More than Cool Reason:
'Withness-thinking' or 'systemic thinking' and 'thinking *about* systems'

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Abstract

…the outcomes of our inquiries as practitioners are not to be measured in terms of their end points – in terms of their objective outcomes – but in terms of what we learn along the way in the course of the unfolding movements they led us into making.

Many of our difficulties in our practical lives are not of the form of 'problems' that we can solve by reasoning; nor are they 'empirical problems' that we can solve by discovering something currently unknown to us by the application of a science-like methodology. They are difficulties of a quite another kind: they are relational or orientational difficulties to do with how we, as practitioners, spontaneously respond to features in our surroundings with appropriate anticipations 'at the ready', so to speak, thus to 'go on' within them without being (mis)lead into taking any inappropriate next steps. Difficulties of this second kind are not solved but resolved in the course of our 'moving about' within our surroundings and in our tentative explorations of the possible next steps they make available to us. Thus the outcomes of our inquiries as practitioners are not to be measured in terms of their end points – in terms of their objective outcomes – but in terms of what we learn along the way in the course of the unfolding movements they led us into making. In other words, rather than resulting in nameable 'things' out in the world, i.e., products, their results come to be registered in our (still in process) embodied capacities and sensitivities. What is special about this kind of learning without explicit teaching is that it occurs spontaneously and throughout our lives; it is basic and prior to all our more self-conscious learning and teaching. It gives rise to what I have elsewhere called withness-thinking or thinking systemically, and my purpose here is to explore the collaborative nature of the practices involved in such sensitivities coming to be shared within a social group.

Keywords: *Systemic thinking, withness thinking, dialogical, systems thinking.*

"*Theuseus*: Lovers and madmen have such seething brains, / such shaping fantasies, that apprehend / more than cool reason ever comprehends / ... And as imagination bodies forth / The forms of things unknown, the poet's pen / Turns them to shapes and gives to airy nothing / A local habitation and a name... *Hippolyta*:... all their minds transfigured so together, more witnesseth than fancy's images, and grows to something of great constancy; but, howsoever strange and admirable " (Shakespeare, *Act 5, Scene.1* in Midsummer Night's Dream).

"We are simultaneously actors as well as spectators on the great stage of life" (Bohr, quoted in Honner, 1987, p.1).

"My real concern was and is philosophic: not what we do or what we ought to do, but what *happens to us over and above our wanting and doing*" (Gadamer, 1989, p.xxviii, my emphasis).

…new thinking can begin within a group with such sensed and imagined possibilities,…

Lovers and madmen may have "shaping fantasies" in their seething brains, and the poet's pen *can* turn these forms of things unknown into shapes and give these "airy nothings" a local habitation and a name – that is, not just a name but also a place within a larger scheme of things, so although a bush might be mistaken for a bear and give rise (mistakenly) to a fear, it is unlikely to be mistaken for a swarm of fish or an octopus. Thus, as Theuseus sees it, the power of imagination (seemingly) to comprehend *more* than cool reason is able can, by so easily misleading us, be very dangerous. But, as Hippolyta notes, the fact that *all* within a group seem to see and hear the same thing is grounds for thinking that there's more going on here than mere imaginary fantasies. The phenomena they experience could, she suggests, be the beginning of something really quite unique and remarkable, an entity that could grow into something of great constancy – that is, *could* grow, not *will* grow; further testing and checking

is always necessary. But if she is correct, and I think she is, new thinking *can* begin within a group with such sensed and imagined possibilities, i.e., with the spontaneous bodying forth of forms for things previously unknown to us, in ways quite impossible for us if we begin with cognitive certainties. For such certainties can only lead us to further elaborations of things already well-known amongst us; they can never open us up to unique novelties.

However, to arrive at adequate linguistic descriptions of such as yet unknown 'somethings' – these "airy nothings" in our surroundings – further exploration and testing is clearly necessary. For giving words to such indeterminate phenomena is a major part of giving them a determinate place in our lives. To see a bush as a bear is to see it as something we need to flee from rather than, say, to cultivate. But such descriptions cannot be achieved in a flash of insight: a kind of extensive *inner* dialogue *with* such somethings would seem to be required as well as a similarly extensive *outer* dialogue *with* all those around us, if such airy nothings are to emerge as specific and substantial 'things' in our lives together. It is the nature of this collaborative process of emergence and the range of other issues raised by the possible *happening* of such novel experiences within us and amongst us that I want to explore in the rest of this paper. Thus, what is special about the approach I want to take here is the importance I want to attach to *just happening* events, to events that we cannot deliberately set out to cause to happen but that happen spontaneously to us and amongst us as a result of our inextricable immersion in a particular flow of energy occurring around us and in our surroundings – a flow of energy that moves us hither and thither whether we like it or not.

Someone who thought in this way long ago was William James (1890). In his *Principles of Psychology*, he criticized traditional psychology for trying to work solely in terms of definite images of things (only in terms of what we would now call "mental representations"). About this tendency he commented as follows:

> What must be admitted is that the definite images of traditional psychology form but the very smallest part of our minds as they actually live. The traditional psychology talks like one who should say a river consists of nothing but pailsful, spoonsful, quartpotsful, barrelsful, and other moulded forms of water. Even were the pails and the pots all actually standing in the stream, still between them the free water would continue to flow. It is just this free water of consciousness that psychologists resolutely overlook. With it goes the sense of its relations, near and remote, the dying echo of whence it came to us, the dawning sense of whither it is to lead... We all of us have this permanent consciousness of whither our thought is going. It is a feeling like any other, a feeling of what thoughts are next to arise, before they have arisen. (pp.255-256)

Let me repeat those last two, seemingly paradoxical phrases: a feeling of what thoughts are next to arise, before they have arisen. In other words, such feelings are not bounded entities with a clear beginning and a clear end, but, as he puts it, they are "*feelings of tendency*, often so vague that we are unable to name them at all" (p.254); and, as feelings *still in process*, so to speak, they can, as we shall see, serve the most important function of guiding us in our exploratory imaginings of the possible next steps we might take in our practical actions. They can function, James (1890) says, as "*signs of direction* in thought[2], of which we have an acutely discriminative sense, though no definite sensorial image plays any part in it whatsoever" (p.253).

This focus on a shared 'experience' or 'phenomenon' as the starting point for an inquiry, which at first seems to have the character of an "airy nothing" for all concerned, is crucial to the approach I will take here. It stands in stark contrast to traditional approaches which begin with a focus upon an event formulated – in an already shared language – as a 'problem' within an existing system of conceptual terms provided by a model, or a theory, or a systematic framework. Instead of it being like learning a second language – in which we must describe events which already make one kind of sense to us in a different language to make another kind of sense of them – it is like learning a first language. We must learn to relate ourselves to a 'something in our surroundings' as the others around us do, to distinguish and to act towards it as *what* it is for them, *as* an X, say, rather than *as* a Y. And to the extent that these 'somethings' are new, never-before-encountered somethings that need to be uniquely responded to *as themselves*, we cannot be 'told about them' in words representative of 'things' already well known to us. We first need to be 'introduced' to them, to meet them face-to-face, so to speak, in order to acquire some expectations as to how they will respond to a whole range of our actions in relation to them.

In other words, in learning to respond to the unique 'what-ness' of previously unencountered 'things' in the same way as those around us do, we must learn *to make judgments* as to what that 'something' is that are similar to *their* judgments. Indeed, as Wittgenstein (1953) remarks, "If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgments" (no.242), and

those around us teach us such judgments not by giving us explanations, but simply by saying things like: "No, that's not it, try again," and so on, until at last they feel they can say: "Yes, that's it." Wittgenstein (1953) notes, "This is simply what searching, this is what finding, is like here" (p.218).

Thus, like James, Wittgenstein also begins by focusing on shared phenomena, upon often un-nameable shared experiences. He describes the beginning of a set of shared language intertwined activities (what he calls a "language-game") thus: "The origin and primitive form of the language game is a reaction; only from this can more complicated forms develop. Language – I want to say – is a refinement, 'in the beginning was the deed' [Goethe]" (Wittgenstein, 1980, p.31). "I want to regard man here as an animal; as a primitive being to which one grants instinct but not ratiocination. As a creature in a primitive state. Any logic good enough for a primitive means of communication needs no apology from us. Language did not emerge from some kind of ratiocination" (1969, no.475)[3]. "But what is the word "primitive" meant to say here? Presumably that this sort of behaviour is *pre-linguistic*: that a language-game is based *on it*, that it is the prototype of a way of thinking and not the result of thought" (1981, no.541). In other words, rather than taking the traditional theoretical-explanatory approach, we shall be taking what elsewhere (Shotter, 1984) I have called a practical-descriptive approach.

What is *witness* or *systemic thinking?*

What, then, is it like to think *systemically*, rather than to think *about* systems, to think in a kind of inner dialogue *with* a felt sense, the presence of a yet unknown something being there in one's surroundings which has not yet been given adequate linguistic expression? Elsewhere (Shotter, 2006), I have described such *witness-thinking* experientially as follows:

> The interplay involved gives rise, not to a visible seeing, for what is 'sensed' is invisible; nor does it give rise to an interpretation (to a representation), for our responses occur spontaneously and directly in our living encounters with an other's expressions. Neither is it merely a feeling, for it carries with it as it unfolds a bodily sense of the possibilities for responsive action in relation to one's momentary placement, position, or orientation in the present interaction. Instead, it gives rise to a *shaped* and *vectored* sense of our moment-by-moment changing involvement in our current surroundings — engendering in us both unique anticipations as to what-next might happen along with, so to speak, 'action guiding advisories' as to what-next we might expect *in relation to* the actions we might take. In short, we can be spontaneously 'moved' toward specific possibilities for action in such thinking. (p.600)

It is a knowing to do with one's participation within a situation, with one's 'place' within it, and with how one might 'go on' playing one's part within it – a knowing in which one is affected by one's surroundings perhaps even more than one affects them.

In an unpublished paper entitled *Thinking about systems and thinking systemically*, Barnett Pearce (MS-1998) provides a similar description as he begins to outline some of the major differences, as well as some of the useful relations that might exist, between 'coolly rational' thought *about* systems *from the outside*, and the more animated thinking of practitioners *from within* the systems in which they function as, so the speak, 'participant parts'. He begins to distinguish one from the other as follows:

> The essay elaborates two claims. The first asserts that 'thinking about systems' is not quite the same thing as 'thinking systemically' and the second asserts that the 'thinking' involved in 'thinking systemically' is not only or even primarily a cognitive process but inevitably involves *acting into situations*... The distinction between thinking about systems and thinking systemically hinges on the perspective of the person doing the thinking. One can and usually does think 'about' systems *from outside the system*. That is, whether we might describe the thinking as ontologically a part of the system or separate from it, in this instance the thinker takes the observer-perspective. When thinking systemically, on the other hand, the thinker is self-reflexively a part of the system and takes the perspective of *a participant or component of the system*. (MS, pp.1-2, all emphases mine)

He ends his explorations by remarking that:

> Thinking systemically entails abandoning many of the preoccupations of the Enlightenment. This is not a trivial matter. Richard Bernstein (1983) described what he called 'the Cartesian anxiety' – the fear that if we do not have absolute certainty, we have no knowledge at all. Historically, this anxiety has

paralysed us, Bernstein believes, and we need not to refute it so much as to be cured of it. (MS, p.8)

Let me repeat what he says above: *Thinking systemically entails abandoning many of the preoccupations of the Enlightenment*, abandoning what we might call the 'coolly rational' approach to inquiry. Because, in the context of our assumed need to think rationally about the difficulties we face in our lives, *thinking systemically* or *withness-thinking* is so unusual – and because it can lead us into many really quite surprising and disoriented situations and directions – we badly need to make ourselves a bit more aware of the easily unnoticed or ignored 'inner moves' we execute amongst us and within us in arriving at a sense of something being a 'thing' (Heidegger, 1969) for us in our surroundings. Thus, before proceeding any further, I would just like to list in note form some of these 'surprises' that *withness-thinking* generates:

- As 'participant parts' within the very systems we are investigating (see Pearce, MS-1998), rather than being *theory-driven*, a matter of beginning with 'good ideas', we must begin our investigations from *noticings*, from openings when a next step *different from the usual* next step might be taken.
  - *Three kinds of noticings:* 1) either being 'struck by' an event or happening; or 2) the sensing of a qualitatively unique 'unitary whole' as it emerges in our slow exploration of a present bewilderment or confusion; or 3) the sensing of an 'I don't know what' kind of *disquiet* at things not yet being 'quite right'.
  - *A fourth kind of noticing – 'incipient forms':* 4) "A community or a *polis* is not something that can be made or engineered by some form of *techne* or by the administration of society. There is something of a circle here, comparable to the hermeneutic circle. The coming into being of a type of public life that can strengthen solidarity, public freedom, a willingness to talk and to listen, mutual debate, and a commitment to rational persuasion presupposes the incipient forms of such communal life" (Bernstein, 1983, p.266).
  - *A fifth kind – 'what is* **not** *being said'* (the elephant in the room): As Billig (1999) points out in *Freudian Repression* – in relation to the case of Herr K. (an older man rejected by his wife) and Dora (the young daughter whose father was having an affair with Herr K's wife) – how people can use shared "dialogic routines" (p.101) to avoid raising those issues between them that would result in devastating conflicts – whereas, Freud had understood that "repression took place in the head [of individuals], not outwardly in conversation" (p.102).
  - *A sixth kind – 'telling moments'*: moments when 'collective narratives or ideologies' begin to be revealed, e.g., when people begin to say: "This is how we do things around here".
  - *A seventh kind – 'disquiets'*: a feeling that there is still a 'something more' that has not yet been captured in all the articulations of 'sensings' that we so far produced.

- These *noticings* call for 'reversals' in our taken-for-granted ways of thinking about how our inquiries might best be conducted:
  - *1) An important reversal:* our bodily movements out in the world are more important to us than our thinkings.[4]
  - *2) Another important reversal:* what just happens to us is much more important to us than what we achieve in our wanting and doing; it provides the 'background' from out of which our wantings and doings emerge and into which they return to exert their influence.
  - *3) Another reversal*: emotions as judgments (Nussbaum, 2001): when we begin with *feelings* rather than calculations there is the sense of a 'something' of importance and value here.
  - *4) Yet another:* (Merleau-Ponty, 1964)... it is as if *what* I as an agency thought *I* was 'bringing forth' begins to act in me as itself an agency to teach me a new 'way of looking', or a 'new way of thinking'... a new style of painting comes on the scene, we are at first disoriented, but later we find that *it* has taught us a new 'way of looking'[5].
  - *5) Yet another*: Mechanistically we talk of stimuli *causing* responses, yet it is the living responses of organisms that constitute, i.e., give not form but value to, the stimuli that they orient towards.
  - *6) Yet another:* We can build up *mechanistic wholes*, i.e., machines, from independently existing parts, but we cannot 'build up' living organic wholes (pace Frankenstein) in this manner. We must begin with already living wholes and either

'grow' them up into more well-articulated forms, and/or "*descriptively* analyse"[6] them into their *intra-related aspects* (the term 'parts' is both too spatial and too finished to be adequate).

- *7) Yet another:* what Dewey (1896) calls the "historical fallacy"; in it we tend "to read a set of considerations which hold good *only because of a completed process* into the detailed, step-by-step unfolding nature of the process while still incomplete which led to this completed result... whereas, if this outcome had already been in existence, there would have been no necessity for the unfolding, uncertain step-by-step nature of the process" (p.367).[7]

Other changes that result from *withness-thinking*:

- *Overcoming the Cartesian anxiety:* we must learn to think *partially* while still in the midst of *uncertainty* as a way of feeling one's way forward in the present moment, in the present situation. This is an attitude present in poetic or allusive writing, for example Keats' negative capability.[8]
- *Repositioning ourselves as 'inside' rather than 'outside' thinkers*: we need to position ourselves, not as subjects regarding an objective, external world, but as participants *within* or *inside* the boundary zone between the subject/object split imposed by Descartes.
- *The agency of our surroundings*: the flow of activity within which we are currently at work, is also at work on and in us; we are not just *in* the world, we are *of* it.

The temptation to move 'outside' and to talk 'about' systems is pervasive in all 'coolly rational' approaches to social so-called scientific inquiry. William James (1890) described the fallacy to which it gives rise (but see Dewey's comment above on the historical fallacy) as "The Psychologist's Fallacy":

> The *great* snare of the psychologist is *the confusion of his own standpoint with that of the mental fact* about which he is making his report. I shall hereafter call this the 'psychologist's fallacy' par excellence... The psychologist... stands outside of the mental state he speaks of. Both itself and its object are objects for him... The most fictitious puzzles have been introduced into our science by this means... Crude as such a confusion of standpoints seems to be when abstractly stated, it is nevertheless a snare into which no psychologist has kept himself at all times from falling, and which forms almost the entire stock-in-trade of certain schools. We cannot be too watchful against its subtly corrupting influence. (pp.196-197)

Indeed, this tendency – of both standing outside and looking back on the products of already completed processes as objects – is still so massively present in much contemporary social scientific inquiry, that Raymond Williams (1977) again, nine decades later, felt the need to make a similar point:

> In most description and analysis, culture and society are expressed in an habitual past tense. The strongest barrier to the recognition of human cultural activity is this immediate and regular conversion of experience into finished products... relationships, institutions and formations in which we are still actively involved are converted, by this procedural mode, into formed wholes rather than forming and formative processes" (p.128) .... "If the social is always past, in the sense that it is always formed, we have indeed to find new terms for the undeniable experience of the present: not only the temporal present, the realization of this and this instant, but the specificity of the present being, the inalienably physical, within which we may discern and acknowledge institutions, formations, positions, but not always as fixed products, defining products. (p.128)

Thinking of language as itself a system, i.e., as a separate system for use by us in expressing our ideas or in describing 'things' (states of affairs) in the world, is one of our biggest mistakes arising out of the psychologist's fallacy. We far too easily forget that we learn our language within all kinds of ongoing *intra-activities*, activities in which we are involved with those around us in *doing* something. All our activities within a particular culture are language intertwined activities, language intertwined practices. As a consequence, we need to remember – if we are not going to indulge in up-in-the-air, de-contextualized, abstract talk – that all our talk also needs to be practice intertwined talk. We need to have in mind a particular activity in a particular context as we talk, and to address our talk to our listeners as if they too are occupying this same context; for in talking to anyone, we are, of course, assuming that they are *interested* in what we have to say. This is what is involved in talking and thinking systemically, i.e., in withness-thinking and speaking. To contrast it with up-in-the-air talk, we could call it down-on-the-ground talking and thinking.

Overcoming Two Different Kinds of Difficulties:
Problem-solving and orientational

This need to contextualize – to give a local habitation to the words we use, particularly to those we use as the names of 'things' – gives rise to a perhaps surprising consequence. It means that there are two kinds of difficulties we can face in our lives, not just one. Indeed, as Wittgenstein (1980) has made very clear to us, many of our difficulties in our practical lives are *not* of the form of *problems* that we can, by the application of a science-like methodology, solve by reasoning; nor are they "empirical problems" that we can solve by discovering something already existing but currently unknown to us. They are difficulties of a quite another kind: they are *relational* or *orientational* difficulties having to do with discovering how to 'go out' towards initially indeterminate aspects of our surroundings with certain expectations and anticipations at the ready, so to speak, that are appropriate to our finding our 'way about' and to 'going on' with them without (mis)leading ourselves into taking inappropriate next steps. Where the relevant anticipations are to do with, to repeat again William James' comment above, sensing whither we *might* go within our circumstances before actually going there. Thus difficulties of this second kind cannot be *solved* by our thinking about them within a rational framework in order to arrive at a plan which we then attempt to put into action. For a 'problem' can be *solved* only if the situation we face consists in a set of determinate entities awaiting our 'arrangement' or 're-arrangement' of them, and this is precisely not the case with relational or orientational difficulties. Here, we face a situation which is, at first, indeterminate for us, in which we cannot at a first make out *what* it is that is important to us; here, we must gradually feel our way forward, guided by the incipient sensing of dis-satisfactions and satisfactions as we move this-way-and-that in groping towards the final actualization of an appropriate action. In other words, such difficulties are *resolved* by the emergence of a 'local best' action, a best way forward which develops within our tentative exploratory movements as we sense and evaluate the incipient "signs of directions in thought" that they give rise to within us.

Thus, rather than being aimed at reliable and repeatable results that can be made accessible in some published form so that they can be both publically criticized and tested and, thus, generalized to apply in indefinitely many different contexts, practitioner inquiries have a quite different aim. They are practice-based and practice-oriented. They are concerned with our gaining a sense of 'where we are' in relation to our immediate surroundings and of the surrounding field or 'landscape' of real possibilities open to us for our next steps. Thus, unlike the idealized and de-contextualized nature of 'coolly rational' research, practitioner inquiry is concerned with *details* in our surroundings crucial to the performance of our actions. As Wittgenstein (1953) remarks, acting in idealized surroundings is like trying to walk on ice "where there is no friction and so in a certain sense the conditions are ideal, but also, just because of that, we are unable to walk. We want to walk: so we need friction. Back to the rough ground!" (no. 107). So rather than resulting in nameable, objective 'things' out in the world, the results of practice-situated inquiries come to be registered in, and to accumulate in, our embodied capacities and sensitivities.

As Bateson (1979) puts it (see Shotter, 2010a), they contribute to a practitioner becoming better "calibrated" in "the *setting* of his nerves and muscles" (p.211), which, in practical terms, means that the practitioner can come to act automatically and spontaneously, i.e., without conscious deliberation by anticipating the direction of a client's next steps, i.e., the 'point' of their actions or utterances, before their actual expression of them. In experiential terms, a practitioner must build up within him or herself an appropriate range of "action guiding anticipations" (Shotter, 2005; see footnote 2) which are continuously updated in response to events happening around them.

Genuine innovative changes in institutions and organizations are 'deep' changes, in the sense that they are changes in our 'ways' of thinking, 'ways' of seeing, 'ways' of hearing, 'ways' of making connections between events, 'ways' of talking, and so on – in short, they are changes in our 'ways' of being someone, changes in the kind of person we are, changes in our identity.

But there is even more to it than this which has to do with the very nature of our conduct and our more practice-based inquiries. Genuine innovative changes in institutions and organizations are 'deep' changes, in the sense that they are changes in our 'ways' of thinking, 'ways' of seeing, 'ways' of hearing, 'ways' of making connections between events, 'ways' of talking, and so on – in short, they are changes in our 'ways' of being someone, changes in the kind of person we are, changes in our *identity*. They are changes in what 'we think with', changes in how we relate to, or orient ourselves toward the situation we find ourselves to be 'in'. Hence, these kinds of changes cannot be produced by following intellectually devised plans, procedures, or protocols; they cannot be done,

intentionally, by people taking deliberate actions – this is because the coordinated execution of planned actions depends upon all concerned *already sharing* the set of existing *concepts* relevant to the formulation of the plan, thus all new plans depend on old concepts – the process results in the "continual rediscovery of sameness." Nor can these kind of changes be produced by exhortation, by being *persuaded* to change – the simple fact is: people do not know how to 'guide' themselves toward the desired end; they have not yet embodied the norm against which they can 'measure' they own achievements 'so far' (are they 'on the way' towards success or not?).

In other words, more than merely the *inside/outside* issue Pearce discussed above, the issues involved are to do with 'deep' issues – not only to do with who and what we take ourselves to be, our identities, and with whether we can make changes for the better within ourselves – but also to do with what potentialities there are latent within the relations between ourselves and our surroundings that have not yet been *realized*, potentialities that are not spatially 'hidden', as if in a locked room, but which exist as still unrecognizable possibilities amongst us. Their recognition and elaboration is the topic of my next section.

Bringing out the Differences Between the Two Forms of Inquiry: thinking *about* systems and *thinking systemically*

1) Aboutness approaches

As qualitative forms of research develop, we can now begin to discern two kinds of what I will call aboutness-approaches: more traditional theory-based approaches and now methods-based approaches.

Traditional heory-based approaches.

In thinking *about systems*, as subjects and as agents, we actively attempt to characterize them within an arrangement of logically interconnected theoretical propositions as objective things 'out there' or 'over there' in a part of the world separate from ourselves. Theory driven research is something we *do*, and it is the results of our 'doings' that matter; what just happens to us plays no part in the proceedings. And strictly, to count as a *scientific* theory, we should take care to ensure that each proposition in the theory should have:

- (1) *Explicitness*: A theory should not be based on intuition and interpretation but should be spelled out so completely that it can be understood by any rational being.
- (2) *Universality*: Theory should hold true for all places and all times.
- (3) *Abstractedness*: A theory must not require reference to particular examples.
- (4) *Discreteness*: A theory must be stated in terms of context-free elements – elements which make no reference to human interests, traditions, institutions, etc.
- (5) *Systematicity*: A theory must be a whole in which decontextualized elements, (properties, attributes, features, factors, etc.) are related to each other by rules or laws.
- (6) *Closure and prediction*: The description of the domain investigated must be complete, i.e., it must specify all the influences that affect the elements in the domain and must specify their effects. Closure permits precise predictions.

In other words, our theories must stand before us as themselves objective entities. If these requirements are not met, if our theories cannot be publicly understood and criticized, then we have mere 'theoretical-talk', which is hardly different from the 'opinions- or good-ideas-talk' of specific individuals.

But the fact is, no so-called 'theories' in the social 'so-called sciences' come anywhere near to fulfilling these requirements. Further, the very requirements of explicitness, de-contextuality, and closure, etc., work to strip out the *relational* aspects of all living phenomena and as a consequence we 'lose the very phenomena' of our central concern: how our activities come to 'hang together' as meaningful wholes whose 'point' can be sensed by others in such a way that they can come to co-ordinate their activities with ours.

Methods-based approaches.

In the turn away from theory-driven and theory-testing research, there is now a turn towards a concern with *methods*, towards qualitative methods of inquiry. But does this turn work to move us from thinking *about* systems to thinking more systemically? I think not at all. For the organizing assumption, if I may call it that, of all these more methods-based approaches is still to think that there are definite processes already 'out there' in

the world awaiting our discovery of their workings. In other words, they are again, implicitly, theory-driven. But what if, perhaps counterintuitively, specific, determinate realities as such do not exist without – or outside of – the sets of practices we use in our attempts to investigate them, including the inscription devices[9] and the larger networks within which we think of them as being located?

In other words, what if the 'systems' within which we think of ourselves as being embedded are not only still open to further development but also multi-dimensional, so that it is only when we 'interrogate' phenomena occurring in our surroundings within the confines of, as Karen Barad (2007) calls them, a particular "material-discursive practice" – i.e., an intra-twined set of ways of talking and ways of acting that materially affect the world within which it takes place – that events occurring in the world around us come to take on a determinate form?[10] Indeed, what if much of the world in which we live is vague, fluid, unspecific, diffuse, slippery, ephemeral, elusive or indistinct, emotional. What if it changes like a kaleidoscope, or like the intra-mingling streams of hot and cold air in the atmosphere, or it doesn't really have much pattern at all, then where does this leave the social sciences with their aim of 'discovering' the supposed already existing orders and patterns determining our behaviour? Chasing chimera in the realization of Theuseus' fear, it would seem.

As Foucault (1972) put it in *The Archaeology of Knowledge* quite a while ago: We face "a task that consists of not – of no longer treating discourses as groups of signs (signifying elements referring to contents or representations) but as practices that systematically form the objects of which they speak. Of course, discourses are composed of signs; but what they do is more than use these signs to designate things. It is this *more* that renders them irreducible to the language *(langue)* and to speech. It is this 'more' that we must reveal and describe" (p.49). It is this 'more' that we must try to bring to light and describe in a fashion that does justice to it.

Thus, what can be called thinking in these two 'aboutness' approaches?
To grasp a bit more clearly what is involved here, let me examine the sequence of steps involved in both these two *problem-solving* approaches: 1) approaching a newness or strangeness as a problem to be solved requires us to first analyze it into a set of identifiable elements; 2) we must then find a pattern or order amongst them; and, then 3) we *hypothesize* a hidden agency responsible for the order (call it the working of certain rules, principles, or laws, or the working of a story or narrative, or the shaping of a practice by 'themes', or suchlike). We then seek further evidence for *its* influence, thus to enshrine its agency in a theoretical system or framework of thought. And we then go on to make use of such frameworks in our further actions.

As investigators, we ourselves remain unchanged in the process; we remain *outside* and *separate* from the other or otherness we are investigating; rather than being engaged or involved in with it we are 'set over against' it; in acquiring extra knowledge *about* it – in the form of facts or information – our aim is to gain *mastery* over it.

2) Systemic or withness thinking

The heart of the difference between the two forms of inquiry exists as two sides of the same coin: on one side, the Cartesian subject/object spilt and on the other, the peculiar nature (disparaged by rationalists) of *participative* thinking. In *withness-thinking* or thinking systemically, one functions as a participant within the very phenomena one is inquiring into. As a result, the placement of the subject/object split becomes highly variable, a matter of placing the divide within different regions of a phenomenon according to one's overall end view. For, in deciding that we want to bring about a change in one aspect of our surroundings, we must leave ourselves open to being affected in an uncontrolled fashion by the rest of our surroundings, and as we turn to produce an intended effect elsewhere, we open ourselves to being affected by the very original aspect of our concern. Thus what we treat as being set over us as an 'object' at one moment becomes itself at the next an agency able to affect us.

Systemic thinking or thinking systemically

As Barnett Pearce noted above, to think systemically is to think as a "participant part" within the very systems we think of ourselves as investigating. But what is it to think "participatively" in this fashion? According to Bakhtin (1993), it can only be done by "those who know how not to detach their performed act from its product, but rather how to relate both of them [both the process and product of their thought] to the unitary and unique context of life and seek to determine them in that context as an indivisible unity" (footnote, p.19). In other words, understandings of this kind need to be lived within the context of a practice before they can be described, and their descriptions need to be voiced within that practice – as, in fact, a dynamic stability within that ongoing

flow of activity – if they are to come to function as 'orienting landmarks', so to speak, in the landscapes of possibility we encounter in our relational practices.

…imaginatively 'entering into'… the circumstances surrounding our use of words to gain a sense of the way in which our surroundings (in an agential fashion) can influence the 'shape' of our utterances and other expressions.

Investigations into what 'we try to think with', into how we do in fact relate to or orient ourselves toward the situation we find ourselves to be 'in', can be called, following Wittgenstein (1953) and Bateson (1979), "grammatical" investigations. For, as Bateson (1979) says, "all communication necessitates context, that without context, there is no meaning,... [and] contextual shaping is only another term for *grammar*" (p.27). Thus for Bateson, as also for Wittgenstein (1953), what we might call a "grammatical investigation" entails our imaginatively 'entering into', so to speak, the circumstances surrounding our use of words to gain a sense of the way in which our surroundings (in an agential fashion) can influence the 'shape' of our utterances and other expressions. In coming slowly to *resolve* on a line of action, instead of immediately trying to analyze what is unknown to us into its elemental units, we can begin to move around within it, and by 'opening' ourselves to being spontaneously 'moved' by it, we can begin to 'enter into' an active, back and forth, dialogically-structured relationship with it – a relationship within which we can gain, if we go slowly and allow time for the imaginative work that each response can occasion in us to take place, a sense of the 'invisible landscape of possibilities' confronting us to become "visibly-rational" (Garfinkel, 1967, p.vii).

To show what I mean here, I suggest that the next few statements be read very slowly, making use of a 'poetic' style of inner speech, with time taken at the end of each to imagine a particular concrete situation:

- We enter a new situation;
- We are confused, bewildered, we don't know our way about;
- However, as we 'dwell in' it, as we 'move around' within the confusion, a 'something', an 'it' begins to emerge;
- It emerges in the 'time contours' or 'time shapes' that become apparent to us in the dynamic relations we can sense between our outgoing activities and their incoming results;
- An image comes to us, we find that we can express this 'something' in terms of an image;
- But not so fast, for we can find another, and another image, and another; Wittgenstein uses a city, a toolbox, the controls in the driving cab of a train, and many different types of games, all as metaphors for different aspects of our experiences of the use of language.

Having gone through a number of images, we can come to a sense of the landscape of possibilities giving rise to them. Indeed, we can gain a sense of familiarity with such landscapes; we can come to feel confident of knowing our way around within them and of being able to *resolve* on ways of 'going on' within them. Thus the process of *resolving* cannot simply be a matter of calculation or decision making. It involves *judgment*s – a moving around on the landscape of possibilities, being *spontaneously responsive* to the consequences of each move, and judging which one (or combination of moves) best gives rise to an attitude or orientation that provides a way of relating oneself to the situation that resolves the initial tension aroused in one's initial confusion – for, to repeat, we are operating here, not in the realm of actualities but of possibilities. And my purpose, of course, in asking you to speak to yourself slowly and expressively was both to arouse more extreme responsive movements within you as readers than is usual in more intellectually oriented texts, as well as to allow time for the 'shape' of such movements to *resonate* within you, thus to remind you of something that might be already familiar to you (Wittgenstein, 1953, no.89)[11] – to 'call up' one or two or more previous experienced concrete episodes whose 'time-contours' are similar to those traced out in the unfolding dynamics of my utterances – for the seeing or sensing of similarities is a very basic human capacity.

 And we ourselves, as investigators, are changed in such encounters, as we saw above. For, in becoming involved with, immersed in, the 'inner life' of the others or othernesses around us everything we do can be partly shaped by being in response to what *they might do*. Thus, rather than an objective *knowledge* of their nature, we gain an *orientation* toward them; we grasp how to 'go on' with them in terms of the *possible* ways they might respond to us. Although at first we can be wholly "bewitched" (Wittgenstein, 1953, no.109) by their "voice," as our familiarity with them grows their voice can become just one voice among the many other voices within us, and we can become 'disenchanted' with what they 'call' upon us to do. However, we can never gain complete mastery over them – they can always surprise us no matter how familiar to us they have become. Our constant vigilance is required; the precise words we use are important – for their *grammar* commits us *now* to what is expected of us in the future.

In more general terms, as we dwell in and move around in each new situation we face, a gradual growth of familiarity with their 'inner shape' can occur; we can then begin to gain a sense of the value of their *yet-to-be-achieved* aspects – the prospects they offer us for 'going on' within them. Thus, as we gain orientation, a sense of being 'at home' within them, we can come to find our 'footing', our placement or *who we can be* within such situations. And this, as was clear from your responses to my bulleted utterances above, can be done imaginatively by undertaking appropriate imaginative work. In so doing, we make sense of our current circumstances by thinking *with*, or in relation to, certain of our past experiences. This is what I would like to call *systemic thinking* or *thinking systemically* in such situations as these, and it is these situations – of initial disorientation or bewilderment – that we can sense (in Heidegger's, 1976 terms) *what calls for systemic thinking*.

Arriving at a 'Poised Resourcefulness' in our Professional Practices

In the recent past, all our inquiries have been in the pursuit of *knowledge*, objective knowledge, knowledge that can be put into books and be of use anywhere at any time. Indeed, Descartes' (1968/1637) dream was that by those "long chains of reasoning, quite simple and easy, which geometers use to teach their most difficult demonstrations... there can be nothing so distant that one does not reach it eventually, or so hidden that one cannot discover it" (p.41). But if our overall task in our practice-based inquiries is *not* to arrive at any particular *factual* or *theoretical* knowledge, what can its aim be? What might such practice-based inquiries, such inner exploratory movements, offer participants who are already skilled practitioners within a particular discipline or profession? For they do not and cannot offer anything objective that can easily be pointed at and described; nor do or can they offer anything of immediate practical application, that's for sure.

This, however, is a strength, not a weakness. For, in fact, they offer something of much more value to those of us who, as professional practitioners, must act in the moment, from within the midst of complexity. For they (can) work to 'remind' us that we in fact already function continually as a 'centre of creativity' with an awareness (usually unremarked upon) of a plenitude of possibilities available to us in our living relations to the others and othernesses around us and in our surroundings. And in offering us a reflexive self-awareness of ourselves as living in our everyday human affairs within the midst of complexity, effortlessly, as continually dealing with uniquely new circumstances, always for 'another first time', they can bring to our conscious attention what we are already doing spontaneously and unconsciously.

In short, such explorations can offer us the gaining of a *poised resourcefulness* in our own special professional practices, an ability to go out to meet a whole range of contingencies with an appropriate response 'at the ready', so to speak – contingencies to do with human bewilderments, disorientations, puzzlements, feelings, emotions, and many other human disturbances that we can meet in our relations with the others and othernesses around us. Thus, our *living explorations and inquiries* into our own 'inner workings', into the 'inner movements' of thoughtful feelings and feelingful thoughts to which we submit ourselves in our practice-based inquiries, can be thought of a being the equivalent in the sphere of human encounters to the less extensive (but perhaps even more focused) 'self-disciplines' skilled tennis players submit themselves to (in both their 'off-court' and 'on-court' practice) that enable them to become poised and ready to meet with an *appropriate* or *relevant* response whatever is 'served up' to them by an opponent in the matches they play.

In other words, in Aristotle's terms, we are aiming at *phronesis*, a mode of ethical reasoning conducted *from within a practice* in which *deliberation*, *reflection*, and *judgement* all play a central role. Thus, beginning with a vague *qualitative* sense of the particular situation we are in, as we begin to explore it, step-by-step, sequentially, we come to experience more and more fragments of it with each movement of our bodies giving rise to each new fragment. If our bodies and brains are undamaged, we begin (in a way that, clearly, has not yet been well-studied) to interrelate them all into a unitary (but still open) whole. Then, as further fragments accumulate, we come to experience the whole in a more detailed, more well-articulated manner, so that eventually, so to speak, we come to know our 'way about' within it and are thus able 'to go on' within it in a more confident manner. Systemic thinking is thus not aimed at any specific end point or finalized form of knowledge but at our learning how to conduct such experiments in-the-moment from within a particular practice as required.

Thus, my main *practical* aims in all the comments and notes I have provided above are *perceptual* and not *cognitive*, are *practical* and not *theoretical*; that is, I have been much more concerned with what is involved in bringing previously unnoticed features of our activities to our attention than with trying to discover supposed,

hidden, causal mechanisms of a general kind supposedly responsible for their occurrence. Indeed, my overall aim is to do with our becoming a *certain kind* of person, someone who is, so to speak, more 'at home' in human affairs and knows how to find their 'way around' within them, such that at each moment they can resolve on a way of 'going on' within them that all involved will be able to 'see' as 'for the best' given the resources available to them at that moment. And what makes this kind of learning *collaborative learning* – even though it is as individuals that we can develop a poised resourcefulness – is that it can only be achieved *within* our relations with those around us. We cannot do it on our own, in separation from them.

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Endnotes

[2]Elsewhere (Shotter, 2005), I have called these *signs of direction* in thought "action guiding anticipations.

[3] All date only references are to Wittgenstein's works.

[4]"We come into the world moving. We're precisely not stillborn. Indeed, movement forms the 'I' that moves before the 'I' that moves forms movement" (Maxine Sheets-Johnstone).

[5] "The origin and primitive form of the language game is a reaction; only from this can more complicated forms develop. Language – I want to say – is a refinement, 'in the beginning was the deed'[Goethe]" (1980, p.31)... "But what is the word 'primitive' meant to say here? Presumably that this sort of behaviour is *pre-linguistic*: that a language-game is based *on it*, that it is the prototype of a way of thinking and not the result of thought" (1981, no.541).

[6] Here I am using a terms from Dewey (1896) by which he means not analysing a whole into a collection or amalgam of *separate* parts – thus to produce a set of "distinctions of existence" – but of analysing it into a set of *intra-related* 'parts' – thus to produce (hermeneutically) a set of "*distinctions of function, or part played*, with reference to reaching or maintaining an end" (p.366).

[7] That is, as 'cool rationalists' we are continuously tempted to describe unbroken *emerging*, and thus *temporally irreversible*, processes in terms of a sequence of separate steps, each one well-defined, and independently identifiable irrespective of its relations to its context; this results in their living development *in response to their surroundings* being ignored.

[8] The Romantic poet John Keats (1795-1821) coined the phrase 'Negative Capability' in a letter written to his brothers George and Thomas on the 21 December, 1817. In this letter he defined his new concept of writing: *I mean Negative Capability, that is when man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason.*

[9] As Geertz (1973) notes: "The ethnographer 'inscribes' social discourse; *he writes it down*. In so doing, he turns it from a passing event, which exists only to its own moment of occurrence, into an account, which exists in its inscriptions and can be reconsulted" (p.19). Inscription devices are thus a set of practices that work to provide visible traces of the sequences of events that go to making up the otherwise invisible unfolding of dynamical events. Indeed, a major part of our task in our inquiries into our everyday affairs consists in devising situations within which such traces can become available to us.

[10] What Barad (2007) has in mind here is Niels Bohr's resolution of the wave-particle duality paradox by noting that "wave" and "particle," as classical concepts, i.e., metaphorical terms referring to entities 'out there' in the external world, are only given determinate meanings in relation to different, indeed mutually exclusive, apparatuses, and that as such they refer to different, mutually exclusive *phenomena*, not in fact to independently existing physical objects. Bohr thus leaves it open as what the 'real' nature of physical reality actually *is*! This, of course, is in line with Wittgenstein's (1953) claim that all our 'name' words only have determinate meanings within the confines of specific language-games.

[11] Wittgenstein (1953): "Something that we know when no one asks us, but no longer know when we are supposed to give an account of it, is something that we need to *remind* ourselves of. (And it is obviously something of which for some reason it is difficult to remind oneself.)" (no.89).

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Dedication

This article is dedicated to W. Barnett Pearce who, tragically, died on 6th November, 2011. He was the inspiration for this article, and he died with still much more to say on these and other related topics. I will sadly miss him. –John Shotter.