Beyond Solution: A Re-Presentation for the 'New Times'

Ann Taket
Geography Department
Queen Mary and Westfield College and
Department of Epidemiology and Medical
Statistics, London Hospital Medical College,
University of London
Mile End Road, London, E1 4NS, UK
Tel: 071 975 5439 Fax: 071 975 5500
E-mail: a.r.taket@qmw.ac.uk

Leroy White
School of Mathematics, Statistics and
Computing, University of Greenwich
Wellington Street
London, UK
Tel: 081-316-8736
Fax: 081-316-8665
E-mail: l.a.white@greenwich.ac.uk

Abstract

Many commentators have pointed to changes in organisational practices and structures, with moves from hierarchy and centralisation to decentralisation and more democracy. There is an increased emphasis on local action and self-organisation, rather than steep vertical structures. This paper responds to the challenge of looking at the relevance of the theory and practice of problem solving methodologies in this changing context. Within the framework provided by postmodernist and poststructuralist ideas, we draw on our work in the domain of community operational research (COR), working with a variety of groups in the voluntary sector. The voluntary sector is particularly relevant as it exemplifies the characteristics of the 'new times', with democratic and self-organising groups, many of which operate at very local level.

In the paper we will approach the subject in the following three ways:

1. by scrutinising the notion of problem 'solving' and suggesting that it might open a larger space for action and choice to recast this as issue-structuring. This involves a move away from the notion of a singular optimum or best solution to exploring a range of possibilities.

2. by examining the nature of representation implicit in the notion of modelling, (as in systems dynamics and issue structuring methodologies), drawing on a reading of the ideas of Baudrillard.

3. by subverting the notions of the expert and expertise in practice. Here we demonstrate how the relationship between expert and client has shifted to encompass the idea that the client can be seen as the expert in context.

Beyond Solution: A Re-Presentation for the 'New Times'

Introduction

The times we are in have been characterised in many different ways, each with its own ideological reasons or justifications (Hall & Jacques, 1992). Some have referred to this as the 'postmodern' or 'post-industrial' era, we will refer to it as postmodernity. Commentators have provided a number of descriptions of a transition in the social sphere as well as in organisational settings. The literature shows an agreement that the era is characteristically different to its antecedent, although some writers have argued that, for example, postmodernity is nothing more, or less, than a current phase in modernism which itself is not much over a hundred years old. There is no space here to elaborate on the debates surrounding the shift or difference, the aim of the above comment is to invite the reader to suspend their disbelief and accept for this discussion that we are in some kind of 'new times'.

The characteristics of this era are important to this note, but they also have implications for the management sciences - a point that will be elaborated on later in this report. To begin with, (and adopting a simplifying binary view), here are some of the less difficult characteristics of the antecedent period to postmodernity. In that period, society was characterised by a prevalence of hierarchy, certainty, bureaucracy, class, centralisation and the state. In the 'new times' one can find the following; egalitarianism, uncertainty, diversity, multi-identity, decentralisation and confusion. Especially in organisational settings the old institutional centres were, in the previous period, characterised by hierarchy and centralisation, whereas the 'new times' organisations aim to be more decentralised and democratic. Now, there is increasingly an emphasis on local action and self-organisation, rather than steep vertical structures. The postmodern organisation, is or is becoming, lateral and horizontal. Before, the old industrial order stood for efficiency and planning. Now, the new industrial order views the old order as inefficient, and too concerned with hierarchy. In its place the new order raises as its prime objectives quality and effectiveness, and it sees self-organisation, self-management, and democracy as the means to achieve them.

The importance of democratic management or self-organising groups in organisations can not be stressed enough; the management sciences have a vital role to play in this, in particular, by finding means to enable organisations to be more democratic, and to make more effective decisions. In response to the need for democratisation of the workplace, to enable the possibility of self-management of teams, and to promote a participatory or inclusive management, there is the need to develop appropriate processes. These should be processes that allow group decision making to work alongside a more democratic management structure, or even to re-shape the old hierarchical organisations to be more horizontal and inclusive.

Following Giddens, we would like to make a distinction in this paper between two terms:
- postmodernity - the epoch we find ourselves in;
- postmodernism - a collection of cultural or aesthetic styles in the fields of architecture and art, i.e. the surface effects of postmodernity in these fields;
To which we'll add as a third term:
- poststructuralism - part of the means by which we might respond to where we find ourselves.
We thus view postmodernity as the problem, postmodernism as part of its manifestation, and poststructuralism as part of the answer. Three poststructuralist themes relevant to the purposes of this paper are:
  (1) A recognition of the importance of language;
  (2) A rejection of grand narrative;
  (3) A critique of the idea of the human subject.
We use the above as a framework to respond to the challenge of looking at the relevance of the theory and practice of problem solving methodologies in postmodernity, illustrating the arguments by looking at community OR (COR). In the past, understanding of COR has been repeatedly filtered through a conflict between binary opposites, for example hard/soft OR, or traditional/critical reflections; the paper by Taket and White (1993) has already demonstrated the unhelpfulness of characterising hard and soft OR as a dichotomous choice. Thus in what follows, the reader is invited to resist any interpretation of the text which identifies COR solely with soft OR.

Problem-solving?

One of stated intentions at the outset of the COR initiative was the creation or synthesis of new methods (Rosenhead 1986, Jackson 1987) which would have wider relevance than (just) COR. One of the elements in this has been the further development of the notion of problem structuring methods (Rosenhead 1989). What we would like to argue here is that the replacement of problem structuring by notions of issue structuring might open a larger space for action and choice. This involves a move away from the notion of a singular optimum or best solution to exploring a range of possibilities.

Our argument is illustrated in the following example. A voluntary health group was involved in a planning activity to explore how to respond to invitations to tender for work from statutory authorities. The tenders would be drawn up without any access to parameters and constraints, since the statutory authorities had not decided on any of these yet. It was observed that because the group had a 'problem'-focused outlook, they wasted a lot of time trying to solve the problem of what will the statutory sector eventually decide to set as its parameters and constraints, (such as length of bid, cost of tender, equal opportunities provisions or type of service), rather than concentrating on the range of responses the group itself might make, i.e. tackling more strategic issues. By viewing the situation in this way, the group made themselves prisoners of the system under the control of the statutory authorities, rather than exploring the system they have responsibility over, i.e. what they would like to do. In viewing the situation as a problem, the group was led to seek a solution before it felt it could move forward. In doing this they were imposing some notion of cause and effect, in that if they had knowledge of the constraints and parameters that would be decided upon (cause) they could predict the appropriate response in terms of a tender or tenders (effect). In fact the links between actions and outcomes are more complicated than that - or more complicated than 'solving' the situation as a problem with optimal or best solutions. To search for a solution can lead to losing the sense of links to larger wholes. The group recognised that it could not 'solve the problem', but instead of recognising the foregoing, they diagnosed another 'problem': lack of expertise.

In our example, the voluntary group contained people who had paid jobs within the statutory authorities; these had considered themselves 'experts' with regard to the statutory authorities, until lengthy debate without emergence of a 'solution', forced a re-appraisal - initially that they did not have sufficient expertise. The first reaction was to go and seek it, but it was eventually recognised that this would be an uncertain process, and another suggestion emerged - to start by looking at what the group wanted. The situation was now seen in terms of issues rather than problems, so the group could (and did) begin to study themselves in their own organisation and generated a wide range of initiatives that could be pursued at a later date. In this way the group had moved away from a mode of operation that could be characterised as 'predict and control'; such an approach does not adequately recognise that the consequences arising from any set of actions (which may be intended or unintended consequences) are indeterminate or unpredictable.

We have presented this in terms of a single example drawn from the field of COR, space precludes us from discussing other examples with similar features drawn from our practice. To us the argument demonstrates that the move from problem solving to issue exploration introduces the need for clients to learn about themselves and their organisations for themselves in order to be able to explore the domains of the possible.

Modelling and representation

"we are no longer talking about the model, ... we are no longer talking about a modelled understanding of [the] world as it has been acquired by an academic or some institution ... to be used to make predictions. We are talking about the understanding of [the] world as it has been acquired by [the client]" (de Geus 1992: 3)

The shift described above can be interpreted as a shift in the notion of representation: from capturing the world 'out there' to capturing impressions of the world. Similar shifts can be noted elsewhere in the social sciences, all of which question a correspondence theory of truth. As linguistic manifestations of this we can note the growth in the use of terms like mind map, cognitive map, narrative representation. Once this shift has been made, then the model is no longer a tool for

prediction, but rather for exploration, or learning in de Geus' terms.

The recent recasting of systems dynamics (Lane 1993, Moorcroft 1988) displays a similar shift. So that for example, Moorcroft discusses mind maps as a way of capturing individuals' views, which form the raw materials for exploration and learning using the plumbing of systems dynamics. This draws on Seymour Papert's and others' work on how children learn by playing with representations of the real world to change their understanding of that world.

This is where the work of Baudrillard is relevant. Writing about postmodernity he uses the notion of the simulacrum to refer to a replication of a replication for which there is no original (Baudrillard, 1983). The implication of this is that no distinction remains between the real and referent. The wider implication of this is that representations like simulation are furnished by other representations ad infinitum and there are no 'real world' objects for study, only representations. To poststructuralists these representations are not representations of reality; rather they produce reality. What we draw from this is that playing with the virtual world or simulacrum may become as real as intervening in the real world, this provides a challenge to action unless some method of viewing this process critically can be used. To return to Baudrillard:
"Today knowledge about an event is only the degraded form of this event. A lower form of the energy of the event. Likewise knowledge about opinion is only a degraded form of this opinion.
When knowledge, through its models, anticipates the event, in other words, when the event (or opinion) is preceded by its degraded form (or its simulated form) its energy is entirely absorbed into the void." (Baudrillard 1990: 91)

However, this might mislead one to think that a metatheory would need constructed to break up the resulting cycle of self-referentiality. The issue this poses is an obvious one, as it too (i.e. the metatheory) only refers to itself and is no comment on representation, only a comment on itself. What does this mean in practical terms?

Let's take a community organisation (or indeed any organisation) using strategic choice or SSM to explore issues. The representations produced by the use of these methods have no correspondence with the world 'out-there', the codes, rules, and diagrams gives the world to the participants and that world is in accordance with those codes, rules, and diagrams. These representations provide seductive toys. One reason for this is that they are controllable. This may in practice account for participants not getting to the deciding mode in strategic choice or becoming locked into getting the root definitions 'right' in SSM, something that we have observed in a variety of OR settings. What follows is an inability to move on and back out to intervening in the real world. In other words, reality has become the toys for gaming and the toys give us reality.

The difficulty posed by the self-referential situation can be tackled by viewing it as textual and constructed. As we have argued elsewhere (Taket and White 1993), a variety of deconstructive strategies can be adopted to disrupt the taken-for-grantedness or matter-of factness of the representation, in the words of our earlier paper:
"Deconstruction is attentive to suppressed tensions or conflict in text. It is suspicious of all 'natural' categories. The object is to look for what has been suppressed within the text, because it follows that whenever a discourse appears unified or whole, something must have been suppressed for it to appear as a unity. The process is to recover the suppressed and make the tensions and conflict within the text reappear. This leads to the exposure of the ideology assumed in the text, and spaces can be opened where different or more varied ideas can be offered."
We would like to emphasise here that such deconstructive strategies do not represent an attempt to adopt any transcendental critical viewpoint from which to adjudicate meaning or close interpretation. They are processual and have no 'natural' end or conclusion, any interpretation remains open to reinterpretation, and indeed contains the seeds of its own deconstruction. Thus although we can regard deconstructive strategies as providing a process for critical reflection, this is to use the term 'critical' in a very different sense than that used within Habermasian critical theory.

Experts and expertise

The traditional view of the management scientist has been that of an 'expert', i.e. an individual with a certain 'know-how' who produces a solution on behalf of others by means of a rational approach. This expert was seen as capable of educating, enlightening, revealing to others their problems and hence the solutions. Poststructuralists would question the privileged position of the expert, arguing that it is a mistake to accept the expert as having the final word as to the meaning of the client's problems. We have discussed elsewhere why we find the traditional view of the expert unhelpful (White and Taket 1994). Many of today's management scientists would also find this traditional view no longer applicable, recognising that the expert is not the only one licensed to speak on what can be done in such and such a situation.

Let's discuss how a new view of the expert might look. This is not a dramatic abandoning of experts or expertise, but a strategic reduction of the expert's authority. Rather than proclaiming truth about this or that problem, the new expert would be much more of an interpreter, and would recognise any project of interpretation as something that can be carried out collaboratively. We have discussed elsewhere (White and Taket 1994) some aspects of this new view of the expert, basing it around a extended case study discussion. Below we illustrate some of the ideas by discussing other examples from community OR practice.

Analysis can reduce the need for 'expertise', by giving power of interpretation to the client to do as they will with it. Rather than seeing an issue as something outside to which people react, the new expert treats the issue via representation, for example, as in a influence diagram in an systems dynamics (SD) model. Rather than seeing the representation as an account of events to which people react, it is, from a poststructuralist viewpoint, seen as readings, or creations, of the participants concerned with an event. Here, the interest of a wider audience can be increased, and the process can be enhanced to include the participation of more of the involved. Focusing on local representations becomes important in stimulating action, rather than attempting to capture the global world. A structured issue does not have meaning or purpose; these are human projections. Structuring of issues is one of many ways to interpret the world, and can not have an absolute or an universal status.

We can also notice the development of the view of the client as expert in context and content. One example which illustrates this particularly well is drawn from a case study published elsewhere (White & Taket 1993), in which a day workshop was undertaken to help a civil rights group take stock of problems, possibilities and opportunities. In this example, we were ignorant of a lot of the detail of the situation, lacking knowledge of the individuals involved and of the detailed workings of the organisation, but this did not impede our working with the group as facilitators. The group's expectation of our role as 'experts' in facilitation was quite clear, they expressed it as: "let us make the agenda - but we need the framework to be controlled".

An even more graphic illustration of the client as expert in content is provided by another case study described in full elsewhere (Taket and White, forthcoming). Here the involvement of the OR analyst was to facilitate a bilingual workshop. The facilitation was carried out in English, but the substantive work done in Bengali - a language which the facilitator did not speak. Control clearly rested here with the Bengali speakers in the workshop, who put questions on process to the facilitator as they needed to.

A final example can be drawn from an involvement in one-to-one facilitation[1] in a voluntary sector health project. The coordinator of the project, which is concerned with a mixture of service development and evaluation, works in a very isolated situation, with no other peers within the organisation. An arrangement was set up whereby regular bi-weekly meetings with a community OR analyst took place. The purpose of these meetings was to provide a supportive and structured environment where the coordinator could explore options and formulate his plans connected with any

---

[1] Facilitation is most often thought of in terms of working with a group. However there are situations where an OR analyst interacts with a single client that are usefully thought of as one to one facilitation, Huxham and Cropper (forthcoming) also describe such work.

aspect of his work. The facilitator also had relevant knowledge of content and context in this situation, but in order to ensure that the meetings were supportive and did not undermine the coordinator's confidence in his own abilities, it was important that the content and context of what was dealt with was under his control, with the facilitator being in charge of process. This did not mean that the facilitator's knowledge in the area could not be used, but it was up to the client to request specifically any input required as to content or context[2]. When any such input was made, it was important that this was done in such a way as to support the cordinator in developing his own thinking on the subject, Huxham and Cropper refer to this as making a substantive contribution in a facilitative rather than authoritative way, see also the discussions in White and Taket (1994).

Discussion

"the obsessive search for origin, responsibility and reference - an attempt to exhaust phenomena back to their infinitesimal causes. ... the frenzy to explain everything, attribute everything, footnote everything. All this becomes a fantastic encumbrance - the references all living off each other and at each other's expense. An excrescent system of interpretation develops with no relation to its objects. All this comes from a headlong flight forward from the haemorrhage of objective causality." (Baudrillard 1990: 12-13)

For a number of years, systems dynamicists have recognised many of the issues we have discussed above, particularly concerned with the nature of representations. Lane (1993) sees the pathways taken by soft OR and third generation SD as almost parallel, in responding to the application of earlier OR/SD to problems for which they were inappropriate, in particular to social problems. Both paths involve issues to do with representation and a shift towards a more phenomenological view of the world, recognising intersubjective issues and the need to bring in individuals' representations of the world. Within SD, Lane identifies the response as being to incorporate the human element. These manoeuvres just reintroduce the problem of self-referentiality at a different level. The way we wish to loosen this up draws on the three poststructuralist themes we summarised in the introduction. In what follows we touch on each of these in turn.

We talked earlier of simulacra, and argued that representations and simulations have no correspondence with the 'real'. This is not to be utterly nihilistic and dismissive, as we would like to cast the issue in another way. By seeing representations, such as models, linguistically we make salient their relative and reflexive dynamics. We have written elsewhere on the importance of the above and also the importance of Lyotard and his reflections on language (Taket and White 1993). These arguments imply that language is now seen as implicated in the construction of any particular reality or subjectivity in modern times and that the shattered remains of a broken, fragmented language (a "powerful infidel heteroglossia" (Haraway 1985: 181) in Haraway's terms) are what holds together moves in representation in postmodernity. Such moves include nostalgia, bricolage, pastiche (Jameson 1985 amongst others). In the SD texts of postmodernity we can notice a nostalgia for the founding visions of Forrester, while the strategy of bricolage also finds use in soft OR (and third generation SD?). To us postmodernity has arrived in the management sciences when we come to believe that there is no object of study but language, for example in concern with mind maps, cognitive maps, root definitions and so on.

One useful way of proceeding therefore is provided by poststructuralist ideas, but we note that there is no way of grounding a critical view but in reflexivity; the strategy is to adopt a critically reflective process. In relation to modelling we are forced to reject the idea of a correspondence theory of truth, that reality is 'out there', waiting to be discovered and represented accurately. We accept instead the possibilities of specific local, personal, and community forms of truth. We see no problem of conflicting local visions because each vision is true in a different world. In this way we welcome all works that promote the local or even the 'microworld', where it is recognised that it might be difficult

---

[2] This should not be read to assume that a complete separation of process from content and context is possible and that the facilitator can somehow put aside any knowledge possessed. Naturally (!) the facilitator would draw on knowledge related to content and context in formulating the questions that drive the process. Huxham and Cropper (forthcoming) also discuss this issue.

to establish community knowledge, except through a participative process of consent-giving (distinct from consensus) making it possible to communicate certain truths, which are not universal, but which hold for that community at a specific place and time. In the end what we call the mind (in all its representations - mind maps, cognitive maps and so on) or reason is (only) a move or effect of language.

To argue against a correspondence theory of truth is not to deny the materiality of the world and its effects, it is to argue about the nature of the claims we can make about our (linguistic or otherwise) representations:
"We need to make a distinction between the claim that the world is out there and the claim that truth is out there. To say that the world is out there, that it is not our creation, is to say, with common sense, that most things in space and time are the effects of causes which do not include human mental states. To say that truth is not out there is simply to say that where there are no sentences there is no truth, that sentences are elements of human languages, and that human languages are human creations.
        Truth cannot be out there - cannot exist independently of the human mind - because sentences cannot so exist, or be out there. The world is out there, but descriptions of the world are not. Only descriptions of the world can be true or false. The world on its own - unaided by the describing activities of human beings - cannot." (Rorty 1989:4-5)

Moving on then, we note that this involves us in rejecting the possibility of any grand narrative, understood as that which "anticipates all questions and provides pre-determined answers", and in particular in rejecting the grand narrative of the rational/reason, some key components of which are succinctly summarised by Flax (1987):
"existence of stable, coherent self, capable of a 'reason' which offers privileged insight into its own processes and 'laws of nature', ... reason has transcendental and universal qualities, it is independent of the self's contingent existence, ... Knowledge can be both neutral (e.g. grounded in universal reason, not particular interests) and also socially beneficial."

As an important part of the rejection of this particular grand narrative we can notice the rethinking of the subject this requires, to a view of the subject as constructed (but not in a deterministic fashion[3]), of the subject as plural and dynamic (i.e. continually re-constructed), with leaky boundaries (Haraway 1985), and we might notice, in Butler's words:
"the subject/object dichotomy, which here belongs to the tradition of Western epistemology, conditions the very problematic of identity it seeks to solve. ..... That the epistemological point of departure is in no sense inevitable is naively and pervasively confirmed by the mundane operations of ordinary language - widely documented within anthropology - that regard the subject/object dichotomy as a strange and contingent, if not violent, philosophical imposition" (Butler 1990: 144)
We can notice a reconceptualisation of the subject following these lines in the examples we discussed earlier on experts and expertise, and a similar reconceptualisation is also pertinent to a consideration of Lane's discussions of what third generation systems dynamics and soft OR can learn from each other (Lane 1993). For the future, what the issues raised here point to, is the need for different ways of looking at the question of the subject and moves towards different ways of traversing the terrain in front of us.

---

[3] So emphatically, this is not to do away with the concept of agency; as Butler expresses it:
"the reconceptualisation of identity as an *effect*, that is, as *produced* or *generated*, opens up possibilities of 'agency' that are insidiously foreclosed by positions that take identity categories as foundational and fixed. For an identity to be an effect means that it is neither fatally determined nor fully artificial and arbitrary. That the *constituted* status of identity is misconstrued along these conflicting lines suggests the ways in which the feminist discourse on cultural construction remains trapped within the unnecessary binarism of free will and determinism. Construction is not opposed to agency; it is the necessary scene of agency, the very terms in which agency is articulated and becomes culturally intelligible." (Butler 1990: 147)

References

Baudrillard J (1983) Simulations. New York Semiotext(e).

Baudrillard J (1990) Fatal strategies. London, Pluto.

Butler J P (1990) Gender trouble: feminism and the subversion of identity. New York, Routledge.

de Geus A P (1992) Modelling to predict or to learn. European Journal of Operational Research 59:1-5.

Friedmann J (1992) Empowerment: The politics of alternative development. Oxford, Blackwell.

Hall S & Jacques M (1989). New Times: The changing face of politics in the 1990s, Lawrence & Wishart.

Haraway D (1985) A cyborg manifesto: science, technology and socialist-feminism in the late twentieth century. In: Simians, cyborgs and women: the reinvention of nature. London, Free Association Books, 1991.

Huxham C and Cropper S (forthcoming) From many to one - and back: an exploration of the components of facilitation.

Jackson M C (1987) Community operational research: purposes, theory and practice. Dragon 2: 47-73.

Jameson F (1985) Postmodernism and consumer society. In: H. Foster ed. Postmodern culture. Pluto, London, pp. 111-125.

Lane D C (1993) With a little help from our friends: how third generation system dynamics and the issue structuring techniques of 'soft' OR can learn from each other. City University Business School Working paper ITM/93/DCL2.

Moorcroft J D W (1988) Systems dynamics and microworlds for policy-makers. European Journal of Operational Research 35(3): 301-320.

Rorty R (1989) Contingency, irony and solidarity. Cambridge, Cambridge University Press.

Rosenhead J (1986) Custom and practice. Journal of the Operational Research Society 37(4): 335-343.

Rosenhead J ed. (1989) Rational analysis for a problematic world. Chichester, Wiley.

Taket A R & White L A (1993) After OR: an agenda for postmodernism and poststructuralism in OR. Journal of the Operational Research Society 44(9): 867-881.

Taket A R & White L A (forthcoming) Doing community operational research with multicultural groups. OMEGA.

White L A & Taket A R (1993) Community OR - doing what feels good. OR Insight 6(2): 20-23.

White L A & Taket A R (forthcoming 1994) The death of the expert. Journal of the Operational Research Society 45(): -.