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Integrating Action and Reflection Through Co-operative Inquiry

Abstract *Co-operative inquiry is a radically participative form of inquiry in which all those involved are both co-researchers and co-subjects. The methodology of co-operative inquiry is set out in a 'Layperson's Guide' which might be used to introduce the method to a new group. This is followed by a reflection on the learning process of an inquiry group, particularly the process of research cycling, the importance of the peer group, and the paradoxical self-reflexive quality of attention. Finally, co-operative inquiry is compared with other action approaches.*

Co-operative inquiry is an inquiry strategy in which all those involved in the research endeavour are both co-researchers, whose thinking and decision-making contributes to generating ideas, designing and managing the project, and drawing conclusions from the experience; and *also* co-subjects, participating in the activity which is being researched. The arguments which support this approach—the participative worldview, the human person as agent, critical subjectivity, the political, epistemological, ecological and spiritual dimensions of participation, etc.—have been explored extensively in earlier writing; the methodology itself and the choices facing an inquiry group have been described in considerable detail (Heron, 1996; Heron and Reason, 1997; Reason, 1998a). Later in this article I shall discuss how co-operative inquiry compares with other approaches to collaborative or participative research.

Those who advocate co-operative inquiry (and other forms of collaborative action research) are in pursuit of two important purposes. The first purpose is to articulate and offer democratic and emancipatory approaches to inquiry—relinquishing the monopoly of knowledge held traditionally by universities and other institutes of 'higher learning', and helping ordinary people regain the capacity to create their own knowledge in the service of their practical purposes. At the same time our purpose is to contribute to a complete revision of the western mindset—to add impetus to the movement away from a modernist worldview based on a positivist philosophy and a value system dominated by crude notions of economic progress

toward an emerging 'postmodern' worldview.¹ This article aims to point in both these directions by providing first a brief or 'layperson's'² guide to co-operative inquiry, which could be used as an introductory document for one wishing to establish a co-operative inquiry group. This account is intentionally non-technical: the reader concerned with epistemological and methodological issues is invited to consult other publications as referenced. The second part of this article draws on experience of co-operative inquiry to explore some of the qualities of an effective inquiry group which, I argue, help us point toward some principles of learning and of creating practical knowing from experience.

A Layperson's Guide to Co-operative Inquiry

What is Co-operative Inquiry?

Co-operative inquiry is a way of working with other people who have similar concerns and interests to yourself, in order to:

- understand your world, make sense of your life and develop new and creative ways of looking at things;
- learn how to act to change things you may want to change and find out how to do things better.

Research is usually thought of as something done by people in universities and research institutes. We think there is a researcher who has all the ideas, and who then studies other people by observing them, asking them questions, or by designing experiments. The trouble with this way of doing research is that there is often very little connection between the researcher's thinking and the concerns and experiences of the people who are actually involved. People are treated as passive subjects rather than as active agents.

We believe that good research is research *with* people rather than *on* people. We believe that ordinary people are quite capable of developing their own ideas and can work together in a co-operative inquiry group to see if these ideas make sense of their world and work in practice.

A second problem with traditional research is that the kind of thinking done by researchers is often theoretical rather than practical. It does not help people find out how to act to change things in their lives. We believe that the outcome of good research is not just books and academic papers, but is also the creative action of people to address matters that are important to them. Co-operative inquiry is thus a form of what is called action research: it is concerned with revisioning our understanding of our world, as well as transforming practice within it.

In co-operative inquiry a group of people come together to explore issues of concern and interest. All members of the group both contribute to the ideas that go into their work together, and also are part of the activity that is being researched. Everyone has a say in deciding what questions are to be addressed and what ideas may be of help; everyone contributes to thinking about how to explore the questions; everyone gets involved in the activity that is being researched; and finally everybody has a say in whatever conclusions the co-operative inquiry group may reach. So in co-

operative inquiry the split between 'researcher' and 'subjects' is done away with, and all those involved act together as 'co-researchers' and as 'co-subjects'.

These are some examples of co-operative inquiry groups:

A group of general medical practitioners formed a co-operative inquiry group to develop the theory and practice of holistic medicine. They built a simple model of holistic practice and experimented with it in their own practice. Building on this work, a group of general and complementary medical practitioners worked together to explore how they might effectively work in an interdisciplinary fashion (Heron and Reason, 1985; Reason, 1988, 1991; Reason et al., 1992).

A group of obese and post-obese women explored their experience together, looking in particular at how they were stereotyped in society, and how it was difficult for them to obtain appropriate attention from doctors and other medical people (Cox, 1996). This is one of several inquiries in which groups of people with a particular physical or medical condition have worked together to take charge of how their condition is defined and treated. Co-counselling, a form of peer self-help psychotherapy, has also used co-operative inquiry to deepen understanding of its processes and methods.

Two black social work teachers established inquiry groups of black social work students, practitioners and managers to explore their experience. They looked at relationships between black people at work, particularly the experience of black managers and subordinates working together; and how a creative black culture could be generated (Aymer, in preparation; Bryan, in preparation).

Several inquiry groups have met to explore ceremony, mystical and subtle experience in an attempt to create forms of spiritual practice which are appropriate to present times (Heron, 1998).

Several groups have formed to explore questions of gender, in particular experience of women and men at work. One inquiry looked at how black women might learn to thrive, as well as survive in British organizations (Douglas, 1999); another explored the experience of young women managers in primarily male organizations (Onyett, 1996); and another is looking at whether men in organizations need to explore questions of their gender in the workplace (not published).

How a Co-operative Inquiry Group Works

Co-operative inquiry is a systematic approach to developing understanding and action. And while every group is different, each one can be seen as engaged in *cycles of action and reflection*, each made up of four *phases*, which go something like this.

After a group of people with a common interest have got together (how this can be done is discussed later) the first task for this group of 'co-researchers', what we can call Phase One, is to agree the issues they wish to explore. They talk about their interests and concerns, agree on the focus of their inquiry, and develop together a set of questions or propositions they wish to explore. They agree to undertake some action, some practice, which will contribute to this exploration, and agree to some set of procedures by which they will observe and record their own and each other's experience.

For example, a group of health visitors in south west England were invited by one of their colleagues to form an inquiry group to explore the sources of stress in their work. After much resistance to the idea that they could be 'researchers', the group decided to explore

the stress that comes from the 'hidden agendas' in their work—the suspicions they had about problems such as depression, child abuse, and drug taking in the families they visit, which are unexpressed and unexplored (Traylen, 1988, 1989).

In Phase Two the group apply their agreed actions in their everyday life and work: they initiate the actions and observe and record the outcomes of their own and each other's behaviour. They may at first simply watch what it is that happens to them so they develop a better understanding of their experience; later they may start trying out new forms of action.

The health visitors first explored among themselves their feelings about these 'hidden agendas' and how they managed them at present. They then decided to experiment with confronting them. They practised the skills they thought they would need through role play, and then agreed to try raising their concerns directly with their client families.

In Phase Three the co-researchers become fully immersed in their experience. They may become more open to what is going on and they may begin to see their experience in new ways. They may deepen into the experience so that superficial understandings are elaborated and developed. Or they may be led away from the original ideas and proposals into new fields, unpredicted action and creative insights. It is also possible that they may get so involved in what they are doing that they lose the awareness that they are part of an inquiry group: there may be a practical crisis, they may become enthralled, they may simply forget. This phase is in some ways the touchstone of the inquiry method, and is what makes it so very different from conventional research, because here people are deeply involved in their own experience, so any practical skills or new understandings will grow out of this experience.

The health visitors' experience of trying out new ways of working with clients was both terrifying and liberating in ways none of them had expected. On the one hand they felt they were really doing their job; on the other hand they were concerned about the depth of the problems they would uncover and whether they had adequate skills to cope with them. The woman who had initiated the project, in particular, was anxious and had disturbing dreams. They found they had to keep in good contact with each other to provide support and reassurance as they tried out new behaviours.

After an agreed period engaged in Phases Two and Three, the co-researchers re-assemble to consider their original questions in the light of their experience—this is Phase Four of the inquiry. As a result they may change their questions in some way; or reject them and pose new questions. They then agree on a second cycle of action and reflection. They may choose to focus on the same or on different aspects of the overall inquiry. The group may choose to amend or develop its inquiry procedures—forms of action, ways of gathering data—in the light of its experience of the first cycle.

The health visitors came back together and shared their experience, helping each other understand what had taken place and developing their strategies and skills at confronting hidden agendas. After several cycles they reflected on what they had learned and wrote a report which they circulated to their managers and colleagues.

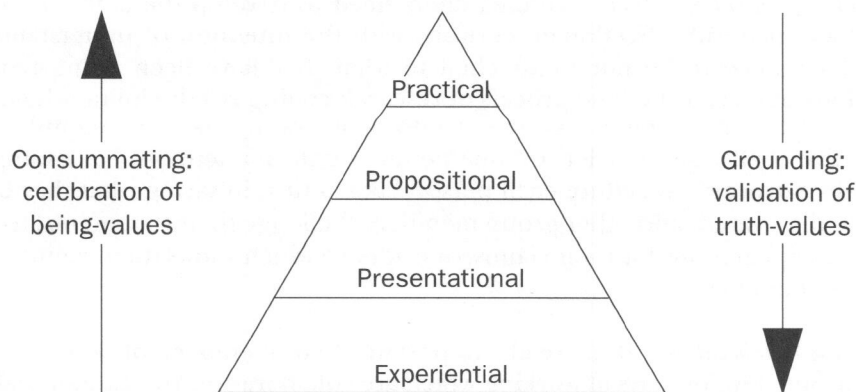
A co-operative inquiry often engages in some six to ten cycles of action and reflection. These can take place over a short workshop or may extend over a year or more, depending on the kind of questions that are being explored.

The Types of Knowledge a Co-operative Inquiry Group Can Create

Co-operative inquiry involves at least four different types of ways of knowing. We call this an 'extended epistemology'—*epistemology* meaning a theory of how you know, and *extended* because it reaches beyond the primarily theoretical knowledge of academia.³ *Experiential knowing* is through direct face-to-face encounter with a person, place or thing; it is knowing through empathy and resonance, that type of in-depth knowing which is almost impossible to put into words. *Presentational knowing* grows out of experiential knowing, and provides the first form of expression through story, drawing, sculpture, movement, dance and so on. *Propositional knowing* 'about' something, is knowing through ideas and theories, expressed in informative statements. *Practical knowing* is knowing 'how to' do something and is expressed in a skill, knack or competence.

In co-operative inquiry we say that knowing will be more valid—richer, deeper, more true to life and more useful—if these four ways of knowing are congruent with each other; if our knowing is grounded in our experience, expressed through our stories and images, understood through ideas which make sense to us, and expressed in worthwhile action in our lives. You can see that this was so for the health visitors in their work together. The relationship between the four ways of knowing is portrayed in Figure 1.

Figure 1 The relationship between the four ways of knowing



Source After Heron, 1996.

Other Ways to Improve the Quality of Knowing and Action

You will see by now that co-operative inquiry is a radically different way of doing research. It is based on people carefully examining their own experience and action, in collaboration with others who share similar concerns and interests. But, you might say, isn't it true that people can fool themselves about their experience? Isn't this why we have professional researchers who can be detached and objective? The answer to

this is that certainly people can and do fool themselves, but we find that they can also develop their attention so they can look at their beliefs and theories critically and in this way improve the quality of their claims to knowing. We call this 'critical subjectivity'; it means that we do not have to throw away our living knowledge in the search for objectivity, but are able to build on it and develop it.

We have developed a number of procedures that can be part of a co-operative inquiry which can help improve the quality of knowing. These are some of them.

1. Research cycling It should be already clear that co-operative inquiry involves going through the four phases of inquiry several times, cycling between action and reflection, looking at experience from different angles, developing different ideas, trying different ways of behaving. The health visitors went through four or five cycles as they experimented with different ways of relating to their clients. Research cycling can be *convergent*, in which case the co-researchers look several times at the same issue, maybe looking each time in more detail; or cycling can be *divergent*, as co-researchers decide to look at different issues on successive cycles. Many variations of convergence and divergence are possible in the course of an inquiry. It is up to the group to decide which one is appropriate for each piece of research.

2. Balance of action and reflection Too much time in reflection is just armchair theorizing; too much time in action is mere activism. But it may be important, particularly in the early stages, to spend considerable time reflecting in order to gather together experience; and it may be important later to concentrate on trying out different actions to see how they work. Each inquiry group needs to find its own balance between action and reflection, depending on the topic being explored.

3. Developing critical attention Co-researchers need to develop the ability to look at their experience with affectionate curiosity with the intention of understanding it better. They need to be not so attached to what they have been doing that they cannot look at it critically. The process of research cycling is a discipline which helps people develop this ability. As the group matures it may be helpful to use constructive challenge in order to hone people's critical attention. For example, in the Devil's Advocate procedure each person takes a turn in saying what they believe they have discovered, and other group members challenge their statements, trying to find other explanations for their claims, or evidence which shows their claims are not based in experience.

4. Authentic collaboration It is really important that members of a co-operative inquiry group develop ways of working which are collaborative. You cannot really call it co-operative inquiry if one or two people dominate the group, or if some voices are left out altogether. This does not mean that everyone has to have exactly the same role: it may be that one person in the group has more knowledge of the subject, another knows more about the inquiry method, and yet another may really help the group learn together. But it does mean that specialist knowledge is used in the service of the group. In order to develop equal contributions within a group it may be useful to rotate formal leadership round the group; to have 'rounds' in which everyone can have a say about the topic being discussed while the rest listen; and regular review periods where all group members can say how they feel about the way

the group is working. (It is also important to note that there may be people outside the inquiry group who are affected by what it does; while they cannot be full co-researchers, they too should be approached in the spirit of co-operation and dialogue.)

5. Dealing with distress Co-operative inquiry can be an upsetting business. If the co-researchers are really willing to examine their lives and their experience in depth and in detail, it is likely that they will uncover things they have been avoiding looking at and aspects of their life with which they are uncomfortable. Indeed, many inquiry groups are set up to explore these kinds of issues. So the group must be willing to address emotional distress openly when it arrives: to allow the upset persons the healing self-expression of grief, anger or fear. Further, it may well be right for a group to spend time identifying the emotional disturbances within the group which have not yet been expressed, and providing space for this to happen. If the group does not pay attention to distress management, it is likely that the findings will be distorted by the buried emotions.

*6. Chaos and order*⁴ Clearly co-operative inquiry can be seen as an orderly process of moving through cycles of action and reflection, taking account of experience in one cycle and applying it to the next. And so it is. But co-operative inquiry is also about intuitive discovery, happenstance and synchronicity. It is sometimes about throwing all caution to the winds in a wild experiment. The best inquiry groups find a balance between chaos and order. If the group is really going to be open, adventurous and innovative, to put all at risk to reach out for the truth beyond fear and collusion, then once the inquiry is well under way, divergence of thought and expression is likely to descend into confusion, uncertainty, ambiguity, disorder, and perhaps chaos, with most if not all co-researchers feeling lost to a greater or lesser degree. There can be no guarantee that chaos will occur; certainly one cannot plan it. The key validity issue is to be prepared for it, to be able to tolerate it, to go with the confusion; not to let anxiety press for premature order, but to wait until there is a real sense of creative resolution.

Practical Issues in Setting Up an Inquiry Group

Initiation Most inquiry groups are initiated by one or two people who have enthusiasm for an idea they wish to explore. They are quite often engaged on a research degree and are attracted to co-operative inquiry as a means of doing research; but they might just as well be members of an interest group—a patient's group, a women or minority person's group, a professional interest group—who see that co-operative inquiry might be a way of moving forward their interests.⁵

Establishing a group The initiators' first task is to gather together a group of people who will be interested in joining the project. Sometimes the group is self-evidently formed, but more often it is recruited by some form of invitation—face to face conversation or a circular letter. For example the black social work teachers mentioned earlier invited social work managers, practitioners and students to a day-long meeting to discuss mutual interests and propose the establishment of inquiry groups. Groups of up to twelve persons can work well. Below six is a little too small,

cutting down in variety of experience. Groups above twelve need more time and particular care to develop a collaborative ethos.

Contracting This is possibly the most important aspect of the establishment of a group: it is really important that as far as is possible people have an opportunity to define the inquiry agenda and establish the process of the group. But this does not mean that they have to start from a blank sheet: usually the initiators put forward some proposal in a letter inviting people to a meeting to discuss the possible formation of a group. The meeting can explore the following agenda:

- (a) Welcome and introductions, helping people feel at home.
- (b) Introduction by initiators: what we are interested in researching.
- (c) People discuss what they have heard informally in pairs, followed by questions and discussion.
- (d) Introduction to the process of co-operative inquiry.
- (e) Pairs discussion followed by questions and discussion.
- (f) Decision time: who wishes to join the group?
- (g) Practical discussion: dates, times, financial and other commitments.

It may be that full discussion of items (a) to (e) is as far as a group can go in one meeting, and a second meeting is needed for decision-making and practical arrangements.

Devising an overall research plan Most groups agree to a programme of meetings arranged so there is sufficient time for cycles of action and reflection. A group wishing to explore activities that are contained within the group, such as meditation skills, may simply meet for a weekend workshop which will include several short cycles of practice and reflection. But a group which involves action in the external world will need to arrange longer cycles of action and reflection with sufficient time for practical activity. The holistic doctors' group met for a long weekend to reflect after every six weeks of action on the job; the health visitors for an afternoon every three weeks or so. An inquiry into interpersonal skill met for a weekend workshop at the home of two of the participants and then for a long afternoon and evening every month to six weeks, finishing with another residential weekend workshop.

Roles It is helpful to agree early on how roles will be distributed. If the initiator is also to be group facilitator that should be made clear. It may be helpful to identify who has skills in group facilitation, inquiry facilitation, management of differences, working with distress and so on and share out roles appropriately. Decide if you wish to be fully democratic and rotate leadership, or if you would prefer one or two people to facilitate on behalf of the group. And so on.

Groundrules You may wish to agree groundrules, particularly to establish equality of contribution among members, and to preserve confidences within the group.

Writing It is helpful to decide who is the audience for your research early on. Is it just for yourselves, or do you wish to influence some outside persons? If you want to produce a written report or article, it is worth discussing who will write it and on what basis. Do all members of the group have to see and agree it before it can be sent out?

Or is it acceptable for one or two people to write their own report based on the group experience? We have found it helpful to adopt the rule that anyone can write whatever they like about the group, so long as they state clearly who was the author and whether other group members have seen and approved the text.

The Learning Process of an Inquiry Group

The previous section has set out in non-technical terms the basic structure and process of a co-operative inquiry group. I now turn to a reflection of what I feel I have discovered about the process of learning that takes place in such a group. I have initiated and facilitated some six long-term co-operative inquiry groups and numerous short co-operative inquiry workshops. In addition my educational practices are based on the philosophy of mutual inquiry. From this experience it seems that three simple yet subtle processes form the basis of practical learning in co-operative inquiry. They form the essence of what may be called a learning organization or community of inquiry. First, inquiry involves a *process of iteration*: learning takes place through inquiry cycles of action and reflection. Second, this iterative learning takes place best in a context of a *co-operative peer group* that can provide mutual support and challenge. Third, over time, co-researchers may develop a quality of *self-reflective inquiring attention* which shifts their focus from seeking a desired outcome to the process of learning itself.

Cycles of Action and Reflection

The cycles of action and reflection of a co-operative inquiry can take many different forms. Thus the inquiry with medical practitioners into the theory and practice of holistic medicine (Heron and Reason, 1985; Reason, 1988) took place over six cycles, with residential workshops for reflection and theory building interspersed with six weeks of reflective action in the surgery. Since a major purpose of this inquiry was to explore the possibility of holistic practice in the context of the British National Health Service, it was essential that the action phase took place 'on the job' in the doctors' surgeries. In contrast, inquiries exploring transpersonal experience, meditative practice and similar disciplines can be held in workshop or retreat settings at which both action and reflection can take place, as for example the inquiries into transpersonal experience initiated by John Heron at the International Centre for Co-operative Inquiry in Tuscany, Italy (Heron, 1997). The principle of research cycles can also be applied to educational programmes which embrace inquiry principles: for example our postgraduate programmes at the Centre for Action Research in Professional Practice at the University of Bath are structured so that students bring accounts of their practice to each workshop, and leave with an appropriate plan for further inquiry (Centre for Action Research in Professional Practice, 1998).

Research cycling is fundamental not only to co-operative inquiry, but more generally to the strategies of action research and action learning represented elsewhere in this special issue, as well as to descriptions of experiential learning and psychotherapy (e.g. Hampden-Turner, 1970; Kolb, 1984; Perls et al., 1951). Action science writing contains references to single and double-loop learning, but the emphasis on cycles of action and reflection seems less explicit, while Torbet's writing

on action inquiry (see his contribution to this special issue) places more emphasis on the quality of interpenetrating attention in the moment (Torbert, 1991).

Systemic thinking also has this kind of cyclical character. Gregory Bateson, in the article 'Conscious Purpose vs. Nature' (Bateson, 1972: 443), argued that natural ecosystems are composed of many parts, all of which are capable of exponential growth in their numbers. They live together in competitive and collaborative interaction so that this primary Malthusian capacity is held in check, and the ecosystem achieves an equilibrium through feedback interactions which have a circuit structure. (See also Meadows's [Meadows et al., 1992] use of system dynamics to study the 'the state of the world', and Senge's [Senge, 1990; Senge et al., 1994] description of the system 'archetypes'.) Bateson argued that Mind is not the property of the human brain, but is *immanent* in the circuits of such ecosystems. In contrast, the conscious mind of human persons is guided by purpose which, Bateson argues, 'is a short-cut device to enable you to get quickly to what you want' (p. 433) and thus tends to cut through the wider circuits of Mind. Conscious mind is only a part of the wider whole: it is tautological that the part cannot encompass the whole. And conscious mind, working within a modernist mindset which exalts human rationality and control over and above the natural world, coupled with powerful technology, provides a recipe for human and ecological disaster.

On the one hand, we have the systemic nature of the individual human being, the systemic nature of the culture in which he lives, and the systemic nature of the biological, ecological system around him; and, on the other hand, the curious twist in the systemic nature of the individual man whereby consciousness is, almost of necessity, blinded to the systemic nature of the man himself. Purpose consciousness pulls out, from the total mind, sequences which do not have the loop structure which is characteristic of the whole system systemic structure. (Bateson, 1972: 434)

Complexity theory also suggests that the form of whole complex systems emerges through an iterative process:

Complexity theory describes novel, emergent form and behaviour as arising through cycles of iteration in which a pattern of activity, defined by rules or regularities (constraints), is repeated over and over again, giving rise to coherent order. The order arises as a rich network of interacting elements is built up through the iterative process . . . The order that emerges in a complex system is not predictable from the characteristics of the interconnected components and can be discovered only by operating the iterative cycle, despite the fact that the emergent whole is in some sense contained within the dynamic relationships of the generating parts. (Reason and Goodwin, 1998)

And we have argued (Reason and Goodwin, 1998) that the characteristic form of human groups and societies can be seen as emerging through this process of iteration.

An effective co-operative inquiry process establishes this iterative process as the basis of its work as the co-researchers pose questions which concern them, act in the world to explore these questions, gathering experiential 'data' which they then use for further reflection. I think it is arguable that this helps to move people away from linear cause-and-effect thinking into a cyclical, ecological mode. There is some sense in which this reconnects people with what Bateson would describe as the circuits of

mind rather than the arcs of conscious purpose. The world becomes more complex, interconnected and holistic, and reductionist thought becomes clearly inadequate.

Research cycling also leads the inquirers systematically through the extended epistemology of experiential, presentational, propositional and practical knowing: ideas are explored and taken into practice, which leads to encounters with the otherness of the world about which stories can be told. Thus the co-inquirers experience directly the interrelationship of the four forms of knowing so that they find at first hand how these are interrelated. This guards against one way of knowing becoming dominant.

Thus research cycling is an emergent discipline, akin to martial arts or meditation. A discipline is a method or a training, a set of rules, exercises or procedures that educate a person toward particular ways of being and doing. As I engage with a discipline I freely consent to abide by its practice rules as a process of inquiry into both the discipline and its teachings. In doing this I commit myself to a process of liberation—and the learning is in the process rather than in any planned purpose or outcome.

A discipline is a practice that develops mind, body and spirit: it draws attention to intuitive or spiritual questions of purpose and meaning; to intellectual questions of understanding; and to practice questions of behaviour; and it places these in the context of the practitioner's physical and social environment. Further, a discipline is necessarily self-transcending: while the initiate may productively 'follow the rules', the mature practitioner uses rules in order develop a quality of attention and behaviour which, while born out of and nurtured by the practice and its rules, moves beyond them. (Reason, 1994: 40)

It does feel very odd to write about the importance of inquiry cycles: it is terribly obvious and simple, so as to be almost naive to write about it. It is part of the discipline of action research that Lewin wrote of in the 1940s (see Dickens and Watkins in this issue) and Freire in the 1970s (see Park in this issue). Yet the cyclical nature of knowing offers a fundamental truth that seems not to be easy to see. For example, we intended that the symposium where the articles in this special issue originated should take the form of cycles of presentation and discussion (American Academy of Management, Boston 1997). But we ran over time early on, and although we had announced and agreed this cyclical form for the session everyone in the room colluded to ignore the agreement, so that instead of a cyclical exploration we simply ran through a straight line of one presentation after another, almost without comment. It would appear that straight line cause-to-effect thinking is endemic in our culture.

Peer Group

It is evident that a person needs the support and challenge of peers similarly engaged in an inquiry process—for example the other members of a co-operative inquiry group. A group can establish an agreed programme of meetings which contain the cycles of action and reflection. Other group members can provide both support and encouragement and challenges to blind spots and defensiveness. But beyond this the group can provide a living container for the emergence of new order—new ideas and new practice. For if it has developed to contain sufficient diversity of viewpoint and complex internal communication we can, following the

arguments of Goodwin (1994) based on complexity theory, see the group as having the qualities of an 'excitable medium' in which pattern arises spontaneously. In an excitable medium the parts are richly interconnected within the whole; these interconnections are complex and non-linear; and this produces *a dynamic field which is self-organizing*. A group exhibiting the qualities of an excitable medium will find itself settling into a dynamic equilibrium on the edge of chaos, following a strange attractor between ordered inquiry and a more chaotic regime. What is important about a living system in this state is that new order arises because of the quality of interaction of the parts, not because of any programme built a priori into the system. These systems, Goodwin says, produce something out of nothing:

If [the system] moves into the chaotic regime it will come out again of its own accord; and if it strays too far into the ordered regime it will tend to 'melt' back into dynamic fluidity where there is a rich but labile order, one that is inherently stable and open to change. (Goodwin, 1994: 169)

Essentially this means that the co-operative inquiry in full flight is moving between order and disorder, poised between stability and chaos. It needs to be provided with sufficient form to survive instability of its early days—the instability that comes from everyday human anxiety concerning association with others, and from the inevitable lack of shared meaning and task focus of a new human group—but not with so much stability that it rigidifies into frozen form. In contrast, for the group to move creatively beyond this early structure it needs to develop a network of rich connections between members and a degree of ironic ambiguity about its long-term form and purposes. These need to be left open for imaginative debate so that there is space for chaotic interaction between members: it is from this that novel forms of co-operation will emerge (see also Reason, 1998a). This line of thinking is surprisingly close to the intuitive assertion that John Heron and I made several years ago about co-operative inquiry groups:

From our early inquiries we came to the conclusion that a descent into chaos would often facilitate the emergence of new creative order. There is an element of arbitrariness, randomness, chaos, indeterminism, in the scheme of things. If the group is really going to be open, adventurous, exploratory, creative, innovative, to put all at risk to reach out for the truth beyond fear and collusion, then once the inquiry is well under way, divergence of thought and expression is likely to descend into confusion, uncertainty, ambiguity, disorder, and even chaos, with most if not all co-researchers feeling lost to a greater or lesser degree. (Reason and Heron, 1986: 470)

John Heron sees inquiry groups as taking an Apollonian or Dionysian form—drawing in Nietzsche's original distinction and Ruth Benedict's application of this in anthropology:

The Apollonian inquiry takes a more rational, linear, systematic, controlling and explicit approach to the process of cycling between reflection and action ... a rational cycle of sequenced steps—plan, act, observe and reflect, then re-plan.

The Dionysian inquiry takes a more imaginal, expressive, spiralling, diffuse, impromptu and tacit approach to the interplay between making sense and action ... group members share improvisatory, imaginative ways of making sense ... future actions ... emerge as a creative response to the situation. (Heron, 1996: 45–6)

Some of the qualities of a mature inquiry group could be seen in a recent co-operative inquiry group exploring the nature of high quality personal behaviour; its members were mainly professional consultants, educators and psychotherapists. I noticed early on how the group moved in and out of chaos, as it were, or between Dionysian and Apollonian modes. When we were establishing our purpose together, agreeing the focus of our work and discussing alternative perspectives we engaged in periods of quite confused interaction, with lots of overtalk and competition for airspace with many contradictory perspectives expressed. After a while a sense of direction would emerge: one member might offer a proposal for the next steps, which would be taken up and refined by others and adopted with little further debate. The group would then follow this direction for several hours of disciplined engagement and careful attention, exploring it thoroughly. This would usually then be followed by another chaotic period.

On reflection we identified several qualities of the group which had supported our ability to inquire together and in our everyday lives. Co-researchers described how the group 'held' the inquiry and provided a 'sense of space' in which their experiences 'mattered' to other co-researchers:

Philip: [the group] ... created a lot of space for me to explore freely and without pressure ... Having a sense of other people not so much peering over my shoulder checking that I'm doing it right, as having a general benevolent interest in my continuing what I'm doing, and a willingness to give more active support and encouragement.

Jenny: I think it's partly the sense of being *witnessed* and *mattering* to people ... I don't feel any of you are going to tell me off if I come back and say, I've dropped that now, or if I don't even mention it ... But that it *matters* to you as much as it matters to me ... And that we would be trying to act with our best intent, it's unique in this group for me, to be allowed to talk about these things

The group was described as developing a 'positive attitude' to possibilities, which was expressed as 'journeying with' each other in an 'exploration of hope':

Dave: [we have had] quite a challenging level of support, a challenging level of interaction, but ... within this a very clear notion of support. It has felt like somebody going on a journey with me, noticing how the journey has been for me but not questioning my journey.

Sara: Annie and I echoed that quite remarkably. She said the group, she noticed has held very positive energy and ... 'we've chosen to hold to an exploration of hope'. This has been enormously positive and empowering for individuals and for the collective as a consequence.

(It is worth noting the connection between the positive energy expressed here and the process of appreciative inquiry (Cooperrider and Srivastva, 1987), which is based not on solving problems but on building on the positive, life-enhancing aspects of a situation.)

Thus the co-researchers felt themselves held in their exploration by the existence of the group, not only in the practical sense that they could discuss their inquiries both at group sessions and in between, but also that the presence of the group provided a container—maybe it could be described as an alchemical vessel:

Annie: whether or not group [members] are consciously thinking about you, somewhere the group's energy is with you and behind you ... You can tune into the group and it doesn't matter if they're thinking of you or not, that entity is there for you as a resource, I think that's the difference ... It's not a question of *will* that the ... feeling of this group is here when I need it. It's nothing to do with that. It pops up. I think it's not just the theory or the concept, it's the entity that we've made here [that's] warm and supportive. It's an entity that's hanging around and available to each one of us.

Self-reflective Inquiry

The third essential feature of a community of inquiry is attention to who it is that is inquiring—the self-reflective dimension. While traditional academic inquiry is based on an outsider perspective in a search for some objective truth, co-operative inquirers are engaged in a self-critical examination of their own experience and practice, and indeed of the very ground on which they are standing (Reason, 1999). Thus questions such as 'How do I know what I know?'; 'Who am I that is engaged in this knowing?'; 'Do I actually do what I think that I do?' are central to the process of inquiry and discovery. These questions are akin to the Zen koans my friend John Crook invites participants on his western Zen retreats to explore: 'Who am I?'; 'What is life?' and so on. Such questions are paradoxical and unanswerable through sequential logic; if pursued with persistence (on a Zen retreat or in an inquiry group) they subvert the rational mind and throw the human being into a deeper process of inquiry.

Some of this can be exemplified from the co-operative inquiry group mentioned above. I set the scene for an inquiry at some depth in the letter of invitation I wrote:

I am thinking of the qualities of action that are required of those who wish to live creative and unusual lives, who wish to honour and respect themselves and others, and who wish to influence the healthy development of the communities to which they belong. My aim in taking this initiative is to contribute to the question I keep asking myself, 'What is worthwhile?'

Two specific questions that were proposed for the group were

- How do we learn to be aware of the frame through which we are perceiving events and to be aware that others may hold different frames? How do we learn to fashion new frames and new perspectives which offer creative new understanding of situations?
- How do we learn to be willing and able to enter into democratic relationship with others, to initiate the formation of dialogue together and nurture its development?

In the course of the inquiry the co-researchers became fascinated with the idea that their behaviour became of higher quality—they were more able to see the multiple possibilities of the situation, less compulsive, more democratic, more able to use power appropriately—if they learned to pay more attention to *what they were learning* in a situation than to *what they were trying to achieve*. Thus Jenny reported, in relation to difficult professional negotiations with an academic board:

Inquiry into what is worthwhile and especially how I can learn to take initiatives that I think are worthwhile has shifted my attention from desired outcomes to the process of learning *how to*. This has (for fairly long spells) changed my experience from one of anxiety to one of absorption and attention. It has lowered my sense of success or failure. If I am learning about how to do something, then whether I succeed or fail in terms of the outcomes is much less important—because I can learn either way. And as this sort of learning has become my intent, I will always be able to succeed in the sense of being able to learn.

... the outcome doesn't become totally irrelevant, because I am choosing to do my inquiry around projects in the world which I think are worthwhile, so obviously they are important to me ... So far I have been reasonably successful in terms of outcome, too. But it is important to me not to shift the emphasis back.

And Annie told of how this way of thinking had shifted her attitude to the drama of her life:

I think the most useful thing that I've acquired is looking at things that happen in my life as an inquiry ... But I am much less caught in the drama because ... here is a co-operative inquiry observer who's *fascinated*. So when I was robbed in Romania, there was a lot going on, a lot of emotion and difficulty, but I kept on observing it and enquiring it and thinking 'how does this fit in and how am I behaving?'

How I'm dealing with the mess [*resulting from the robbery*] is that I keep on standing back and looking at it and saying 'Here's the mess, how far have I got in and can I pull myself back out?' It's something about drama. If you look on life as an inquiry, you don't get caught by the drama. Each play that unfolds, you're interested ... to see what you can learn from it and that's a way of not just being caught up in it and sort of rolled by the big wave up the horribly scratchy beach. You know how a big wave can roll you up the sand?

There is of course an interplay between the quality of this private internal reflection and the public reflection in the inquiry group which is part of the research cycling. My sense is that as the group develops a culture of supportive yet disinterested curiosity—journeying with each other's inquiry—so individuals are encouraged to be less concerned about 'getting it right' and thus can be more lovingly curious about their own behaviour. My guess is (I have no firm evidence) that this culture within an inquiry group helps develop the kind of consciousness in the midst of action that Torbert is concerned to develop.

Living the Learning

These three learning/inquiry processes are themselves interconnected. The deeper inquiry afforded by the koan-like self-reflection brings new experiential knowing to the cycles of action and reflection. This cycling provides an appropriate balance of experiential, presentational, propositional and practical forms of inquiry, so that the inquirer is less likely to become stuck in any one mode. This cyclical non-linear process feeds the excitable medium of the inquiry group and is thus an important contribution to the emergence of a dynamic field. And this in its turn invites the co-researchers to deeper self-reflection. And of course it can all go horribly wrong, so that the inquiry group goes round in circles rather than creative cycles, struggling fruitlessly with the impossibility of intimate support and with the impossibility of knowing.

The Manufacturing Manager Comes to Visit

It will be clear from the above that co-operative inquiry can make little immediate comment on the short case study, except maybe to remember the old Irish joke and say, 'I wouldn't start from here!' The kind of fruitless interaction portrayed in the case might provide a stimulus for the establishment of a co-operative inquiry process among the team members themselves, or of an inquiry group of team leaders, which could begin to explore how to behave in creative ways in the face of such difficult circumstances. Co-operative inquiry is a long-term strategy for the development of practical knowing, which starts with the creation of a community of inquiry as an arena for reflection from which the participants can journey out into their worlds to notice new things and engage in experimental action, holding an awareness of the support and challenge of the group. The circumstances of this case require an immediate and highly skilled confrontation, probably by an outside facilitator or consultant.

Co-operative Inquiry in Context

My experience of the term 'action research' is that it means so many things to so many people that it is methodologically useless to distinguish one strategy from another. However, it may be politically useful (as in our Centre for Action Research in Professional Practice) as a description of a general field of activity. I am attracted by Torbert's proposal of 'research/practice' as an alternative name and am interested to see if we can get this to catch on.

I locate co-operative inquiry as one approach within a whole family of approaches to inquiry which are participative, experiential, emancipatory and action-oriented. Judi Marshall and I have proposed that all good research addresses three sets of needs;

All good research is *for me, for us, and for them*: it speaks to three audiences . . . It is *for them* to the extent that it produces some kind of generalizable ideas and outcomes which elicit the response 'That's interesting!' from those who are concerned to understand a similar field (Davis, 1971). It is *for us* to the extent that it responds to concerns for our praxis, is relevant and timely, and so produces the response 'That works!' from those who are struggling with problems in their field of action. It is *for me* to the extent that the process and outcomes respond directly to the individual researcher's being-in-the-world, and so elicit the response, 'That's exciting'—taking exciting back to its root meaning, to set in action. (Reason and Marshall, 1987: 112–13)

We would probably write this rather differently now, but we have found that this scheme has been a useful heuristic for graduate students in thinking through the purposes and dimensions of their work. These three dimensions of research/practice, for me, for us and for them, are of course nearly identical with Torbert's first-, second- and third-person research/practice. Thus we can think about the range of schools and methods along three dimensions.

For me, first person approaches are aimed at the development of an inquiring individual actor: these include Argyris and his colleagues' approach to action science

(Argyris et al., 1985), for which see Putnam's contribution to this special issue, Schon's approach to reflective practice (Schon, 1983), and the first person dimension of Torbert's developmental action inquiry. We can also draw on a whole range of disciplines and practices not normally seen as research but which at their best are predicated on an inquiring approach to life: meditation, prayer, martial arts, ceremony. In my teaching at Bath I tend to draw on Torbert's work since I find his concern with developing collaborative relationships, and with the development of an inquiring consciousness, fits best with the ethos of co-operative inquiry.

For us', second person approaches are those in which the inquiry is focused through a group which is normally established for the purpose of collaborative learning and inquiry. I see co-operative inquiry as the most fully articulated form of second person research practice; other forms include inquiry based on dialogical interviews and looser communities of inquiry. We can also draw on a whole range of disciplines such as action learning (see Marsick in this issue; I see action learning as concerned with developing good practice rather than as developing new forms of research/practice, but the line is a very fine one to draw), T-groups and encounter groups, consciousness raising groups, meditation retreats, community based education, indeed, the whole range of experiential learning groups which are based on an ethos of inquiry.

For them' third person approaches aim to mobilize inquiry in a wider community or organization. These include participatory (action) research (see Park in this issue) those forms of action research based on democratic dialogue (Toulmin and Gustavsen, 1996), some aspects of organizational learning (Senge, 1990), and some uses of large groups' structure such as open space, future search, etc., for example the work being conducted through the London Health Partnership at the King's Fund in London using large group events to systematically develop understanding and action in the primary care of elders in inner cities (Pratt et al., in press 1999).

Of course, these dimensions are interrelated and one can start from any position. The co-operative inquiry strategy starts by building a second person community of inquiry, as described above, around a set of shared practice questions—for example the holistic medical inquiry group mentioned at the beginning of this article. As the co-researchers move into the action cycles of the inquiry they will need to practise a form of first person research practice—the doctors returned to their surgeries, paid new attention to their work, experimented with new forms of practice, which they then brought back to the inquiry group. This second and first person inquiry can then support third person inquiry in the wider community, either in intentional forms of participatory research, or as a direct impact of individual action—the British Holistic Medical Association was formed in part as an outcome of the holistic medical inquiry. Thus, co-operative enquiry represents one strategy within a range of approaches to action research.

Notes

1. I do not take the word 'postmodern' as synonymous with the deconstructive movement derived from Derrida's work, but would include a wide range of emerging perspectives,

based on Lyotard's proposal that the essence of postmodernism is 'an incredulity toward metanarrative' (Lyotard, 1979). The postmodern sentiment includes the realization of links between ways of knowing and social power structures; systemic and ecological rather than linear thinking, and the influence of feminist and indigenous perspectives. My inclination is to think of an 'ecological postmodernism' (Spretnak, 1997) and to see these trends in terms of emerging participative worldview (Heron and Reason, 1997; Reason, 1998b).

2. By 'layperson' I mean to emphasize that practice of co-operative inquiry is not the monopoly of professional researchers, but rather that anyone can initiate and take part in the explorations that constitute co-operative inquiry, and that while some people may have more experience and understanding of the method than others, all those who participate as co-inquirers, if they are to be truly adventurous in this work, must bring the openness of a 'beginners mind' (Suzuki, 1988) to the process.
3. For a fuller and more technical exploration of the extended epistemology and its relation to a participatory worldview see especially Heron (1996) and Heron and Reason (1997).
4. The whole field of chaos and complexity theory has opened up in recent years and is a particularly fruitful metaphor for thinking about inquiry groups. See Reason and Goodwin (1998).
5. Co-operative inquiry was developed within the tradition of collaborative education which argues for balance and integration between the demands for authority, collaboration and autonomy. For a full discussion see Heron (1989).

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