

Raelin, Joseph A.

**Article — Manuscript Version (Preprint)**

## Seeking conceptual clarity in the action modalities

Action Learning: Research and Practice

*Suggested Citation:* Raelin, Joseph A. (2009) : Seeking conceptual clarity in the action modalities, Action Learning: Research and Practice, ISSN 1476-7341, Taylor & Francis, London, Vol. 6, Iss. 1, pp. 17-24,  
<https://doi.org/10.1080/14767330902731269> ,  
<https://www.tandfonline.com/doi/abs/10.1080/14767330902731269>

This Version is available at:

<https://hdl.handle.net/10419/268472>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# Seeking Conceptual Clarity in the Action Modalities

By

Joe Raelin

Asa S. Knowles Chair of Practice-Oriented Education  
Northeastern University  
Boston, MA 02115  
USA

This is a preprint version of an article  
whose final and definitive form has been published in

*Action Learning: Research and Practice*

Vol. 6, No. 1, pp. 17-24 © 2009

Published by Taylor & Francis

Available online at: <http://www.informaworld.com>

All rights reserved

# Seeking Conceptual Clarity in the Action Modalities

## Abstract

This article begins with the presumption that action learning has not made as deep an impact in promoting participatory social change as its supporters may have hoped for, but nor has its cousin action modalities, such as action research and action science. These action strategies have evolved separately along distinct traditions and, rather than focus on their commonalities, their proponents have tended to cite their differences from one another. As a result, they have seldom stood together to advocate for their shared epistemology based on practice as the fundamental unit of analysis.

Accordingly, after briefly summarizing the history and differences among these action modalities, this article will focus on their potential confederation. It cites ten unifying elements that may construct an agenda characterized by the value of learners collectively reflecting on planned engagements that can not only expand but can create knowledge while at the same time serving to improve practice.

## Introduction

We can nearly universally agree on the common ingredients that delineate the classical practice of action learning. Certainly, Mike Pedler, John Burgoyne, and Cheryl Brook (2005) laid out these common practices in their now classic article: “What Has Action Learning Learned to Become” in the April 2005 issue of *Action Learning: Research and Practice*; and more recently Penny Simpson and Tom Bournier (2007) attempted to clarify what action learning is not.

But should we not also attempt to come to some agreement on the common conceptual elements not only underlying our rich tradition of action learning but across our neighboring action modalities: especially, action research, action science, developmental action inquiry, cooperative inquiry, cultural-historical activity theory, and participatory (critical) research (see Table 1). Within the world of higher education, we might also include some of the programs categorized under the general label, “experiential education,” such as: cooperative education, internships, service learning, clinical practice, undergraduate research, or study abroad. Are there any underlying elements upon which we can agree that may unify our field, at least sufficiently to stand together in advocating for our treasured epistemology based on practice rather than on static knowledge? In this view, practice would become the basic unit of analysis and reflection its learning agent. Accordingly, we might minimally agree on one common theme, such the following: each modality subscribes to the view that planned engagement and collective

reflection on experience can expand and even create knowledge while at the same time serving to improve practice.

In this article I will offer ten additional specific elements, beyond the initial aforementioned theme, that may form the foundation for a conceptual unification of the action modalities. These elements are designed minimally to spark a vigorous debate on commonalities rather than on differences (which is often our predilection). Prior to exploring these ten elements, a word of history may be in order as well as a note about differences.

Table 1

## The Action Modalities

### *Higher Education*

- **Clinical Practice**
- **Cooperative Education**
- **Fine Arts Studio**
- **Internship**
- **Service Learning**
- **Study Abroad**
- **Undergraduate Research**

### *Adult and Continuing Education*

- **Action Learning**
- **Action Research**
- **Action Science**
- **Cooperative Inquiry**
- **Cultural-Historical Activity Theory**
- **Developmental Action Inquiry**
- **Participatory (Critical) Research**

Common theme: *Planned engagement and collective reflection on that experience can expand and even create knowledge while at the same time serving to improve practice.*

## A Historical Retrospective

Although not always credited, Kurt Lewin (1946) is my nomination as the founder of these so-called action modalities in his reference to action research as a means of conducting systematic inquiry into group and organizational phenomena to solve social problems. I realize this nomination appears to shun action learning's heralded creator, Reg Revans, but compared to his contemporaries, Revans did not focus as much on exporting his social science discovery, especially when it came to linking action learning with other comparable social change methods. The Lewin nomination also neglects the original source of the epistemological tradition that

undergirds these modalities – none other than American pragmatist, John Dewey (1897). As founder of the experiential education movement, Dewey believed that learning should be active and that learners should be involved in real-life tasks and challenges (the “social life”). In this way, Dewey perhaps offers one of our unifying bases that knowledge can be produced to be of service to useful action (Peters and Robinson, 1984).

### **A Note About Differences**

Lest we draw a conclusion that the action modalities are not sufficiently distinctive to worry about their solidarity, I should note that their potential unification has not occurred through any natural means. Indeed, they each spring from fairly distinct provenance and tradition and thus possess unique cultural and historical trajectories, each with its own philosophical basis, discourse, and methodology. Consider, for example, how each modality approaches learning across four unique dimensions: form, voice, level, and time (Raelin and Coghlan, 2006).

Each of the modalities gives differential emphasis to the *forms of knowledge* in which program participants learn best; do they seek propositional knowledge, concerned with theoretical formulations that help learners “know what;” practical knowledge, entailing a capture of practitioners’ reasoning, helping learners “know how;” or critical knowledge, in which normal ways of thinking becomes reframed, resulting in learners “knowing why.” Action learning seems to be heavily oriented to practical knowledge as its primary basis of knowledge acquisition.

Consider next the *voices* through which learners can participate and inquire into their experience. Through first-person inquiry and/or practice, they reflect on themselves; in second-person inquiry, they may inquire with others to engage in issues of mutual concern; and through third-person inquiry, they move beyond immediate audiences to contribute to the body of actionable knowledge. Whereas action learning has concentrated on second-person voice, streams in action research have dedicated themselves to third-person knowledge transfer.

The action modalities may entertain different *levels of reflection* often referred to as double-loop and triple-loop learning, both of which seek to challenge the standard meaning underlying our habitual responses (Argyris and Schön, 1974). As we shall see, while the action modalities

appear to universally endorse double-loop learning – challenging the assumptions underlying practice, they differentially engage in triple-loop learning in which premises and entire frames of reference are brought into question.

Finally, while the predominant focus in learning from practice is on a “there-and-then” retrospective form of evaluation, the *time orientation* of many of the modalities, such as action learning, also concentrates on the “here-and-now.” However, some of the modalities, such as participatory research, are equally concerned with the “here-and-beyond,” a learning that extends from the present into the future.

### **Ten Unifying Elements**

Having acknowledged their differences, let’s consider now ten proposed elements that may link the action modalities, including, of course, action learning.

#### *1. They are dialectic rather than didactic or classroom-based.*

This element suggests that the action modalities view knowledge in a very different way from traditional classroom epistemology that, as a *didactic* practice, sees knowledge as permanent and tangible (Styhre, 2003). Thus, it is accessed through reason and intellect, not through day-to-day experience and emotion (Dewey, 1938; Damasio, 1994). Since it is fixed and finite, the standard way of acquiring it is to obtain it from another (typically from a teacher) such that it becomes transferred into one’s own mind. From there, it can be accessed and used as needed.

*Dialectic* epistemology evolves from a very different world view that sees knowledge as arising from a contested interaction among a community of inquirers and from concurrent reflection on real-world experience (Letiche and Van Hattem, 2000). It is thus not representational. Rather than distinguish it from dialogics, I prefer to emphasize the relational character of dialectics that arises from local interactive engagement that is emergent before the need for representation. (Bakhtin, 1986; Chia and Holt, 2006; Schatzki, 1997).

Dialectical practice is thus embodied and tied up in practice. It can emerge new or fresh as we engage and improvise around uncertain problems in our work environment. Using the concept of *bricolage*, Lévi-Strauss (1966) demonstrated that local practitioners can apply whatever tools and materials they have at their disposal (like a handy-man or a *bricoleur*) to solve the immediate problem rather than to rely on scientific theories and techniques. In a similar way, action researchers and learners, though they may use theory, also build new theory and knowledge from the materials of the local situation and then communicate their new knowledge using their own local idiom (Yanow, 2004). Communication is used, then, not just to convey prior didactic knowledge to the user, but also to create new knowledge among current practitioners, and by extension, to other users.

*2. They develop contextualized and useful theory rather than test decontextualized and impartial theory.*

The action modalities are concerned with interventions in action that are useful to the client, but its practitioners also value theory. In particular, they are interested in conceptualizing their experiences in a way that is meaningful and valuable to the members of their learning community and, in some cases, to third persons who might be interested in the results of their interventions (Eden and Huxham, 1996). This contention suggests that action is at times decontextualized. Nevertheless, most action theorists prefer to draw lessons from real-world experience and in so doing, create new theory. When theory is introduced, it tends to be done in concert with action, in other words, “parathetically;” rather than hypothetically, that is, introduced *a priori*, or in anticipation of action (Raelin, 1999).

The reigning positivist paradigm, as regards the treatment of theory construction and testing, handles theory with piety, to the extent of not wanting to have it contaminated by practice. Adhering to scrupulously objective and unbiased methods, its methodology calls for separating theory from practice so as to objectify and isolate knowledge in such a way that: 1) it becomes truer or more valid as it undergoes the rigorous methods of theory testing, 2) it becomes expressed as a series of logical relationships and testable propositions, and 3) it invites reformulation and re-testing as its precepts and procedures are subjected to public scrutiny (Hoshmand and Polkinghorne, 1992). Then, as new theories are introduced and current ones

subjected to greater scrutiny and revision, scientists are able to more accurately map and predict reality and thus sustain progress in human endeavors (Popper, 1959).

*3. They invite learners to be active participants, leading often to change in the self and in the system in question.*

Standard research procedures keeping the observer detached from the “subject” are not observed within the action modalities. The reasoning for the detached approach is so that the subject remains undisturbed by any actions on the part of the observer such that phenomenological order is maintained. The neutrality of the observer or researcher is brought into question especially by action researchers because of their interest in changing not only the system in question but in changing themselves. Further, the endpoint of any theory would not considered to have been achieved; rather, the theory is in the making. The attention of the learner is thus on historical, current, and emergent narratives that reflect the practices under study (Brookfield, 2001; Fairclough, 2005).

Researchers, then, tend to be interested in their own re-education. Normally adult practitioners, they seek to improve themselves especially in regard to their human interactions and practices. They accomplish this through impartial self-observation, critical reflection with others, and intentional, real-world action experimentation which in raising consciousness tends to encourage greater internal commitment to social change.

*4. They endorse reflection-in-action rather than reflection-on-action.*

Reflection is endorsed in nearly all inquiry modes, but most standard methodologies apply reflection after the event in question, as a form of assessment or evaluation. Reflection of this nature may be considered a first step in a full-scale research program as subjects or students are given an opportunity to provide their initial impressions of an intervention or an experience. This “retrospective” reflection, or “reflection-on-action” can be augmented by fairly structured reviews or debriefs of what happened, why it happened, and how it can be improved, a process



that has become standardized in what is known as the After Action Review (AAR) developed initially by the U.S. Army (Darling, Parry, & Moore, 2005).

In comparison to reflection-on-action, the action modalities tend to incorporate what Donald Schön (1983) referred to as "reflection-in-action," a rethinking process that attempts to discover how what one did contributed to an unexpected or expected outcome, taking into account factors unique to the interplay between the individual practitioner and his/her local operating context as well as the interplay between theory and practice. In this way a real-time learning environment is created that permits and encourages practitioners to test their mental models – those images, assumptions, and stories that we carry in our minds of ourselves and of others. The action modalities are committed to bringing these mental models, which are often untested and unexamined and, consequently, often erroneous, into consciousness in such a way that new models would be formed to serve us better (Burgoyne, 1994; Senge et al., 1994).

#### *5. They emphasize meta-competence over competence.*

For practitioners of the action modalities, meta-competence in learning takes center stage over the idea of skill or competence. Meta-competence refers to competence that transcends itself. Hence, it is not any particular skill which is critical but the change of that skill to adapt to the environment. So, rather than learn job-specific skills, learners focus on situation-specific principles attending to a given work domain. By mastering these principles, they can be expected to handle ongoing variability in work demands. They can begin to view learning as being available in the very work that they do. In this way, it can be delivered just-in-time to be of use to their work, to their thinking, and to their feelings (Raelin, 2007)

#### *6. Learning tends to be facilitated rather than taught.*

The action modalities tend to be constructivist in nature requiring a reconceptualization of the role of the teacher (Bruner, 1966; von Glasersfeld, 1995). Teachers are not necessarily instructors who provide information to captive audiences. They are just as likely to be mentors, group project leaders, learning team facilitators, and designers of learning experiences (Twigg,

1994), and notice that it is not necessary to have one but several facilitators to avoid becoming transfixed to any one world view.

This is not to say that there is no value in delivering content or introducing learners to declarative knowledge, namely the set of facts relevant to the skill or subject in question (Anderson, 1983). Just as a master is not expected to hold back his or her expertise, teachers are not required to conceal their knowledge for fear that it would interrupt the students' learning process. It's just that learning also requires mediation, often in the form of active dialogue in order to help learners discover patterns and principles on their own (Bruner, 1966; Mayer, 2004).

*7. They espouse the development of double-loop rather than just single-loop learning.*

Although most associated with action science, all of the action modalities tend to probe to deeper levels of learning and reflection than standard single-loop learning. In single-loop learning, when something isn't going according to plan, most people look for another strategy that will work but they tend to look within their portfolio of existing approaches. In double-loop learning, these approaches and even the values connected to them are questioned, resulting in free and informed choices, more valid information, and high internal commitment to any new behavior attempted (Argyris and Schön, 1978). People learn to question what might even be considered sacred.

Using double-loop inquiry, the action modalities can improve social discourse in at least two important ways. They can improve discourse in the moment so that the people involved can engage with each other in a more productive way (Putnam, 1999). Second, they can invoke the deeper causal factors that lead people to interact as they do. So, in order to bring about fundamental and lasting improvement in the quality of discourse, practitioners learn to reflect upon and alter the assumptions embedded in their behavior and reasoning patterns.

*8. They welcome the contribution of tacit knowledge to learning.*

The action modalities often seek to explore the tacit processes invoked personally by practitioners as they work through the problems of daily practice. Tacit knowledge is the component of knowledge that is not typically reportable since it is deeply rooted in action and involvement in a specific context (Polanyi, 1966). In other words, although individuals may be knowledgeable in what they do, they may not have the facility to say what it is they know (Pleasant, 1996). Tacit knowledge is thus not necessarily mediated by conscious knowledge, but it may serve as the base for conscious operations.

When it comes to learning, we may prefer to keep our practice unanalyzed or in, what Polanyi (1962) referred to as, “subsidiary awareness.” This may occur when we attempt to demonstrate but not state our practice (Arnal and Burwood, 2003) or when we are in the middle of a performance. It might be immediately after or even before the experience that one might attempt to bring the inherent tacit knowledge to the surface. In so doing, we might not only improve but even permanently alter our understanding of the situation and, as a result, our actual performance (Reber, 1976).

*9. Their measured learning outcomes are more often practice-based rather than academic.*

Foreshadowing the last common element of tentativeness, the action modalities tend to resist closure through precise measurement of the phenomena observed and experienced. There is an appreciation of indeterminacy and learning from real-time inquiries (Roy, 2005). Where measurements are produced, in contrast to academic outcomes, such as achievement and satisfaction, the action modalities prefer to target learning outcomes that are specifically practice-based, in other words, that derive from learning within the practice world rather than from the classroom (Raelin, 2006). Although there is still work to be done to develop a set of outcome variables of this nature, the measures are likely to contain such dimensions as: engaging knowledge from experience, extending knowledge from experience, and originating knowledge from experience (Piaget, 1969; Shulman, 2002). They are also likely to be multi-level, considering experience at the individual, group, project, organizational, network, and institutional levels.

*10. They are comfortable with tentativeness rather than certainty.*

Based more in an interpretivist than an objectivist inquiry mode, the action modalities question the degree to which human beings can rationalize and control their environment. In spite of rational processes, there are contradictions and ambivalences that often lie at the heart of organizational life (Derrida, 1973). Cooper and Burrell (1988) explained that managers, rather than direct organizations, are also as readily captive or reactive to them. We need to conceive of practitioners and learners as being observers of experience, who construct interpretations of actions as they occur, rather than controllers. They take in experience and reflect on emerging lessons especially in partnership with associates both in their local and virtual networks. They compare their experience to existing theory and determine its applicability. If experience is not conjunctive with theory, ongoing reflection with others can produce new theory.

The reflective stance embodies a tentativeness and a humility that seek to work with and learn from the complexity of social behavior. Practitioners learn to stay with their indeterminacy and resist conceptual closure. Otherwise, as Wittgenstein (1977) warned, when questioned they may be inclined “to say more than they know,” or as Dreyfus and Dreyfus (2005) pointed out, “to remember rules they no longer use.”

## **Conclusion and Implications**

Action learning has had a 50-year history of reasonable application as part of a growing movement to incorporate learning within the field of action itself and to involve all participants in the change process. Although conceptually inter-connected with its cousin action modalities, not to mention its natural affinity with systems change dynamics, such as socio-technical systems and organization development, it has proceeded in its development along a fairly solitary trajectory. Some of the reasons for this isolationism may be due to the eccentric nature of its founder, Reg Revans, to its initial neglect of third-person theorizing, or even due to its own conceit as a first-of-its-kind social engineering practice.

If action learning is to make a truly significant impact as a vehicle for participatory social change, however, it may need to find common ground with its allied practices that have nurtured some complementary principles and applications. Rather than exerting our energies to find fault and difference, this might be the time – in an age nearly overcome by dogma and ritual – to combine forces on behalf of the pursuit of practices committed to the re-creation of a democratic social order.

## References

- Anderson, J. R. (1983). *The architecture of cognition*. Cambridge, MA: Harvard University Press.
- Argyris, C. & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.
- Argyris, C., & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, Mass: Addison Wesley.
- Arnal, S. G. & Burwood, S. (2003). Tacit knowledge and public accounts. *Journal of Philosophy of Education*, 3 (3), 377-391.
- Bakhtin, M. M. (1986). *Speech genres and other late essays* (trans. by V. W. McGee). Austin, TX: University of Texas Press.
- Brookfield, S. (2001). Repositioning ideology critique in a critical theory of adult learning. *Adult Education Quarterly*, 52 (1), 7-22.
- Bruner, J. (1966). *Toward a theory of instruction*. Cambridge, MA: Harvard University Press.
- Burgoyne, J. G. (1994). Managing by learning. *Management Learning*, 25 (1), 35-55.
- Chia, R., & Holt, R. (2006). Strategy as practical coping: A Heideggerian perspective. *Organization Studies*, 27 (5), 635-655.
- Cooper, R., & Burrell, G. (1988). Modernism, postmodernism, and organizational analysis: An introduction. *Organization Studies*, 9, 91-112.
- Damasio, A.R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Putnam.
- Darling, M., Parry, C., and Moore, C. (2005). Learning in the thick of it. *Harvard Business Review*, 83 (7/8), 84-92.

- Derrida, J. (1973). *Speech and phenomena*. Evanston: Northwestern University Press.
- Dewey, J. (1897). My pedagogic creed. *The School Journal*, 54 (3), 77-80.
- Dewey, J. (1938). *Experience and education*. New York: Macmillan Publishing Co.
- Dreyfus, H.L., & Dreyfus, S.E. (2005). Expertise in real world contexts. *Organization Studies*, 26 (5), 779-792.
- Eden, C., and Huxham, C. (1996). Action research for the study of organizations. In S. R. Clegg, C. Hardy, and W. R. Nord (Eds.), *Handbook of organization studies*. London: Sage, pp. 526-542.
- Fairclough, N. (2005). Discourse analysis in organization studies: The case for critical realism. *Organization Studies*, 26 (6), 915-939.
- Hoshmand, L.T., & Polkinghorne, D.E. (1992). Redefining the science-practice relationship and professional training. *American Psychologist*, 47 (1), 55-66.
- Letiche, H., & Van Hattem, R. (2000). Self and organization: Knowledge work and fragmentation. *Journal of Organization Change Management*, 13 (4), 93-107.
- Lévi-Strauss, C. (1966). *The savage mind*. Chicago: University of Chicago Press.
- Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, 2, 34-46.
- Mayer, R. E. (2004). Should there be a three-strikes rule against pure discovery learning? *American Psychologist*, 59 (1), 14-19, 2004.
- Pedler, M., Burgoyne, J. & Brook, C. (2005). What has action learning learned to become? *Action Learning: Research and Practice*, 2 (1), 49-68.
- Peters, M., & Robinson, V. (1984). The origins and status of action research. *Journal of Applied Behavioral Science*, 29 (2), 113-124.
- Piaget, J. (1969). *The mechanisms of perception*. New York: Basic Books.
- Pleasants, N. (1996). Nothing is concealed: De-centring tacit knowledge and rules from social theory. *Journal for the Theory of Social Behaviour*, 26, 233-255.
- Polanyi, M. (1962). *Personal knowledge*. Chicago: University of Chicago Press.
- Polanyi, M. (1966). *The tacit dimension*. Garden City, NY: Doubleday.
- Popper, K. (1959). *The logic of scientific discovery*. New York: Basic Books.
- Putnam, R. (1999). Transforming social practice: An action science perspective. *Management Learning*, 30 (2), 177-187.

- Raelin, J.A. (1999). The action dimension in management: Different approaches to research, teaching, and development, Preface (as Editor) to the Special Issue of the journal, *Management Learning*, 30 (2), 115-125.
- Raelin, J. A. (2006). Does action learning promote collaborative leadership? *Academy of Management Learning and Education*, 5 (2), 152-168.
- Raelin, J. A. (2007). Toward an epistemology of practice. *Academy of Management Learning and Education*, 6 (4), 495-519.
- Raelin, J. A., & Coghlan, D. (2006). Developing managers as learners and researchers: Using action learning and action research. *Journal of Management Education*, 30 (5), 670-689.
- Reber, A. S. (1976). Implicit learning of synthetic languages: The role of instructional set. *Journal of Experimental Psychology: Human Learning and Memory*, 2, 88-94.
- Roy, K. (2005). An untimely intuition: Adding a Bergsonian dimension to experience and education. *Educational Theory*, 55 (4), 443-459.
- Schatzki, T. R. (1997). Practices and actions: A Wittgensteinian critique of Bourdieu and Giddens. *Philosophy of the Social Sciences*, 27 (3), 283-308.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Senge, P. M., Kleiner, A., Robert, C., Ross, R. B., & Smith, B. J. (1994). *The fifth discipline fieldbook*. New York: Doubleday.
- Shulman, L. S. (2002). Making differences: A table of learning. *Change*, 34 (6), 36-44.
- Simpson, P. & Bourner, T. (2007). What action learning is not in the twenty-first century. *Action Learning: Research and Practice*, 4 (2), 173-187.
- Styhre, A. (2003). Knowledge as a virtual asset: Bergson's notion of virtuality and organizational knowledge. *Culture and Organization*, 9 (1), 15-26.
- Twigg, C. A. (1994). The need for a national learning infrastructure. *Educom Review*, 29, Nos. 4, 5, 6.
- von Glasersfeld, E. (1995). *Radical constructivism: A way of knowing and learning*. London: Falmer Press.
- Wittgenstein, L. (1977). *On certainty*. Oxford: Blackwell.
- Yanow, D. (2004). Translating local knowledge at organizational peripheries. *British Journal of Management*, 15, S9-S25.