

RESEARCH AS A PROCESS OF CHANGE: ACTION SCIENCE IN ORGANISATIONS

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As the process of organisational change is frequently, if not typically, a complex somewhat messy sequence of plans, meetings, conflicts, revisions and compromises between individuals, teams, across the inter-departmental group in order that an organisation adapt to environmental forces driving change (Rashford & Coghlan 1994), it is more than useful to reflect on how such complex processes might be researched. The author, in the role of internal process consultant to a religious organisation, engaged in a study of how that organisation managed its planned change over a twenty year period. He was commissioned to undertake this study in order that the current leadership might better understand the developments which had taken place in previous administrations and so provide the organisation with some frameworks for its own learning. The research involved three elements: study of archival documentation to which the researcher had open access, interviews with the key actors and then submission of the findings to the organisation to initiate further discussion and reflection. Accordingly, it was clear from the outset of the brief that the research would itself constitute an intervention to enable the organisation understand its history and engage in a reflective learning process. The research was undertaken through action science, which addresses how the generation of data in a social system with a view to helping the system learn about itself is a scientific process. The aim of this article is to present action science as a valid and useful way of doing research in organisations.

Action science is a contemporary development of action research (Argyris 1993, Argyris, Putnam & Smith 1985), which is particularly appropriate to organisational research. Schein (1987b), in his notion of the “clinical perspective in fieldwork”, articulated an approach in which the researcher works as an organisation development consultant in an organisation (Schein 1987a) and utilises the experience of the organisation to generate and develop theory of how organisations work and change (Bartunek 1983). This article describes the concept of action science, outlines its origins in Lewinian action research, develops its application to research in organisations through the “clinical perspective in fieldwork” as an intervention discipline oriented toward problem-solving, contrasts it with the participant-observer approaches of ethnography and shows how case study data can be utilised as action science.

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Action Research

Action research developed from the work of Kurt Lewin and his colleagues, and the colleagues they formed in turn, who established a tradition of scholar-practitioners in group dynamics and social psychology (Patnoe 1988). Lewin aimed at providing a way of solving practical problems and of discovering general laws of group life. Action research involves a process of planning, taking action and then fact-finding about the results of that action in order to plan and take further action (Marrow 1969, Lewin 1973, Cartwright 1978, Peters & Robinson 1984, Weisbord 1987, Israel, Schurman & Hugentobler 1992, Chisholm & Elden 1993, Elden & Chisholm 1993). From his gestalt perspective, Lewin viewed individuals' action as taking place against and partially determined by a social background. Therefore, he judged that it was essential to discover the meanings that actors themselves give to events from their social context. Marrow, Lewin's biographer, states:

Theory was always an intrinsic part of Lewin's search for understanding, but theory often evolved and became refined as the data unfolded, rather than being systematically detailed in advance. Lewin was led by both data and theory, each feeding the other, each guiding the research process (1969, p. 128).

After Lewin's death, action research became integral to the growth of the theory and practice of organisation development (Clark 1972, Foster 1972, Frohman, Sashkin & Kavanagh 1978, Susman & Evered 1978, Shani & Pasmore 1985, Weisbord 1987, Schein 1989, French & Bell 1990, Burke 1994).

Argyris, Putnam and Smith (1985) summarise Lewin's concept of action research.

- It involves change experiments on real problems in social systems. It focuses on a particular problem and seeks to provide assistance to the client system.
- It, like social management more generally, involves iterative cycles of identifying a problem, planning, acting and evaluating.
- The intended change in an action research project typically involves re-education, a term that refers to changing patterns of thinking and action that are presently well-established in individuals and groups. A change intended by change agents is typically at the level of norms and values expressed in action. Effective re-education depends on participation by clients in diagnosis, fact-finding and free choice to engage in new kinds of action.
- It challenges the status quo from a participative perspective, which is congruent with the requirements of effective re-education.
- It is intended to contribute simultaneously to basic knowledge in social science and to social action in everyday life. High standards for developing theory and empirically testing propositions organised by theory are not to be sacrificed nor the relation to practice be lost.

Lippitt (1979) distinguishes three different meanings that have been denoted by the term

action research, which reflect different roles played by the researcher. First, diagnostic research is conducted concerning some ongoing aspect of an action process, i.e. organisational morale. In this form of research the researcher gathers the data and presents it to those who are in a position to take some action. Second, a procedure of collecting data from participants of a system is followed by feedback about the findings of the data as an intervention to influence, presumably in a helpful way, the ongoing action process of the system. In this model the researcher may be acting either as a data gatherer solely or as a consultant in a helping role to the members of the client system. Third, action research is defined as a procedure in which the participants of a social system are involved in a data collection process about themselves and they utilise the data they have generated to review the facts about themselves in order to take some form of remedial or developmental action. In this model, the researcher and the researched are working in collaboration. In Lippitt's view only the second and third meanings should be included in an analysis of action research.

Peters and Robinson (1984) list fifteen characteristics of action research which support and complement Argyris' view of action research. Action research is problem-focused, action-oriented, organic process (cyclical), collaborative-participatory, ethically based, experimental, scientific, naturalistic, normative, re-educative, emancipatory, stresses group dynamic, concretely critical, low a priori precision with high accuracy and unconstrained dialogue. From their review of the action research literature, Peters and Robinson point to two approaches: action research as a research methodology or strategy (an approach taken by most commentators in Peters and Robinson's view), and action research as an underlying concept of social science (an approach taken by Argyris). The following section presents Argyris' notion of action science as an approach to social science.

Action Science

Action science represents Argyris' attempt to retrieve the central features of Lewin's concept of action research, which he considered to have been lost (Argyris 1983). In Argyris' view, practice-oriented scholars became so client-centred that they failed to question how clients themselves defined their problems and ignored the building and testing of propositions embedded in their own practice. On the theoretical side, scholars conducted research that met the criteria of rigour of normal science but was disconnected from everyday life. Action science assumes that learning is the first and primary objective for the researcher, the clients and the system, and that knowledge produced should be put into empirically testable propositions which in turn would be organised into a theory. Therefore, action science should take account of the way people learn, the way research is conducted and how theory is created.

The most comprehensive discussion and treatment of the subject of action science is by Argyris (Argyris 1993, Argyris, Putnam & Smith 1985). He provides the following definition:

Action science is an inquiry into how human beings design and implement action in relation to one another. Hence it is a science of practice, whether the professional practice of administrators, educators, and psychotherapists or the everyday practice of people as member of families and organisations. Action science calls for basic research and theory building that are intimately relate to social intervention. Clients are participants in a process of public reflection that attempts both to comprehend the concrete details of particular cases and to discover and test propositions of a general theory (Argyris, Putnam & Smith, p. 4)

Argyris presents action science as a valid form of scientific inquiry and contrasts it with mainstream empirical science. In this regard, he regrets that a distinction between “pure” and applied science has been created and that mainstream science has separated empirical theory from normative theory and casts doubts on the legitimacy of normative theory. Action science is equally concerned with the production of hard data, explicit inferences, public testing and systematic theory as is empirical science. The additional core feature of action science is its concern with implementation. Empirical science does not necessarily include implementation as a concern of theory, except that it examines the outcome of implementation as part of its data. It does not generate data through the practice of implementation. In empirical science implementation is viewed as application rather than of theoretical science. In this view, science is concerned with the production of precise explanation and consideration of the requirements of action are left to applied scientists and practitioners. Implementation means that human beings design action in concrete situations, which are complex fields of multiple, interdependent, conflicting forces (Lewin 1951).

The action scientist is a practitioner, an interventionist seeking to promote learning in the client system and to contribute to general knowledge. Action science is reflective in that the scientist attempts to create conditions to facilitate inquiry and learning. In Argyris’ view, there are three implications to be noted.

- Knowledge must be designed with the human mind in view, that is, taking account of the limited information-seeking and processing capabilities of human beings in the context of taking action in complex situations.
- Knowledge must be relevant to forming purposes as well as achieving them.
- Knowledge must take account of the normative dimension, the value questions related to the formation of purposes. Generating knowledge in the service of action has implications for the values and normative implications of that knowledge and action.

The difference between knowledge in the service of action and knowledge for its own sake can be clarified. Empirical scientists discuss the issues of pragmatic explanation through their notions of covering-law and causal explanations. Covering-law provides an ideal explanation of causal relationships which helps create normative theories of practical knowledge. Action science, while emphasising the value of precision, places greater emphasis on usability, where the knowledge generated is usable in action. The researcher draws on tacit knowledge to frame the situation and to

generate action (Schon 1983). The notion of tacit knowledge suggests a different relationship between knowing and doing than the one which is customary. The customary relationship emphasises a hypothesis postulated tentatively beforehand with subsequent interpretation of data aimed at refining the hypothesis by proving or disproving it. The action science model stresses the emergence of hypotheses as action proceeds. Therefore, action science places an emphasis on discovering what reasoning informs a particular action. Schon's (1983) notion of the "reflective practitioner" is descriptive of how the practitioner can reflect on action and explicitate the tacit knowledge on which an action was based.

Both empirical mainstream science and action science are concerned with empirical testing. For mainstream science empirical testing of results is critical in the context of justification. In action science, testing is critical in the context of implementation and interpretive understanding. Action science suggests dispositional attributions and theories of causal responsibility, thereby suggesting what clients could do differently and learn to act in new ways. Such interpretations and explanations are based on agreement of data through discussion of what happened by focusing on directly observable data and the cultural meanings attributed to that data by members of that language community. In this context, validity may be threatened by what Argyris (1985, 1990) refers to as "defensive routines" – self-censorship and face-saving devices – which inhibit the emerge of valid information. This threat may be overcome by the scientist working in a helping role in which the clients are willing to talk about sensitive issues because they perceive the scientist as helping them learn and change.

Research in Client-Centred Therapy

As action science is an intervention-oriented discipline, one might look to the helping disciplines for frameworks and approaches which would illustrate the emergence of forms of research from the experience and perspective of problem-solving and intervention. First, the discipline of psychotherapy, in the form of client-centred therapy (Rogers 1951, Mearns & Thorne 1988) is examined and then the theory and practice organisational consultation (Schein 1987a, 1988, 1990a, 1990b).

In the person-centred approach in general, and client-centred therapy in particular, there have been efforts at articulating an approach to research that is congruent with the theory and practice of that approach (Mearns & MacLeod 1984, Rogers 1945, 1985, Barrineau & Bozarth 1989). In this approach, research takes place, not in the laboratory, but in clinical situations with real clients. In an argument for a new science, Rogers (1985) advocates approaching the study of the meaningfulness of experience, not by empirical methods but from within. In other words, entering the subjective experience of the subject as is attempted by the person-centred practitioner, provides valid data of what it is, for example, to feel misunderstood (Rogers 1951, Mearns & Thorne 1988). Rogers (1985) describes this methodology as "indwelling", whereby the scientist develops a mode of empathy with the perceptions/attitudes/feelings/behaviour or

experience of the client-participant. The work of the person-centred practitioner in attempting to articulate an approach to research which places an emphasis on the experiential process of the client is based firmly on the person-centred philosophy of the therapist's empathy towards the client and the client's experience of that empathy. The process of client-centred psychotherapy requires that the therapist (researcher) be able to enter into the client's experience as it is communicated by the client. This requires the therapist to check constantly with the client that he/she has understood what the client is relating so that the client's experiences, cognitions and feelings and the meanings he/she attributes to them are understood by the therapist as the client means them.

Client-centred therapy is oriented towards individual change in the therapeutic and counselling situation. In the context of planned change in organisations, organisation development, particularly the process consultation approach, represents an approach to facilitating organisational change which has strong parallels to client-centred therapy (Coghlan & McIluff 1991).

The 'Clinical' Perspective

In writing about an organisation development approach to organisational research, Schein (1987b, 1991) introduces the notion of the "clinical" approach to research, as a form of action science:

What do I mean by clinical? For purposes of this essay I will mean those helping professionals who get involved with individuals, groups, communities, or organisations in a "helping role". This would include clinical and counselling psychologists, psychiatrists, social workers, organisation development consultants, process consultants and others who work explicitly with human systems. I refer to trained professionals, not amateurs, so there is implied in my use of the concept of the "clinical perspective" the notion that the person has been educated and trained to take this perspective (1987b, p. 11).

He provides the background to how this concept emerged. In a meeting of teachers of organisational psychology, a comment was made that much of what teachers relied on for illustration in the classroom came from their own consulting experience rather than the professional journals. This hypothesis was checked out among the conference members and found to be generally true. As the conference reflected on the implications of this revelation, it seemed that the members trusted their own experience rather than research data for a sense of "what really goes on" in organisations.

The clinical approach to helping in organisations accords with Schein's own experience as a process consultant, in which the helping role is defined in terms of helping clients solve their own organisational problems (Schein 1987a, 1988, 1990a, 1990b, 1991). Clinicians have to interpret what they see happening as they look for clinical explanations for their observations. They do not attempt to establish an absolute truth about their interpretations. The observations and interpretations are hypotheses for

learning and for further intervention into the ongoing situation. In process consultation diagnosis and intervention are simultaneous activities. As process consultants ask exploratory, diagnostic, action-alternative and confrontive questions, the responses themselves generate data for further questioning and exploration (Schein 1987a). The diagnostic process remains with the client throughout the consultation.

Process consultation constitutes an authentic approach to organisation development because it precisely evolves such a client-centred approach. Schein (1989) reflects on the radical nature of organisation development in terms of action science, when he notes that what actually formed OD was the efforts to gather data in the field by non-traditional methods with the concerns of a set of practitioners who wanted to improve organisations, communities, leadership and the process of education. In Schein's view, the involvement of clients in their own learning not only produced better learning but produced more valid data about how systems really worked. He regrets that action research has become a glib term for involving clients in research and that it has lost its role as a powerful conceptual tool for uncovering truth on which action can be taken. In its inception, organisation development was a new form of science, which differed from the model of experimental physics, but was genuinely scientific in the emphasis on careful observation and study of the effects of the consultants' behaviour on the human systems with which the consultants worked.

One particular action science format used by some consultants is the "working note" (Hirschhorn 1988, Miller 1993). After they have gathered data, these consultants write a "working note" in which they construct a model of the client's situation and interpret what they see taking place. Then they meet the client to discuss the note, review its implications and plan the consultation. The note, therefore, acts as a working hypothesis which is discussed with the client and is the basis for further intervention.

Action Science and Ethnography

Van Maanen defines ethnography as "written representation of a culture (or selected aspects of a culture)" (1988, p. 1). In its conventional sense, it means a full-time involvement of a researcher over a lengthy period of time and consists of continuing interaction with the targets of research on their home ground. It is primarily carried out through fieldwork in which the ethnographer lives with or lives like those who are being studied, sharing at first hand the environment, problems, language, rituals and social relationships of a group of people. The researcher operates in the role of participant-observer. Ethnography joins culture and fieldwork by attempting to bridge the world of the ethnographer and the world of the target culture.

The ethnographic participant-observer role and the action scientist role are closely inter-connected and sharply distinguished. Schein (1987b) highlights the differences in terms of four key questions:

- Who initiates and drives the process?
- What is the implicit model of the organisation held by each?

- Whose needs drive the process of inquiry?
- What is the psychological contract operating between insider and outsider?

First, who initiates and drives the process? In Schein's view the most sharply contrasting elements of the two roles lies the fact that the client chooses the action scientist while the ethnographer chooses the subject group to be studied. Action scientists or clinicians enter an organisation or any human system only if they are requested to do so by someone in the organisation seeking some form of help. The initial authority and source of the structure of the relationship lies with the client. Ethnographers, on the other hand, choose the subject group on the basis of their own research interests and somehow create their own "entry" into the system.

Second, what is the implicit model of the organisation held by each? While both action scientists and ethnographers may both disturb the client system by their presence and provocative questions, they observe and interpret the responses differently. Ethnographers observe how the subjects deal with their presence and interventions, as if they have a glimpse of what is behind a curtain. The subject group is there to be understood and left intact. Action scientists assume they are there to change the system and every intervention is an opportunity to generate diagnostic data. Every intervention is deliberate and creates the occasion for further diagnosis and intervention.

Third, whose needs drive the process of inquiry? Ethnographers initiate the process of inquiry by seeking out relevant subject groups, using their energy to gain entry, form a relationship and elicit interest and motivation on the object of the research. For the action scientist, the client is primary. The client has a problem, wants an answer and so the action scientist's work is driven and governed by the client's needs in this regard. The client's willingness to pay for the action scientist's services symbolises this relationship.

Fourth, what is the psychological contract operating between insider and outsider? The contract between ethnographers and their subject groups is typically that access is given in return for some form of feedback. Ethnographers agree not to be obtrusive lest they change what they are trying to study. When the fieldwork is completed the ethnographer then begins the task of analysing the data and writing the report. Action scientists enter into a relationship with a client in which the client pays fees and expenses and expects some improvement or help in return. Limits on the problem to be worked on, the amount of time to be devoted to it and the amount of fees are set. When the client defines the point of termination, the contract is ended.

The ethnographic and action science approaches lead to different forms of inquiry and data gathering (Schein 1987b). Ethnography requires investigators to be open to whatever they find. They will begin with their own research goals and will have their own preferred concepts and frameworks for analysis. Accordingly, they will have a broad scope of observation and analysis. Action scientists are oriented towards a model of organisational health and areas of dysfunctioning which require remedial action; it is, therefore, normative in its orientation and requires theories which provide

normative direction, such as how change takes place etc. Action scientists also focus on the client's statement of the problem, why they were invited in and the kinds of data which emerge in relation to that initial contract. Action scientists may also be licensed to enter into the areas of an organisation's private life – what is really going on.

Action scientists and ethnographers have different priorities in how they gather and validate their information, which come from their different goals and psychological contracts with their clients and subject groups. Replication is primary for the ethnographer, while prediction of results of given interventions is a primary criterion for the action scientist. Both approaches produce valid data and complement each other.

Case Study Research as Action Science

Gummesson (1991) applies the case study research method to action science, reviews three uses of case study research and rejects how these forms of research are used to rank research strategies in an alleged order of scientific excellence.

- *Descriptive* which, in his view, is degraded and thought little of in traditional research – “This is only a description” – and considered to be a less prestigious form of research. He replies by asserting that included in any description is the author's preunderstanding, access and paradigms. There is no description without analysis and interpretation.
- *Exploratory* where a pilot study is used as the basis for forming testable hypotheses. In his view this form of research is also given low status in traditional research and seen as ancillary to other forms of research.
- *Explanatory*, in his view, is viewed with great scepticism, even horror, by mainstream scientists. Cases are a useful strategy for studying organisational processes for the purposes of explanation.

The historical nature of case study research is put in perspective by Gummesson in that he views historical analysis as not mere retrospection but a reflection of the view that history is always present and new history is constantly being created. In his view, systematic historical analysis in a case study is not aiming at deriving some historical truth but reflecting historical diversity as a stimulus to action. He outlines three approaches to historical data in case research.

- focusing on the present and future from the inside, that is working with current processes and keeping an eye on the future;
- focusing on the past, present and future from the inside, studying a change process which encompasses past, present and future;
- focusing on the past, present and future from the outside, as for instance in a long range study where the change agent observes the change process.

While in research methodology a distinction is typically made between the study of formal documentation (what Gummesson calls “desk research”) and interviews, Gummesson (1991) makes the point that these are artificial distinctions in action science as the action scientist is faced with a continuous flow of data. Hence, documentation,

interviews and the researcher's own experience are core elements of data collection.

For Gummesson action research is “the most demanding and far-reaching method of doing case study research” (p 102). He integrates the characteristics of action science from several studies and focuses it on a management perspective.

- Action science always involves two goals: solve a problem for the client and contribute to science. This means being a management consultant and an academic researcher at the same time.
- During an action science project those involved – the researcher/consultants and client personnel – should learn from each other and develop their competence.
- The understanding developed during an action science project is holistic.
- Action science requires cooperation between the researcher/consultants and the client personnel, feedback to the parties involved, and continuous adjustment to new information and new events.
- Action science is primarily applicable to the understanding and planning of change in social systems.
- There must be a mutually acceptable ethical framework within which action science is used.
- Preunderstanding of the corporate environment and of the conditions of business are essential when action science is applied to management subjects.
- Action science should be governed by the hermeneutic paradigm although elements from a positivist paradigm may be included.

Conclusions

Action science, and in particular the clinical approach framework, is not only an appropriate way to study complex change but is the only way to study complex organisational change (Schein 1987b, 1991, Gummesson 1991). What is required in the study of change in a complex system is an approach and a theory which can enable the researcher-consultant examine the total picture with a view to intervening in the total system. More traditional research methods, while they define important and critical points, do not enable conclusions be drawn about large scale system change because, of their nature, they tend to provide details of particular elements or aspects of the situation.

The strengths of the clinical perspective and action science are that they focus on issues identified as relevant to the client system, rather than on the curiosity of the researcher, and that it enables a system-wide view be taken, even while attention at any given time may be focused on a particular sub-part of the system. Action science contributes, not only to the development of knowledge of how organisations work and change, but also to the development of an exciting and innovative form of research which builds on what people experience and how they learn to improve their organisations. What is required is both a development of the skills by which one can engage in action science and clearer articulations of action science as a philosophical foundation for understanding and changing human systems.

References

- Argyris, C., (1983) 'Action Science and Intervention', *Journal of Applied Behavioral Science*, 19 (2), pp 115–140.
- Argyris, C., (1985) *Strategy, Change and Defensive Routines*, Pitman: Marshfield, MA.
- Argyris, C., (1990) *Uncovering Organizational Defenses*, Allyn & Bacon: Boston.
- Argyris, C., (1993) *Knowledge for Action*, Jossey-Bass: San Francisco.
- Argyris, C., Putnam, R., & Smith, D., (1985) *Action Science*, Jossey-Bass: San Francisco.
- Barrineau, P., & Bozarth, J., (1989) 'A Person-Centered Research Model', *Person-Centered Review*, 4 (4), pp 465–474.
- Bartunek, J., (1983) 'How Organization Development can develop Organization Theory', *Group & Organization Studies*, 8 (3), pp 303–318.
- Burke, W.W., (1994) *Organization Development: a Process of Learning and Changing*, 2nd Edition, Addison-Wesley: Reading, MA.
- Cartwright, D., (1978) Theory and Practice, *Journal of Social Issues*, 34 (4), pp 168–180.
- Coghlan, D., & McIluff, E., (1991) 'Toward a Person-Centred Approach to Organisation Development'. Paper presented at the *Second International Conference on Client-Centred and Experiential Psychotherapy*, Stirling: Scotland.
- Chisholm, R., & Elden, M., (1993) 'Features of Emerging Action Research', *Human Relations*, 46 (2), pp 275–298.
- Clark, P., (1972) *Action Research and Organizational Change*, Harper & Row: London.
- Elden, M., & Chisholm, R., (1993) 'Emerging Varieties of Action Research: Introduction to the Special Issue', *Human Relations*, 46 (2), pp 121–142.
- Foster, M., (1972) 'An Introduction to the Theory and Practice of Action Research in Work Organizations', *Human Relations*, 25 (6), pp 529–556.
- French, W., & Bell, C., (1990) *Organization Development: Behavioral Science Interventions for Organization Improvement*, 4th ed. Prentice-Hall: Englewood Cliffs, N.J.
- Frohman, M., Sashkin, M., & Kavanagh, M., (1976) 'Action-Research as Applied to Organization Development', *Organization and Administrative Sciences*, 7 (1) & (2), pp 129–42.
- Gummesson, E., (1991) *Qualitative Methods in Management Research*, Sage: Newbury Park, CA.
- Hirschhorn, L., (1988) *The Workplace Within: Psychodynamics of Organizational Life*, MIT Press: Cambridge, MA.
- Israel, B., Schurman, S., & Hugentobler, M., (1992) 'Conducting Action Research: Relationships between Organization Members and Researchers', *Journal of Applied Behavioral Science*, 28 (1) pp 74–101.
- Lewin, K., (1951) *Field Theory in Social Science: Collected Papers of Kurt Lewin*. (Ed. D. Cartwright), Harper & Row: New York.
- Lewin, K., (1973) 'Action Research and Minority Problems'. In K. Lewin, *Resolving Social Conflicts: Selected Papers in Group Dynamics*, (Ed. G. Lewin), Souvenir Press: London.
- Lippitt, R., (1979) 'Kurt Lewin, Action Research and Planned Change', *Psychology of the Twentieth Century*, Kindler Verlag AG Zurich.
- Marrow, A., (1969) *The Practical Theorist: the Life and Work of Kurt Lewin*, Basic Books: New York.
- Mearns, D., & MacLeod, J., (1984) 'A Person-Centred Approach to Research'. In R. Levant, & J. Shlien, (Eds.) *Client-Centered Therapy and the Person-Centered Approach*, Praeger, New York.

- Mearns, D., & Thorne, B., (1988) *Person-Centred Counselling in Action*, Sage: London.
- Miller, E.J., (1993) *From Dependency to Autonomy: Studies in Organizations and Change*, Free Association Press: London.
- Patnoe, S., (1988) *A Narrative History of Experimental Social Psychology: The Lewin Tradition*, Springer-Verlag: New York.
- Peters, M., & Robinson, V., (1984) 'The Origins and Status of Action Research', *Journal of Applied Behavioral Science*, 20 (2), pp 113–124.
- Rashford, N.S., & Coghlan, D., (1994) *The Dynamics of Organizational Levels: a Change Framework for Managers and Consultants*, Addison-Wesley: Reading, MA.
- Rogers, C.R., (1945) 'The Non-Directive Method as a Technique for Social Research', *American Journal of Sociology*, 50 (4), pp 279–283.
- Rogers, C.R., (1951) *Client-Centered Therapy*, Constable: London.
- Rogers, C.R., (1985) 'Toward a More Human Science of the Person', *Journal of Humanistic Psychology*, 25 (4), pp 7–24.
- Schein, E.H., (1987a) *Process Consultation, Volume 2: Lessons for Managers and Consultants*, Addison-Wesley: Reading, MA.
- Schein, E.H., (1987b) *The Clinical Perspective in Fieldwork*, Sage: Newbury Park.
- Schein, E.H., (1988) *Process Consultation, Volume 1: its Role in Organization Development*, 2nd edition, Addison-Wesley: Reading, MA.
- Schein, E.H., (1989) 'Organization Development: Science, Technology or Philosophy?' *MIT Sloan School of Management Working Paper # WP 3065–89–BPS*.
- Schein, E.H., (1990a) 'A General Philosophy of Helping: Process Consultation', *Sloan Management Review*, 31 (3), pp 57–64.
- Schein, E.H. (1990b) 'Back to the Future: Recapturing the OD Vision'. In F. Massarik (Ed.) *Advances in Organization Development, Volume 1*, Ablex: Norwood, NJ.
- Schein, E.H., (1991) 'Legitimizing Clinical Research in the Study of Organizational Culture', *MIT Sloan School of Management Working Paper*, WP 3288–91–BPS.
- Schon, D.A., (1983) *The Reflective Practitioner: How Professionals Think in Action*, Basic Books: New York.
- Shani, A.B., & Pasmore, W.A., (1985) 'Organization Inquiry: Towards a New Model of Action Research Process'. In D.D. Warrick, (Ed.) *Contemporary Organization Development: Current Thinking and Applications*, Glenview, ILL: Scott, Foresman.
- Susman, G., & Evered, R., (1978) 'An Assessment of the Scientific Merits of Action Research', *Administrative Science Quarterly*, 23, pp 582–603.
- Trist, E., & Murray, H., (1993) *The Social Engagement of Social Science: Volume II, The Socio-Technical Perspective, A Tavistock Anthology*, University of Pennsylvania Press: Philadelphia.
- Van Maanen, J., (1988) *Tales of the Field: On Writing Ethnography*, University of Chicago Press: Chicago.
- Weisbord, M., (1987) *Productive Workplaces*, Jossey-Bass: San Francisco.