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ORIGINAL PAPER

Theoretical Pluralism in Systemic Action Research

Gerald Midgley

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Abstract It is now largely accepted as uncontroversial amongst systemic action researchers that there is practical value in theoretical pluralism: seeing through multiple theoretical 'lenses' that bring different (sometimes contradictory) assumptions into play. However, the practice of theoretical pluralism is paradoxically often justified with recourse to a single *foundational* epistemological theory: i.e., a theory of the nature of knowledge, accepted as universally true, which explains how it is that human beings can accept multiple theoretical perspectives. Justifying theoretical pluralism through the use of a foundational theory carries two risks. First, because the foundational theory is viewed as such a basic truth, it can become hard to accept other theories that may contradict it. Therefore, researchers may slip from an initial, strong commitment to theoretical pluralism to a more limited version that eliminates the use of theories that contradict the foundational one. The second risk is that the researcher's understanding of his or her practice may come to be both constructed *and* evaluated using a single theoretical lens, so disconfirming evidence of the utility of that lens is never seen. Following an explanation of these risks, an alternative systemic approach to the philosophical justification of theoretical pluralism is advanced, and it is argued that this is less likely to introduce unwitting theoretical restrictions into action research practice than establishing a foundational epistemology.

G. Midgley
Institute of Environmental Science and Research (ESR) Ltd., 27 Creyke Road,
PO Box 29-181, Christchurch, New Zealand

G. Midgley
Centre for Systems Studies, Business School, University of Hull, Hull HU6 7RX, UK

G. Midgley
Victoria Management School, Victoria University of Wellington,
PO Box 600, Wellington 6140, New Zealand

G. Midgley (✉)
School of Integrative Systems, University of Queensland, Gatton Campus, QLD 4343, Australia
e-mail: gerald.midgley@esr.cri.nz

G. Midgley
School of Social and Political Sciences, University of Canterbury, Christchurch, New Zealand

Finally, five consequences of this systemic perspective on theoretical pluralism are proposed: (i) knowledge cannot be regarded as universal and cumulative; (ii) theories are more or less useful depending on the purposes of intervention that are being pursued; (iii) we can think pluralistically about the agency and choices of the researcher; (iv) while it is impossible to produce *universal* standards for choice between theories, it is nevertheless still possible to generate standards of relevance to particular contexts; and (v) given that different theories inform different methodologies and methods, *methodological* pluralism (drawing upon methods from different paradigms) becomes a useful partner to theoretical pluralism.

Keywords Boundary critique · Epistemology · Methodological pluralism · Philosophy of action research · Process philosophy · Theoretical pluralism · Systemic intervention · Systems philosophy

Introduction

The starting point of this paper is the idea that it is important for systemic action research to embrace theoretical pluralism: drawing upon more than one theoretical 'lens' to inform practice. This is because seeing through multiple theoretical lenses grants action research greater flexibility than adherence to a single theoretical perspective. When multiple theories are used as a resource for the comparison of different ways of seeing the phenomenon of concern, critique is enhanced (Morgan 1986; Flood and Jackson 1991; Flood and Romm 1996). Implicit within different theories are contrasting themes, narratives and metaphors, which (when made explicit) can cast new light on a problematic situation.

Nowadays, the idea that multiple frames of reference offer greater potential for insight than single ones is hardly controversial to most systemic action researchers, especially since the turn to participative practice when the value of exploring different stakeholder perspectives came to be highly valued (e.g., Churchman 1970; Ackoff 1981; Checkland 1981; Argyris and Schön 1985; Reason 1988; Fals-Borda and Rahman 1991; Whyte 1991; Rahman 1993). In some ways theoretical pluralism can be seen as an extension of this, given that different stakeholders can use different theoretical framings. Nevertheless, I venture to suggest that our break from the conventions of early 20th century philosophy of science, when it was assumed that we should be progressively moving towards a unitary theoretical perspective, is incomplete.

My primary reason for saying this is that many systemic action researchers still resort to a single epistemological theory (about the nature and generation of knowledge) when seeking to establish a philosophical grounding or justification for embracing theoretical pluralism (or multiple perspectives more generally). They thereby embed a paradox at the heart of their thinking: the theory that explains how it is that human beings can accept multiple theoretical perspectives is not regarded as just one amongst many legitimate ways of seeing the issue, but comes to be viewed as a necessary and universal truth. A theory of the world or human knowledge that is given universal status is called a 'foundational theory', because it becomes a foundation stone upon which to build a theoretical or methodological edifice. Flood (1990) has written at length about the pros and cons of using foundational theory in systemic practice and action research.

To an extent this kind of paradox is inevitable: any epistemological perspective that explains how it is possible for human beings to embrace theoretical pluralism is unitary in nature, simply because it is itself expressed as a single theory (Midgley 2004).

Nevertheless, I argue that there are two different approaches to epistemology, and one carries greater risks than the other of restricting the use of theory in the practice of systemic action research.

In the first half of the paper, I will explain these risks and will identify a common characteristic of all the epistemological theories that give rise to them. I will then move on to propose an alternative systemic approach that I argue carries less risk of restricting the use of theory in practice, and therefore offers a preferable justification for theoretical pluralism. Finally, in the second half of the paper, I will discuss five major implications of theoretical pluralism for systemic action research.

The Risks of Foundational Epistemology

Typically, to explain why it is legitimate to draw upon multiple theoretical lenses or multiple stakeholder perspectives in systemic action research, writers draw upon *epistemological* theories: i.e., theories of human knowledge and learning. Quite often these theories are drawn from the literature on cognitive science, but they may also come from other sources, such as sociology or organizational studies. I will provide an illustrative example.

Maturana and Varela's (1992) theory of autopoiesis has been used by a number of authors (e.g., Mingers 1992; Bilson 1997; Córdoba 2002) to ground their systemic action research practice. The theory of autopoiesis offers a biological explanation of the self-producing nature of human beings and their ability to co-ordinate their actions using language (Maturana 1988; Maturana and Varela 1992; Mingers 1995). In seeking to co-ordinate their actions, people collaboratively develop quite elaborate 'rational domains': uses of language and connections between concepts that are particular to the local contexts of those actions. Because an individual engages in multiple contexts of action, it follows that s/he needs to *move between* rational domains, some of which may use language in quite different ways. Indeed, two separate rational domains may involve quite different explanations of what might appear (from the perspective of another person operating within a third rational domain) to be the same phenomenon. Therefore, what is seen from one perspective as a contradiction in values, beliefs or behaviors might not appear contradictory at all to the person moving between contexts.

The theory of autopoiesis also explains how people actually shift between rational domains: this requires an engagement of emotion, allowing a switch of attention to a new context which invokes the relevant rational domain. Thus, the theory of autopoiesis explains how emotional commitment to action and locally relevant rationality are closely intertwined.

The relevance for theoretical pluralism in systemic action research is that commitments to action may drive the choice of different theories, depending on how they fit with the rational domains that are invoked in the local context. Thus, the theory of autopoiesis provides a justification of theoretical pluralism in the face of questions that might be asked about whether contradictions between different theories can legitimately be tolerated.

The main issue with this approach, as I see it, is the paradox that is generated when the epistemological theory is granted a foundational status: seeming to have universal validity, unlike the diversity of perspectives that the foundational theory legitimizes. This is problematic because it carries two significant risks for systemic action research practice.

First, foundational epistemologies generally establish a set of 'truths' about the nature of knowing, which are then used to determine the legitimacy of other theories and ideas

(Flood 1990): to be acceptable, the latter must be compatible with the epistemological assumptions already made. Thus, the risk for the practice of systemic action research is slippage from an initial, strong commitment to theoretical pluralism to a more limited version that eliminates the use of any theory that might contradict the 'more basic' epistemological foundations that have come to be taken for granted. An example is when a theory of the linguistic construction of knowledge (which says that all knowledge reflects the nature of the language used to frame it) is given foundational status, making it appear contradictory to use any biophysical theories that claim insight into a world beyond language (Hacking 1999).

The second risk comes when a foundational epistemology is used to inform a whole methodology, including the approach to evaluating practice. The danger is that the researcher's understanding of his or her practice comes to be both constructed *and* evaluated using a single theoretical lens, so disconfirming evidence of the utility of that lens is never seen (Romm 1996).

The Problem of Subject/Object Dualism in Foundational Theories of Epistemology

It is my contention that the risks described above are associated with a *dualist* approach to foundational epistemological theorizing that separates the knower (subject) from the known (object). I also contend that these risks are avoidable. This dualist approach is very common indeed, and is implicit in most attempts to ground systemic action research in foundational theories of human nature, whether from cognitive science or elsewhere. The dualist approach characteristically starts by asking: 'what is it that gives rise to knowledge about the world?' There are many possibilities that can be theorized in answer to this question: an individual consciousness; an embodied mind; feedback loops linking the mind and body to an external world; an individual linked into a linguistic community; an intersubjective construction of a social group, etc. Indeed, there are as many possibilities as there are theories of epistemology. Each of these are versions of the 'subject' that can view 'objects', even if the more sophisticated perspectives (e.g., Bateson 1972, 1979) acknowledge that what is observed participates in a relationship with the subject, helping to constitute a 'mind' that stretches beyond the boundaries of a single human body. Even theories of social construction using language can have a dualist character, as acknowledged by Gergen (1994) who reflects that, in his earlier rush to move away from the subject/object pairing (Gergen 1991), he simply replaced this with a subject/language dualism.

Although there are many foundational epistemological theories, they all have one thing in common: they seek to identify the general nature of *knowledge generating systems*. A 'knowledge generating system' is any entity, or collection of interacting entities, that knowledge production can be attributed to (Midgley 2000). Therefore, an individual consciousness, an embodied mind, an individual linked into a linguistic community, etc., can all be regarded as knowledge generating systems. If the task of epistemology is to identify a theory that can specify the general nature of knowledge generating systems, then it is very easy to slip into dualism: knowledge about knowledge generating systems comes to be seen as fundamental, while other forms of knowledge are merely outcomes of the activities of these knowledge generating systems. See Fig. 1 for an illustration of this. If they were not regarded in this way (i.e., if the epistemological theory was not granted a foundational status) then a problem of infinite regress would arise: regarding the epistemological theory as just a limited perspective would require one to ask what gives rise to

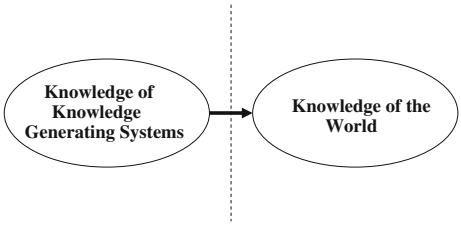

Fig. 1 Traditional approach to epistemology

this perspective, and the answer would again be a perspective needing explanation, ad infinitum. Making the theory of knowledge generating systems distinct from all other types of theory about the world (i.e., making it universal) solves this problem. But it has a cost, and this comes in the form of the risks to pluralist practice mentioned earlier.

However, there is an alternative *systemic* approach to epistemology that I argue does not carry the same risks, and this is briefly described below. Space restrictions prevent me from covering most of the subtleties of the argument, so for more detail see Midgley (2000).

A Systemic Approach

I will start by declaring two assumptions that are fundamental to most (if not all) systems approaches:

1. That everything in the universe is directly or indirectly connected to everything else, and
2. We cannot have a 'God's eye view' of this interconnectedness: our understandings in any situation are inevitably limited.

It is the limits to understanding, referred to in point two above, that many systems theorists call *boundaries* (e.g., Churchman 1970; Ulrich 1983; Midgley 2000). The term 'boundary' was used by early systems theorists (e.g., Von Bertalanffy 1968; Miller 1965) to refer to the 'membrane' (or its equivalent) that separates a physical system from its environment. However, Churchman (1968, 1970) is widely credited with generating a paradigm shift, involving a fundamental change in the use of systems terminology. Rather than seeing systems as bounded physical entities, Churchman realized that a system is bounded *conceptually* by the researcher as s/he chooses what to include and exclude in observation and analysis. All knowledge is dependent on boundary judgments, whether these are implicit or explicit (Churchman 1970; Ulrich 1983). If we recognize this, then both knowledge generating systems and the world itself come to be defined in exactly the same manner: *through the process of making boundary judgments.* This is illustrated in Fig. 2.

If processes of making boundary judgments are involved in all inquiry, whether into knowledge generating systems or other phenomena, then there is no need for a dualism to be established between the subject (knowledge generating system) and object (world). This is because theories about knowledge generating systems no longer have to be regarded as more foundational than other theories. *All boundary judgments are made in a local context*, so even epistemological theories can be viewed as contextually useful or not, just like other kinds of theory.

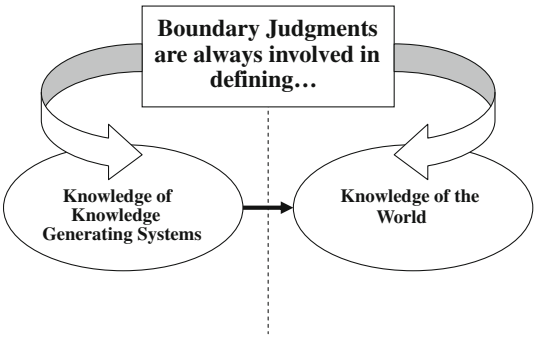

Fig. 2 Systemic approach to epistemology

Of course there is still a *kind* of dualism in here, but it's not the problematic subject/object dualism described earlier. Rather, it's a dualism between the *process* of making boundary judgments and the *content* of any analysis (see Fig. 2), whether it's an analysis concerning the world, or an analysis concerning knowledge generating systems that give rise to understandings of the world. This actually means that it is possible to accept any number of theories about either knowledge generating systems or the wider world. Each theory will assume a different boundary judgment, and by exploring different possible boundaries for analysis in systemic action research, we open the door to different theoretical understandings. Thus we have an alternative philosophical justification for theoretical pluralism with the following logical steps of argumentation:

1. All knowing is inevitably bounded;
2. We can generate greater insight by exploring the boundaries of knowledge than we can by taking boundaries for granted;
3. Different theories assume different boundaries;
4. So exploring multiple boundaries can usefully involve drawing upon multiple theories.

I argue that this systems approach to justifying theoretical pluralism is preferable to the usual foundational ones because it doesn't carry the same risks. The only 'foundation stone' left in the systems approach is the widely accepted proposition that all theories assume implicit or explicit boundaries, and that a *process* of bounding (whether implicit or explicit) is involved in knowledge production. Thus, the 'foundation' is merely a recognition of the inevitability of limitations to knowledge, and all 'content theories' about what gives rise to this process and how it unfolds (i.e., epistemological theories of knowledge production) are made available to the researcher for use in local contexts. Because no content theory is given a foundational status, we avoid the risk of starting to eliminate other content theories from the practice of systemic action research because they don't accord with our foundations: when the only 'foundation' is a general, minimal statement about the limitations inherent in the process of knowing, all content theories are potentially allowable and remain open for critique.

The other risk identified earlier, of constructing and evaluating a methodology using a single theoretical lens (thereby missing evidence of problems with that lens), is also minimized. If we recognize that all knowledge is bounded, then action researchers have a methodological duty to explore multiple possible boundary judgments in their evaluations of methodology, albeit within pragmatic limits that can be justified to others (Ulrich 1996). Because different theories assume different boundary judgments, the exploration of more than one boundary opens the door to use of the different theories that accord with these.

Thus, we are able to evaluate a methodology using multiple theoretical lenses rather than just one. See Midgley et al. (2007a) for further thoughts on evaluating systems methodologies and methods from multiple perspectives.

Heading Off Some Potential Misunderstandings

Because of the brevity of this exposition, it is important for me to head off two potential misunderstandings, the first of which has already surfaced in the literature. Georgiou (2000) and Mingers (2006) both accuse me of claiming that knowledge magically comes into being through a process of bounding without there being any agent involved in generating that process. I do not argue this at all. Rather, I suggest that we should theorize about the nature of the agent (and agency) in exactly the same way that we theorize about the world, exploring different possible boundaries for understanding agency, and making a contextually meaningful decision on what perspective(s) on agent(s) and agency are going to be most useful (Midgley and Ochoa-Arias 2001). The alternative is to take one particular view of agents and agency for granted, which I suggest imposes a significant limitation on our understanding of the systemic action research process. For a practical example of reflection on the agency and identity of the researcher, see Midgley et al. (2007b).

What I am doing here is granting *analytical primacy* to the boundary concept, and viewing knowledge of agents and the world as secondary. This is not the same as giving *ontological* primacy to boundary judgments (i.e., primacy that comes about due to the nature of the world rather than the process of analysis that is used). If we were to give *ontological* primacy to the process of making boundary judgments, we would indeed be saying that they somehow magically come into being prior to the agents who generate them. In contrast, granting *analytical* primacy simply means acknowledging that there are always multiple possible ways of viewing both agents and the issues they deal with, so we should engage in explorations of this multiplicity up-front rather than take one perspective on agents as given.[1]

The second potential misunderstanding that needs to be headed off concerns the meaning of the claim that all boundary judgments are made in local contexts. The term 'local context' does not mean that the boundary judgments are produced in a small geographical area (although this may be the case). Rather, the word 'local' is used in opposition to 'universal'. This means, for example, that a declaration of human rights may have a global remit, but it nevertheless emerges from a local context and is non-universal (despite what its proponents might claim) because a limited number of actors and institutions have been involved in producing it, and there will almost certainly be others who disagree with the boundary judgments that have been made. A declaration of human rights may provide a foundation for international legal action, but acknowledging that it is nevertheless produced in a local context (with limited institutional and stakeholder engagement) keeps us sensitive to its potential limitations when it is deployed (Freeden 1991; Walker 2007).

[1] Elsewhere, I have discussed in more detail how we can choose between multiple definitions of knowledge generating systems (including agents and agency), and I have also acknowledged that all epistemological theories have some minimal common ground concerning the necessary presence of one or more sentient beings (Midgley 2000).

Some Implications of Embracing Theoretical Pluralism

So far in the paper, I have argued for a systemic philosophical underpinning for theoretical pluralism that does not carry the same risks of restricting practice as more traditional epistemological underpinnings. Now it is time to move from discussing theoretical justification to look at the methodological implications of embracing theoretical pluralism. I will focus on five main propositions:

(1) Knowledge cannot be regarded as universal and cumulative—when it *appears* to be so, it is still within a particular context and relevant to a particular community.
(2) Theories are more or less useful depending on the purposes of intervention that are being pursued.
(3) We can think pluralistically about the agency and choices of the researcher.
(4) While it is impossible to produce *universal* standards for choice between theories, this does not mean that anything goes—standards of relevance to particular contexts can still obtain.
(5) Given that different theories inform different methodologies and methods, *methodological* pluralism (drawing upon methods from different paradigms) becomes philosophically justifiable alongside theoretical pluralism.

Beyond the Cumulative View of Knowledge

In order to accept theoretical pluralism, we must (like Kuhn 1962) give up the common assumption made in some scientific circles (e.g., by Popper 1959) that knowledge is cumulative: in other words, that scientists are developing a 'body of knowledge' that is moving inexorably closer and closer to the 'truth' about reality. We must give up this assumption for three reasons. First, if we accept the systems idea that everything is ultimately interconnected, then no theoretical knowledge, however well elaborated, can accurately reflect reality: at a very basic level, theories assume boundaries that cut interconnections. Second, as Fodor (1974) argues, if different forms of language are needed to produce theories that have relevance at different 'hierarchical' levels (e.g., theories about planets, ecosystems, organisms, organs, cells, etc.), then the idea of a single body of knowledge will always be problematic. Third, as Popper (1972) came to realize in his later work, it is not even possible to know whether the development and testing of a given theory is taking us closer to, or further away from, reality. This does not mean giving up talk of reality or a material world altogether,[2] but it does mean accepting that talking in terms of a material world *assumes one particular kind of boundary judgment* (just as talk of consciousness, linguistic systems, etc., dealt with as phenomena without an explicit material root, assumes different boundary judgments).

Having said this, it *is* actually possible to suggest that a body of knowledge is growing, and to try to defend this knowledge as useful and/or true—*but without assuming that it is*

[2] Here I part company from Von Glasersfeld (1985) and Gergen (1991) who say that any talk of 'reality' is problematic. I believe that, if we acknowledge that our talk of reality involves a particular type of boundary judgement, we can escape from the naïve objectivism that these authors rightly criticize. Acknowledging one particular type of boundary judgement raises the possibility that we might be mistaken in this judgement, and that what we have taken to be objective is actually the product of social construction or subjective positioning (both of which involve a different type of boundary judgement about what is generating knowledge).

useful or true in any absolute sense. What is true today may be myth or falsehood tomorrow, and in another context on the very same day, that body of knowledge may simply be irrelevant. For example, we may believe that modern physics is saying something meaningful about the origins of the universe, but this body of knowledge, even if accepted as true, cannot help us plan the distribution of food and medical supplies to injured people after an earthquake. In such a situation, a very different body of knowledge is required. Therefore, knowledge is relative to the purposes of agents (especially individuals and communities of scientists and practitioners)—who are, of course, under the influence of wider systems, which can be bounded in any number of ways.

Theory in Action

This last point, that knowledge is relative to the purposes of agents, indicates that theory serves social roles. Theory can never be 'pure'—nothing other than a reflection of reality, as some scientists would claim—but is always meaningful in terms of the actions or interventions pursued by agents. This explains why, from a pluralist perspective, it is perfectly possible for people to work with a theory even though they know that it excludes certain factors from analysis. A good example is Luhmann's (1986) theory of ecological communication, which talks about communication systems and consciously excludes from analysis the human biological systems which give rise to them. Luhmann does not deny that biological systems exist, but *the analysis of them is not relevant to his purpose*, which is explaining the resistance of modern capitalist institutions to discourses of environmental sustainability.

Another example can be found in the discipline of physics. Many physicists seem quite happy to use both Newton's theory of gravity and Einstein's theory of relativity, even though the latter is more comprehensive. The rationale for continuing to use both, rather than wholly replacing Newton's work with Einstein's, is that Newtonian mechanics is still satisfactory for a limited domain of application (Bohm 1980; Greene 2004). If Newton's theory is *adequate for certain purposes*, then it is perfectly legitimate to use it.

Even though this example comes from the heart of traditional science, some scientists (e.g., those following in the footsteps of Popper 1972, and Bhaskar 1986) may nevertheless protest that theories *do* reflect reality more or less imperfectly, even if we cannot know the exact nature of their imperfections. This takes us back to the point made in the previous section, that it is still possible to accept theoretical pluralism and talk about reality—but with a recognition that talking about reality implies a particular kind of boundary judgment defining the existence of a material world. Importantly, however, we should also acknowledge that using this kind of boundary *only has meaning in terms of the purposes of scientists' interventions*: scientists who talk about theory as a reflection of reality are intervening in scientific (and other) discourses about matters that they anticipate will be of common interest to the participants in those discourses.

Despite this argument, a variant of which is also one of the most well known aspects of pragmatist philosophy (e.g., James 1907), there is a tendency amongst some authors (e.g., Seidman 1988) to *oppose* the practice of intervention (which assumes that theories are more or less useful) to that of observation (which assumes that theories reflect reality). In contrast, I argue that using methods of observation, and developing theories which say something about reality, is just as interventionary as engaging in those practices that we more usually associate with the term 'intervention'. It is just that the intervention is into scientific discourse rather than a wider sphere of action, although the scientific discourse

may connect with this wider sphere. See Midgley (2003, 2008) for a fuller discussion of science as intervention.

Choice Between Theories

Another important implication of theoretical pluralism follows on from the above two points: in the context of systemic action research, there is always an agent (either seen as a lone decision-maker or as embedded within wider systems) making choices amongst a plurality of options. Exactly what it means for an agent to exercise choice is an interesting question: 'choice' looks very different depending which theoretical perspective and associated boundary judgment is being used to understand it. In other words, it is possible to accept theoretical pluralism with regard to the meaning of choice between theoretical options!

Midgley (2000) compares a wide variety of theories of choice, each of which assumes a different boundary judgment, to show the range of theoretical resources available to people willing to think pluralistically about this. The theories include (but are not limited to) those focused on:

- Individuals as autonomous (or quasi-autonomous) decision makers (e.g., Kelly 1955; Merleau-Ponty 1962; Rawls 1971; Maturana and Varela 1992);
- Individuals acting in the context of social systems, such as families (e.g., Watzlawick et al. 1968; Selvini-Palazzoli et al. 1978);
- Individuals participating in information loops that stretch beyond the body and social systems to take in elements of wider ecological systems (e.g., Bateson 1972); and
- Individual or collective systems facing 'bifurcation points' in their evolution, where the trajectory of these systems may depart in two or more different directions, and where the smallest of actions may interact with a complex array of variables (beyond human understanding) to flip the system onto one of these trajectories, thereby eliminating the other possibilities (e.g., Prigogine and Stengers 1984; Prigogine 1987, 1989).

Just as theoretical pluralism can be welcomed in inquiries looking 'outward' at the world, where consideration needs to be given to the usefulness of theories for specific circumstances, it can also be employed in epistemological reflections on both the nature of the agent engaging in pluralist practice and what it means for the agent to choose between theories.

Standards and Principles for Choice

Following on from the observation that there is always an agent making choices when theoretical pluralism is embraced (however 'choice' is defined in any particular circumstance), it remains for me to show that theoretical pluralism does not imply absolute relativism: a complete lack of standards or principles to inform choice. If the latter were the case then 'choice' under conditions of theoretical pluralism might amount to little more than the whim of an agent, regardless of the effects on others.

Certainly it is the case that, from my point of view, there can be no *universal* standards for choice between theories. Even frameworks that have been developed to highlight the assumptions of various perspectives cannot make any satisfactory claim to objectivity and therefore universality. To take Burrell and Morgan's (1979) influential classification of

sociological paradigms as an example, we find that it has been widely challenged: Willmott (1993), for instance, has claimed that the sociological perspectives don't all fit neatly where Burrell and Morgan claim. Indeed, whenever anyone tries to step up a meta-level and classify a plurality of theories, it transpires that their classification reflects just another theoretical stance. Hence, Gregory's (1992) strong claim that meta-theories pretend to rise above all other theories, but are inevitably theoretical themselves. They therefore exist at the *same level* as the theories they try to classify.

If there are no universal standards for choice, where does this leave us? In my view, it does not leave us in a state of absolute relativism. Rather, it puts us in a position where we not only have to acknowledge that agents choose theories according to their purposes, but we also have to recognize that agents (individuals, teams, groups, organizations, etc.) create standards of their own that develop and change over time—and how the origins of these changes are seen will depend on how the agent is viewed (e.g., how the knowledge generating system influencing the agent is bounded during inquiries). However, regardless of the means of viewing the agent that is used, it is unlikely that the creation of standards for choice will be seen as random: it will always have an identified origin in the knowledge generating system of which the agent is a part (or be an emergent property of the rationality of the agent him or herself if s/he is viewed as an autonomous individual).

So, the creation of standards does not lose meaning with the death of universalism. Which theories will be seen as useful for what purposes will depend on the agent's relationships with the wider systems in which s/he is embedded. Therefore, *locally* relevant standards for choice (as opposed to universal standards) can always be defined, and the construction of these can be subject to critique through reflections on the nature of the knowledge generating systems in which the relevant agents are embedded.

Methodological Pluralism

The final implication for systemic action research of embracing theoretical pluralism is that the same rationale can also be used to justify *methodological* pluralism in the face of philosophical arguments for the validity of a single methodological approach or a narrow range of methods.

There is a difference between the *reason* for being pluralistic with regard to methodology and method, and a *justification* for this (although explaining the reason may contribute to justification). The *reason* that methodological pluralism is so important is that no existing methodology or set of methods can give us everything we might need to undertake a range of systemic action research projects in a variety of different contexts, so it is preferable to draw upon a multiplicity of traditions and methods than allow our practice to be restricted by an uncritical adherence to a more limited methodological language and associated tools (e.g., Jackson and Keys 1984; Oliga 1988; Jackson 1990, 1991, 2000; Flood 1990; Flood and Jackson 1991; Gregory 1992; Midgley 1992, 2000; Flood and Romm 1996; Mingers and Gill 1997; Taket and White 2000). However, this reason may be insufficient as a means of *justifying* methodological pluralism if the person requiring the justification is well versed in the philosophy of science (Midgley 2000). In the latter case, reasoning related to practical benefits may need to be supplemented by the kind of philosophical argument concerning boundary judgments presented earlier in this paper.

To understand why this justification of theoretical pluralism also supports methodological pluralism, we first need to clarify the difference between 'method' and 'methodology'. I follow Checkland (1981) and Jackson (1991, 2000) in viewing a 'method' as a set

of techniques operated in a sequence (or sometimes iteratively) to achieve a given purpose. In contrast, a 'methodology' is the set of theoretical ideas that justifies the use of a particular method or methods. Given that methodology is essentially theoretical in nature, and a philosophical basis for theoretical pluralism has already been offered, then *methodological* pluralism logically follows: we can accept a plurality of theories flowing into methodology, and hence a wider variety of methods may be seen as legitimate than if we were to accept a more limited theoretical/methodological foundation for systemic action research practice.

Conclusion

In this paper I have argued that the acceptance by systemic action researchers of the value of both multiple perspectives and theoretical pluralism represents a partial break from the conventions of early 20th century philosophy of science. The latter assumed that the task of science was to progressively move us towards a unitary theoretical perspective. However, I have described the break from this assumption as 'partial' because there is still a temptation for researchers to underpin their acceptance of theoretical pluralism with a single 'foundational' epistemological theory (e.g., drawn from the discipline of cognitive science). This is somewhat paradoxical, and it carries two significant risks: first, that an initial strong commitment to theoretical pluralism will be diluted by the desire to harmonize theories used in systemic action research practice with 'more basic' epistemological commitments; and second, that methodology will become blind to evidence of the limitations of its foundational commitments.

A common property of most foundational epistemological theories is a dualism between the subject and object, or knower and known: in seeking a general theory of knowledge generating systems, systemic action researchers can easily slip into viewing knowledge of the latter as somehow more fundamental than other types of knowledge. This is why it may appear acceptable to explain the generation and use of multiple theories of the world in terms of a single, foundational theory of the agent.

To side-step this paradox, and to address the risks mentioned earlier, I have proposed an alternative, systemic approach that shifts from a dualism between subject and object (or knower and known) to a dualism between *process* and *content*. This suggests that theorizing in relation to both the world and knowledge generating systems is similar in character, and is established in local contexts through processes of making boundary judgments. Thus, we can work with a plurality of epistemological insights about what may be giving rise to knowledge in the local context, just as we can work with a plurality of ideas about the issues we are seeking to address through our action research.

This systemic approach provides an alternative justification for theoretical pluralism that does not rely on establishing a 'foundational' epistemological theory: the foundation stones that remain are minimal, relating only to the existence of processes for making boundary judgments in knowledge production. Thus, pluralism can be accepted in relation to both what is known and what gives rise to this knowledge (knowledge generating systems), thus minimizing the risks to theoretical pluralism associated with foundational perspectives.

I have also argued that five consequences flow from accepting theoretical pluralism:

- Knowledge cannot be regarded as universal and cumulative. Knowledge is always relative to particular contexts and communities. Theoretical pluralism even manifests

in traditional scientific communities that do not embrace systemic action research: language (and consequent theory) evolves differently in different disciplines, and it impoverishes scientific explanation to try to reduce the language of one discipline to that of another (Fodor 1974).

- The relevance of any particular theory depends on the purposes of participants involved in a research project.
- In processes of critical self-reflection, we can think pluralistically about the agency and choices of the researcher, exploring different meanings of these that flow from different theories.
- While it is impossible to produce universal standards for choice between theories, this does not mean that anything goes. It is still possible to generate standards of relevance to particular contexts, and these contexts may be defined narrowly (relevant to a particular, geographically local project) or more widely (such as when an international accord on human rights is developed).
- Methodological pluralism (drawing upon methods from different paradigms) is a partner to theoretical pluralism, given that methodology is itself theoretical in nature and defines the legitimacy of particular methods. Not only can methodological pluralism be justified with reference to the kind of systemic philosophy outlined in this paper, but it can significantly enhance action research practice by encouraging both the use of a wide range of methods *and* learning across methodological boundaries.

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