EXPERIENCE, ACTION, AND METAPHOR AS DIMENSIONS OF POST-POSITIVIST INQUIRY

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ABSTRACT

This essay explores the epistemology of a post-positivist approach to inquiry. The questions posed are: What are genuinely post-positivist criteria for valid knowing? and, What procedures or guidelines can we develop for applying these criteria in inquiry projects? It is argued that we need a way of experiencing, acting, and thinking which can respond to Bateson's (1972) challenge to learn to think in a new way. This new way is nondualist, in that it does not separate the knower from what is known; avoids making processes into things; and has a deep reverence for all forms of life. The nature of high-quality experience, the form of right action, and the use of metaphor are explored as aspects of sound inquiry, and some suggestions for the training of researchers are made.

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INTRODUCTION: THE TRANSITION TO POST-POSITIVISM

Henryk Skolimowski argues that the history of mind in Western civilization can be seen as a series of cosmologies or world views, each of which simplified and gave order and meaning to human experience for a period, and encouraged the flowering of the genius of that age. Each world-view also withered and slowly died, to be followed by a period of relative ontological and epistemological disorder until a new cosmology emerged. He describes how Mythos, the belief structure of early Greece based on the stories of gods and heros, was replaced by the Logos of classical Greece and Roman civilization. The flowering of this culture had a profound and lasting impact on Western civilization, but the culture itself crumbled around the fifth century A.D., to be replaced by the medieval Theos, a world-view "inspired by and guided by the mono-theistic Judeo-Christian God" (1985, p. 21). This cosomology in turn began to disintegrate during the fourteenth and fifteenth centuries, to be replaced in time by the culture of science and technology which arose in the seventeenth century, which Skolimowski terms Mechanos.

> The new world view which is created under the auspices of Mechanos is of course the mechanistic cosmology. It starts at first very tentatively; with Galileo and Descartes it gathers momentum; and finds its epitome in Newton's epochal work *Principia Mathematica Philosophia Naturalis* 1686. During the last three centuries we have been sitting at Newton's feet and licking his boots. For the rational people that we claim to be we have been completely swayed by one kind of dogma—that of Mechanos.
>
> We are all aware that the mechanistic cosmology, via science and technology, has brought about enormous material benefits. But we are also aware of the dark side of the mechanistic cosmology—ecological devastations, human and social fragmentation, spiritual impoverishment. (1985, p. 22)

Skolimowski argues that Western civilization is in crisis because mechanical metaphor is collapsing, and that many people are aware instinctively that the "official knowledge" is no longer adequate. Many other writers are making a similar thesis: for example, in a challenging pamphlet, the "Second of January Group" argue that we face a time when our capacity for clear knowing has disappeared, that we are in a period *after* the possibility of truth:

> Our story begins with crisis. Our most sacred values, our most certain judgements, our most solid truths have lost their value, their certainty, their truth. We can neither live with them nor without them. . . . (The Second of January Group, 1986)

The replacement cosmology for Mechanos has not yet crystalized, and so we live in confusing and anxious times. But new themes do seem to be emerging quite consistently as central aspects of a new world view. One of these is the notion of

wholeness—while mechanos is "piecemeal, atomistic, fragmentory and fragmenting," the variety of new visions are holistic and unitary. And the second is the idea of *evolution,* that whole systems may spontaneously shift to higher levels of complexity. (Teilhard de Chardin, 1959; Jantsch, 1980; Prigogine & Stengers, 1984).

Skolimowski terms the world-view which is emerging to replace Mechanos the *Evolutionary Telos,* and argues that its methodology is one of participation, which we will explore in detail later. For the moment we should note that he is making the case for a radical shift in the form of our consciousness and of our inquiry: rather than know through separateness and detachment, which is the stance of the "objective" mind, he suggests that we know through participation, and following that through empathy and identification. Yet surely one of the strengths of the objective mind at its best has been this capacity of critical detachment. This presents us with an enormous challenge: How can we develop inquiry methods which embrace participation yet remain rigorous and self-critical?

This chapter is my personal exploration of these questions. It is based on my earlier work with the paradigm of cooperative and experiential inquiry (Reason & Rowan, 1981a; Reason & Heron, 1986; Reason, in preparation), and hopefully takes this work another step into a post-positivist era. The essay is written with the intent to be provocative, to sketch out some possibilities rather than agonize over details. Much of the passion in my argument comes from personal experiences of the limits of our current world-view, experiences in psychotherapy, in meditation and spiritual discipline, and in a variety of experiential workshops; and my experiences of using the cooperative inquiry paradigm. Colleagues who have read drafts of this writing have pointed out that it contains a curious mixture of bold assertion and careful argument. This reflects my character and, since part of my thesis is that we can no longer separate the personal from the epistemological, it seems both inevitable and appropriate. Writing this chapter has forced me to think hard and feel strongly about my epistemological position. I will be delighted if it provokes similar hard thinking and feeling on the part of readers.

ONTOLOGY

Any new world-view must include in its vision new understandings of the cosmos and of our place within it. In a positivist view of the world, reality is experienced as independent of the consciousness of the person who interacts with it:

> There is a single tangible reality "out there" fragmentable into independent variables and processes, any of which can be studied independently of the others; inquiry can converge onto that reality until, finally, it can be predicted and controlled. (Lincoln & Guba, 1985, p. 37)

This view of the world crumbles in the face of the revolutions occurring in disciplines as diverse as physics and theology (Schwartz & Ogilvy, 1980), so that we must realize that as we act in our world we co-create that world: as Skolimowski argues, "Evolution is a creative process and mind is a creative instrument in evolution" (1985, p. 2). For Lincoln and Guba

> There are multiple constructed realities that can be studied only holistically; inquiry into these multiple realities will inevitably diverge (each inquiry raises more questions than it answers) so that prediction and control are unlikely outcomes although some level of understanding (verstehen) can be achieved. (1985, p. 37)

At one level these multiple realities are social constructs. Thus in an organization, different organization members will "see" events in different ways, according to their perspective on events. Their perspective is influenced by a whole range of factors, including personality, needs, social class, and position within the organization.

But the argument for multiple realities goes beyond this: it cannot be reduced to a simple matter of differential perspectives on one "true" reality, although different perspectives undoubtably are significant.

> While receiving reality, or any aspect of it, the mind always processes it. In processing it, the mind actively transforms reality. Let us reflect for a moment on the meaning of the two expressions: "processing reality" and "transforming reality." Both are fundamentally inadequate. For they suggest that there is such a thing as an autonomous reality "out there," to which the mind applies itself and on which it works. Such a picture is fundamentally misconceived. There is no such thing as *reality as it is*, which the mind visits and on which it works. Reality is always given together with the mind which comprehends it in the act of comprehension, which is, at the same time, the act of transformation. We have no idea whatsoever what reality could be like *as it is*, because always, when we think of it, when we behold it (in whatever manner) *reality is invariably presented to us as it has been transformed by our cognitive faculties.* (Skolimowski, 1986, pp. 467–68; emphases in original)

Similarly, the "Second of January Group" argue that we are in a state "Beyond Truth" because we now know that our conceptualizing and framing is an irreducible element in our experience. There is no reality independent of experience, so truth cannot be regarded as a simple "correspondence" to reality and "There are many conceptual schemes, hence many realities and many truths" (1986, p. 14).

So the argument is that we must learn to accept that the world which we inhabit—material, psychological, social, spiritual—is but one form of the Universe, created in collaboration with our particular form of consciousness. If we choose to take the trouble to learn how to enter other forms or states of consciousness, we may find that we co-create a different Universe—and we know that this is within the range of human capabilities because of what we have seen

of other cultures, of healing and non-Western approaches to medicine, of mystic and religious experiences, and altered states of consciousness.

As Skolimowski argues, the Mind and the Cosmos are co-creative: the world we know is the creation of the human mind, and has been made and re-made in many different cosmologies. It is as if the Cosmos is saying:

> "I am capable of assuming ever new astonishing forms if you come to me with insights powerful enough to elicit these forms from me. . . "
>
> The cosmos invites the mind to ever new forms of dancing. The mind is the choreographer, the cosmos is the dancer. Yet this distinction is tenuous and breaks down immediately when we look at the matter deeper. We are the dancers with the cosmos. The dance cannot be separated from the dancers. And from the choreographer. In recognising the dance we are making it. In seeing the world as a particular form of the articulation of the cosmos, we are structuring the cosmos according to our patterns of articulation. This is the power of the human mind: it finds in the cosmos what it puts into it. This is the mystery of the cosmos: it reveals only what the mind ingeniously assumes about it. . . . (1985, pp. 7–8)

What is Real behind this dance of co-creation is a profound Mystery; this is, I believe, the fundamental re-visioning of our world we are now invited to accomplish. The cosmos in its origin, however we may conceive or image it, is "a pure primordial ontological datum," and if it remains in this realm, untouched by human understanding then "it is *nothing* for us, completely outside our world" (Skolimowski, 1985).

However, once we enter, or accept, or co-create a particular reality it becomes "realized" for us as a tautology: it becomes predicted by the sensory and sense-making processes we adopt. As Bateson points out, our epistemology is encoded in our sensory apparatus. This means that a shift in forms of consciousness, an opening of new sensitivities, will bring about a shift in epistemology and thus in our reality. But the Real beyond these separate realities is of a different order, a different logical type, and we must be aware of confusing statements about an ultimate unknowable Reality and the particular realities we inhabit.

There is a story that Gregory Bateson tells which illustrates this point. However much understanding we may have, it is an understanding of what he calls "the pattern which connects," which must remain ultimately almost totally mysterious.

> There's a well-known story of Bertrand Russell and Whitehead, which I think is related to . . . this tragic desire of man to think he understands things. Russell had been Whitehead's student and collaborator . . . and, when Whitehead had gone to Harvard, Russell came to give a lecture in one of the big auditoria, on a hot August night, and all the professors and the professors' wives turned out to hear the great man. The great man lectured on the quantum theory, which has never been an easy subject, and in its early stages was probably more difficult even than it is now. . . .
>
> Russell laboured to make the matter clear to the wives and the professors and finally sat down sweating. Then little Whitehead rose to his feet, with his falsetto voice, "to thank Professor Russell," he squeaked, "for his brilliant exposition and especially. . . for leaving unobscured. . . the vast darkness of the subject." (in M. C. Bateson 1972, p. 302)

Elsewhere Bateson (1978) points out that every textbook is devoted to the project of obscuring the vast darkness of the subject, of trying to persuade the reader that there is no darkness, that we really know something. We have got ourselves into a position, through the domination of mechanistic nineteenth-century science on our culture, in which at root we view our world through the eyes of a naive realism. And this despite the challenge of quantum physics, our understanding of perceptual processes, the apparent popularity of phenomenological and interpretive approaches to inquiry, the influence of esoteric Western and Eastern spiritual traditions. It seems to me that this positivist world-view is an addiction we find hard to give up. But we do not know how the world fits together: Reality, as a thing-in-itself separate from our perception of it, is always an absolute mystery (Hunter, 1983).

The danger is that we think we know, when we don't. As Catherine Bateson (1972) argues, this appetite for certainty is in many ways our undoing. If we are to accept the implications of the emerging world-view, let alone save our world from its self-inflicted injuries, we need to find a way of being ontologically radically open-minded, to be able to accept the coexistence of all sorts of extraordinary realities. As the Second of January Group points out, there is no primitive, given, preconceptual layer which provides certainty and foundation for thought. This means adopting a position of radical relativism, which has never been a comfortable existential position.

> We are led to a position summarised by the well-known slogan, 'all truth is relative.' Everyone is led there but most want to go back. The place is far from comfortable. Many find even a short stay unbearable. The most obvious reason for this is that, once we are there, we can no longer draw any cognitive distinction between worlds. We cannot distinguish on 'rational grounds' between better or worse conceptual schemes, outlooks, traditions. It is no longer clear that science is 'more true' than magic, that one society is 'more just' than another, that liberalism is 'more acceptable' than racism. (Second of January Group, 1986, p. 17)

The authors continue to point out that this leads many to try to "dilute" their relativism, but that this is impossible. Once embraced, the relative position leads us into an inevitable regress in which we must question the basis of every position we take, including relativism itself. It is no longer possible to think rigorously and rationally, "all truth is relative."

Because of this I find myself very much at odds with what I understand of the "realist" philosophy of science as, for example, set out in Manicas and Secord's article (1983) entitled, "Implications for Psychology of the New Philosophy of Science," Briefly, they acknowledge that positivism is a dead duck. But when they peer into the Kuhnian alternative notion of normal science existing within paradigms of thought and practice (1962), they decide that this "account of science precipitously courted irrationalism" because it suggests that there is no independent reality against which findings and theories could be checked. Their alternative is the "*realist*" view of science:

> The crucial point is that it is possible for these criteria (of truth) to be rational precisely because, on realist terms, there is a world that exists independently of cognising experience. Since our theories are constitutive of the known world but *not* of the *world*, we may always be wrong, but *not* anything goes. One must be realist ontologically to be fallibilist epistemologically. (p. 401, emphases in original)

In other words, we cannot have science as we know it unless there is some notion that there is a reality out there that our knowing can approach.

I think this stance is simply damage limitation in the face of the challenge of radical relativism; it seems to be a reactive position, intellectually and emotionally defensive, closing down against the disturbing opportunities and the possible diversities of the worlds we might create.

Whatever knowing we can discover or create about ourselves and our world is inevitably relative, and rests on our profound and inevitable unknowing. There is a certain dangerous hubris about our claims to truth: science is in part one expression of this hubris, and it is well argued that a very large part of the scientific endeavor has been defensive (Maslow, 1966; Devereaux, 1967; Griffin, 1984). Asking questions about truth can be just an intellectual game; taken seriously they shake the soul to its very roots. In Don Juan's terms, our knowing might be seen as the *tonal*, and the ground of our unknowing as the *nagual*—that for which "there is no description, no words, no names, no feelings, no knowledge" (Castaneda, 1974, p. 126). We can, as Don Juan warns us, "knock ourselves out trying to understand this," because it is Mystery. We need, I believe, to rediscover our capacity for acknowledging Mystery, and for approaching our world in wonder and astonishment.

DIALECTICAL ONTOLOGY

The world as we know it is co-created in the dialectical tension between this unknowable, mysterious primary reality and the categories and forms of consciousness we bring to it (Hunter, 1983). So now our task in considering the nature of valid knowing becomes both much more simple and much more paradoxical.

> So we have to learn to think dialectically, to view reality as a process, always emerging through a self-contradictory development, always becoming; knowing this reality is neither subjective nor objective, it is both wholly independent of me and wholly dependent on me. This means that any notion of valid knowledge must concern itself with both the knower and what is known, and be a matter of relationship. (Reason & Rowan, 1981b)

We have to learn to live and to inquire within the flow and tension of this dialectic:

> One extreme is the idea of an objective world, pursuing its regular course in space and time, independently of the observing subject; this has been the guiding image from modern science.

> At the other extreme is the idea of a subject, mystically experiencing the unity of the world and no longer confronted by an object or by any objective world; this has been the guiding image of Asian mysticism. Our thinking moves somewhere in the middle, between these two limiting conceptions; we should maintain the tension between these two opposites. (Heisenberg quoted by Wolf, 1984)

In other words, we both create our reality, and reality has an independent process which can surprise us. While a traditional logic would create a dichotomy, and argue that reality is either fully independent of us or fully dependent on us, a dialectical ontology would embrace the paradox of both these positions. Dialectics involves a recognition of the inseparability of two apparent opposites; and an exploration of the interplay between these interdependent poles, because "what lies between the poles is more substantial than the poles themselves" (Watts, 1963). As Watts points out, this understanding of polarities is quite different from the splitting of opposites into a duality. In dialectical thinking and experience, we explore and seek to understand the interdependence, interpenetration, and in the end, the unity of the two poles. Then we can maybe understand the co-created realities within which we live as moments within this dialectic where we may exist for a while.

Lincoln and Guba (1985) provide a helpful framework when they set out four ontological positions that have been proposed by different philosophical traditions. The first two of these—Objective reality, or naive realism; and Perceived reality, or perspectivism—I have already referred to. The third is Constructed reality:

> Those who see reality as a construction in the minds of individuals assert that it is dubious whether there is a reality. If there is, we can never know it. Furthermore, no amount of inquiry can produce convergence on it. There is, in this ontological position, always an infinite number of constructions that might be made, and hence there are multiple realities. . . . (Lincoln & Guba, 1985, pp. 83–84)

And the fourth is Created Reality:

> (There) is no reality at all. Reality is best understood as a standing wave that is not *realised* (note the term) until some observer "pops the qwiff" (Wolf, 1981), "qwiff" being a quantum wave function. Until it is "popped," the quantum wave function (or *probable* reality) remains simply probabilistic. (Lincoln & Guba, 1985, p. 85, emphases in original)

Lincoln and Guba say they are drawn to adopting the position of created reality, but that this is an unnecessarily radical stance for their purposes, and so they adopt the position of contructed reality. My argument is that we must accept all these positions as moments within the dialectical process of co-creating our world. As the world-view of Mechanos continues to crumble, we will have to find the flexibility to exist in *all* these kinds of realities: the world is given *and* we invent it, all at the same time. Not only are there multiple co-existing realities, but multiple *kinds of realities.*

This is relatively clear in the field of social and interpersonal processes—we are familiar with the idea that social forms are constructed by their members, whether this is at the level of the family, the organization, or the whole culture. And we are familiar with that curious way in which these social forms appear to have a life of their own and in that sense to be ontological givens, apparently out of the control of the members, who nevertheless act to maintain them. So social forms are both given and created.

One area in which this dialectical ontology may be fruitfully used is in understanding the health of the body-mind. Reality is completely independent of me in that there are plagues in our world, there are wars, badly driven motor cars, and carcinogens; the germ theory of disease is not complete nonsense. And reality is completely dependent on me: people do seem to choose to get ill or well, to destroy and to heal their bodies, in ways that at times defy allopathic medical theories; some body-minds seem "wiser" than others, to use Dossey's term (1982). It is arguable that the quality of a person's health and illness is in some sense related to their character.

So in a world of holistic health-care, in which wellness is viewed as a quality of the body-mind-spirit, we must seek to understand the subtle interplay of this dialectic. Maybe we can "really" chose our reality, so that the healer creates a particular place in this moving dialectic, and the surgeon another, and the self-healing patient another. As the dialectic shifts and turns in these places of uncertainty it is most open to our influence, if only we know how to make that influence. It is arguable that a healing community would be able to exert considerable power to create a reality appropriate for healing, or in a hospice, for dying.

In this view, our body-mind is manifesting within this dialectic of the "material world" and the "creative mind," these are unconsciously interpenetrating, creating a synthesis in which we can live for a while. A transformation of consciousness and of the social world we choose to belong to can give us the power to chose an interpenetration with awareness—at least for a while.

The most curious (for materialist Westerners) area in which we may seek to understand this dialectic is in relation to the "material" world of things. There does seem to be a radical difference between the deterministic world of brute fact, and the world of imagination. In everyday life we experience these as quite separate, as in the well-known story of Dr. Johnson who, when Boswell observed that they had no means to refute Bishop Berkley's theory of the nonexistence of matter, "struck his foot against a large stone, till he rebounded from it, saying, 'I refute it thus!' " (Oxford Dictionary of Quotations). It is becoming a cliché, but remains curious, that it is on the frontiers of physics that questions about the independent existence of matter are becoming most challenging (Wolfe, 1984).

I am personally convinced, on the basis of both reading and direct experience, that the solid reality of the physical world is an illusion, or rather that is one moment, a creation 'realized' in the interaction of our consciousness and the mysterious cosmos.

As I have struggled with the experiences behind this writing, I have been impressed by two contradictory aspects of my experience. On the one hand, I inhabit a world which is radically there for me, such that I cannot get away from its concrete presence; and, on the other, I am aware how my experience of the world as fact is a lie. There seems to be a fundamental paradox between the world as given and the world as created.

The existentialists suggest we are "thrown" into the contingencies of the world and its mysteries and that in this world we are our choices.

> Dasein is "to be there" (da-sein), and "there" is the world: the concrete, literal, actual, daily world. To be human is to be immersed, implanted, rooted in the earth, in the quoditian matter and matter of factness of the world ("human" has in its *humus*, the Latin for earth). . . The world *is*—a fact which is, of course, the primal wonder and source of all ontological asking. (Steiner, 1978, p. 81)

It is this matter-of-factness which we co-create, and this must be a matter of wonder and astonishment. Maybe we can discover, with awe and wonder, that "truth which passeth all understanding"? And as we do this we may have to re-vision inquiry as a spiritual as well as a material quest.

CO-OPERATIVE INQUIRY AND CRITICAL SUBJECTIVITY

I have long been curious about how to establish sound approaches to inquiry within the kind of post-positivist world-view I have explored in the last section. My own first steps toward this arose from my realization that it is impossible to conduct intimate inquiry into human relationships as an outsider (Reason, 1976). Later, in collaboration with members of the New Paradigm Research Group, which met regularly in London for several years, we thought through the implications of our practice as humanistic psychologists, educators, and organizational consultants, and of our commitment to working with the self-directing capacities and potentials of human beings (Reason & Rowan, 1981a). John Heron pointed out how orthodox inquiry methods, while assuming without question that the researcher is a creative, self-directing human being, necessarily relegate the subjects of an inquiry to objects whose behavior is determined by the conditions to which they are subjected (Heron, 1971, 1981). We argued that orthodox methods

> are neither adequate nor appropriate for the study of *persons*, for persons are to some significant degree self-determining. Orthodox inquiry methods, as part of their rationale, exclude the experimental human subjects from all the thinking and decision making that generates, designs, manages, and draws conclusions from the research. Such exclusion treats the subjects as less than self-determining persons, alienates them from the inquiry process and from the knowledge which is its outcome, and thus invalidates any claim the methods have to being a science of persons. (Reason & Heron, 1986)

As an alternative to orthodox inquiry we have developed and applied a co-operative and experiential paradigm for research. In this perspective on inquiry, research is not a neutral, value-free process, but is always supporting or questioning something, at times with passion. A fundamental principle is that research is not just the province of professional researchers, that the mutually exclusive roles of "researcher" and "subject" must give way to a more cooperative relationship. In such a cooperative inquiry relationship, all those involved in the inquiry endeavour contribute *both* to the creative ideas that go into the research—the initial ideas, the methods, the conclusions, and so on; and *also* participate in the activity which is being researched. Research in this sense is not just a systematic quest for understanding, but an action science (Torbert, 1981) which involves learning through risk taking in living. The slogan or motto for this "Human Inquiry" has been "research *with* people not *on* people."

This approach to inquiry can be described simply in terms of four cycles of action and reflection.

> **Phase 1**
> A group of co-researchers agree on an area for inquiry and identify some initial research propositions. They may choose to explore some aspect of their experience, or agree to try out in practice some particular actions or skills. They also agree to some set of procedures by which they will observe and record their own and each other's experience. . . .
>
> **Phase 2**
> The group then applies these ideas and procedures: they initiate the agreed actions, and observe and record the outcomes of their own and each other's behavior. At this stage they need to be particularly alert for the subtleties and nuances of experience, and to ways in which the original ideas do and do not accord with experience. . . .
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> **Phase 3**
> The co-researchers will in all probability become fully immersed in this activity and experience. At times they will be excited and carried away by it; at times they will be bored and alienated by it; at times they will forget they are involved in an inquiry project. They may forget or otherwise fail to carry out and record the agreed procedures; or they may stumble on unexpected and unpredicted experiences, and develop creative new insights. This stage of full immersion is fundamental to the whole process: it is here that the co-researchers, fully engaged with their experience, may develop an openness to what is going on for them and their environment, which allows them to bracket off their prior beliefs and preconceptions and so see their experience in a new way. . . .
>
> **Phase 4**
> After an appropriate period engaged in stages two and three, the co-researchers return to consider their original research propositions and hypotheses in the light of experience—modifying, reformulating, and rejecting them, adopting new hypotheses, and so on. They may also amend and develop their research procedures more fully to record their experience. . . .

> This cycle of movement from reflection to action and back to reflection needs to be repeated several times so that ideas and discoveries tentatively reached in early cycles may be clarified, refined, deepened, and corrected. This "research cycling" clearly has an important bearing on the empirical validity of the whole inquiry process. . . . (Reason & Heron, 1986)

This practice of cooperative inquiry rests on an "extended" epistemology (Heron, 1981). Science as product has traditionally been concerned with propositional knowledge—knowledge expressed in statements, concepts, and theories about the world. However, the process of inquiry involves not only propositional knowledge, but also experiential and practical knowledge.

Experiential knowledge is acquired through direct encounter face-to-face with persons, places, or things. Practical knowledge concerns "how to" do something. In the co-operative inquiry cycle, while the work of phase one concerns propositional knowings, phase two is based on practical knowing and phase three on experiential knowing. Thus, in this kind of inquiry the propositional knowledge stated in the research conclusions is rooted in and derived from the experiential and practical knowledge of all those involved in the inquiry process. But more than this, the outcomes of this kind of inquiry are not only sets of propositions or theories about the subject matter, but are also the validating competences (practical knowledge) and experiences (experiential knowledge) of those participating. We shall return in more detail to this extended epistemology later in this chapter.

In working with this extended epistemology, and resting our inquiry firmly in experiential knowing, we are working with what we have termed "critical subjectivity." As Schwartz and Ogilvy point out (1980) there has historically been a tension between subjective/active and objective/passive modes of knowing. The process of inquiry can be seen as starting in a naive inquiry based on our subjective experience of the world. This kind of knowing, like the knowing of a small child, is very prone to distortions arising from our biases and prejudices, from anxieties, and from the pressures of the social world. But it also has a lot of good qualities because it is alive, involved, committed, it is a very important part of our humanity, and we lose a lot if we try to throw it out altogether.

The move from this subjective and active knowing to the objective knowing of orthodox inquiry does just this: in order to get away from the confusion and potential error of naive inquiry, we develop the objective consciousness of scientific method. This parallels the development of ego and of what Freudians call the secondary process based on the reality principle. Skolimowski calls this process a "yoga of objectivity":

> The Yoga of objectivity consists of a set of exercises specific to the scientific mind. These exercises are practiced over a number of years, sometimes as many as fifteen. . . The purpose of these exercises is to see nature and reality in a selective way. It takes many years of stringent training. . . before the mind *becomes* detached, objective, analytical, clinical, "pure." (1985, p. 12)

This objective approach to inquiry deals with many of the problems of naive inquiry, but because it is separated from our subjectivity we are left with essentially dead knowledge, alienated from its source. It has been argued that this epistemology is a root cause of the fundamental problems which appear to beset our civilization (Bateson, 1972; Griffin, 1984).

Within a post-positivist world-view in which we co-create our world, we must go beyond this split between subjective and objective consciousness toward what may be called critical subjectivity. This is a state of awareness in which we do not suppress our primary subjective experience; nor do we allow ourselves to be overwhelmed and swept along by it; rather we raise it to consciousness and use it as part of the inquiry process. Critical subjectivity is similar to the Schwartz and Ogilvy notion of "perspective" which borrows from both objective and subjective, "defining a personal view from some distance" (1980, p. 53), but I believe involves a greater shift in consciousness than they propose. John Rowan (1979) drawing on Hegelian thinking, has referred to this as a leap to the Realized level of consciousness:

> because we now see the world as *our* world, rather than *the* world, we can see clearly through our own eyes. Being rational. . . at this stage, is doing justice to the whole thing—to all that is out there in the world and all that is in here, inside ourselves (Rowan & Reason, 1981, p. 116; emphases in original).

Wilber (1980) has systematically mapped these potential areas of human consciousness which can be seen as "post-egoic" or "trans-personal."

What is important, in this transition to post-positivism, is that we keep hold of and develop this quality of critical knowing. We are not in the business of lapsing back into naive inquiry, nor of resting with objective consciousness with all its epistemological errors; rather we are seeking ways to move forward to a new form of integrated consciousness and critical awareness.

STEPS TOWARD VALIDITY

Clearly, notions of validity in post-positivist knowing are of supreme importance; but they are also rather confusing. If our reality is in some sense "constructed" or "created" as well as "discovered," a process in which we participate, how can we comprehend a notion of valid knowing? Interestingly, the term validity is not synonomous with truth, but refers to the quality of being "well-founded" (Oxford Shorter Dictionary) "well-grounded or justifiable" (Webster), and "applicable to the case or circumstances" (Oxford again). So valid knowing in a post-positivist sense is through critical subjectivity; it involves well-founded and self-aware experience, action, and understanding as we participate to co-create our world.

The challenge is to discover how to do this. For it seems to me profoundly

difficult to establish criteria for post-positivist inquiry that do not rest in some sense fundamentally on positivist assumptions.

It may be as well here to refer to the work of Popper (1963) who has done so much to influence our understanding of the scientific process. Popper argued that all knowledge is tentative and conjectural; it is never final, always provisional and open to reformulation. It is reshaped by the process of relentless criticism which eliminates error and moves us on toward a new and improved theory. Skolimowski (1986) points out that Popper offered a pluralistic epistemology and an open-ended rationality which was especially liberating.

For Popper the demarcation between science and nonscience is that scientific statements are *falsifiable*. If a statement is made which under no circumstances is testable through observation or experiment, if there is no means of establishing whether it is false, then while the statement may be a valuable and significant aspect of human culture, it is not scientific.

So while Popper acknowledges the active role of the mind in formulating knowledge, reality itself seems to be given: the idea of empirical refutability is central to his thinking

> You must have a firm and unequivocal nature "out there" (or call it reality) which will shout "no" to some of your conjectures. The *idea that reality is given* is reinforced by Popper's relentless defense of the classical (or the *correspondence*) *theory of truth*: truth consists of the correspondence between facts (or phenomena) and their description. (Skolimowski, 1986, p. 457; emphasis in original)

So Popper's philosophy is one of critical realism, and as such it does not fit well with a view that reality is not exclusively given by whatever is "out there," but is in some sense co-extensive with mind. Popper is an "epistemological realist of the traditional kind" (Skolimowski, 1986). Critical realism is not the same as critical subjectivity.

In working to develop validity within the co-operative inquiry paradigm, I have, with John Heron and other colleagues tried to find ways to develop capacities for critical subjectivity within an inquiry group, and to develop a set of procedures which may serve to counteract the threats of self-deception and consensus collusion (Reason & Rowan, 1981b; Heron, 1982; Reason & Heron, 1986).

John Heron defines empirical validity in co-operative inquiry as the extent to which the statements that express the findings of the inquiry are supported by the experiences and actions of the co-subjects. He points out that there are two aspects to this, accuracy and agreement.

> the accuracy of our findings is not a property that we can get at over and above our agreement. Accurate findings can only be findings that we chose to agree are accurate because they have withstood certain agreed tests. We can never depict the real-as-such apart from ourselves, but only the reality-in-which-we-are-involved. The accuracy of our findings, the reality we claim to portray, is entirely relative to what we chose to agree are appropriate tests or procedures for distinguishing the apparent from the real, the illusory from the veridical. (1982, p. 2)

Heron continues in his paper to outline a set of such procedures, including research cycling, the balance of experience and inquiry, the management of unaware projections, authentic collaboration, and falsification (see also, Reason & Heron, 1986).

I have adopted this approach to validity in my work for several years. My concern about this perspective now is that words such as "empirical," "accurate," "veridical," "illusory," even if placed within a framework of relative rather than absolute truth, as we have done in our writing, because of their historical connections imply a realist perspective and a correspondence theory of truth. It is as if these words "carry" the ethos of Mechanos, so that in using them we are in danger of re-creating this world-view.

For example, I have always contended that "research cycling" is a crucial feature of cooperative inquiry:

> there need to be multiple cycles, where the theory, concepts, and categories are progressively extended and refined, differentiated and integrated, reaching toward a theoretical saturation. This is a rigour of clarity, accuracy, and precision. (Reason & Rowan, 1981b, p. 249)

Research cycling involves looking carefully and repeatedly at the phenomena, not being content with testing an idea through experience and action once, but "taking an idea several times around the cycle of reflection and action" (Reason & Heron, 1986). We have argued that through convergent cycling we exhibit the careful side of science, and that cycling can involve "correction. . . the negative feedback cycle" (Heron, 1982). Are we not in danger here of implying once again that there is a firm reality onto which our inquiry can converge, and that we can come to some correct findings? What is the careful side of science, what is correction within a dialectical ontology?

Now, the counter-argument from a relativist perspective is that while we can never know reality as it is, but only the realities we co-create, we need to remain open to the way the cosmos may surprise us, otherwise our inquiry is totally circular and solipsistic. This is the essence of the dialectical ontology. And further, terms like truth and accuracy do not imply a naive realism, but can sit quite happily within a relativist framework, since they pose the question: Are we accurate given our way of framing our world?

Another validity procedure Heron and I have used and urged on others is falsification. We have argued that cooperative groups may band together in defense of their beliefs, and ignore experience or evidence to the contrary. To counteract this tendency we have developed procedures through which the fundamental assumptions of an inquiry group can be rigorously challenged:

> The basic point of experiential research is that you and your colleagues take an idea to the test of your experience and action in order to eliminate error in the idea. . . This accords with Popper's view that knowledge is a conjecture that has so far passed the test of experience; and that what marks off a scientific from a non-scientific statement is that the former is framed in such a way that it is open to refutation by appeal to experience. (Heron, 1982, p. 13)

Clearly we need to have ways of exploring whether we are fooling ourselves. But I am not satisfied that by using terms such as falsification we are not falling onto the objectivist side of the dialectic. I believe we must find a way of better preserving the tension that "reality is wholly independent of me and wholly dependent on me." (For a discussion of validity in the light of this critique see Heron, in press)

Lincoln and Guba have made a most interesting contribution to the debate about validity in their work with the naturalistic inquiry paradigm. Their early contribution (1985) takes the criteria of the conventional inquiry paradigm, which they identify as internal validity (or truth value), external validity (or applicability), reliability (or consistency), and objectivity (or neutrality) and to develop what they call parallel criteria of trustworthiness. But they also suggest that other quite different criteria might be generated from different epistemological assumptions, and offer the valuable challenge:

> Suppose one didn't have the "rigor" criteria from conventional scientific inquiry toward which one might work in some parallel fashion? Suppose one were charged simply (or not so simply, as the case may be) with developing criteria for trustworthiness and authenticity which were grounded solely in the naturalistic paradigm? Suppose that rather than being analogous to conventional criteria, the new trustworthiness criteria were "indigenous" to the new epistemology, were grounded in the assumptions, and arose solely from that particular system? (Lincoln, personal communication, 1986)

In my attempts to rise to this challenge I have tried to reach back behind the foundations of positivism, and thus behind the philosophy of Descartes and the subject-object split which he instituted.

GETTING BEHIND DESCARTES

I have already pointed out that, in the traditions of the West, knowing has been primarily associated with thinking and reflection, and thus with propositional knowing. I wish to extend the concept of knowing to include at least knowing through experience and knowing through action. Here I can take a lead from Macmurray who challenges the Cartesian starting point of the thinking self—*cogito ergo sum*—because this sees the Self primarily as subject rather than as agent. Macmurray starts his argument by substituting "I do" for "I think," since:

> In thinking the mind alone is active. In acting the body is active, but also the mind. Action is not blind. When we turn from reflection to action we do not turn from consciousness to unconsciousness. When we act, sense, perception, and judgement are in continuous activity, along with physical movement. . . Action, then, is a full concrete activity of the self in which all our capacities are employed; while thought is constituted by the exclusion of some of our powers and withdrawal into an activity which is less concrete and less complete (1957, p. 86).

It is amusing to see how this philosophy of *cogito* arose. The story is told (Russell, 1946) that Descartes was seeking places for quiet meditation. In Bavaria, in the winter of 1619–20, in very cold weather, he got into a stove in the morning (Yes, Russell assures us, *in* a stove) and stayed there all day meditating, his philosophy being half finished by the time he came out.

It seems to me to be unsurprising that, since the founder of modern philosophy was a quiet retiring man, even a bit of a recluse, who liked to meditate and who developed his philosophy sitting in the warmth of a stove, our world-view should be based on the passive self as subject. But the serious point is that all philosophies which start from the thinking self, which share the *cogito* as their starting point and center of reference, institute a formal dualism (rather than a polarity) of theory and practice and between mind and matter. In presupposing the primacy of the theoretical, they are faced with the dilemma: How can pure reason become practical? (Macmurray, 1957, p. 80) Hence the dualism of action and reflection:

> "Cogito ergo sum" is self-contradictory because it asserts the primacy of the theoretical; while in truth, as Kant rightly concludes, it is the practical that is primary. The theoretical is secondary and derivative. (p. 81)

"The theoretical is secondary and derivative." It is worth pausing for a while to take this sentence in, to savor its challenge to the Western intellectual. The theoretical is *secondary* and *derivative*. This implies that in our attempts to build cognitive epistemologies, our attempts to know intellectually and theoretically, we are starting in the wrong place, and engaging in an inappropriate, self-defeating activity. We need to go back behind Descartes and replace *cogito* with action and experience as the starting points for valid knowing.

The Existentialists (Tillich, 1944), in asserting that existence proceeds essence, similarly have tried in their work to go back behind the assumptions of Descartes to the immediate experience of Being. Sartre asserts that we are our choices, and Heidegger describes how the world meets us in action. When we use a hammer, for example, we don't simply contemplate its use theoretically, rather:

> The less we just stare at the hammer-Thing, and the more we seize hold of it and use it, the more primordial does our relationship with it become, and the more unveiledly it is encountered as that which it is—a tool. . . (quoted in Steiner, 1978, pp. 87–88)

So the Western epistemologies based on the *cogito* are epistemologies of cognition, of thinking (I think therefore I am) and are essentially and necessarily

dualistic: in separating mind from the world and basing their inquiry method on viewing the world from a distance they create the problems of positivist knowing we have been struggling with. If we take Macmurray's argument seriously, it is starting from *cogito* which is the problem: we cannot arrive at criteria for valid knowing if knowing starts from thinking.

Ways of Knowing

From an existential perspective, being-in-the-world implies being-in-action; this implies experience of action, and we may then reflect on our experience and find ways to represent it if we wish to communicate to others. So as I pointed out above, in relation to cooperative inquiry, we can extend our epistemology to include at least practical, experiential, and propositional forms of knowing. (Propositional knowing is one way in which experience may be presented; it may be better to include it as one form of presentational knowing, which includes knowings expressed through visual art, poetry, dance, etc.)

My considerations lead me to suggest that knowing as action (practical knowing) is primary, and reflection and representation (propositional knowing) a necessary secondary—we must remember that action without awareness is blind, while awareness without action is important. But what *links* action and reflection together and integrates them, so that we may act with awareness rather than oscillate in an ungainly fashion between action and reflection, is the quality of our experience.

So when I consider the issue of valid knowing within a post-positivist paradigm, my questions concern the soundness of practical knowing, of experiential knowing and of propositional knowing: what are the qualities of sound action, sound experience, and sound articulation?

How do we act? Often we must act decisively when we cannot know the outcome. Nietzsche asked about a truth, "Can one live it?"; and in the Sufi tradition, truth arises in action. So *what is the form of valid action?*

What is the nature of experience we can trust? We have been taught for so long in Western civilization to doubt our experience, yet it is the fundamental basis of all our knowing. *So what is the quality of sound experience?*

How do we articulate our knowing, express it in words, ideas, and theories; in poetry, drama, and dance? If we accept that the map is not the territory, that the Tao that can be told is not the eternal Tao, we must recognize what Bateson bluntly points out, that "all knowledge is metaphorical." So what can we say about the *use and choice of metaphor?*

I turn now to examine each of these ways of knowing in turn, to get some kind of feel for their quality, and to begin to get an understanding of valid, sound use of each.

THE NATURE OF EXPERIENCE

In Western traditions we are invited to doubt our experience; this tradition of doubt has been central to the rise of science. Again, this started with Descartes, who used the method of radical doubt to reject the authority of the Church in matters of belief, and to create a completely new philosophical edifice. But Macmurray argues that he took it further than this, and that in systematizing doubt he "set it up as a canon for the proper employment of the intellect in the search for truth." This has been so thoroughly accepted by modern thought, and it is now so familiar to us that we fail to recognize how paradoxical it is. It really is most unlikely that systematic doubting would lead to any form of knowing at all, rather it is more likely that "our capacity for scepticism is as unlimited as our credulity, and increases, rather than decreases, with exercise" (Macmurray, 1957, p. 76).

Macmurray goes on to assert that belief and doubt are primarily practical, and that if in practice I believe something, it makes very little sense to pretend that I can doubt this as an act of will. So a body of propositions, however logical, cannot be seen as knowledge unless somebody believes them. Thus, doubt must be held in relation to belief, for these are experiential concepts, not propositions split away from experience.

> The point is simply that, if there is to be any life and movement at all, the attitude of faith must be basic—the final and fundamental attitude—and the attitude of doubt secondary and subordinate. (Watts, 1960, p. 38)

Another way of looking at this is that we can hold our belief and our doubt lightly. As we develop our capacity for critical subjectivity, we do not need to become stuck either in credulity or in compulsive doubt—to do so is again to fall into the trap of dualism, valuing one pole of a dialectic at the expense of the other. We can, in this state of mind, maybe seek a quality of experience we might trust without becoming over-committed to it, without treating the knowing of that experience as a certainty.

Such high-quality experience can be seen as having three interrelated qualities: it is emotionally competent; it is mindful; and it is participative and loving.

Emotional Competence

By emotional competence I refer to a quality of being which is not caught up in and overly attached to the drama of our life. It means that I "know where I am coming from," that I am neither captured by my own subjectivity, nor pursuing an alienated pretense of objectivity. Rather, I am finding ways to integrate these

within a critical subjectivity. Elsewhere (Reason & Marshall, 1986) we have described three aspects of this life drama.

The first of these are the existential givens of our life situation which we bring to research: the background of our gender, class, age, race, employment status, and so on; with the need to deal with relationships that may be in various stages of development or decay; with our concerns about the state of the world and our own life within it. Often, for the graduate student in particular, the time spent in research at a university is a time for retreat, for taking stock and making sense of life and experience so far.

We work with these existential issues by recognizing that in a profound sense we *are* our choices, that we are into the research business for some purpose, that it is most unlikely that our research is simply a high-minded search for truth: more likely it is fueled by some passion, some personal or social commitment, some purpose in the world. My friend and colleague John Rowan has suggested that the purpose of inquiry is to "discover the rigidities in social relations, so that they may be transformed"; this is an example of such a commitment.

A second aspect of the drama of our life comes from a psychodynamic perspective: many of the limitations on being here-and-now have their roots in childhood experiences, as has been well described by writers from the human potential movement:

> The theory here is that people in our sort of society carry around a good deal of unresolved distress—grief, fear, anger—from past experience, especially from the very beginnings of life and from childhood; and that there is a tendency for this to be projected unawarely into all sorts of present situations, distorting preception of a situation and/or behaviour within it.
>
> Let's look a bit more closely at how this distortion process might work. If as a child I want to express my true real nature, my true self, and this urge is repeatedly interrupted and interfered with, I feel the distress of grief, fear, and anger. If I am also constrained to suppress these valid distress feelings, then I am conditioned to become false to my real self. . . and to erect a false and alienated self with which I identify. I then become addicted to projecting onto the world the anxiety of my denied distress, seeing the world as a negative, threatening place which therefore reinforces my addiction to my false and alienated self. I am stuck in a viscious circle (Heron, 1982).

The research experience has a particular ability to restimulate old patterns of distress, particularly if we are inquiring into something dear to our hearts (and why else bother to inquire?). We can work with this unresolved distress through the variety of forms of psychotherapy and psychological education. I believe that it is not possible to pursue an inquiry effectively unless one engages in some form of work sufficiently powerful to reach into unconscious processes and explore the disturbance triggered by the research experience.

A third aspect of the drama of our life is transpersonal and imaginal. Drawing on archetypal psychology (Hillman, 1975) we may see the inquiry process as an expression or enactment in our life of a myth or archetypal pattern, and as such an expression of the collective unconscious. We can explore the images that arise

to awareness in the researcher, for example, in spontaneous free-association, dream, fantasy, and active imagination, and manifest them through the inquiry process. The importance of this imaginal perspective lies not in the "correctness" of its imagery, but in the challenge it throws out to the materialistic and rational world within which we live. It draws attention to the unconscious as an essential source of our creativity, and to the role of our imagination in co-creating our world.

Thus for inquiry, the notion of emotional competence directs the researcher to explore the life perspective they bring to their work, the emotional "baggage" from the personal past, and the archetypal patterns which are expressed through their lives. This is where we start from; in the American Indian tradition, these are our Beginning Gifts (Storm, 1972) from which perspective we approach our world. I do not argue that if we work in these areas we can establish some kind of objective consciousness. To think this is to miss the point. Our work rather is to clarify the perspective of our vision, to better know and be less compulsively attached to the existential ground from which we co-create our world.

Mindfulness

While developing emotional competence and clarifying the perspective we bring to inquiry are essential starting points, we can go much further in developing high-quality awareness if we borrow from the nondualistic teachings of the world—teachings within what may be generally termed the perennial philosophy (Huxley, 1958). The various disciplines associated with these teachings are aimed at furthering and developing Mindfulness, or Wakefulness, or Self-Remembering; their purpose is to break through the robot-like, mechanical, trance-like behavior which is characteristic of human beings for much of the time (Deikman, 1966; Masters, 1981). Torbert (e.g., 1983) has drawn attention to the significance of these teachings for inquiry.

Reb Anderson, a Zen Buddhist monk and meditation teacher, describes the Zen quality of awareness (1984). He talks about Buddhism as the art of the Middle Way between our limited, painful existence, on the one hand, and, on the other, some boundlessness.

He quotes a short Chinese poem which encapsulates the Awakened Way:

> In my middle years I have become rather fond of the Way,
> I've retired to the. . . foothills.
> When the spirit moves me, I go off by myself
> To see wonderful things that only I can see.
> I follow the stream to the source and sit
> And watch for the moment when the clouds crop up. . .

Anderson says that this is a story of the quest for what is life.

> It's an image of the human being going back to the source, walking to the source of our life, and at that point sitting and watching for the moment when life crops up—to catch life as we create it. Life is not passed to us, we are not the victims of a creator outside ourselves. We are all powerful magicians, and are able to conjure up life moment by moment. We are also completely effective meditators, in the sense that we return to the source moment by moment, and then conjure up a new life again.

The point of meditation is to slow ourselves down and stabilize ourselves so we can see ourselves in this creative work:

> If we don't catch ourselves as we create forms, as we create perceptions, as we create feelings, as we create emotions, then we feel like they are happening to us.

But if through meditation we can learn to experience the way we create our world, we will no longer be deceiving ourselves into experiencing our world as separate from us:

> our practice of meditation is so that we can be there as whatever life is first begins to break forth from the womb. . . So the following the stream to the source is what we call stabilisation, or calming. Watching for the moment when the clouds crop up is what we call insight, or wisdom. And the wisdom is that we understand that forms are illusory. And the reason why we understand them is that we create them. A magician is not fooled by his tricks: he catches them at the beginning. But if you wait for five minutes, the magician can create quite a scene. If you don't catch your own pain at the moment you create it, then you can be pushed around by it, frightened by it. . .

Within the Buddhist perspective it is impossible to *know* what life is as an object, but we *can* be completely alive if we can learn to catch ourselves in these continual acts of creation. The Buddhist expression of stopping the mind means that you calm the mind so you can see it for what it is. So when we wake up in the morning we can ask ourselves, "Are you awake?" All day long we can ask, "Are you awake?" And we can with discipline and practice begin to be aware of the process by which we create our world and our place in it. This is a discipline of more developed consciousness than that which is taken as normal in our society. It can be a part of the research experience, as Comfort (1987) suggests, the emerging forms of inquiry are more like a neo-Buddhism than like positivism.

This Buddhist practice of attending to life as we create it has its parallels in other disciplines. If it is what Zen masters call stopping the mind, it is what shamans call stopping the world. Joan Halifax teaches a map of awareness which is derived from the American Indian tradition. The map contains five attentions. The first attention is that of the physical senses; it is conscious, immediate, and with no memory engagement. The second attention is abstract and conceptual; it has a superficial memory engagement, and deals with words and concepts. The third attention concerns psychodynamic memories, is unconscious and symbolic.

The fourth attention is transpersonal, is engaged with deep archetypal patterns of the collective unconscious, and is concerned with memories of other lives, with psi capacities, and spiritual possibilities. It is the fifth attention which most concerns us here: it can be seen as *unobstructed awareness,* and thus is nonrelative and absolute. And again, access to this attention comes through the variety of meditative disciplines. Halifax refers to it as "Keeping your seat," not being thrown by the relativeness of the other attentions, and not rejecting them either, but being there.

It is with this quality of awareness that we can passionately and wholeheartedly engage with the most intense and even remarkable experiences—fight with a loved one; experience bereavement; get caught up in a riot or civil disturbance; re-experience the traumas of childhood; enter nonordinary realities; and so on—and still be fully, simply, present. And this is not a mere return to childhood and the consciousness of naive realism, because it embraces fully the paradox of form and nothingness:

> Before a man studies Zen, for him the mountains are mountains and the waters are waters; when, thanks to the teaching of a good master, he has achieved some inner vision of the truth of Zen, for him the mountains are no longer mountains, and the waters are no longer waters; but later, when he has really arrived at the asylum of rest, once more the mountains are mountains and the waters are waters. (Benoit, 1959, p. 89)

A modern approach to mindfulness is the Enlightenment Intensive workshop designed by Charles Berner (Love, 1976). In this workshop we work with a series of questions, beginning with "Who am I?" and proceeding to "What is Life?" "What is the Truth?," and so on. The fundamental form of this work is in pairs: one person in a supporting and listening role asks the other their question, for example, "Tell me who you are." The seeker takes the question, and using a particular form of meditation contemplates it with the intent of reaching a *direct experience of the truth:* they then communicate their experience, whatever it is, to their partner. This process continues rigorously, along with "working meditation," "eating meditation," and "sleeping meditation" for a minimum of three days of intensive work.

In working with this method the seeker typically goes through layers of being, through roles and attributes, through occupation and relationships, through character structure and personality. This is at times an agonizing and alarming process, because what is discarded in the process are the forms of life to which we are attached. It seems then that the "direct experience" has qualities of knowing which are in some way nonegoic, or beyond ego. In Wilber's (1980) sense this is *trans*-personal, beyond the experience of the personal ego—and importantly contrasted with the pre-personal experience (i.e., naive subjectivism) of the earlier phase of human development. My own experience is that once this direct experience has been touched, it becomes more available to everyday life.

My colleague John Crook has described to me his experience of conducting "Western Zen Retreats" (Crook, in press) in the mountains of Wales which encorporate the Enlightenment Intensive workshop. His experience over the years has been that those seekers who experience this nonegoic knowing discover that it is also a profound experience of love and compassion for themselves and for their world. Thus it seems that the attitude of mindfulness encompasses both an awareness that all form is in some deep sense illusion, *and* feeling of deep compassion for the world and for all sentient beings. Thus Halifax works with the "Compassionate Warrior" way: intensely disciplined and completely loving.

I am sure that many readers will know better these experiences than I have been able to write them, and that others will have experience of other disciplines that have taken them in similar directions. There is nothing new in what I have written, and my attempts at description bear all the faults of writing about something which is fundamentally beyond words. But my argument is that this kind of trans-egoic experience—maybe we can see it as spiritual—is also an essential and central part of the research experience. If we seek a post-positivist inquiry, we must also seek an experience that takes us beyond the body-mind split which the West has pursued since Descartes, and thus behind the egoic character structure which (at least in part) derives from it (Ogilvy, 1977). We cannot claim valid inquiry unless we can be fully present with the persons and things with whom we inquire. So just as many research students currently learn complex forms of statistical analysis, I would also have them learn to meditate.

Participation and In-Dwelling

Susan Griffin (1983, 1984) tells us that Bacon, who is seen by many as the first empiricist, said that we must put Nature herself on the rack and wrest her secrets from her. Heidegger makes a similar reference, and argues that knowing is not a grasping or an acquisition, "not a process of returning with one's booty to the "cabinet" of consciousness" (quoted in Steiner, 1978). Knowing for Heidegger is rather a kind of being, a form of being-with, of concern, of "tarrying alongside."

More recently Skolimowski has argued for a form of knowing which is holistic and participatory:

> Wholeness means that all the parts belong together, and that means that they partake in each other. Thus from the central idea that all is connected, that each is part of the whole, comes the idea that each participate in the whole. *Thus participation is an implicit aspect of wholeness.* You cannot truly conceive the structure of wholeness unless you grant that the meaning of wholeness implies that all parts partake in it, or put otherwise—participate in it. (1985, p. 25; emphasis in original)

Just as wholeness implies participation, so participation means empathy, "an almost complete identification with the subject of our attention"; and empathy implies responsibility, since we "cannot truly participate in the whole unless we take responsibility for it."

Similarly, Martin Buber (1958 edition) writes of the "two primary words I-Thou and I-It." I speak the primary word I-Thou when, as a whole being, I am in relationship with the other, equally as whole being. The world of I-Thou is a world of no bounds, a world of relations. On the other hand, I speak the primary word I-It when I relate to my world in terms of bounded objects, thus fragmenting both myself and my world.

This notion of knowing through participation lies at the core of the co-operative inquiry paradigm: I have that quality of attention so that I may be with you, alongside you, empathizing with you; and yet not losing myself in confluence with you because the dialogue between us both bridges and preserves our differences. Discussed below are some of the ways we may develop this quality of experience so that we may integrate it within our research practice.

THE FORM OF ACTION

Macmurray's argument concerning the primacy of action has consequences for our understanding of validity. He points out that it is the distinction between "right" and "wrong" which applies to action, rather than that between "true" and "false," which applied to reflection. Valid action, then is right action.

The Buddhist sense of right action is derived from the precepts which the lay person undertakes, as set out in the Pali Canon:

> to refrain from destroying living creatures;
> to refrain from taking that which is not given;
> to refrain from sexual misconduct;
> to refrain from incorrect speech;
> to refrain from intoxicating liquors and drugs which lead to carelessness.

These are practical rules for reflection and meditation. My own meditation suggests the following:

- action which is mindful, conscious, fully present and awake in the moment;
- action which is Selfless, from an empty heart, not motivated by personal desires or aversions;
- action which responds simply to the appropriate needs of the moment;
- action which fully allows things to be as they are now, and is nonattached to particular results, but open to any outcomes;
- action of the Self, of the inner being rather than ego;
- action which is wise and compassionate (since these two are inseparable) coming from insight into the oneness of all things and a concern for the well-being of all sentient beings;

- action which is total, wholehearted, without resistance;
- action in the sight of God and glorifying God; action which is a sacrament, a form of worship of all creation;
- finally, right action is the action of right being: it is based on and nurtured by the kind of mindfulness practices I outlined above.

This is of course a rather tall order—simple, but by no means easy in practice. But we can see the validity of this perspective if we contrast it with the attitude of some modern science, where it does indeed sometimes seem that Nature is "put on the rack." The danger is, that since the objective mind is detached and nonemotional, the action that it initiates is likely to do violence.

Right action involves the kind of intention which we bring to our acts, as Bateson explores Gregory in an essay titled "*Conscious Purpose versus Nature*" (1972). He makes the point that all natural systems, while containing the potential for runaway, exponential growth of constituent populations, are kept in dynamic balance by various forms of complex feedback loops which conserve the stability of that system within some limits. In contast to this, human consciousness selects and attends solely to what is relevant to its purpose:

> Consciousness. . . is organised in terms of purpose. It is a short-cut device to enable you to get quickly to what you want; not to act with maximal wisdom in order to live, but to follow the shortest logical or causal route to get what you next want, which may be dinner; it may be a Beethoven sonata; it may be sex. Above all, it may be money and power. (pp. 433–34)

Bateson contrasts purpose with wisdom, that "knowledge of the larger interactive system—that system which, if disturbed, is likely to generate exponential curves of change" (p. 433). Wisdom here is knowledge of whole circuits of feedback, not just of arcs.

Since, "lack of systemic wisdom is always punished" (p. 434)—especially in this age when consciousness is allied to hugely powerful technologies—Bateson proposes as remedies humility, responsiveness, and attention to the unconscious processes revealed in dream and creative art. And these not as moral principles, but as items of scientific philosophy. These may be ways to temper the arrogance of purpose and attend to those shadowed or muted aspects of the situation which are hidden by our concern for purpose, yet are essential for ecological stability. In my terms, an extended consciousness and high-quality awareness may be able to encompass wider forms of action with wisdom.

I have learned a lot about the form of action from my T'ai Chi practice. Each movement in T'ai Chi is driven with a little push from one foot which is then connected through the legs and waist to the whole body. This active work of the legs is known as the yang cycle. You just need a little push at the right moment, and then you can let the body flow through the rest of the action, watching for when the next little push is needed. I learn from this that right action involves

taking little steps rather than big ones, taking action and then waiting to see the consequences of the action. It means seeing our action as taking place within a system of variables, not abstracting one or two for our attention. You only need a little of the active yang principle, and then you can let the process flow; but if you keep pushing, using too much yang, you cannot see the consequences of your acting.

By this view, right action is action within an ecology we can dwell with, one in which we can see the consequences of our actions. It is action based on a reverence for the ecological systems that support our lives. In research terms this means working with relatively small cycles of action and reflection; it means being aware of the impact of those cycles on the systems involved, and taking these into account. This is vastly different from the intrusive action of orthodox research, which involves impersonal data gathering from a large population to a fixed schedule. Right action is an epistemological as well as a moral imperative.

USE OF METAPHOR

Among those writers who are reaching beyond a positivist view of the world toward a world of multiple realities, the notion that all knowledge is metaphorical is well established. Lakoff and Johnson (1980) see metaphor as "not merely a matter of language," but "a matter of conceptual structure" (p. 235), and Bateson muses, with apologies to Browning: A man's reach should exceed his grasp, Or what's a meta for?" (Brockman, 1977).

Mangham and Overington (1987) write of "metaphorical framing," that organizing of experience through frameworks of concepts so that we understand one thing in terms of another. They assert that metaphors are far from being mere embellishments of language, but are more importantly the organizing forms which serve as our perspectives on life. They illustrate their thesis with many delightful examples, and continue to assert their own choice of the dramaturgical metaphor to explore organizational life.

Cunningham (1984) points out how Western thinkers have tried to reduce metaphor into linear and analytical concepts, and argues that this is a grave error:

> metaphor and related analogical linguistic modes provide the balancing yin half of a yin-yang complementarity. . . . (B)y virtue of an over-commitment to linear, digital modes Western society has lost track of the symbolic, the mythical, the metaphorical; except that we harmlessly side-track such activity into the harmless arts well away from "meaningful activity" (like managing). (We) try to forget that the mythical symbolic life still does live (and that in earlier times we put the expression of such activity at the centre of our culture not at the periphery in art galleries and museums). (p. 7)

Mythical, symbolic life still *is* at the center of our lives and our sciences. Both Mangham and Overington and Cunningham illustrate their thesis with many

examples of use of metaphor in managerial and organizational life, while Harre (1981) points out that scientific theories are judged in terms of the plausibility of the image of the hidden world they help to create. We create theories to explain that which we cannot directly see, and thus at root, all scientific explanation is metaphorical.

Metaphor is based on a comparison of form of two entities or processes, in that the same formal structure is seen to run through both: in this sense my left arm is a metaphor of my right, and indeed of a bison's leg. Thus metaphor concerns primarily the patterning of our world, what Bateson called "the pattern which connects" (1979). The most significant metaphors are those we can scarcely see at all *because* they create the structure of our world. In exploring different ways in which ideas are organized, Bateson (1978) points out that there are two kinds of syllogism. One is the syllogism of linear rational thought, which is that

Men die
Socrates is a Man
Socrates will die.

The other kind of syllogism, which Bateson argues is how mental operations *really* work at a primary level, goes like this

Men die
Grass dies
Men are grass.

Materialist scientists do not like this kind of syllogism and dismiss it as poetical. But the first kind of logical syllogism is always laid over the second: thus within the world-view of Newtonian Physics, the Universe *is* a machine; within the world of a playwright all the world *is* a stage; for a traditional Catholic the Bread *is* the Body and the Wine *is* the Blood. The point about metaphors (as opposed to similes) is that when we use them in the fullest sense they are not labeled as metaphors, so we enter fully into their world. Thus dream images and their relationships are entirely metaphorical, and confuse us because they appear so "real"; similarly, as Laing points out, persons with a schizophrenic disturbance confuse us because they speak in unusual metaphor without labeling it as such.

> Julie said she was a "tolled bell" (told belle), that she was 'tailored bread' (bred). . . . One saw Julie daily sitting passively while her mother combed her hair, put ribbons and hairpins in it, powdered her face, applied lipstick to her lips and mascara to her eyes, so that the final appearance resembled nothing so much as a beautiful, lifesize, lifeless doll which her mother has 'told' (tolled) (1971, pp. 99–100).

In recognizing the metaphorical nature of our understanding we recognize that "Truth is a form of fiction. . . . Truths are the stories through which we have

our worlds and ourselves" (The Second of January Group, 1986). In recognizing that a metaphor that is labeled as such is merely a simile, and thus loses much of its power, we are confronted again with the "vast darkness" which is the backdrop to our knowing.

So we can appreciate Castaneda's confusion when he asks Don Juan after his experience with the "devil's weed"

> "Did I really fly don Juan?"
> "That is what you told me. Didn't you?"
> "I know, don Juan. I mean, did my body fly? Did I take off like a bird?"
> "You always ask me questions I cannot answer. You flew. That is what the second portion of the devil's weed is for. As you take more, you will learn to fly perfectly. It is not a simple matter. A man *flies* with the help of the second portion of the devil's weed. That is all I can tell you. What you want to know makes no sense. Birds fly like birds and a man who has taken the devil's weed flies as such."
> "As birds do?"
> "No, he flies as a man who has taken the weed."
> "Then I didn't really fly, don Juan. I flew in my imagination, in my mind alone. Where was my body?"

And the argument proceeds to the end of the chapter

> "Let's put it another way, don Juan. What I mean to say is that if I tied myself to a rock with a heavy chain I would have flown just the same, because my body had nothing to do with my flying."
> Don Juan looked at me incredulously. "If you tie yourself to a rock," he said, "I'm afraid you will have to fly holding the rock with its heavy chain" (1976, pp. 128–29).

Let me take another example from T'ai Chi and sensory awareness exercises. Stand up. Remember that the mass of the earth exerts a gravitational pull on your body. Experience the pull of gravity which keeps you on the floor; experience the weight of your body, and the tonus of the muscles which hold you up: see if there are muscles which are more stressed than they need be and let them go. Now realize that this all is metaphor. And let us now change the metaphor. Know that the earth is yin and receptive, that the heavens are yang and creative; know also that the lower part of your body is yang, and the upper part is yin. Experience the yang quality of your lower body resting on and interacting with the yin of the earth; and experience the yin of your upper body resting on the lower, and held also by a thread that goes from the top of your head to the heavens. And notice the change in your experience of your body. And know that this too is metaphor.

How then can we use this notion of metaphor? Well, of course, the first and radical answer is that we can't, no more than we can know the meaning of dream, if metaphor is accepted as the very structure of our world. But more pragmatically, we *can* play with the metaphors of our inquiry.

1. We can enter the dialectic of total acceptance and radical doubt of our metaphors. On the one hand, we can use them with certainty, wholeheartedly, entering fully into their spirit, yet still wearing them lightly, without compulsive attachment. On the other hand, we can remember that all frameworks contain the danger of clarity, and that we need to be able to test them in action and discard them once they have given us their insight. In this way we can live "as if" the metaphor is "real," while at the same time holding awareness of its fiction.
2. When we adopt a metaphor we can ask whether our inquiry is accurate, given this way of framing the world. Mangham (1986) points out that there are four criteria which may be used to judge an interpretation: completeness, correctness, comprehensiveness, consistency. This leads us to consider whether our interpretation covers all we know of the situation (completeness); honors the accuracy of what is known (correctness); adequately illuminates all aspects of the situation (comprehensiveness); without undue straining of metaphor (consistency). But we can only apply these criteria once we have wholeheartedly entered that definition of the situation, once we have leapt into the hermeneutic circle through which any world-view defines itself.
3. However, once we have adopted a metaphor we can use it, live with it either lazily or courageously. If we are lazy, then the metaphor becomes a cliché, losing its power to illuminate our experience and to guide our actions. But if we take the metaphor and live it with courage we inevitably test it, challenge its boundaries, and thus transform it. This is the process through which, in Kuhn's view of scientific revolution, paradigms become inadequate and replaced by new ones; it is also the process through which societies grow and decay (Capra, 1982), and by which men live through the "Seasons" of their lives (Levinson, 1978).
4. As we live and work within a metaphor, we can ask: Is it fruitful? Is it illuminating and creative? Does it show the phenomena in new ways? Is it *interesting* in Davis' (1964) use of the term? In a world of multiple realities, fruitfulness will often be more important than accuracy. For example:

> In our view the field of organisational study stands now more in need of exemplars in thinking creatively than ever it does of another illustration of painstaking application of rigorous techniques of inquiry. . . (Mangham & Overington, 1987, p. 25).

In the final analysis, judgments about the fruitfulness of metaphors must be aesthetic: responsive to the "pattern which connects" with recognition and empathy (Bateson, 1979).

5. Once we have chosen and established a metaphorical perspective on our world, lived with it and given it some life, we can begin to establish dialogue between our metaphor and those used by other people. From such a dialogue, new world-views may emerge. This use of metaphor leads us away from questions as to which theory or metaphor is true, and encourages us to live equally

with two or more world-views. Thus in the field of holistic medicine, allopathic medicine with its metaphor of the body as a mechanical-chemical machine can co-exist in creative and illuminating tension with acupuncture with its metaphors of meridians of *chi* energy.

6. Finally, we can borrow the perspective of Jungian psychology and look for the Shadow, look to see what the metaphor hides as well as what it illuminates, and the consequences of this hiding. As Jung points out,

> The shadow is a moral problem that challenges the whole ego-personality, for no one can become conscious of the shadow without considerable moral effort. To become conscious of it involves recognising the dark aspects of the personality as present and real. This act is the essential condition for any kind of self-knowledge, and it therefore, as a rule, meets with considerable resistance (Jung, CW 9ii, para 14).

We tend to become over-attached to our metaphor precisely because it hides the shadow, because it hides that which we do not wish to see. And this is as true with the shadows of our research metaphors as in our personalities. The shadow of Mechanos has been pointed out by Skolimowski. It would be instructive if each piece of inquiry were required to address the question, What have I been hiding, and hiding from in this work?

IMPLICATIONS FOR INQUIRY

The perspective I have explored in this chapter has considerable implications for the practice of inquiry, and while it is not at this stage possible to set these out as firm criteria for valid knowing—indeed it probably never will be—it is possible to suggest some approaches to both the training of researchers and research facilitators, and some ways in which a piece of inquiry might be reviewed and assessed, for example, in a Ph.D. examination or in a review of a possible journal article.

Training for Post-Positivist Inquiry

Since we have all been rather thoroughly trained in the Yoga of objectivity, so that our consciousness accepts without question the ordinary reality of our Western civilization, it is evident that would-be researchers in a post-positivist tradition must undertake some fairly rigorous training to open their body-mind-spirit to alternative possibilities, to uncover new vistas in what Jean Houston (1982) calls *unlensing* consciousness. We can explore this in terms of the extended epistemology and look at ways of developing high-quality awareness, right action, and use of metaphor.

Practice of High-Quality Awareness. In our research group and inquiry conferences at the University of Bath, we have been exploring ways of developing

high-quality awareness over the past seven years. I suggest that any person broadly competent within experiential disciplines such as humanistic and transpersonal psychology, and who is interested in a collaborative approach to education, can find their own way to practices and disciplines similar to ours; the key is to regard them as a part of the research experience. But since what we do appears to be rather peculiar, certainly in England, and in a university, I shall briefly mention some of the practices we have explored.

1. Meeting as a circle. We meet informally as a circle of people. Sometimes we take time to "attune" with each other, holding hands, eyes closed, to experience the energy of our circle. Sometimes we use circle dances (Wosien, 1974)—those ancient sacred dances from Old Europe and the Middle East to establish ourselves as a circle. In doing this we intentionally evoke the archetype of the circle, of human equality and presence. This is the "Circle of the People—a living, organic democracy stressing equal right to voice and vision" (Bleakley, 1984). Meeting this way means we don't have to "agree" in a limited, cognitive sense to be a whole community.

This may seem simple, but it produces an interesting sense of shock to start a research conference in a university setting by holding hands in a circle, attuning, and dancing the Greetings Dance, rather than with a keynote address!

2. Being there as people. In a world dominated by impersonal and formal forms of relationship, we need to learn and re-learn to be together as human beings. We cannot say I-Thou to those with whom we inquire if we cannot learn to relate personally with our teachers and fellow students. So our research group, while being an intellectual seminar and experiential laboratory, is also a support group and an encounter group. We take time to attend to our interpersonal relationships and we struggle, not always successfully, to meet each other as whole persons.

3. Confronting distress. For us, research is very much a personal process (Reason & Marshall, 1987), and we have discovered in practice how inquiry can stir up psychological defenses and restimulate old hurts and patterns. Many members of the group have used processes such as humanistic psychotherapy and co-counseling (Heron, 1973) to explore personal issues which have arisen during research.

We also borrow and adapt widely from the experiential psychotherapies. Using Gestalt methods we have set up two chairs, one for the research and one for the researcher, and invited the researcher to speak from each chair in turn, holding a conversation between the two, thus giving the research a voice of its own, and deepening the understanding of its place in the researcher's life. Similarly, one group member used methods adapted from psychosythesis (Ferrucci, 1982) to identify and work with the various subpersonalities who were arguing within her about the research project, and included an account of this within her dissertation (Mellor-Ribet, 1986). And another developed a process he calls

phenomenological psychodrama (Hawkins, 1986; in press), which can be used to explore the researcher's relation to the topic.

4. We are just beginning to extend our experiments into developing mindfulness through the disciplines of T'ai Chi and Buddhist meditation. This is a field in which there is much space for disciplined work—so far we have touched on it with a little sitting meditation together, by using some of the exercises suggested by Houston (1982) and the Mindfulness exercises developed by Masters (1981).

5. We have explored the area of participative knowing primarily through using psychodrama. When we use psychodrama as a phenomenological method, we re-create, by psychodramatic sculpting, some aspect of the research situation we wish to explore. So if we are looking at the process of a family, we would invite the primary researcher to re-create that family within the room, using other members of the research group to play different members. For example, the primary researcher can, by taking the place of each family member in turn, or by speaking as the whole family, experience more directly the family process. (Hawkins, 1986; in press).

Finally we have used exercises introduced to us by Skolimowski—he calls them a yoga of participation—which are in the form of disciplines that will help develop a participative relation to the world. He invites you to approach various natural phenomena—a tree, a rock, water—and to meditate with it in three different ways. First, to explore *identification,* to sense what it would be to experience the world with that form of consciousness. Second, to approach with *reverence.* And third, to commune in *silence.* In our development of these methods, we invite people to identify a small area of the natural world and first of all to view this as a set of objects, as I-It, seeing how many "things" can be identified, named, counted, and classified. After a while in this activity, we invite people to switch into a participative, or I-Thou relation to the same area of ground, identifying with it, treating it as sacred, and being with it in silence. The difference in consciousness can be extraordinary.

Right Action. We have paid less attention to the form of training for right action, but some directions seem clear. Partly this is a form of action which will evolve naturally from high-quality awareness, and can be developed through practices such as T'ai Chi, Karma Yoga, and sensitivity training. In T'ai Chi we learn to act from our center and without unnecessary effort; we learn to act and watch the action at the same time. In Karma Yoga, we take our awareness into the activities of our lives in the world, so that we, say, do the dishwashing, or clean the house as an exercise in right action. Similarly, sensitivity training is one way in which people may learn about the quality of action in interpersonal settings.

Use of Metaphor. The positivist attitude of the world, with its reductionist assumptions and its operational definitions, is responsible for radically im-

poverishing our language. Bateson frequently points out how the metaphorical quality of the liturgy of the Protestant Churches was destroyed, when the sacrament of the bread *is* the Body and the wine *is* the Blood of Christ becomes the Bread *stands for* the Body and the wine *stands for* the Blood.

We can re-educate ourselves into using diverse, elegant, and illuminating metaphor in several ways. We might start by working with the world's great literature, reading Shakespeare as well as Glaser and Strauss in our research seminars. Several of us at Bath have found Steinbeck's *Log from the Sea of Cortez* (1958) takes us to new perspectives on the research process. Or we might take a lead from Hillman (1975) and explore the metaphor of mythology. And we might consider ancient archetypal systems such as astrology and alchemy as potent sources of metaphorical illumination.

What we need to do is to shock ourselves out of our taken-for-granted, literal metaphors; to break the habit of seeing the world as made of things linked in mechanical ways. Thus when Mangham (1986) suggests that much organization life can be seen as comedy rather than as melodrama, we are immediately challenged out of any view that business life is only serious, rational, and self-important. When Hillman (1975) opens his book with the assertion that the purpose of life is soul-making, we may be surprised into a new perspective on ourselves. When Bateson (1979) writes a book which asks if we know the meaning of terms as diverse as *entropy* and *sacrament* we are offered a feast of new metaphors for our world. This is the realm of what Houston (1982) calls imaginal thinking. Our propositional thinking is broadened and deepened when nurtured by intentional metaphor as in poetry.

Training for inquiry involves learning how to express ideas and how to play with metaphor. In our work with storytelling we have borrowed a range of techniques from creative writing and experiential learning to help people in this play (Hawkins, 1986; Reason & Hawkins, in press). We have also used creative dance and art therapy to explore our inquiries in different expressive modalities. There is much more that might be done in this area.

Assessment of Inquiry Projects

Most universities have a pro-forma which examiners are expected to use when reviewing a Ph.D. dissertation; similarly journals tend to have clearly established guidelines. This application of supposedly objective external criteria is singularly inappropriate for the kind of inquiry which will emerge in a post-positivist inquiry paradigm, and the research community needs urgently to develop new assessment processes.

I have with my colleagues at Bath been encouraging students to engage in a personal review of their work, and to make a self-assessment which can be the basis of discussion during a face-to-face examination.

I first encourage them to read and reflect widely on the issue of valid and

sound inquiry; this is not difficult since this topic continually reoccurs during our research group discussions. Inevitably my students are influenced by my own and my colleagues writings, although we continually try to widen our epistemological range. The second part of the assessment starts early in the inquiry, and becomes more rigorously addressed as the work proceeds; it is addressing the question, What is sound knowing for me in this piece of work? Thus each student, informed by reading and discussion, and paying attention to their own unique inquiry style, begins to develop their own sense of soundness and criteria of validity. It is important at this stage to remind both myself and my student that perfection is the privilege of the gods: there is no way that a piece of work can meet all possible criteria, what is important is to choose what is appropriate for this piece of work, maybe limiting this choice to six areas.

Toward the end of the work, when the dissertation is nearly complete, I encourage students to make a rigorous self-assessment of their work on the basis of these criteria, and to either include it as part of the dissertation or send it with the dissertation to the examiners. We can then, examiners and student together, negotiate the criteria, and make some human judgment as to how adequately the writing and the experiences behind it lives up to them.

Gill Robertson (1984) undertook this process for her dissertation examination. She included her own validity assessment within the dissertation, and re-wrote the University of Bath criteria to conform with her own epistemology, so that:

> Does the candidate's work show that he has studied the subject of his thesis with adequate industry and application?

Became

> Does the candidate's work show she has studied the subject and participated as subject in the inquiry with the fullest use of her potential, and with insight and imagination as well as industry and application?

And

> Has the candidate shown that he is able to conduct original investigations. . . .

Became

> Has the candidate shown that she is able to conduct original investigations, to identify, clarify, and explore her own ideas as well as those of others, and has been able to facilitate the development of a new perspective with a firm basis in the lives and experiences of others? Has the candidate's own world view been exposed and disturbed?

Similarly, Hawkins (1986) bound within his dissertation an assessment of his work in relation to Heron's (1982) criteria, and included a critical discussion

about the work between himself and his devil's advocate critic. We need to continue exploring ways of assessing inquiry within a post-positivist paradigm.

FINAL REMARKS

Inquiry, as explored in this chapter, is about reflective action in our world. The soundness of such action depends on the quality of the experience which informs it, and I have argued that for high-quality inquiry our consciousness must be both deepened and extended.

Heraclitus is believed to have remarked that "You can't put your foot in the same river twice"; he was followed by Cratylus, who corrected him by saying, "You can't put your foot in the same river (even) once" (Hainer, 1968). In this strange world of ours each of us is

> partly blown by the winds of reality and partly an artist creating a composite out of the inner and outer events. (Bateson, in Brockman, 1977, p. 245).

I suspect that this era after the possibility of truth will call for extreme courage and creativity from those artists who wish to pursue a sound and valid inquiry.

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