

Potentials of the agricultural adviser: The specialist, the reflective specialist and the reflective listener

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Abstract

The objective of this paper is to describe three different potentials of the local agricultural adviser: The specialist, the reflective specialist and the reflective listener. The descriptions are based on a theory of two levels of learning grounded in the thoughts of and Chris Argyris and a theory of reflection as a way to create inner coherence grounded in the thoughts of George Herbert Mead. Furthermore the descriptions are based on several years experience as a private veterinary consultant and on data from a Ph.D. project on 'communication and advising'. In order to support changes in management procedures, advising must include reflection and both learning perspectives. In this sense, advising may specifically be connected to the individual farmer's standpoint and become relevant and easier for him to act on. The paper forms a basis for transdisciplinary understanding that can provide the advisers with grounds in favour of not limiting themselves to fact-based responses to current farming systems, but rather helps themselves and farmers think through on their decision-making frameworks and paradigms.

1. Introduction

In Denmark, the tradition to offer advisory services to dairy cattle farmers by local advisers has been long-standing. Formal health advisory services for dairy cattle farmers and local veterinary practitioners were introduced in 1995 and a voluntary 'health advisory agreement' between the veterinary practitioner and the farmer was established. By January 2003, 3520 of 7000 Danish milk producers have signed the agreement. Several technical tools to support the local advisers have been developed to collect, analyse and present quantitative data including data on, e.g., diseases, housing condition and production. Advisers and farmers, or farmers alone, use such data and tools in 90% of Danish dairy herds, especially as transcripts with specific key figures on health and production parameters. Pointing out such specific key figures have proven to be useful in solving some problems (Markusfeld, 1993) but even precise recommendations to solutions commonly lead to disappointing results in terms of advising. This disappointment can partly be attributed to premises for change of management that are beyond the technical language of the adviser where the complexity of the farmer's personality is more or less neglected. If value-laden issues, as for example animal welfare, are on the agenda such disappointments may become very distinct.

If the local agricultural adviser is prone to focus solely on cost-benefit analysis, well-defined variables and a technical approach in the advisory process, the farmer may carry out some minor adjustments and thereby demonstrate what by Argyris and Schön (Argyris, 1980; Argyris and Schön, 1974) is termed single-loop learning where the farmer's meaning behind the act remain unchanged. If, however, the local agricultural adviser succeeds through dialogue in involving the farmer's

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personality, action and outcome could become significant different, because for example, animal welfare is viewed in another way. Such type of learning is by Argyris and Schön (ibid.) called double-loop learning and in this article is linked to sustainable development. Reflection is due to G. H. Mead (1934) a decisive skill in such deep learning processes.

The objective of this paper is to describe three different potentials of the local agricultural adviser: The specialist, the reflective specialist and the reflective listener. The potentials are separated by the skill to fit into the context reflection, single-loop learning and double-loop learning respectively. Though the potentials are presented as types, advising is a process where the adviser constantly uses different potentials and moves beyond the edge of the typification. The descriptions are based on several years of experience as a private veterinary consultant and on data from a Ph.D. project on 'communication and advising'.

2. Theoretical background

2.1. Single-loop learning and double-loop learning

Single-loop learning is connected to learning where personal structures of meaning and values remain unchallenged and unchanged. Such learning is connected to adaptive changes in routine behaviour, like a thermostat that is set to turn on the heat if the room temperature drops below 20 degrees C. In single-loop learning focus is coming from outside ourselves, based on objectivity and with a true state of things as given by nature and the like for all of us. Farmers' management can be included with assumptions that it follows the same organizing principle and the same logic as the production system on which the farmer acts i.e. in some patterns cause-effect related. The conventional conception of agricultural advisory service is very much connected to such an understanding of the farmer's daily routines. Quantifiable data connected to the production system will in single-loop learning be in focus, not the act and the way of communicating, and the adviser usually proposes solutions that help reaching the system stability, based on, as setting of the temperature, thresholds of specific problems and data analysis. For day-to-day learning and actions 'here and now' (Willert, 2002) and within the variables and framework given, single-loop learning can be productive and lead to further competence. However, the perception of value-laden issues as animal welfare remains the same. What the farmer is doing is influenced by his values and inner structures of meaning which generates 'theories in use' (Argyris, 1980; Argyris and Schön, 1974) to which the farmer has been accustomed. One of the characteristics in single-loop learning is that theories in use are not revealed and as a consequence people tend to express themselves different compared to what they feel and think. What is actually said is by Argyris and Schön (ibid.) called 'espoused theories'. To protect the theories in use and to sustain control and absence of conflict people in single-loop learning tend to follow four governing thoughts and feelings: 1) define personal goals and to achieve them; 2) maximize winning and minimize loss for you as a person; 3) attempt not to generate negative feelings and 4) try not to make things too complicated. Based on oral facts, consensus of an action plan might apparently be reached, but due to the inconsistency between the governing thoughts and feelings and what is communicated (the espoused theories), the following action might be half-hearted, superficial or even absent. Certain matters may be achieved by single-loop learning, but, in spite of further qualified technical knowledge, the following action still remains adaptive and not differently rooted in the farmer (Fig. 1).

In *double-loop learning* on the other hand, it is accepted as a premise that we construct our own perception of a world outside ourselves. That objects appear for us in a certain manner does not mean that it is how they are in reality and in the reality of others. The experience of reality and what we act

upon will not only be determined by logic, but also be formed and transformed through reflection and dialogue. Double-loop learning is a mutual and personal process where meanings and values are actively exposed and challenged. To support double-loop learning, it is necessary to: 1) maximize valid information as the primary variable by being honest and open-hearted; 2) maximize free and informed choice by making it legitimate to be personal and 3) maximize the internal commitment to decisions made (Argyris, 1980; Argyris and Schön, 1974). By double-loop learning it will be easier to get beyond repetitive and routine behaviour and to act significantly different because the individual feels intrinsically committed to act and will be satisfied by doing things differently, and not, as in the case of single-loop learning, because the act is rewarded by outer objectives (Argyris and Schön, 1974). This intrinsic commitment is potentially carrying sustainable management routines. Those variables can be paraphrased to trust, honesty and openness towards oneself, the other and the process initiated.

2.2. Personal phases and reflection

George Herbert Mead (1934) describes action and coordination of actions as depending on social interaction. As a consequence advising also becomes part of a process depending not only on the production system, but as well on personal information. Due to Mead (ibid.) the *self* is a social emergent and has a development; it is not initially there at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process. There are, it would appear, two phases (or poles) of the self: 'Me' and 'I'. Although they are distinct from each other by their very function they are inseparable. The 'I' and the 'me' can be viewed as a process phases arising during the interaction between the individual and others and where structures of meanings and patterns of actions constantly differentiate (Fig. 1). The 'I-phase' is in itself a program of action actually manifested. 'I am acting as a person and 'I am able to observe a considerable part of my activity (Willert, 1999). The 'I' is there as the spokesman of the self and the response on what lies in 'me'. In a certain sense, 'I am that with which we do identify ourselves and the response of the individual to the attitudes of the others (Mead, 1934). The 'me' is more sophisticated and different. The 'me' is a cognitive construction and non-action carrying the organized set of attitudes of others and the organized structures of meanings and experiences. The 'me' holds what is thought and felt and what is acted upon.

According to Mead (ibid.) *reflection* is the way to make fruitful contact between 'I' and 'me'. Reflection is a harmonization between what 'I' carry and what is embedded in 'me' where a new feeling of coherence emerges (Fig. 1). The interaction can mainly be attributed to the mind that promotes the fruitful interplay between the cognitive construction of the personality where structures of meaning are embedded (potentially responding to double-loop learning) and the outwards turned part of personality (potentially responding to single-loop learning) (Fig. 1). The mind as such is relay station that utilizes the plasticity of the nervous system to bring into our lives the experience of coherence, continuity, creativity and change (Willert, 1999). Through reflection the mind can be seen as a possibility to fundamentally change structures of values and meanings so that the individual is able to act differently and in a new way through a new feeling of coherence. In single-loop learning reflection has not been underlying communication, whereas double-loop learning only takes place based on reflection and internal dialogue that will drive away automatic reasoning and automatic actions.

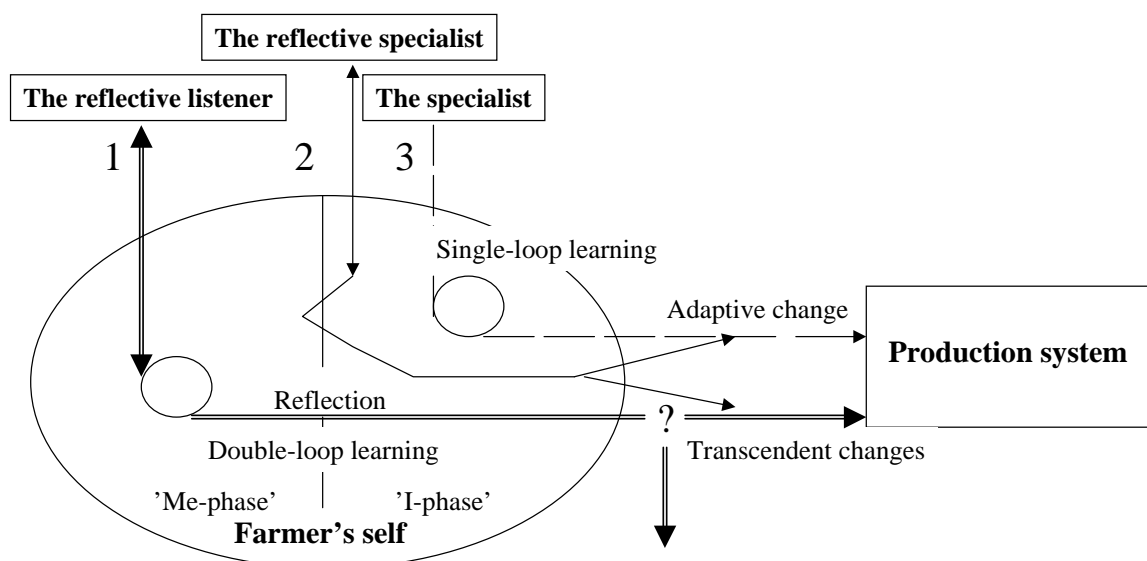


Figure 1: Interaction between different potentials of advisers, the farmer and the productions system

Figure 1 is a guide to the context of advising as comprising a 'farmer', 'advisers potentials', a 'production system', 'levels of learning' and consequential actions. Different situations, different personal skills, and different roles and relations will promote differences in the 'self' of the farmer. If the governing variables for single-loop learning underlie the communication process and meanings and values are not confronted, 'me' will remain undisturbed and the following action will result in minor or major adjustments as prescribed and maybe even as agreed upon, but heavily influenced by 'who' the farmer has always been' (arrow '3'). This path expresses extrapolation of the lawful cause-effect relationship into the human learning and action system. If, on the other hand, trust, honesty, openness and personal data are incorporated into the dialogue and supported by reflection, the learning process may result in a 'me' more or less disturbed as a consequence of double-loop learning. The subsequent action will be different and possibly transcendent (arrows '1' and '2'). The farmer will get a perspective, or a new perspective, on for example animal welfare and this perspective will guide his way of managing. The outcome of double-loop learning will be unpredictable but, with the farmer's knowledge and within the farmer's context and (new) perspective, more coherent.

3. Three potential sides of an adviser!

3.1. First potential: The specialist

The concrete problem often only exists as a construction that has no existing solution, and even after it has been long and deliberately treated by different experts, it may still suggest to each of them some different course of subsequent action. In reality one has to live with a problem it in its complexity and to accept the problem as a process includes an ongoing adjustment of personal perspective. By the specialist, the positivist understanding of practice is domineering. According to Schön (1991), the positivist understanding of practice rests on three dichotomies: 1) to see solutions as a technical procedure to be measured by its effectiveness in achieving a pre-established objective; 2) to see rigorous practice as an application to instrumental problems of research-based theories and

techniques; and 3) to separate knowing from doing where action is only an implementation and test of technical decision. To the specialist, the positivist perspective is put into the foreground and knowledge from natural science as a methodology is put into play without taking into consideration knowledge about action. The farmer is disregarded and the specialist may assume action to be constituted as linear from information (the input of the adviser) to the following action. The specialist only involves his own 'I', data from the production system and the farmers 'I'. The specialist can be seen as a methodologically competent person, but not using his full potential as a human being. The disparity can be attributed to education and Argyris and Schön (Argyris, 1980; Argyris and Schön, 1974) connect the blindness to this incongruity between the way people in reality act and the expectations to how they ought to re-act to educations where you have to stick to rules and procedures. As a consequence, one might be in peril of losing or neglecting the skill to reflectively put into play 'me' and the 'me' of the other. Thereby we limit the scope and depth of the learning that we as individuals can do and we will enter a circle of disappointments, confusions and failures (Argyris, 1980). Professional specialization can lead to a parochial narrowness of vision and due to Schön (1991) the specialist can have over learned what he knows. The way a specialist practice may promote unfolding all governing variables in single-loop learning (defining personal goals and trying to achieve them, trying to maximize winning and minimize losing, attempting not to generate negative feelings and trying not to make things too complicated) resulting in solely a dis-hearted 'me'-dejected conversation. The ability to reflect, that by Mead (1934) is the most important skill to support the interaction between 'me' and 'I', is by the specialist either neglected or inadequately developed. The objectivity of the outer world and the positivist perspective remain the ground of understanding. The specialist is rooted in the technical rationality and complexity is to be systematized. Practice, in an understanding of creating meaning based on confusing, complex and interesting situations (Schön, 1991) is not balanced into the methodology and the technical knowledge and methodology develops at the expense of the theory through which the world is experienced.

3.2. *Second potential: The reflective specialist*

The formulation of a problem is far more essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities and to regard old problems from a new angle, require creative imagination and mark real progress in science (Darsø, 2001). In the practice world, we select what we will treat as the problems. We set the boundaries of our attention to it, and we impose upon it a coherence, which allows us to say what is wrong, and in what directions, the situation needs to be changed. Problem setting is a process in which, interactively, we name the problems to which we will attend and frame the context in which we will attend to them (Schön, 1991). Reflection is a crucial skill to generate such a process and the values of control, distance and objectivity take a new meaning in the reflective conversation (ibid.). The issue of concern is the change that can potentially be achieved.

However, solely the object does not maintain the objective relationship between individuals in question, for even the most objective relationship is also personal. The objective and personal are intertwined in one mediation (Løgstrup, 1997).

The adviser who masters the process does not experience the lack of willingness by the farmer as the farmer's fault but as inadequacy by his own way of practicing. If there is responsiveness towards information others than technical and if the adviser allows himself to be surprised or confused by the situation that he finds risky and unique, he will get information to the reflection that enables him to create coherence between the technical rationality and the value-based rationality. In this sense, he is improving in mastering practical wisdom (Flyvbjerg, 2001).

The reflective specialist can help the farmer view things in a different perspective and to act differently. To the reflective specialist it is not only a matter of acting, but as well a matter of the relation to the farmer. In this sense advising will rely on a mutual relationship helping the farmer to reflect the right technical issues into what he perceives as a coherent feeling. The reflective specialist catches important technical variables and data in the situation, but the data are not promoted at the expense of the reflection. Such advising is a process leading through understanding, over action to new understanding. In this conversation, the reflective specialist's effort to solve the reframed problem yields new discoveries, which call for new reflection-in-action. The process spirals through stages of appreciation, action, and re-appreciation. The unique and uncertain situation will come to be understood through the attempt to change it, and changed through the attempt to understand it (Schön, 1991). When a reflective specialist makes sense of a situation, he perceives to be unique; he sees it as already present in his repertoire. To see this site as that one is not to subsume the first under a familiar category or rule. It is, rather, to see the unfamiliar, unique situation as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what (ibid.). This is the essence of 'taking the attitude of the other' as described by Mead (1934) and is manifested the link between the 'me' of the adviser and the 'me' of the farmer. The reflective specialist is pragmatist in the sense that he evaluates his expert knowledge on the practical consequences as a whole and on the effect, not in relation to a given general frame of reference (Flood, 1990). He captures from his 'me' a source of experience and sympathetic insight that qualifies him to trigger and link wisely. Here, double-loop learning is not in itself to strive for. But 'me' is open and listened to, but left intact. This reflective mode of advising is on a borderline between single-loop learning and double-loop learning, without the need to control and to show mutual humbleness to personal data. The personal openness is a premise to serve the technical matter and the reflective specialist uses data from both the outer world, the farmers 'me' and his own 'me'.

3.3. Third potential: The reflective listener

The reflective listener listens to the 'me' of the other through his own 'me' and 'me' is open to be disturbed. The agricultural adviser is presumably never asked for with the primary task to enter this personal ground, but what enacts in the conversation may take a twist so that new important issues emerges. Løgstrup (1991) writes that any relation to another person carries a demand to relate to the other and what is behind the words outspoken. The personal feeling of meaningfulness is not possible to describe, but can in mutual trust be interpreted forth.

The demand which is present in any human relationship is, however unspoken and is not to be equated with a person's expressed wish or request. It is not expressed in his or her spoken or implied expectations. Any correspondence between the spoken and the unspoken demand is purely accidental; usually they are not at all alike. The other person's interpretation of the implications of the trust offered or desired is one thing, and the demand which is implicit in that trust as, one might say, a 'fact of creation' which I must interpret quite another thing (Løgstrup, 1997).

As an adviser, one could choose to let the conversation remain in single-loop learning and leave 'me' undisturbed by finding solutions related to the technical rationality, as for example: 'If we make an analysis of an extension of the herd, we could find economical ways for you to employ another man'. Such single-loop learning may be governed by a need to avoid conflicts, rationality, diplomacy or the need to win or simply a routine behaviour of the adviser. Another approach for the adviser could be to help support double-loop learning, for example by saying: 'I can hear you feel sad about the future perspective, is it something we shall talk about?' In this sense the situation may take a turn in a totally different direction and thus opening what the 'me' is carrying and opening for a change in perspective. If one can be more conscious about the structures of meaning that influence the act and

the decision new ways to act will appear. Double-loop learning is a possibility for behavioural change and in itself it is encircled by meaningfulness (Langer, 1986). When the reflective listener is working, 'me' is experienced and experienced as slightly different than before, and 'wriggling out' of something difficult which makes it easier to act differently (Havelock, 1969). The following action may lead to sustainable changes because the motivation for improvement feels intrinsically right and coherent. In such a situation, it could become 'too much' that animals were suffering, instead of 'too many' animals with (for example) sore legs.

3.4. Summing up the three potentials

The specialist is somewhat mindless and not in contact with the farmer. Due to the single-loop learning, he can be seduced by what the farmer is saying and his espoused theories, and due to his own technical focus he may not be able to hear what may be personal information. The dialogue is furthermore compromised by lack of reflection. As a result the subsequent action of the farmer will be adjustments to which he does not really feel personally committed. The reflective specialist does not challenge the farmer's 'me' but uses information from it. Reflection is a skill that is mastered more or less by both the adviser and the farmer. The learning process is neither single-loop learning nor double-loop learning, and the resulting action will mainly be adaptive changes, but personally embedded in the farmer. The last potential is the reflective listener, who must be considered as an exception in the professional world of agricultural advising. From time to time glimpses of this side appear and both farmer and adviser feel something different happening. Mentally something 'slots together' and the world is viewed in another perspective.

4. Discussion

Technical skills are nearly without exception what give the agricultural adviser access to the farmer and his farm and the farmer in general send for the agricultural adviser to solve a specific problem, though a farmer's expectations is often to get advises that are not only specific to his production system, but also specifically for himself. The scope of a meaningful dialogue is seldom deliberately an issue, but could be good to include in for example a 'health advisory agreement' signed by the local adviser and the farmer. What is important is 'to make it a natural thing to talk about the personal meaning behind'. One can see the local situation as unique and influenced by information that primarily arise in the face to face contact, as pointed out by Berger and Luckmann (1966). If the information, in the hardly manageable face-to-face contact, is honestly included, the situation will, as a premise, be even more complex. Something that is different is going on, and what can be construed to control may find another meaning. To deal with this complexity, the adviser must learn to switch from automatic reasoning processes to a more conscious, reflective mode (Friedman and Lipshitz, 1992).

In Denmark, the local advisers have some real assets and potentials in making a difference due to regular contact to the farmer, the employees and due to substantial knowledge about the production system. Being aware of skills to support double-loop learning and reflection and giving these skills full and open legitimacy, may help implement both technical knowledge and to co-create behavioural change. The awareness of such skills is according to Guba and Lincoln (1989) in particular difficult to have if the positivist paradigm is a guide, possibly because what is asked for is a rejection of a basic belief system. The agricultural adviser as a specialist may be so keen to cultivate the professional ground, established during education and in the professional subculture, that the demand to relate to values and meanings is neglected or assumed to be irrelevant.

I will like to stress, that not only overdoing technical knowledge may limit the advisers' ability to make another kind of difference within the advisory field. To instigate changes in personal structures of meaning, it is necessary that the agricultural adviser possess values and ethical concern about the areas on which she/he professionally focuses. If for example the adviser does not sense a meaning in calves having good living, it will be very difficult to know how to link to the farmer's values. The issue of importance (e.g. animal welfare) will just appear as an empty metaphor difficult to capture and put into play. Absence of values may be even more important in paralysing the process towards betterment, than overdoing the technical knowledge. Usually Danish dairy farmers are encouraged by central advisory services, research institutions and local agricultural advisers to engage in problems described by well-defined variables as for example limit values, key figures and targets set by numbers. Such limit values can be quite beneficial if meaningfulness in the value-based metaphors (as for example animal welfare), to which the variables are connected, has been established. Such meaningfulness could be taken for granted on beforehand, but it would be fair to claim that the dialogues needed to establish or change such meaningfulness are widely neglected due to modesty, non-acceptance or implicit confidence in technical means to solve all kinds of problems.

The improvement of for example animal welfare is, as part of 'sustainability', something arising through 're-design with communities' (Röling and Waagemakers, 1998) and requires use of all three modes of the advisory skills described in this paper. Hence, in addition to the adoption of a set of separate technical approaches, the adoption of the holistic concept should be involved as well (De Buck et al., 2001). Therefore the reflective specialist and in particular the reflective listener, who carries skills to unfold such metaphors, will help development towards sustainability. The underlying demand is to reflectively deal with both technical knowledge and with the farmer's and own values. A theory about action and a conceptual framework on some personal structures can add further dimensions to the field of advising. The difficulty with the methodology presently used to improve, animal welfare is that it creates concepts that may not be applicable in the action context, as well as it introduces conditions such as unilateral control over the technical matter and minimal interest in new universes.

'The human learning system' contains the sensitiveness of both single-loop learning and double-loop learning and double-loop learning does not supersede single-loop learning. But the occasional burst of activity which leads to double-loop learning helps change directions and opens up for new perspectives (Brockbank and McGill, 1998). The potentials described in this paper are sides that more or less manifest themselves. But the reflective skills and the meaningful dialogue are probably often more sensed and clearer when being outside the professional context where it emerges in smaller or bigger glimpses for example when you are together with friends.

If I typify my friend Henry as a member of category X (say, as an Englishman), I ipso facto interpret at least certain aspects of his conduct as resulting from this typification..... This implies, though, that these characteristics and actions of my friend Henry appertain to anyone in the category of Englishman, that is, I apprehend these aspects of his being in anonymous terms. Nevertheless, as long as my friend Henry is available in the plenitude of expressivity of the face-to-face situation, he will constantly break through my type of anonymous Englishman and manifest himself as a unique and therefore atypical individual – to wit, as my friend Henry (Berger and Luckmann, 1966).

To learn from such glimpses, which arise in a professional or private context would beyond any doubt make the job as an adviser even more interesting and would enable the adviser to deliberately put into play multiplex perspectives that could co-create a difference.

5. Conclusion

Due to regular contact with the farmer and his employees, local agricultural advisers have some real assets and possibilities to link to the meaningfulness behind management practices related to for example animal welfare. In practice, the endeavours to work deliberately with these skills remain insufficient, and narrow the perspectives in the face-to-face contact. The insufficiency may arise due to overdoing technical knowledge, lack of knowledge on what constitutes the (farmer's) doing, because it feels difficult or awkward, or because it is experienced as illegitimate. To be authentic about personal issues, meanings and values of oneself and the farmer may further strengthen personal and interpersonal understanding and, as a consequence, support a diversified development in agriculture taking into serious consideration ethical and aesthetical perspectives related to production.

References

- Argyris, C. 1980. *Inner Contradictions of Rigorous Research*. Academic Press Inc.
- Argyris, C. and D. A. Schön. 1974. *Theory In Practice*. Jossey-Bass Publishers London.
- Berger, P. L. and T. Luckmann. 1966. *The social construction of reality - a treatise in the sociology of knowledge*. Penguin Books Ltd, Harmondsworth, Middlesex, England.
- Brockbank, A. and I. McGill. 1998. *Facilitating Reflective Learning in Higher Education*. SRHE and Open University Press, Buckingham, England.
- Darsø, L. 2001. *Innovation - in the Making*. Samfundslitteratur, Frederiksberg, Copenhagen.
- De Buck, A. J., I. Van Rijn, N. Röling, and G. A. A. Wossink. 2001. Farmers' reasons for changing or not changing to more sustainable practices: and explanatory study of arable farming in the Netherlands. *The Journal of Agricultural Education and Extension* 7:153-166.
- Flood, R. L. 1990. Liberating systems theory: toward critical systems thinking. *Human Relations* 43:49-75.
- Flyvbjerg, B. 2001. *Making Social Science Matter - Why social inquiry fails and how it can succeed again*. Cambridge University Press.
- Friedman, V. J. and R. Lipshitz. 1992. Teaching people to shift cognitive gears: Overcoming resistance on the road to model II. *Journal of Applied Behavioral Science* 28:118-136.
- Havelock, R. G. 1969. *Planning for Innovation - through Dissimination and Utilization of Knowledge*. Center for Utilization of Scientific Knowledge of the Institute for Social Research, The University of Michigan, Ann Arbor, Michigan 48106.
- Langer, E. J. 1986. Minding matters: The consequences of mindlessness/mindfulness. In: L. Berkowitz (Ed.), *Advances in experimental social psychology*. Academic Press, New York.
- Løgstrup, K. E. 1997. *The Ethical Demand*. University of Notre Dame Press, Indiana.
- Markusfeld, O. 1993. Epidemiological methods in integrated herd health programs. *Acta Veterinaria Scandinavica Supplementum* 89:61-67.
- Mead, G. H. 1934. *Mind, Self, & Society - from the Standpoint of a Social Behaviorist*. The University of Chicago Press.
- Revans, R. 1991. Action Learning: its origins and nature. In: M. Pedler (Ed.) *Action Learning in Practice*. Gower Publishing Company Limited, Aldershot, Hants, England.
- Röling, N. G. and A. Waagemakers. 1998. A new practice: facilitating sustainable agriculture. In: N. G. Röling and A. Waagemakers (Eds.), *Facilitating sustainable agriculture: Participatory learning and adaptive management in times of environmental uncertainty*. pp. 3-22. Cambridge University Press, Cambridge.

Schön, D. 1991. *The Reflective Practitioner - How professionals think in action*. Avebury, Ashgate Publishing Limited, England

Willert, S. 1999. *Læservejledning til G. H. Mead: Mind, Self and Society*. [Readers guide to G. H. Mead, Mind, Self and Society] Centre for System Development, Psychological Institute, University of Aarhus, Denmark