Normative Action Research*

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Abstract

This paper presents an argument for an enrichment of action research methodology. To the current state of action research, we add a constructivist epistemological argument, as well as a crucial inspiration from some futures-oriented planning approaches. Within the domain of social/organizational research, the futures perspective implies that knowledge of the social/organizational world must be based upon images of desirable futures, so-called 'futures theories', not causal descriptions of a problematic present. Futures theories identify ends and means for individual and organizational development. They are generated jointly by the stakeholders of a system and the involved action researchers and are tested every time that the prescriptions for action contained in them are followed by a system's stakeholders.

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Introduction

Many organizational scientists are increasingly calling into question the most fundamental assumptions underlying their research activities. This appraisal of purposes, methods and epistemologies of organizational science is no more evident than in action research, the users of which demand a research process that is relevant for both the practitioner who is struggling with a system of problems, as well as for the scholar whose purpose is to advance the current state of knowledge. The present paper contributes to the ongoing enrichment of action research methodology (Whyte 1989) by suggesting that action researchers should adopt the normative planner's concern with creating images ('theories') of desirable futures and a constructivist epistemology according to which social reality is constructed through human activity.

Action Research

As a mode of social research intended to overcome some of the shortcomings of positivism, action research was proposed by Lewin (1947). He combined action and research by arguing that a social situation can best be understood if a change is introduced into it and its effects are observed. As such, action research has the twin aims of providing practical

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guidance to people faced with immediate problems and contributing to the goals of social science (Rapoport 1970).

As a social science, action research does not aim to formulate universally true laws, but situation-specific insights (Susman and Evered 1978). The action researcher intervenes in the problem situation in order to improve the self-help and action-taking competencies of the individual (Susman and Evered 1978) as well as to facilitate learning at the level of the organization (Argyris and Schon 1978; De 1978). The purpose of action research is to advance theories about the new organization and about the change process that produces it (Walton and Gaffney 1989). Therefore the knowledge that is produced helps the change process and the new organizational forms that are expected to emerge as a result of the process. The knowledge gained has tended to be 'thematic patterns derived from inquiry in one setting' (Argyris and Schon 1989) and aimed, in essence, at describing the change process.

The mode of inquiry/engagement is cyclical and leads to change as well as to new social-scientific knowledge. The cycle starts with problem identification and proceeds through data gathering, diagnosis, feedback to client, planning of action to be taken and execution, evaluation of results, and back for another iteration. The dual activities of action-intervention and research are pursued collaboratively by the client and the researcher within a mutually acceptable ethical framework (Rapoport 1970). The organizational members not only learn about new ways of organizing, but they also participate in the generation of theory (Whyte, Greenwood and Lazes 1989). They engage both as subjects and as co-researchers in the research process as a part of the effort to improve the situation they are in.

In the work of the action researchers cited above, the nature of the scientific-knowledge component needs further clarification. To be sure, practically useful knowledge describing the change process is produced, but it is not very clear whether the organizational-scientific knowledge generated in the action research engagement is substantially different from the kind of knowledge produced by conventional methods. This insufficient clarification of the relation between practical knowledge and scientific knowledge may contribute to an impression that action research is essentially a juxtaposition of action and research, rather than a true synthesis.

For the uneasy marriage between action and research to become a happy one, a new concept of what constitutes organizational-scientific knowledge is needed. As an introduction to this reconceptualization, we wish to consider three closely related planning approaches, all of which succeed in establishing a new basis for social action. This reorientation of the basis of organizational action may serve equally well as a new basis for scientific knowledge of organizational action.

Three Normative Planning Approaches

According to Emery and Trist (1972), planners of a traditional bent put excessive emphasis on taking actions that merely serve to adapt a system to given circumstances. As an alternative to such 'passive adaptation', Emery and Trist propose a process of '*active adaptative planning*' which promotes adaptation to a desirable future state of the world. This future is not expected to come about automatically; it requires deliberate efforts that free people and social systems from the entrapment of the past.

In the turbulence of modern society, values are needed more than ever to guide people and organizations confronted with uncertain futures. The importance of values is brought out by Emery (1981: 67): 'Our values seem to have the breadth of influence to encompass the range of contesting interests that can be expected in an area ripe for change'. Accordingly, planners and decision-makers need to shift their sights from short-term means and instruments to long-term ends and values.

Active adaptive planning 'is concerned with the creation of adaptive social organization capable of social learning' (Trist 1976: 226). The most important aspect of this style of planning is not the plan produced but the 'planning community', that is, the sense of shared appreciation of the organization and its environment that the planning process creates in the participants. This planning community is generated in '*search conferences*':

> 'The search conference is based on the proposition that a direct relationship exists between active adaptation and social organization and is found in designs which provide optimal freedom for participants to discover new paths in response to the changes occurring around them while acquiring, through participation in the group life of the temporary planning community, the essential features of adaptive human organization.' (Williams 1979: 482)

Ozbekhan (1974) shares Emery's and Trist's preference for orienting planning towards the future rather than the present. The world of the present, that faces the planner, is called a 'problematique' by Ozbekhan. This is the set of problem-generating consequences, intended and unintended, of previous actions. Since a problematique cannot easily be decomposed into well-bounded problems and hence is not amenable to simple optimization techniques, the planner must concern himself with designing actions. This is best effected by a planning approach that '. . .deals with "futures" rather than "facts"', and does this in such a way that '. . . the future . . . imprints its configuration upon the present' (1974: 78) rather than vice versa.

In his planning theory, he delineates the concept of future by introducing a distinction between 'logical' and 'willed' futures. Logical futures are the mere extensions and extrapolations of the present with which traditional planners are preoccupied. Willed futures go beyond the immediately feasible; they are the results of judgement and deliberate choice. 'To will

a particular future state of any system is an act of choice involving valuations, judgements and decisions that pertain to the attainment of man-determined ends and to the selection of the right means to gain such ends' (Ozbekhan 1970: 70). Values define the good, and the planning activity that leads to action taken to promote 'the good' is labelled *normative planning* (Ozbekhan 1974). Being based on an explicit vision of the good and the norms required to bring it about, normative planning is of a higher level than strategic and operational planning, both of which take underlying values and goals more or less for granted and hence serve to perpetuate the norms of the present.

Ackoff (1974, 1981), a sometime colleague of Emery, Trist and Ozbekhan, has explicated their emphasis on taking the future as a starting point for planning and action. He calls his practical planning philosophy *interactive planning* to distinguish it from traditional forms of planning, which he categorizes as 'inactive' (bureaucratic non-planning), 'reactive' (short-term piecemeal approaches, muddling through) and 'preactive' (predict-and-prepare approaches, strategic planning, operations research).

Ackoff develops Ozbekhan's concept of the problematique as the 'mess' (as Ackoff calls it) of closely interwoven social and organizational problems facing a social system. Realizing that problems in a mess cannot be solved separately from each other, the interactive planner seeks to redesign the entire system in a holistic fashion so as to bring about a desirable future state in which these problems will not appear in the first place. This future, Ackoff argues, is to be designed and brought about by the people who hold a stake in the performance of the system (employees, owners, neighbours, etc.), that is, its stakeholders.

The methodology of interactive planning proceeds from 'mess formulation', which maps out the present mess and uses extrapolations of current trends to paint a scare image (a 'reference scenario', akin to Ozbekhan's 'logical future') of the future that the system will have if no planning is undertaken. The mess formulation is intended to alert the stakeholders to the need for radical action.

Next follows the process of 'idealization', during which the stakeholders design the system they would most like to have right now, if they could. This design for a better system is called an *idealized design* — it is not a utopian ideal, but the best design the stakeholders can come up with at the moment. The idealized design is a systemic whole in which all the parts are designed to fit together, and it must be capable of learning and adaptation. The only constraint on the idealized design is that it must not involve technology known to be impossible and it must be able to survive if implemented today.

From an inspection of the planning gap between the reference scenario and the idealized design, medium-term objectives are derived as well as shorter-term goals and the means to attain these. During the implementation of this plan, the idealized design, objectives, goals and means are continually reevaluated by the stakeholders and changed as desired. These planning activities and the futures orientations implied by them are

supposed to infuse the entire *modus operandi* of the stakeholders, as expressed in the catchphrase 'managing in the planning mode'.

To sum up, it is evident that the normative planning approaches of Emery and Trist, Ozbekhan, and Ackoff strongly emphasize that social action must proceed from an imagined, desirable future, rather than from a fragmented and problematic present. This distinguishes them from mainstream planning approaches which are overridingly concerned with the assumed givens of the organizational environment and with very short-term solutions. The normative planning approaches encourage the stakeholders of a system to transcend conventional definitions of what is possible and realistic and engage freely in the creation of more desirable states of the system. The questioning of self-imposed constraints and assumptions is accompanied by attention to notions of the good: what ends ought to be pursued and how may they be evaluated?

In contrast to the passivity induced by excessive attention to the 'facts' and 'givens' of the world as it is, a focus on the world as it could be tends to motivate and mobilize stakeholders to take radical action for change. Such normative planning is a different decision-making process compared to the 'garbage-can' model of Cohen, March and Olsen (1972), Quinn's (1980) logical incrementalism and Mintzberg's (1978) retrospective orientation to strategy formation, because these approaches focus on the world as it is or as it has been, while normative planning approaches focus on the world as it ought to be. Normative planning seeks to empower the stakeholders involved and to contribute to their sense of direction and purpose by helping them to articulate preferred states of the world. Through the implementation of normative plans and idealized designs, the stakeholders gain insight into the ends and means of individual and organizational development. This knowledge dimension or by-product of normative planning is elaborated in the section below.

In conclusion, we emphasize the liberating power and heuristic value of looking to possible and desirable futures instead of being imprisoned by one's rigid perceptions of a confusing and fragmented present. The liberation theme in one of the normative planning approaches mentioned above is explicitly developed in Babüroğlu (1992).

Action Research as the Creation and Testing of 'Futures Theories'

Now, how can the explicit futures orientation of the normative planning approaches inspire organizational research methodology in general, and action research methodology in particular? Susman and Evered (1978) take a stab at this question in their assessment of action research. Apparently similarly inspired by the normative planning approaches, they quote Ackoff and Emery (1972) and state that

'action research is future-oriented. In dealing with the practical concerns of the people, action research is oriented toward creating a more desirable future for

them. . . . In being future-oriented, action research has close affinities to the planning process, so that planning research may be potentially useful in informing action research and vice versa.' (p. 589)

In this section, we wish to propose an interpretation of these 'close affinities' that goes beyond the notion of planning and social/organizational research as separate activities that merely 'inform' each other. Action research may be re-articulated so as to incorporate explicitly the orientation towards the future that we found in normative planning. This re-conceptualization requires an exposition in epistemology and a new conception of what constitutes knowledge in the social/organizational, as opposed to the natural, domain. Let us begin by following Susman and Evered, who suggest that 'what appears at first to be a crisis of relevancy or usefulness of organization science is . . . really a crisis of epistemology' (1978: 582).

A Constructivist Epistemology

The epistemology of mainstream social/organizational research methodology was inherited from the natural sciences. The ontology of Newton and Descartes stipulated that the organization of reality is fixed and its behaviour governed by immutable laws that the almighty God impressed upon the universe at the beginning of time. This led to the idea that the purpose of (social/organizational) science is to identify these (social/organizational) laws. Scientific methodology was designed to extricate these laws from reality.

This static ontology, however, is being increasingly rejected even by natural scientists who now tend to take the view that reality is fundamentally in a state of flux (Bohm 1980; DeWitt 1983; Goodwin 1989). Whatever appears stable in this flux has emerged at some point in time and is subject to continuous modification, albeit to various extents. The universe itself was created at some point in time (the Big Bang) and has been undergoing continuous evolution ever since — cosmic, geological and biological. Both matter and the laws governing matter emerged at some point in the early universe (Davies 1985); neither is a fixed given. 'Laws of nature' and other rules of interaction have a history of genesis and change. For example, the biochemical 'laws' that regulate the reaction of organic molecules were obviously not in operation before organic molecules were formed on earth, or elsewhere in the universe a few billion years ago. All in all, physical reality has proven to be amazingly creative. We posit that this creativity, this potential for novelty, is essential for our understanding of the nature of reality.

In the human, social and organizational domain, this alternative ontology/epistemology is consonant with the view of the social world that has been called 'constructivism' (Berger and Luckmann 1966; Manicas 1980; Astley 1985; Gergen 1985). According to this view, social reality is constructed through human activity. As actions are repeated, they

become habitualized, give rise to role typifications and result in social institutions. While human beings thus construct society, the way they do it is, in turn, shaped by whatever social patterns and meaning structures are available in the culture. This view of social order as being continually constructed and modified through human interactions contrasts with the mainstream social scientist's view of the social world as governed by forever fixed laws of behaviour.

To be sure, *natural* laws are highly stable and determinate, presumably because of their having been repeated for aeons. The interaction rules and patterns of the *human* world are more volatile, however; they change historically. The point that 'laws' of social behaviour may change as (and sometimes even *because*) we observe it is fundamental to the action research approach which, partly for that reason, stipulates that knowledge about the social world can only arise from an active involvement in it on the part of the social/organizational researcher. Likewise, planning as a social/organizational activity in general and normative planning approaches in particular are inherently constructivist in their premise that social institutions and organizations may be modified, annulled or fashioned anew by deliberate human action (Ravn 1986b).

Explanation and Action Knowledge

The constructivist perspective on social reality clearly has implications for the way social/organizational research is conducted (see e.g., Gergen 1982; Steier 1985; Ravn 1991). Before we advance our ideas on what they may be, let us define the purpose of research or science as producing and testing theories, theories being sets of propositions that explain and provide understanding (Kaplan 1964; 343). Despite the high value that positivist science places on observer-independent ('objective') explanations, it stands to reason that for a statement or a set of propositions to be accepted as a good or valid theory it must produce in the person considering the statement an experience of understanding and meaning. If the observer does not have the cognitively and emotionally pleasing sensation of 'Eureka!' or 'Ahaaa, *now* I understand', the explanation will not be accepted.

This definition of explanation is, of course, entirely unrelated to the truth (or validity, however defined) of the theory. We have all experienced situations in which the most exquisite experience of understanding something evaporates a minute later when new and contradictory evidence appears. Nevertheless, for a statement to be an explanation, some observer (or stakeholder, as we shall emphasize later) must accept it as such, otherwise it is just a meaningless statement.

While we may take this 'Eureka criterion' to be a universal and defining criterion for the acceptance of explanations, the culture or paradigm in which an observer is embedded defines to a large extent the specific procedures by which the Eureka experience may be legitimately produced. In one culture, inspection of the entrails of sacred animals is a

standard avenue for inquiry and understanding, whereas in another, Galilean experimental methods and statistical significance levels of 0.05 are considered crucial for the acceptance of explanations.

The positivist scientific paradigm stipulates that the Eureka experience can only occur when a correct representation of an external reality and its fixed laws has been produced. Explanations of this kind give rise to what we may call *representational knowledge*.

A constructivist paradigm admits no concept of a fixed, external reality. Hence, explanation and knowledge cannot be conceived of as mappings of such a reality (except as limiting cases in the domain of natural science). If we accept the constructivist view that social reality is continuously created from human action, then what does it mean to say that we, as human agents, may know about this reality which, in the last analysis, issues from our very own actions? Knowledge clearly cannot be about a reality and be separate from it; knowledge must become a piece of the continuously constructed reality itself. Extending Evered's suggestion that 'knowledge may be like an interactive skill that inheres in a transaction, more like *knowing how* than *knowing what* (1985: 445, italics in original)', let us suggest that knowledge resides in processes of social reality construction. To know is to know how to act. We may call this *action knowledge*. It subsumes knowledge of the stable and enduring structures of social reality (representational knowledge), but goes beyond it to include knowledge about desirable directions that the construction process itself may take. Action knowledge is akin to Schon's notion of knowing-in-action (1983: 50) and it is such knowledge that action research generates.

Since action knowledge is knowledge of *right* action, it involves values in the most direct way. The positivist dichotomy of facts and values draws an iron curtain between, on the one hand, a 'factual' and real world (i.e., a fixed reality, whether natural or social) where things just *are* and, on the other, a separate world subject to human intervention as guided by values. In contrast, the constructivist view of social/organizational reality as emerging from human actions integrates the value aspect completely in the constitution of social reality, in that all human actions have some basis in choice and considerations of good and bad, right and wrong. Knowledge of how to act implies insight into various actual and possible forms or structures of action and it implies the existence of guidelines for choosing between them.

To a constructivist, statements that merely describe some current state are insufficient to produce the Eureka experience; suggestions as to ways of creating some more desirable future state must also be provided. In practical terms, this means that realizations like 'Hmm, so poverty increases the likelihood of domestic violence?' or 'So these are the forces that keep things the way they are' or 'Oh, this is the rut I'm in' will not make it as explanations. Just as the medical scientific paradigm rules that certain explanations are inadmissible, such as the 17th century belief that carrying amulets on long sea voyages would prevent scurvy, so a construc-

tivist view of the world will consider certain 'explanations' to be inadequate, namely, those that cement the current state of the world by failing to inspire people to take action.

An Enrichment of Action Research Methodology

Having established that the alternative constructivist epistemology leads to a new concept of knowledge in the social/organizational domain, action knowledge, let us now ask if action knowledge can be generated scientifically.

We recall that the classical scientific method was devised to produce representational knowledge. By experiment and observation, 'hard' quantitative data abstracted from external reality are organized into a model or a theory purporting to describe or explain in a simplified manner the behaviour and arrangement of the world. The classical scientific method only sees the world as it is and as it supposedly always has been. In this sense, representational knowledge is always knowledge of the past, or at least of a receding present.

Can social/organizational research produce knowledge for the future, knowledge of how to bring about desirable futures? We suggest it can. Inspired by the normative planners' insistence on taking the future as a starting-point for action, we propose that the image (in the sense of Boulding 1956) of a desirable future produced by the stakeholders of a social system may be considered a scientific theory of the organization or social situation under consideration (Ravn 1986a). Let us call this conception of a social/organizational-scientific theory a 'futures theory'. A futures theory provides explanation, not by describing a supposedly given and objective present state of the world, but by identifying desirable futures and the means for their realization. It explains not what things there are in the world and how they are related, but what things there ought to be and how they may be brought about.

Futures theories are systemic and well-integrated designs for future social arrangements and thus stand in relation to the reductionistic theories of classical science as the normative planners' idealized designs are related to the mess or problematique. Classical scientific theories as well as mess formulations describe the present and offer no insight into action for change, while futures theories are similar to idealized designs in that they both propose ends and means for individual and organizational development. Images of desirable futures are capable of providing the kind of insight into opportunities for action that we described as characteristic of action knowledge. This is the active-constructive type of Eureka experience: 'Aha, now I understand what needs to be done!'

Examples of futures theories can be seen in several action research processes in which one of the authors has been engaged. Through a participative design process the stakeholders to a domestic violence shelter in northern Pennsylvania decided that domestic violence cannot be eliminated if they did not address the needs of the victimizer of the domestic

violence acts. They then proceeded to suggest that the shelter should not only be concerned with the rehabilitation and protection of the victim but also of the victimizer. Furthermore, there was a need to help the victim very quickly after the occurrence of the violence, since it often takes a long time and additional emotional stress to search for and go to the shelter. To remedy this situation, the stakeholders decided that they should not wait for the victim to come to them but rather that they should go to the victim. This resulted in the creation of a mobile shelter. Having had a Eureka experience that provided them with guidelines for further action, they then proceeded to work on the implementation of this futures theory.

In another action research involvement, most of the members of a grass-roots nuclear freeze movement had come to a point of very low energy and were searching for — in our terminology — a futures theory, to re-energize themselves. The members collectively decided that the nuclear freeze movement needed to be reframed as an ecological movement and decided to merge with some of the state-wide ecological grass-roots movements. Once the mobilizing Eureka idea has been generated, the futures theory can be much more elaborately designed. These are the kinds of theories that help our understanding of how to act in particular situations. That is knowledge for action, and it aims to increase the action capability of the stakeholders. These kinds of theories are akin to what Gustavsen and Engelstad (1986) call 'local theory'.

That social/organizational-scientific theory should add to our stock of action knowledge by providing guidelines for the creation of desirable futures is clearly compatible with the constructivist view of social reality. It is interesting to note that in one of several tenets of 'action science', Argyris similarly emphasizes the responsibility of social researchers to create new realities: 'A complete description of reality requires not only a description of the universe as it is, but also of its potential for significantly reformulating itself (its potential being part of what it is)' (1982: 469).

Our reconceptualization of 'theory' meets Evered's call that 'what we need to develop is a theory *for* action, rather than a theory *of* action' (1985: 452, italics in original). A theory for action is what we called action knowledge and our aim is to redefine social/organizational-scientific theory in such a way that social/organizational research directly contributes to action knowledge by including the normative concerns of action and planning.

As regards the mechanics of generating futures theories, any combination of the procedures and principles suggested by Emery and Trist (search conferences), Ozbekhan (defactualizing, willed futures) and Ackoff (idealized design) may be used, as long as it involves the participation of the stakeholders. Since the purpose of a futures theory is to improve the action knowledge held by the actors, that is, by the stakeholders who are to implement and live with the practical implications of the theory, it follows that the generation and refinement of social/organizational-scien-

tific theory can no longer be the exclusive province of scientific experts. It is the privilege and responsibility of those who will be affected by the consequences of the futures theory. Therefore, the identification of stakeholders to reflect a broad range of implementation interests is a prerequisite for the construction of futures theories. This is most effectively accomplished by involving the stakeholders themselves, iteratively, in the creation of a stakeholder map, very early on in the process.

In developing a stakeholder map for a state-owned fertilizer concern in Turkey, the general manager approached the state planning organization to solicit their participation who, in turn, suggested that the treasury should be involved. When a search conference produced a futures theory that pointed to being more autonomous from the state, the extended stakeholders designed a self-privatization strategy the operationalization of which was developed by the state planning organization and the treasury.

Another search conference in Turkey — this time for the Turkish ministry of tourism — brought together all the conceivable interest groups ranging from opposition party deputies, mayors of tourist regions, airline and travel agency representatives, investors, architects, museum authorities and leading executives from the tourism ministry, including the minister. Because the language of the meetings was Turkish and because no foreign tourist could be located at that time who spoke fluent Turkish, the futures theory that emerged was somewhat nationalistic, and emphasized preserving the tourism potential for Turkish tourists. These two examples illustrate how the presence or absence of some stakeholders affected the content of the futures theory. In addition to theory generation, the role of stakeholders will become clearer as we consider the ways in which futures theories can be tested or validated.

Validation of Futures Theories

Like any theory in the natural sciences, a futures theory needs to be tested or validated. Being concerned with the future, it clearly cannot be tested against the 'facts' of present reality in the manner of traditional scientific method. Rather, it is tested or tried whenever the prescriptions for actions and institution-building contained in it are carried out by the stakeholders of the system in which the theory was born, and it is validated to the degree that it can be successfully applied in other settings as well.

Given that the purpose of a futures theory is to help bring about a more desirable state of affairs for a system's stakeholders, it would be easy to argue that the validity of the theory can be measured by detached scientific observers employing social/organizational-scientific indices of organizational effectiveness, quality of work life, stakeholder satisfaction, etc. However, if we abandon the notion of representational knowledge in the social/organizational domain, the scientific expert with privileged access to objective knowledge also goes. Action knowledge, in

contrast, is distributed over an entire population of people who, in their everyday activities, contribute to the ongoing construction of social reality. The assessment of futures theories must therefore be in the hands of the people whose lives are shaped by them.

In a paper that bears the title, 'Does quality of life have to be quantified?', Ackoff (1975) arrives at a similar conclusion by arguing that social and organizational development does not depend on social scientists' ability to quantify and measure it. Rather, he proposes that the evaluation of efforts to effect organizational change be turned over to the stakeholders themselves. 'The key to improved quality of life is not . . . measurement of [other people's quality of life], but enabling [stakeholders] to plan and measure for themselves' (Ackoff 1975: 219). In a word, if the members of the organization do not know if their quality of work life has improved, it has not. The conclusion to be drawn from that 'measurement' is that planning efforts and the stakeholders' involvement in them must be intensified.

As indicated above, the criterion to be used in the evaluation of a given futures theory is the extent to which it is capable of producing in the stakeholders the active-constructive Eureka experience, that is, the experience that the right action flows from the theory. The futures theory that empowers and mobilizes stakeholders in as many different organizations as possible is the most comprehensive and valid theory.

The tricky question that now faces the researcher is this: What if a hundred stakeholders of a system agree that the futures theory they came up with last year has indeed led to many wonderful actions, but the researcher senses very strongly that the stakeholders are deceiving themselves and, in fact, ought to change horses so as not to make matters worse? Should s/he go with their evaluation of the theory? We suggest that the researcher, like any other interventionist, has a moral responsibility to communicate to the client her/his perception of the situation and to do the best s/he can, in as respectful and facilitative manner as possible, to help them see what s/he believes is their erroneous evaluation of the futures theory. By keeping some distance from the emotional involvements of stakeholders s/he is able to maintain a critical perspective of their evaluations and intervene to provide them with plenty of opportunities for reflection and self-scrutiny.

Another major role of the researcher is to facilitate learning during the process of implementation or testing of a futures theory. S/he contributes freely from her/his theoretical and practical experience with other cases of individual and organizational development and thus provides guidance and direction for stakeholders in the formulation, implementation and evaluation of futures theory. Since futures theories are oriented toward the future, the data used for their testing are generated in the process of implementation. As in action research, the researcher is responsible for the collection of these data, which become input to the learning and development efforts of the organization in question.

These data constitute the material from which scientific generalizations

about the validity of a futures theory are made. The extent to which particular kinds of human action or organizational innovations contained in a futures theory can be successfully applied in other settings than the one in which it originated, is a matter of continuous experimentation. Williams and Alford (1978) report, for instance, on how the discussion of other social experiments with semi-autonomous work groups in a processing plant, the involvement of school children in designing a playground, and the planning of a new maximum security prison, helped to explore alternative designs with the stakeholders of a telecommunications agency. Efforts to generalize are aided by the intelligent identification of similarities and differences between the original case and others.

A further task of the action researcher is to establish connections between systems engaged in similar development efforts, in order to subject the various futures theories to wider testing and to accelerate the transfer of valuable experience. This networking function unifies the two previously disjointed tasks of generating knowledge and stimulating action.

Summary, Conclusions and Limitations

Inspired by the three normative planning approaches, we suggested that action researchers should become similarly oriented towards the future. What this means is obvious in the realm of planning, action and values, as developed by the normative planners themselves. When applied to scientific knowledge, the exact implications of the futures perspective are less obvious. Our excursion into ontology and epistemology served to provide a view of reality (constructivism) within which knowledge is clearly oriented towards the future. The knowledge of how to construct realities and create desirable futures was called action knowledge, which is maximally conducive to the active-constructive Eureka experience — 'Aha, now I know what to do/now I understand what needs to be done'.

Action knowledge can be generated scientifically through the formulation and testing of futures theories that provide explanations by identifying desirable futures and the means for their realization. Futures theories are tested whenever the prescriptions for action contained in them are carried out. They have scientific validity to the extent that their claims to action knowledge hold up in social/organizational experiments, as evaluated by stakeholders using the constructivist Eureka criterion. The generalizability of the theory is tested through its application in many different organizations or institutions.

The task of the action researcher is to refine and improve the generalizability of the theory by encouraging others — beyond the stakeholders with whom it originated — to adopt, test and, if necessary, modify it. Thus the researcher's scientific efforts (testing the theory's generalizability) are no different from her/his social or professional work (helping people to achieve desired ends). The world of values and the world of science are brought closer as the twin concerns of action and research are

understood to be *one* movement of developing our capability to act and construct desirable social/organizational realities.

We have not dealt with situations where organizations are torn up by extreme conflict, and where there are severe disagreements about ends and means. Irreconcilable conflict that leads to stalemated situations (Babüroğlu 1987) defeats any effort to do action research and presents a theoretically limiting case to be discussed elsewhere, as post-action research. However, ordinary conflict among the stakeholders is an inevitable aspect of action research and is integrated into the process of generating action knowledge. All the normative planning approaches that we have relied upon for providing the mechanics of normative action research regard conflict of interests to be central to the process of planning, learning and adaptation (Williams 1979). Ackoff (1981) has even suggested that the idealized design is a method of conflict resolution and has pointed out that the farther into the future the stakeholders design, the more probable it is that conflict over ends will disappear. This is the premise for idealized design, which is not only akin to our futures theory, but also to Sherif's (1958) superordinate goals as a conflict resolution mechanism. Gray (1989) articulated explicitly how the conflict over means is handled in collaboration — a process that is central to all normative planning and action research. The process of collaborating entails the exploration of differences, the clarification of areas of conflict and the search for a common ground. It is on such common ground that futures theories can be generated.

This methodology is particularly helpful when the certainties of the past and the present cannot be assumed to hold true for the future, and searching for causal links in the past will not shed light on the nature of reality in the future. We suggest that the enriched action research methodology is particularly relevant when the means and ends pertaining to a given situation cannot be ascertained, or when there is little interest among the stakeholders in sustaining traditional means and ends. Furthermore, a futures theory is an inter-subjective construction that can disappear when the stakeholders withdraw their support. In this paper, we have tried to clarify action research methodology based on normative planning approaches and a constructivist epistemology. Future scholarship in this field should try to show how other methodologies might be integrated to this perspective.

Note

* This paper was prepared with the full collaboration of both authors.

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