. Since they insisted on hands-on participation in every technical phase of their operations, they saw essentially one patient at a time; their average gross annual revenues were about \$330K.

The Achievers ($n=5$) focused on their office staff as the essential ingredient to a successful practice. These doctors knew how to involve their staff, and delegated responsibility to them. Thus they could see approximately three patients at a time; on average their practice grossed \$1,300K in annual revenues.

Finally, the Strategists ($n=3$) concentrated on broader strategic issues, such as overall patient satisfaction, critical service gaps, unoccupied niches, and partnership contracts with fellow professionals. In so doing they could

create multisite practices, which served approximately three times again as many patients as the Achievers. Their gross annual revenues were again three times that of the previous stage, averaging \$4,200K. Furthermore, the lowest revenue for an entrepreneur at each stage was at least twice as large as the highest revenue for an entrepreneur at an earlier stage, and the smallest practice at each stage was more than twice as large as the largest practice at the prior stage (Hirsch, 1988; Torbert, 1991).

6. In another small, intensively studied sample ($n=17$), deliberately structured to include managers who had or had not evolved from the Achiever stage to the Strategist stage over the prior five years, systematic differences were found in the way that managers at the two different stages a) managed subordinates, b) related to superiors, and c) took action initiatives. Although all the managers in the study were conscientious, effective, and upwardly mobile, Strategists were more likely to:

- a) articulate principles for their own leadership practice and notice and learn from discrepancies;
- b) seek to understand subordinates' frames and work toward new shared meanings;
- c) create new spheres of action for subordinates and themselves by testing their superiors' and organizations' constraints;
- d) negotiate differences in frame and/or perception explicitly with superiors;
- e) base their actions on principles rather than rules, if the two are at odds, even when the rule is established by their superiors;
- f) view their own action processes as uniquely crafted rather than as generalizable and rule governed; and
- g) define effectiveness in terms of setting a stage on which multiple aims can be achieved through an iterative process of reframing and creating new shared meanings, rather than in terms of getting their own initial processes and solutions adopted (Fisher & Torbert, 1991).

7. In the smallest sample of all ($n=6$), the researcher deliberately sought out subjects at the rare Magician stage and found that:

- a) all were key players in multiple organizations simultaneously;
- b) all varied their pace between urgency and leisureliness within each workday;
- c) all monitored the analogical alignment or incongruity among activities of the self, the group, the organization, and the larger social system; and
- d) all were viewed as charismatic, but exercised this quality not to generate worshipful subservience, but rather to challenge others and support their initiatives (Torbert, 1994).

Given the small sample sizes of most of the eight different sets of findings on the practical effects of postformal development just summarized,

each study can be considered as no more than suggestive. The consistency of the findings across all eight studies and across a variety of methods is, however, quite striking. In a number of ways, these findings reflect increasing integration of action and inquiry at the later stages of development. These practical findings, along with whatever spiritual or theoretical interests one has in postformal development, raise the question of what sorts of educational interventions/institutions cultivate postformal development.

Two Approaches to Cultivating Postformal Development

The question of what sort of educational interventions cultivate postformal development has been addressed both by the Vedic/TM approach and by the action inquiry approach. Both approaches to encouraging postformal development are effective (though differently so) in terms of measurable outcomes. By contrast, developmental studies at other institutions of higher education show little or no change for the sample as a whole between pre- and posttesting (Chandler, 1991; Miller, Chapter 6 this volume).

In the case of the Vedic approach, recent studies show that only graduates of Maharishi International University (MIU) show significant positive development beyond the Institutional or Achiever stage (as measured by the Loevinger [1978] Sentence Completion Form), as compared to graduates of three other universities (Chandler, 1991). Overall, alumni from the three other universities showed no change at all, and the alumni from the other university who showed the most change showed less than half as much change on average as the MIU alumni. The positive findings from Maharishi International University alumni represent an average .31 stage progression over a ten-year period from pretest to posttest.

The findings to date in regard to the action inquiry approach are interestingly different. One finding shows that, after the Wallace E. Carroll School of Management at Boston College restructured its MBA program to invite students to participate in improving not just their analytic competence, but also their managerial competence through action inquiry, it attracted a developmentally different student population from before the restructuring. Prior to restructuring at graduation only 2.5% of the MBA students scored beyond the Institutional or Achiever stage (on the Loevinger test); by contrast, after restructuring a full 25% scored at postformal stages *at entry*. Thus, a different group, with a much higher proportion of persons at a postformal stage of development, volunteered to enter the program once it restructured (see Torbert, 1981a, 1987a, 1987b, for descriptions of the restructured program).

Once in the program, 10% (18 of 180 in two different cohorts) showed a full stage change beyond the Achiever stage during its 20-month duration (that is, either from 3/4 to 4/5 or from 4 to 5 on the Loevinger measure). Half-stage regressions and progressions balanced one another, so the average movement was a .1 stage progression. Given the relative brevity of the program and the rarity of any postformal development in most settings, it is difficult to determine just how positive a finding this is. The reader may compare it to the .3 stage progression found in MIU alumni. This comparison is complicated by two differences: 1) the large difference in elapsed time between pre- and posttests for the two samples; and 2) the fact that the pretest baseline for the MIU sample was higher (just above the Achiever stage on average) than for the BC sample (just above the Technician stage on average). The first difference may act to exaggerate the MIU effect. The second difference may act to exaggerate the BC effect. On average, it appears that the Vedic/TM approach practiced at Maharishi International University had a stronger effect on cultivating students' development.

A second finding from the action inquiry MBA program is easier to interpret: 84% (15 of 18) of those who showed a full stage change voluntarily sought and won a (nonremunerative) consulting role during the second year of the program (and 94% [15 of 16] of those who participated in the consulting role showed a full stage change) (Torbert, 1991). This role, gained through a competitive application process, exposes students to a summer consulting course, to consulting to four first-year project groups, and to a weekly clinic session, all of which encourage them to engage in action inquiry research in the midst of professional practice, much as the first-year activities themselves also do. What causes the near-unanimity of stage change among the consultants by contrast to the near-nonexistence of stage change among the remainder of the class? Two factors appear to contribute: 1) the additional exposure to action inquiry; and 2) the voluntary commitment by the consultants to continue to explore the action inquiry approach.

Upon graduation from the restructured program, a few graduates initiated an action inquiry group of 15 to 20 persons that met regularly for five years, with a few membership changes each year. The group met once every three weeks without formal leadership to reflect together on their ongoing experiences at work and in other parts of their lives; in addition, subgroups of 3 met once between meetings to provide one another with ongoing consulting. In a later intensive study of 15 graduates, of whom 6 had participated in the action inquiry alumni group, those who participated in voluntary action inquiry showed significantly more developmental change over the six-year (on average) period between tests than those who did not. The 6 action inquiry participants showed a total of 12 steps of devel-

opmental progression (a "step" representing half a stage) and no regression—an average of one full stage of progression—whereas the 9 nonparticipants in action inquiry showed three progressive steps and two regressive steps—an average of one-eighteenth of a stage of progression) (Fisher & Torbert, 1991; Torbert & Fisher, 1992c). The chi square statistic shows this difference to be significant beyond the .05 level. Thus, again, voluntary participation in action inquiry is associated with postformal developmental progression.

One Practice Context that Cultivates Postformal Development

The unique, interrelated elements of the Wallace E. Carroll School of Management MBA program that are intended to encourage action inquiry and cultivate postformal development have several qualities in common:

- 1) they highlight each participant's potential for initiative and do not require adherence to any particular theory;
- 2) they provide each participant with performance feedback on his or her initiatives across all four territories of experience on tasks of practical significance;
- 3) they offer on-the-job training in giving, receiving, digesting, and responding with new initiatives to such performance feedback; and
- 4) they encourage the cycle of offering feedback and developing new initiatives to occur as close in time as possible to perceptions of error, incongruity, or conflict.

In all these respects, these systems represent a kind of Continual Quality Improvement program focused on all organizational levels (not just production) that is more sophisticated than any CQI program in operation in industry today, and which is relevant to schools and other organizations as well as to industry (Torbert, 1991).

Detailed descriptions of these systems are offered elsewhere (Torbert, 1981a, 1987a, 1987b, 1991), but several examples can help the reader gain a concrete sense of what is meant. In terms of highlighting initiative, all students belong to action-project groups and each student plays a leadership role (i.e., every member of each group is a leader—project leader, meeting leader, process leader, evaluation leader, etc.). In terms of providing feedback, each group works with a second-year consultant whose primary role is to offer such feedback when requested; also, every group (and every faculty-run class) engages in a feedback process in the middle of the semester with discussion of the results and adjustments, as well as at the end of the project or semester.

All of the foregoing represents on-the-job training, but one further example is a weekly two-hour clinic session held for the consultants during which they both discuss and role-play their current group intervention

dilemmas.

Much of the foregoing also indicates the effort to encourage feedback and new initiative as close to the original action as possible. The most dramatic example of this is an end-of-the-year event involving all 16 student teams that have consulted to live businesses and agencies, with responsibility for documenting the efficacy of their work in terms of changes that their clients have already implemented. On this day, all the student teams make professional oral presentations of their work to their peers, the school's faculty, and several local area CEO's. Each presentation is judged on 12 different criteria as soon as it is completed, and every team receives 45 minutes of quantitative and qualitative feedback at the close of the day, including its relative standing among all the presentations.

In the decade since these systems were originally implemented at the school, they have generated both considerable pride and considerable controversy. During that time, the school has moved from being unranked among the top 100 schools of management to being ranked in the top 25, to serving as the single concrete model for the discussions of a national commission on what twenty-first-century schools of management should look like (Hennessy & Rosenblum, 1990).

Conclusion

The theory of learning from four territories of experience through action inquiry leads toward a distinctive approach both to scientific research and to postformal adult development. This theory is structurally consistent with several other conceptualizations of postformal development—notably the Vedic/TM approach—but significantly different in process.

Empirical findings showing the actions and outcomes of managers at the first postformal stage of development offer additional practical reasons for individuals and institutions to become interested in cultivating postformal development.

The organizational conditions for cultivating postformal development under the action inquiry approach are shown to include unusual degrees of voluntariness, initiative, and feedback. These organizational conditions are also shown to be consistent with contemporary managerial concerns for Continual Quality Improvement.

At present, the Vedic/TM approach is being used at Maharishi International University and at the Swedish-Swiss conglomerate ABB. The action inquiry approach is being used at the Carroll School of Management, Boston College, and at Pilgrim Health Care. Since both the Vedic/TM approach and the action inquiry approach have been shown to effect postformal adult development, perhaps the two approaches can be tried together in a future field experiment.

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