

Metaphors for Reflecting on Research Practice:

Researching *with* People

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ABSTRACT

There are renewed demands for transparency and stakeholder participation in environmental planning and management. Research is a generic form of practice common to many professions. Appreciating the position of the researcher and reflecting on research practice can enhance its transparency. The case is presented for considering underlying metaphors as a way of making understandings explicit, transparent and structured, so as to enhance reflection on research practice. Metaphors can be explored, either individually or jointly, and learning opportunities can come from the exploration and awareness of alternative metaphors. Four metaphors have been chosen to reflect on research practice: research-as-action, research-as-narrative, research-as-facilitation and research-as-responsible. These metaphors define various roles relevant to researching with people and seem powerful ways of discussing what researching or planning with people might entail, and how to include the position of the researcher/planner in reflective practice. Whilst the primary concern is with research practice, the arguments might equally apply to other forms of practice such as planning, managing, advising or regulating.

Introduction

It is now generally accepted that participatory research, which includes local people, is important in environmental planning and management. The demand for professional practitioners who are aware of the practices and power dimensions that come into play when stakeholders are involved is likely to increase. This is particularly true in the European context where recent European Union legislation, such as the Water Framework Directive and the Public Participation Directive, require stakeholder participation and transparency of decision making (ENDS, 2001). Despite these developments it remains unclear as to whether researchers, planners and advisors always appreciate the conceptual and practical issues that are involved.

This paper, part of a wider research agenda (McClintock, 1996), responds to two areas in professional practice that experience tells warrant further conceptual and practical development. The first is the recognition, common among planners who belong to the 'interactive school' of planning (e.g. Gibson, 1994) with Planning for Real), that local people's engagement with issues, in ways that change power dynamics between local people and experts, can gradually bring about a reassessment of roles and relationships as well as a cautious change of attitudes. The second is characterized by Pretty *et al.* (2001) as the challenge "to find ways to encourage voluntary transition towards more sustainable practices, and to avoid short-term compulsion, which has the attendant dangers that compliers will revert to old practices as soon as the policy measures stop".

In this paper it will be argued that metaphors provide a way to reflect on practice itself. The primary concern is with small 'r' research, a practice seen as generic to all forms of reflective professional practice. Thus the arguments might equally apply to practices such as planning, managing, advising or regulating. A distinction is introduced between *research* and *researcher* context, in order to appreciate 'the position of the researcher' when engaged in research practice. The study builds on claims that metaphors are central to our ways of understanding and also that stakeholders have different understandings. These differences need to be accommodated within practice. Distinguishing metaphors can help to explain, appreciate and create different understandings. New understandings can emerge from considering different metaphors, as each metaphor will reveal and conceal different aspects of those understandings.

For example, the metaphor 'research as participative' conceals distinctions that make sense of the power dimensions of practice proposed by Heron (1996). He distinguishes between 'deciding for', 'deciding with' and 'delegating deciding to'. Each of these is a choice to be enacted in a given context and each requires different practical skills. These distinctions are relevant to transparency in decision making. Transparency is achieved through professional practice that, through reflection, creates awareness, responsibility and ethics. As Wadsworth, (1991, p. 63) notes: "To be accountable means to account for that for which one is *responsible*, and to those to whom one is *responsible* ... accountability may be experienced as 'power over' rather than 'power for'". It is argued that appreciating the position of the researcher when engaged in research practice is a necessary part of transparency. 'Researching *with* people' is a distinction proposed in response to a concern about what the metaphor 'research as participative' conceals.

Researching *with* People

The word 'with', in researching *with* people, emphasizes an endeavour to involve people in research. On the one hand, this entails being explicit about our own position as researchers. We need to include ourselves, as people, in any research (or other forms of practice). When engaged in research practice we are 'immersed' in the research, we cannot step outside of our own understandings, actions and interests. Further, research offers a means by which we can reflect on, and change, our own understandings. Researching *with* people allows this 'self-development' role to be acknowledged.

Researching *with* people is substantially different from researching *on* people, researching *about* people and researching *for* people (Reason & Heron, 1986; Heron, 1996). Researching *with* people does not aim to describe people, or what they do, rather it aims to work with people on issues of concern. 'Who does the research, and in what capacity?' is a question relevant to a joint researching process. Researching *with* people can address shortcomings of traditional blueprint planning and the pervasive linear transfer of technology model that informs many aspects of professional practice (see Ison & Russell, 2000a). One shortcoming is a separation between *doing* and *using* research and a second is to attempt to transfer universal understandings rather than appreciate contextual diversity.

Heron (1996) gives two motivations for seeing people as partners in research: political and epistemological. On political grounds, he states that people have a right to "... participate in decisions that concern and effect them. The democratization of research management is as much a human rights issue as the democratization of government at national and local levels" (p. 21). On epistemological grounds, he claims that people participate in their own knowing, and that practical knowledge, that is, knowing how, is "the fulfilment of the knowledge quest" (pp. 20, 34). Knowing comes from participation in research cycles of reflection and action, which is embodied in 'Co-operative Inquiry' as he calls it.

Heron's two motivations are not novel, in that a great deal of literature on 'participation' in a range of contexts is also based on similar claims. One prominent example of researching *with* people comes from the writings of Paulo Freire (Freire, 1972, 1979). Freire's interest is in 'raising consciousness' of peasants by means of a 'dialogue'. Even though Freire is more closely identified with education, rather than research *per se*, his work on dissolving a divide between 'teacher' and 'student' has been very influential. Researching *with* people is concerned with a similar dichotomy between researcher and subject (Heron, 1996, p. 19); a dichotomy questioned by both the position of the researcher and a joint process of research.

Choosing Metaphors of Research Practice

Can metaphors provide a way of reflecting on possible roles of researching? By exploring this question, researchers, planners and other practitioners are being invited to reflect on what they do when they do what they do. We do so because of our experience that in doing what they do, many practitioners are unaware of the traditions of understanding out of which they think and act. As noted by Russell & Ison (2000) traditions in a culture embed what has, over time, been judged to be useful practice. The risk for any culture is that a tradition can become a blind spot when it evolves into practice lacking any manner of critical reflection being connected to it. The effects of blind spots can be observed at the level of the individual, the group, an organization, the nation or culture and in the metaphors and discourses in which we are immersed.

Lakoff & Johnson (1999) in their challenge to prevailing models of Western thought, argue that reason (on which much practice is built, including research practice) is: (i) embodied; (ii) evolutionary; (iii) universal only in that it is a capacity all humans share; (iv) mostly unconscious; (v) largely metaphorical and imaginative; and (vi) emotionally engaged and not dispassionate. Their position

reflects a tradition of understanding that is not commonly appreciated but which is increasingly informed by the last 30 years of cognitive science research. These points are relevant because environmental planning and management have as much to do with our modes of thinking and acting as they do with the phenomena themselves. Recognizing that reason is largely metaphorical and imaginative also provides an opportunity to look at blind spots via the process of becoming aware of metaphor.

'Researching *with* people' is used as an ethic for 'choosing' metaphors of research. The word 'choose' is important as it embeds the following discussion of research metaphors *in* research. The following four metaphors are considered:

- research-as-action;
- research-as-narrative;
- research-as-facilitation; and
- research-as-responsible.

These metaphors define various roles relevant to researching-with-people.

Research-as-Action: Dissolving Divides between Doing and Using Research

Two divides become operational when 'Research' is highlighted as an academic activity. The first is a divide between researchers who do the research, and people who might use or implement it. The second divide is between people who do the research and other people involved in the research: researcher and research subjects. In some cases the divides coincide, when the research subjects are considered as users. These divides have been questioned in three different ways: in reactions to Transfer of Technology (ToT) models, from within a tradition of Action Research (AR) and from an awareness of different possible epistemologies. A single metaphor, research-as-action, consolidates these efforts to dissolve the divides as well as appreciate different people's 'understandings' in the research process.

The two research divides are not as apparent in research conducted outside academia. However, the title 'researcher' confirms that some people claim to do research, and it is a specialist activity. In natural resource research, a separation between those researchers that do the research and those who use research also highlights the prominent ToT assumptions. The separation has led to 'extension' and advisory activities specifically to bridge these communities. Conceptualizing a link between research and farming, especially a one-way link, does not address issues of researching *with* people as partners. The exploration does not have to be confined to farming, but it is a significant starting point as about 77% of the arable land area in the UK is farmed (Central Statistics Office, 1996, p. 207). Farming is also the main activity associated with measures to alleviate, for example, nitrate problems through transposition of the EU Nitrates Directive.

Kersten (1995) and Ison & Russell (2000a) review major criticisms of ToT assumptions, and its associated Diffusion of Innovations model, and discuss approaches that have emerged in response to these criticisms. Some of these approaches have explicitly referred to farming as a *system* and a desire to include farmers in agricultural research. In this way, these approaches are implicitly concerned with a separation of activities between researchers and farmers. However, Kersten implies that few of these approaches acknowledge a possibility that understandings can be diverse (Kersten & Ison, 1998).

Action Research (AR), by contrast, has always concerned itself with 'action' and implementing change. Wadsworth (1991, p. 63) explains how AR dissolves any distinction between doing and using research:

AR is not research followed by hoped for action. It is action which is intentionally researched and modified, leading to the next stage of action which is then again intentionally researched ... (AR) is an active set of consecutive cycles¹ of action, reflection, consideration of better ways of proceeding followed by putting them into action

AR is usually attributed to the work of Kurt Lewin (as with McTaggart, 1992; Wadsworth, 1991). Lewin aimed to expand on the maxim 'learning by doing' and also to both improve practical problem solving *and* discover basic knowledge (Morgan, 1993). This dual research 'function' is interpreted by McTaggart as people organizing "the conditions under which they [both] learn from their experiences and make this experience accessible to others" (1992, p. 170). AR and experiential learning appear as equivalent processes. There are several AR traditions, one of the most notable is Participatory Action

Research (PAR). The title 'participatory' reflects attempts to create political change: one strand with 'peasants' in 'developing' countries (see Fals-Borda, 1988); and one with 'workers' in organizations in 'developed' countries (see Whyte, 1991).

McTaggart (1992, p. 169) indicates why AR, and 'contextual' research, is desirable: "... it has been demonstrated time and time again that the application of other's research in new social, cultural and economic contexts is unlikely to work. People must conduct substantive research on the practices which affect their lives in their contexts". The failure of research to take the context into account is also a common criticism of research conducted under a ToT paradigm. The assumption is either that people can only have relevant experiences and hence learn experientially in the contexts in which they are embedded, or that research conducted outside of that context is likely to be irrelevant.

AR is also explicitly concerned with the relationship between 'researcher' and 'people involved'. All those involved become researchers, as they reflect on their actions and enter into AR cycles of planning-acting-observing-reflecting, and hence all people act. In Heron's terms, the researcher-subject distinction is broken, and "the subject [is a] fully fledged co-researcher, [and] the researcher [is a] co-subject, participating fully in the action and experience to be researched" (1981, p. 20). From this, research-as-action includes everyone involved in the research. 'Co-researchers' can become a label for all those involved in the research.

The notion that a researcher acts, or *participates*, in the research is consolidated by further considering issues to do with epistemology and ontology.² "We are always already in the situation of having to act" (Gadamer, 1975, p. 283). That is, we are 'thrown' into our context, and cannot avoid acting (as with Winograd & Flores, 1987, p. 34). By involvement in research, we do not conduct research then act on it. A researcher is an actor in the research, and will act according to his or her prejudices.³

This is hardly new! Many philosophers, scientists and researchers have reacted against ideas of separating the researcher from the research, usually by denying that an observer can be 'objective' and detached, or that 'reality' could be known with any certainty⁴ Von Foerster (1984, p. 11) chose to describe an observer who is aware of making an observation as a "participant-actor in the drama of mutual interaction". An 'actor' metaphor is not as passive as an 'observer' metaphor. An actor metaphor inspired Engel (1995, p. 8) to write of "my domain of study as complex theatres of innovation in agriculture". A 'theatre' metaphor suggests many actors. In the case of action research, these other actors are 'co-researchers'.

One group of actors that AR, for example, do not consider are other academic researchers. Fish (1989) describes these actors as "members of an interpretive community". A research-as-action metaphor implies that research activities 'constitute' such a community. This makes a change from seeing research-as contributing to knowledge. As an actor, a researcher contributes to, and constitutes, an interpretive community. This is very powerful if the interpretive community also acknowledges relationships with potential 'co-researchers'.

Choosing the 'research-as-action' metaphor enables a broad range of literature and research approaches to be embedded in research practice. This metaphor questions distinctions between doing and applying research, and researcher and research subject. Research-as-action also appears a way to dissolve a separation between theory and practice. Research-as-action is appropriate to exploring metaphors and understandings, as understandings embody application (from Gadamer, 1975). Research-as-action has provided a coherent base to articulate researching with people. Other metaphors reveal other aspects implied by 'research', and these are now considered.

Research-as-Narrative: Finding Out and Proposing Different Metaphors

Research can be simply thought of as 'finding out', and in that sense, research is an everyday activity. As such, research covers a lot of activities ranging from 'what time does the bus go home' to 'how much fertiliser should I put on my wheat crop' to 'what school is good for my children'. Wadsworth calls research "a process which begins with people asking questions, then setting out to answer them" (1991, p. 5). Discussing everyday research is not trivial, and it enables reflection on what types of research can be meaningful and useful. Everyday research is also linked to people's understandings.

Webber (2000, p. 12) provides an example of using a description of research-as- finding out or "investigating something which makes a difference to me (the grazier) and which can be incorporated into community knowledge for our benefit". Using such a description attempted to make research meaningful to participants, by indicating that 'this research' is concerned with issues and topics that are important and therefore relevant (see Ison & Russell, 2000a). Finding out implies new or different

understandings. Finding out is not used here in the sense of 'discovery'. Rather, based on the previous description of research-as-action, finding out is linked to *creation* of new understandings. If new understandings result from different metaphors, then finding out implies *changing* metaphors.

A narrative makes a process of finding out coherent. Narratives, or stories, are seen as one of the ways in which people make sense of their experiences (Polkinghorne, 1988, p. 13), by organizing their experiences around themes. A narrative, then, is one way of giving coherence to a process of finding out. For example, this paper is a narrative giving coherence to finding out about metaphors and researching with people. A narrative involves describing and reflecting on experiences.

Narratives also rely on certain metaphors and images (Lakoff & Johnson, 1980; Reason and Hawkins, 1988). Narratives can be linked to ways of describing; they are ways of working with metaphors that involve methods associated with listening to, and generating narratives. Research-as-narrative suggests that research works by describing, exploring and changing the metaphors used in a process of finding out during research.

If research is about generating and changing metaphors, and narrating that process, then claims that science 'works by metaphor' are appropriate (as with Waldrop, 1993; also Boyd, 1979). A similar claim can be made for philosophy, in light of Rorty's aims to keep the conversation going: "to see keeping a conversation going as a sufficient aim for philosophy is to see human beings as generators of new descriptions rather than beings one hopes to be able to describe accurately" (Rorty, 1980, p. 378). Giving up an endeavour to describe people, and instead work with the metaphors they generate, is akin to researching *with* people.

Two questions arise from comparing research-as-narrative and research-as-action: who does the finding out and who does the narration? Research-as-facilitation suggests some answers to these questions.

Research-as-Facilitation: Creating Space for Research

If all people involved in the research are actors, then all are immersed in finding out and narration. In academic circles, however, 'the researcher' usually appropriates these roles.⁵ In researching *with* people, these roles depend on how co-researchers find out and make narratives. Whilst research may be 'everyday', people may be too busy with their daily tasks or not have opportunities for reflecting on their actions. This suggests a role for the academic researcher: to 'create' opportunities for everyday research. This creative role can be called 'facilitation'.

Facilitation also appears in a variety of fields where it is deemed important to work with groups of people. A distinction is often drawn between process and content, and a facilitator's role is to: "create a structure and manage a process that allows the participants to safely and productively explore the content" (Roth *et al.*, 1992, p. 43). Exploring the content can also be called experiential learning (Heron 1989). Group work implies that people do things together, and that this requires some sort of design and co-ordination.

Working in groups is justified by Heron (1996) on the grounds that "the reality of the other is found in the fullness of our open relation ... when we engage in our mutual participation. Hence the importance of co-operative inquiry *with* other persons involving dialogue ..." (Heron, 1996, p. 11). That is, working in groups is a way of being able to understand other people. This is necessary in diverse stakeholder contexts (as say characterized by catchment management situations) or, as Röling (1990) and Pretty (1994) describe, group inquiry is needed in complex problem situations. Researching with people *can* imply group work. However, facilitation is used here in the broader sense of creating favourable conditions, or creating space, for research to occur.

Two domains where facilitation has been highlighted are 'adult education' and 'rural development'. In education, teaching has been associated with 'imparting knowledge' rather than enabling learning. Ison (1990) claimed that within agriculture, teaching has threatened 'sustainable agriculture' by ignoring the facilitation of learning. In adult education, learning is seen as desirable if it is 'self-directed', that is, students define their own learning conditions. If learning is self-directed, then one role for a teacher-as-facilitator is to provide resources for learning (see Brookfield, 1986, p. 63). In rural development, facilitation or 'animation' is associated with enabling communities to improve their own situations, rather than 'outsiders' doing things *for* people in order to help them. Both of these domains use facilitation in the sense of enabling certain activities that might not occur without such prompting. The next section addresses whether these activities *should* occur.

Creating opportunities for research entails at least four functions:

- initiating the research, except where a facilitator is invited into existing research;
- allowing people to anticipate benefits of engaging in a joint process of research;
- anticipating desirable experiences and exploring how these can be triggered; and
- providing the logistical considerations, such as the time and place of any events, for the research to take place.

All of these functions require ‘relationship building’, which is highlighted as an important part of facilitation and researching *with* people.

The word ‘create’ highlights an active role for a facilitator. Facilitation can never be neutral, or non-directive, as can be shown by reference to Gadamer’s ‘prejudices’. Gadamer (1975) shows how understanding emerges from an iteration between projecting our pre-understandings and then reflecting on, and revising, these understandings. These pre-understandings can be seen as ‘anticipations’ of possible meanings. The pre-understandings are unavoidable, and Gadamer calls them ‘prejudices’ or pre-judgements (see McClintock *et al.*, 2004). Whether facilitation can only be concerned with process is also debatable. Gregory & Romm (1994) prefer a ‘self-reflective’ facilitator, who is aware of his/her assumptions and can directly intervene to “contest certain statements which have passed unchallenged by the group” (p. 5). In education, Brookfield (1986, p. viii) outlines how facilitation “incorporates elements of challenge confrontation, and critical analysis of self and society”. When these active roles for facilitation are combined with participation in the research, a participant-facilitator type role for a researcher is implied. With this role, a researcher cannot just assume a role of facilitation, nor can a researcher just be a participant as there is some responsibility for ‘creating space’.

Different roles of a facilitator can be described in terms of explicit metaphors. Bell & Wood-Harper (1992) outline four roles of a systems practitioner: a doctor that provides technical expertise and ‘fixes’ problems; an emancipator that seeks to change states of mind; a teacher that assists with problem solving; and a warrior that actively and radically changes a situation. Bell & Wood-Harper present these metaphors as a way of reflecting on the role of a systems practitioner. As such, the roles can also suggest different approaches for facilitation. Another role comes from a popular expression ‘conducting research’. In this metaphor, a researcher is the conductor: co-ordinating a large number of different instruments whilst interpreting a certain score. Facilitation would imply ‘releasing the potential’ of the orchestra members to play. Conducting does not have the manipulative entailments of other metaphors, although questions could be asked about ‘where is the score, and who wrote it?’

As facilitation is an active role, it is likely that any specific roles will change as an inquiry progresses, and as the needs of ‘creating space’ for research changes. Looking at facilitation in terms of metaphors can enable facilitators to choose appropriate roles, as well as reflect on their roles within research. It has been found that ‘creating space’ is a useful way of reflecting on our roles, as well as that of research in general.

Facilitation, however, presents other constraints on research. Creating space for research implies that people have opportunities to engage in a researching process and ‘find out’. But who decides on what sort of space, or learning, is desirable? In addition, who says that a researcher makes a ‘good facilitator’ anyway? Brookfield (1986, p. 123) indicates that facilitation should only be one metaphor amongst many: “the concept of the facilitator of learning now exercises something of a conceptual stranglehold on our notions of correct educational practice ...”. The same could be said of claims that facilitation is a desirable role in research. This is where ethical considerations come in, and the next section discusses ‘responsibility’.

Research-as-Responsible: Who Claims that Research is ‘A Good Thing’? An ethic of ‘responsibility’ is based on self-reflection, and an awareness of possible positions for a researcher. Responsibility necessitates that action, narration and facilitation are seen as three metaphors out of many. Russell & Ison (2000) call for ‘responsibility’ to replace ‘objectivity’ as a research ethic. Rorty claims that the attempt to gain objective knowledge can be “an attempt to avoid the responsibility for choosing one’s project” (1980, p. 361, drawing on Sartre, 1956). Responsibility entails removing *a priori* assumptions that *doing* research is ‘a good thing’.

As an activity, research may enable different understandings, and different metaphors. However, it might simply consolidate present ‘undesirable’ understandings, or lead to ‘worse’ understandings; where undesirable and worse are judged by the people who hold those understandings. Research might not lead to finding out, the *a priori* assumption before doing research, neither does it have to be ‘a good thing’. A researcher then, wanting to conduct research with people, has a number of options: assume

'objectivity' as an ethic and then the research results become valid for those that share that frame of reference; outline the assumptions and framework for why that research might be valid, and engage in dialogue about these; and/or consider further an ethic of responsibility. The first option appears common and objectivity can be placed in inverted commas or parenthesis (Maturana, 1988). 'Objectivity' can indicate an awareness of other alternative positions, but an 'as-if objective' position is chosen because it is relevant for the task at hand.

'Creating a space for research' is a partial step towards responsibility, where it is not the aim to change people's understandings *per se*, but to provide conditions where understandings can emerge (the so-called 'space'). This difference is perhaps subtle, but quite important. ToT-based research, for example, intrinsically tries to change people's understandings by assuming that knowledge can, and will, be used by other people. If people are assumed to be self-determining or autonomous (Heron, 1981), or structure-determined (from Maturana & Varela, 1987), then the possibilities of a researcher *causing* change, by transferring knowledge, are non-existent. Instead, if understandings do change, then that can be considered as an emergent property of engaging in a process.

A further step towards responsibility comes from considering 'intervention'. It is megalomania to proclaim that researcher interventions *will* have an effect on other people: indeed a personal motivation for our research agenda is a criticism that a lot of research has been irrelevant. However, this is not to say that a researcher does not intervene. 'Creating a space' is still an intervention, even if it does not try to change understandings directly. A concept of 'invitation' offers a way for approaching intervention (Russell & Ison, 2000). An assumption is that if people are invited to do something, and they can say no, then responsibility for that action or process is shared. That is, an invitation acts as some sort of legitimation for intervention, because people have agreed to take part. Further elaboration on a concept of invitation is necessary, as an invitation is not free of the context in which it is embedded. The context includes aspects such as: who is doing the inviting, and are there any disadvantages incurred if the invitation is not accepted? These aspects need to be considered before an invitation can be considered as such.

We use a simple description of responsibility: to be a self-reflective researcher. The discussions of research-as-action; narrative; and facilitation testify to attempts to be self-reflexive. Other practices such as keeping a research journal can be seen as part of that reflection (Open University, 2000). Writing in the first person is another means to take responsibility. Responsibility as an *ethic* is an issue that deserves more attention (McClintock, 1996; Ison & Russell, 2000b).

If 'responsibility' replaces 'objectivity' as a research ethic, then evaluating research (whose values?) becomes a bit more problematic than appealing to the 'conventional' research criteria of "internal validity, external validity, reliability and objectivity" (Pretty, 1994, p. 42). Evaluation is another activity appropriated by a research community, although AR tries to include participants' evaluations through the 'reflection on action' stage. Three sets of criteria contribute to developing guidelines for how research can be evaluated by others in the same research community. These are 'trustworthiness' (Pretty, 1994), 'discourse validity' (Gregory & Romm, 1994), and 'explicit frameworks' (Checkland, 1991).

'Trustworthiness' criteria are based on the work of Guba & Lincoln (1989). Pretty (1994, p. 43) suggests 12 criteria to enhance trustworthiness:

- Prolonged and/or intensive engagement of various actors;
- Persistent and parallel observation;
- Triangulation of sources, methods and investigators;
- Analysis and expression of difference;
- Negative case analysis;
- Peer checking;
- Participant checking;
- Reports with working hypotheses, contextual descriptions and visualizations;
- Parallel investigations and team communications;
- Reflexive journals;

- Inquiry audit; and
- Impact on stakeholders' capacity to know and act.

The trustworthiness criteria are presented as alternatives to the 'conventional' research criteria listed above. Some of these criteria are misleading, such as 'triangulation', because of connotations on 'convergence on truth' [although Pretty's explanation includes triangulation "... (to) increase the range of different peoples' realities encountered" (p. 44), which appears close to the aim of 'appreciating diverse understandings']. The trustworthiness criteria also appear to include some of Guba & Lincoln's (1989) criteria relating to authenticity: how fair and explicit the constructs of participants are dealt with.

Gregory & Romm (1994, p. 8) work from Habermas' discourse validity checks, and propose criteria to guide self-reflective facilitators. As such, these authors have come close to talking about responsibility in the terms addressed here, as have others in the 'Critical Systems' school such as Ulrich (1993).

Gregory & Romm's four criteria for the validity of a statement are:

- do you understand what is being said?
- is the speaker sincere?
- is the speaker's point acceptable to you? and
- do you agree with the speaker's use of information and/or experiences?

Gregory & Romm are careful to "avoid the impression that finally there [is] a 'right', 'acceptable', (and) 'true' way of seeing things that could somehow be 'reached' through discussion" (p. 8). Their criteria miss 'relationship building' as being important and the reference to other people's experiences is cursory: can someone access another's experiences? However, these criteria emphasize a process of listening to and acknowledging other people's positions and hence can enhance efforts for researchers to be responsible.

The third criterion comes from Checkland (1991). He argues that frameworks for research must be explicit, which seems based on a simple notion of responsibility as an ability to give an account of why statements are made. He writes, with respect to AR:

... it is precisely the explicit methodological framework, declared in advance by the action researcher, which enables that researcher to justify what he or she says, thus beginning the process of developing a legitimate rigorous alternative to positivistic research. (p. 11)

The need to declare a framework is also linked to the need to define what counts as learning (p. 7). From our perspective 'learning' could be defined as an ability to appreciate different metaphors. The attempt to be as explicit as possible about assumptions and ideas is laudable, although not possible in the terms that Checkland uses. Any set of ideas that could be called 'a framework' evolves through the research, especially through reflecting on fieldwork, writing a thesis or developing a report. However, the criterion is a reminder to be explicit about assumptions and ideas and suggests documenting changes. Considering different metaphors of research attempts to make explicit certain assumptions carried through the research.

In order to evaluate whether research is responsible, the following criteria are proposed which combine aspects of trustworthiness, discourse validity and explicitness (Table 1). These criteria do not include those of 'co-researchers', which is an obvious shortcoming. At one level, these criteria are suggestions for how research practice might be evaluated. They are offered to acknowledge that research-as-responsible is an important metaphor for reflecting on how we are conducting research.

Table 1. Criteria for evaluating responsible research

Criteria for responsibility (evidence of)	How it can contribute to responsibility	Desirable attributes
Self-reflection	* being aware of ideas, assumptions and alternatives	* research journal * document changes in ideas
Engagement in a research community	* by a 'dialogue' with other researchers * by contributing to a research community	* collaboration * peer review * conferences
Adequate use of available resources	* being 'accountable'	* coherence and plausibility of argument * use of time
Immersion in context	* by a prolonged time with people in context * through relationship building	* a 'rich' picture of that context * research is relevant to that context
Rigour	* by substantiating statements	* quoting relevant literature and sources of material
Sincerity	* 'valuing' other people * consistency to aims of working with people	* writing in the first person * learning described * developing appropriate skills

Research and Researcher Contexts

Action, narration, facilitation, and responsibility are metaphors that give coherence to attempts to research with people. Other metaphors could be considered. Two main roles were assumed in the research underlying this paper: researcher-narrator and researcher-facilitator. The researcher-facilitator role involves initiating and creating a space for research, and taking responsibility for the research 'activities'. At any one time, a researcher may be in either or both of these research roles. Other people involved in the research may be assigned a role of 'co-researcher', assuming they have accepted an invitation to be involved, which reflects a desire to move away from seeing people as research users or research subjects.

An implication of recognizing our positions as researchers is to recognize that we are also included in the research context. That is, part of the research context includes a researcher context. Viewing the research context as something external is common as, for example, shown by the advice to enter, or get inside, an organization (Morgan, 1993). One way of including a researcher is to say that she "constructs a researching system" (cf. McClintock & Ison, 1994). This does not explicitly include the interests of 'co-researchers'. Our experience of this type of research is that there is a negotiation between our interests and the interests of potential co-researchers. These negotiations revolve around extending and accepting invitations. Other factors are also important, such as the institutional settings for the research.

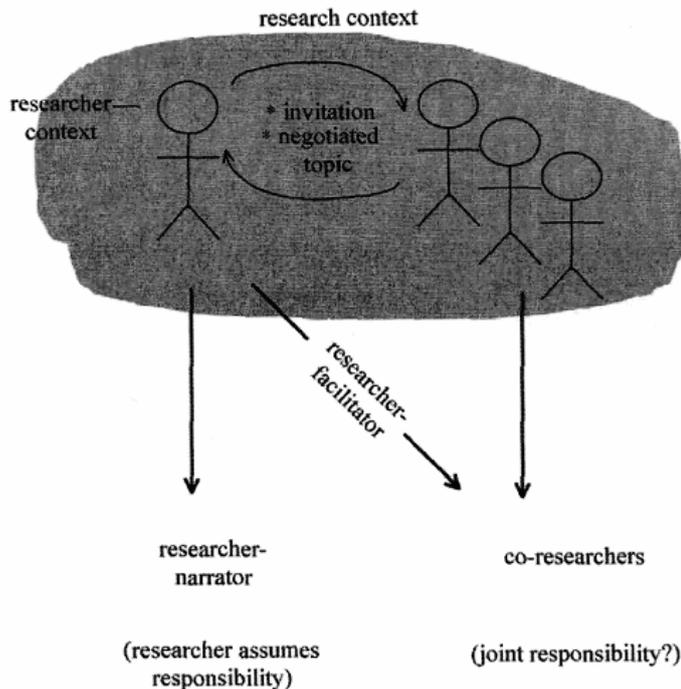


Figure 1. Roles of people in the research, as assumed and allocated by the researcher.

It is proposed that *researcher context* can include the following aspects: her interests, her past experiences with research, the traditions from which the research arises, the research communities to which she belongs, her awareness of epistemology and the assumptions that she is making in the research, her ability to reflect on these assumptions, her familiarity with contexts experienced by co-researchers, and the institutional settings for the research. The list is not exhaustive.

Research context, researcher context and roles of the researcher are shown diagrammatically in Figure 1. The important things to note are the two strands of research implied by assuming roles of narrator and facilitator. Both strands are explicit about the position of the researcher and which metaphors are being used. In addition, both strands are relevant to researching *with* people.

Reflections and Conclusions

McClintock (1996) investigating the question: ‘how can metaphors inspire researching with people?’ concluded that: (i) metaphors provide a way to understand our understandings, and how language is used; (ii) metaphors provide a way to reflect on research itself, the topic of this paper; (iii) metaphors provide a way to understand a research context and to appreciate a diversity of understandings; (iv) metaphors provide ways of creating space for understandings to emerge; and (v) metaphors inspired a research approach that can be used in diverse stakeholder contexts. His conclusions contribute to an agenda for enhancing professional practice to meet demands for increased transparency and participation in environmental decision making and the building of social capital.

Metaphors are explicitly used in teaching, problem solving, family therapy and managing organizations (to name a few) but to date have not formed the basis of any significant reflection on researching as a generic activity common to a range of practices including planning and environmental management. The four metaphors chosen seem powerful ways of discussing what researching or planning *with* people might entail, and how to include the position of the researcher/planner. In addition, this analysis implies that there can be different researcher/planner roles; a point that proponents of researching *with* people, such as Heron (1996), do not make.

Soyland (1994, p. 158) claims that analysing rhetoric allows him to “become more critical of ways in which arguments are constructed ... (and he) takes less for granted”. One of the implications of this research is that it has provided a means, namely an awareness of metaphors, by which to become self-reflexive and responsible in doing research, or more broadly for reflecting on what we do when we do what we do. A means has also been provided by which researchers can appreciate a diversity of understandings: something often espoused but not so commonly practised. Krippendorff (1999) argues that participation in social phenomena (which is what planners and environmental managers largely do)

requires not just an understanding of that phenomenon (e.g. as a technology, as a means to an end) but also an understanding of other participants' understanding of that phenomenon. Thus exploring the understanding of others in a dialogue informed by the particular metaphors that are used, and what they both reveal and conceal, has the potential to create space for change. This change can be second order change, change which changes the whole 'system', as opposed to just incremental change or more of the same (McClintock, 1996; Ison & Russell, 2000a).

A different direction for further research concerns explicitly using metaphors to deconstruct⁶ certain concepts in common use: those 'key' terms 'in currency'. Using metaphors highlights that these terms cannot be taken for granted nor assumed to have fixed meanings. This has been taken up by Ison (2002) as part of a systemic inquiry to explore the theoretical entailments of a 'knowledge transfer strategy' devised by a UK Ministry aspiring to address environmentally related land management issues.

In terms of emerging practices the metaphor of research-as-facilitation is revealing. It is likely that demands for stakeholder participation and transparency in decision making will increase the demand for facilitation skills, both professionally and generically. This has certainly been the case in Australia with the advent of community participation in natural resource management via Landcare programmes (Dore *et al.*, 2001). Røling & Woodhill (2001) argue that good facilitators are scarce, and further that they can be "especially effective if they are able to help stakeholder groups learn about their own learning".

Further implications arise because we have developed ways to understand and use metaphors, not just be aware of them (McClintock, 1996). Metaphors have a valuable role in making understandings explicit, transparent and structured. Metaphors can be explored, either individually or jointly, and learning opportunities can come from the exploration and awareness of alternative metaphors rather than from the metaphor *per se*. McClintock (1996) and later Ison (2002) have shown how practice can be developed around these ideas. Their work involved farmers and farming and wildlife advisors, and civil servants, respectively. Clearly more can be done, but this involves recognition that praxiology⁷ research is legitimate, warrants inclusion in all professional education curricula (e.g. Higgs, 1999), and that further research is warranted to address the political dimension of creating the space for reflecting on metaphors-in-use, particularly in a climate of increasing managerialism (e.g. Leadbeater, 2002).

Enhancing our capacity to reflect on our practices, but particularly researching practices, seems necessary at the moment given the claims by the British Prime Minister that "better moral judgement goes hand-in-hand with better science" (Blair, 2002).

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Notes

1. The 'cycles' refer to an important principle in AR of *iteration*, which is also a Systems concept. Heron (1996) claims that going through research cycles can lead to research validity.
2. Note that 'epistemological issues' *have* underlined the discussions on ToT and AR, courtesy of emphasis on: where and how research is conducted, whether 'results' can be transferred and used, and experiential learning (knowledge through experience). The following section is mainly concerned with how epistemology affects a researcher–research subject divide.
3. One of our prejudices is that a lot of 'environmental and natural resources research' does not acknowledge the roles assumed by the researcher.
4. Many authors can be cited to support this claim. Some authors who have had an impact on this research include: Gadamer, Heidegger, and Maturana; and others are easy to find (for example: Bernstein, Kuhn, Latour, Berger and Luckman). Maturana (1988) makes a useful distinction between 'reality' as an ontological category (things exist) and as an explanatory device (rhetoric, or 'listen to my claim').
5. Including by the authors of this research paper.
6. 'Deconstruction' is used in a 'post-modernist' sense of 'exposing assumptions' (see Watson, 1995, p. 135)
7. The branch of knowledge that deals with practical activity and human conduct, but we do not see this as abstract and divorced from action.

References

- Bell, S. & Wood-Harper, T. (1992) *Rapid Information Systems Development: A Non-Specialist's Guide to Analysis and Design in an Imperfect World* (Maidenhead, McGraw-Hill).
- Blair, Tony (2002) Science matters, *Nature* (accessed at <www.nature.com/nature/blair.html> on 12 June 2002).
- Boyd, R. (1979) Metaphor and theory change: what is 'metaphor' a metaphor for? in: A. Ortony (Ed.) *Metaphor and Thought* (Cambridge, Cambridge University Press).
- Brookfield, S. (1986) *Understanding and Facilitating Adult Learning* (Milton Keynes, Open University Press).
- Central Statistics Office (1996) *Annual Abstract of Statistics* (London, HMSO).
- Checkland, P. (1991) From framework through experience to learning: the essential nature of action research, in: H. Nissen, H. Klein & R. Hirscheim (Eds) *Information Systems Research: Contemporary Approaches and Emergent Traditions* (Amsterdam, Elsevier).
- Dore, J., Keating, C., Woodhill, J. & Ellis, K. (2001) *Sustainable Regional Development, SRD Kit* (Canberra, Greening Australia).
- ENDS (2001) *Public participation directive would force legal changes in UK*, ENDS Report 313, February, p. 50.
- Engel, P. (1995) Facilitating innovation: an action-oriented approach and participatory methodology to improve social practice in agriculture, published PhD thesis (the Netherlands, Landbouwwuniversiteit te Wageningen).
- Fals-Borda, O. (1988) *Knowledge and People's Power: Lessons with Peasants in Nicaragua, Mexico and Colombia* (New Delhi, Indian Social Institute).
- Fish, S. (1989) *Doing What Comes Naturally: Change, Rhetoric and the Practice of Theory in Literary and Legal Studies* (Durham, NC, Duke University Press).
- Friere, P. (1972) *Pedagogy of the Oppressed* (London, Penguin).
- Friere, P. (1979) *Education for Critical Consciousness* (London, Sheed and Ward).
- Gadamer, H.G. (1975) *Truth and Method* (London, Sheed and Ward).
- Gibson, T. (1994) Showing what you mean (not just talking about it), *RRA Notes Special Issue No. 21 on the Application of Participatory Inquiry in Urban Areas* (London, IIED Sustainable Agriculture Programme).
- Gregory, W. & Romm, N. (1994) Developing multi-agency dialogue: the role(s) of facilitation, Working Paper 6 (Hull, The Centre for Systems Studies, University of Hull).
- Guba, E.G. & Lincoln, Y.S. (1989) *Fourth Generation Evaluation* (Thousand Oaks, CA, Sage).
- Heron, J. (1981) Philosophical basis for a new paradigm, in: P. Reason & J. Rowan (Eds) *Human Inquiry: A Sourcebook of New Paradigm Research* (Chichester, Wiley).
- Heron, J. (1989) *The Facilitator's Handbook* (London, Kogan Page).
- Heron, J. (1996) *Co-operative Inquiry: Research into the Human Condition* (London, Sage).
- Higgs, J. (1999) Doing, knowing, being & becoming in professional practice, presentation to the MTeach Post Internship Conference 27–29 September, Sydney University.
- Ison, R.L. (1990) Teaching threatens sustainable agriculture, Gatekeeper Series No. 21 (London, Sustainable Agriculture Programme, International Institute for Environment and Development).
- Ison, R.L. (2002) Some reflections on a knowledge transfer strategy: a systemic inquiry, in: *Farming and Rural Systems Research and Extension, Proceedings Fifth IFSA European Symposium*, Florence, April.
- Ison, R.L. & Russell, D.B. (Eds) (2000a) *Agricultural Extension and Rural Development: Breaking Out of Traditions* (Cambridge, Cambridge University Press).
- Ison, R.L. & Russell, D.B. (2000b) Exploring some distinctions for the design of learning systems, *Cybernetics and Human Knowing*, 7(4), pp. 43–56.
- Kersten, S. (1995) In search of dialogue: vegetation management in western NSW, Australia, unpublished PhD thesis (Sydney, Department of Crop Sciences, University of Sydney).
- Kersten, S. & Ison, R.L. (1998) Listening, interpretative cycles and dialogue: process design for collaborative research and development, *The Journal of Agricultural Education & Extension* 5, pp. 163–178.
- Krippendorff, K. (1999) Beyond coherence, *Management Communication Quarterly*, 13, pp. 135–145.
- Lakoff, G. & Johnson, M. (1980) *Metaphors We Live By* (Chicago, University of Chicago Press).
- Lakoff, G. & Johnson, M. (1999) *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York, Basic Books).
- Leadbeater, C. (2002) *Innovate from Within. An Open Letter to the New Cabinet Secretary* (London, Demos).
- Maturana, H. (1988) Reality: the search for objectivity or the quest for a compelling argument, *Irish Journal of Psychology*, 9(1), pp. 25–82.
- Maturana, H. & Varela, F. (1987) *The Tree of Knowledge: The Biological Roots of Human Understanding* (Boston, Shambala).

- McClintock, D. (1996) Metaphors that inspire 'researching with people': UK farming, countrysides and diverse stakeholder contexts, PhD thesis (Milton Keynes, The Open University).
- McClintock, D. & Ison, R. (1994) Responsible (response-able) design metaphors, in: *Accounting for Ourselves, Proceedings of World Congress 3 on Action Learning, Action Research and Process Management*, Bath, University of Bath, July.
- McClintock, D., Ison, R.L. & Armonson, R. (2004) Conceptual metaphors: a review with implications for human understandings and systems practice, *Cybernetics and Human Knowing* (accepted).
- McTaggart, R. (1992) Reductionism and action research: technology versus convivial forms of life, in: *Proceedings of 2nd World Congress on Action Learning*, University of Queensland, 14–17 July.
- Morgan, G. (1993) *Imagination: The Art of Creative Management* (Thousand Oaks, CA, Sage).
- Open University (2000) Managing complexity. A systems approach, Course code T306 (Milton Keynes, The Open University).
- Polkinghorne, D. (1988) *Narrative Knowing and the Human Sciences* (New York, State University of New York Press).
- Pretty, J. (1994) Alternative systems of inquiry for a sustainable agriculture, in: Knowledge is power? The abuse of information in development, *IDS Bulletin*, 25(2), pp. 37–49.
- Pretty, J., Brett, C., Gee, D., Hine, R., Mason, C., Morison, J., Rayment, M., van der Bijl, G. & Dobbs, T. (2001) Policy challenges and priorities for internalizing the externalities of modern agriculture, *Journal of Environmental Planning and Management*, 44(2), pp. 263–283.
- Reason, P. & Heron, J. (1986) Research with people: the paradigm of cooperative experiential inquiry, *Person Centred Review*, 1(4), pp. 456–476.
- Reason, P. & Hawkins, P. (1988) Storytelling as inquiry, in: P. Reason (Ed.) *Human Inquiry in Action: Developments in New Paradigm Research* (London, Sage).
- Röling, N. (1990) The agricultural research-technology transfer interface: a knowledge systems perspective, in: D. Kaimowitz (Ed.) *Making The Link: Agricultural Research and Technology Transfer in Developing Countries* (San Francisco, Westview-INSAR).
- Röling, N. & Woodhill, J. (2001) From paradigms to practice: foundations, principles and elements for dialogue on water, food and environment, in: *Proceedings of the Workshop on National and Basin Level Dialogue*, Bonn, December.
- Rorty, R. (1980) *Philosophy and the Mirror of Nature* (Oxford, Basil Blackwell).
- Roth, S., Chasin, L., Chasin, R., Beker, C. & Herzig, M. (1992) From debate to dialogue: a facilitating role for family therapists in the public forum, *Dulwich Centre Newsletter*, 2, pp. 41–48.
- Russell, D.B. & Ison, R.L. (2000) The research-development relationship in rural communities: an opportunity for contextual science, in: R.L. Ison & D.B. Russell (Eds) *Agricultural Extension and Rural Development: Breaking out of Traditions* (Cambridge, Cambridge University Press).
- Sartre, J-P. (1956) *Being and Nothingness: An Essay on Phenomenological Ontology*. Translated by H.E. Barnes (New York, Philosophical Library).
- Soyland, A.J. (1994) *Psychology as Metaphor* (London, Sage).
- Ulrich, W. (1993) Some difficulties of ecological thinking, considered from a critical systems perspective: a plea for critical holism, *Systems Practice*, 6(6), pp. 583–612.
- Von Foerster, H. (1984) *Observing Systems* (Salinas, Intersystems Publications).
- Wadsworth, Y. (1991) *Everyday Evaluation on the Run* (Melbourne, The Action Research Issues Association Inc.).
- Waldrop, N. (1993) *Complexity: The Emerging Science at the Edge of Chaos* (London, Viking).
- Watson, H. (1995) A critical study of the multiview methodology: a poststructuralist textual analysis of concepts in inquiry, unpublished PhD thesis (Salford, Information Systems Research Centre, University of Salford).
- Webber, L. (2000) Co-researching: braiding theory and practice for research with people, in: R.L. Ison & D.B. Russell (Eds) *Agricultural Extension and Rural Development: Breaking Out of Traditions* (Cambridge, Cambridge University Press).
- Whyte, W.F. (Ed.) (1991) *Participatory Action Research* (London, Sage).
- Winograd, T. & Flores, F. (1987) *Understanding Computers and Cognition: A New Foundation for Design* (New York, Addison Wesley).