Research and the Challenges of Working Life

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This paper will briefly present a 30-year history of co-operation between research and labour market actors devoted to the task of creating a better working life in Scandinavia.[1]

Taylorism and the Idea of a "Social Science"

Norway, like all other industrialised countries in the period after World War II, embarked on a process of "Taylorization", in the sense that patterns of work organization and first line management became strongly characterised by the work simplification inherent in this school of thought. But with Taylorism came the critique of Taylorism: that it carried with it great human costs, created a democratic deficit in society, prevented employees from developing competence and creative abilities, and did not even always ensure productivity in simple, repetitive work operations. Much social science work research in this period actually became part of a mobilisation against Taylorism. And the time was favourable for just such a science-based attack. The huge advances in science-based technologies during the war years underpinned a belief in the ability of science to deal with almost any problem. What, however, was "the scientific way" of dealing with such a phenomenon as Taylorism?

Under the influence of the Cartesian idea that there is a kind of reason superior to all other reason, which can be discovered by the mind and expressed in general theory, the struggle against Taylorism took the form of a search for such a theory. This was strengthened by Taylorism itself, which declared itself to be nothing less than such universally applicable reason and, it could be argued, those who claimed to represent universal reason could only be silenced by another, superior universal reason.

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[1] The presentation is brief; for more thorough presentations and discussions see Gustavsen and Hunnius (1981), Gustavsen (1992; 1996), Gustavsen et al 1996, and Ennals and Gustavsen (1999). The paper is based on a chapter in the book *Creating Connectedness* (Gustavsen et al 2001). The purpose of this chapter is to trace some of the lines of development that came to influence the design of ED 2000, the Norwegian Enterprise Development 2000 Program (1994-2000). The program is based on seven modules. A "module" is a group of researchers with a common research agenda that works with a group of enterprises, often together with other regional institutions as well, for a period of several years (Gustavsen et al 2001).

In spite of the search for one single new reason, the emerging research activities actually came to be characterised by many differences. Rather than one school of thought, a number appeared: the "human relations" school, emerging out of the Hawthorne project in the 1920s and 1930s (Roethlisberger and Dickson 1939), was further developed in the 1940s and 1950s into ideas about group and organization development. Around 1950, the sociotechnical school entered the scene, to form a somewhat different platform based on a main focus on the patterns of interaction between people and material working conditions (Trist and Bamforth 1951). In the late 1950s the motivation theory of Herzberg and colleagues (Herzberg et al 1959) added a new, grand portfolio of ideas. What came to be called the labour process school emerged formally in the early 1970s with Braverman's study of modern forms of exploitation (Braverman 1974), but various branches of (more or less) critical theory had flourished for a long time and actually reached a peak in 1968. In addition to these major schools there were a number of schools competing on more specialised terrain, such as views concerning processes and agents of change: should a new working life be promulgated by owners, managers, workers, experts or other actors such as the state? Could adequate changes be created in an evolutionary and incremental fashion, or was there a need for more revolutionary approaches? Were changes in working life reflections of changes in, say, class relationships and/or the basic organization of society, or could working life be changed "in its own right"?

In addition to theories dealing differently with the core issue of working life – the work role, its constitutive forces and its effects on people – numerous theories of more indirect relevance entered the scene, such as the coalition model of the enterprise (Rhenman 1964), the limited rationality perspective on organisational decision making (Simon 1947), the contingency theory of organisational optimising (Woodward 1965) and so on. A number of other differences of relevance emerged as well, such as those between a productivity orientation and an orientation towards human concerns, between understanding the stable versus understanding the changing, between socio-psychological forms of understanding versus medical-physiological ones, and many more. In fact, most of the different schools of thought were as preoccupied with criticising each other as with criticising Taylorism.

Experiments as Research Strategy and New Forms of Work Organization

This was the context within which a series of experiments with new forms of work organization emerged in the 1960s, initially in Norway but gradually in a number of other countries too (Emery and Thorsrud 1969, 1976; Gustavsen and Hunnius 1981; Gustavsen 1996). The main theoretical source behind these

specific efforts to change working life was the sociotechnical school as it had emerged in particular at the Tavistock Institute in the UK (Trist and Bamforth 1952; Trist 1982).

In Norway, as in most other countries where such efforts emerged, they implied some form or other of co-operation between research and the labour market parties. The labour market parties had to place sufficient trust in research to be willing to enter into this kind of co-operation. The labour market parties in Norway were first out in this context, and actually created a high-level work group to supervise the experiments (Emery and Thorsrud 1969).

In contrast to most other efforts to create and scientifically underpin a new universal reason in working life, this school went beyond critical discussions of existing social orders to actually perform experiments with new ones. Under the influence of Kurt Lewin and the idea of the field experiment (Lewin 1946; Lewin et al 1939), projects were created in real workplace settings. These projects were intended to perform experimental testing of the theoretical platform as well as a further development of this platform (Gustavsen 1996; 2000). In this respect they had the same aims as, say, descriptive-analytic research. But the field experiments had another side to them. Being events in "real life", they were also a way of demonstrating the new rationality "in real terms" and, through this, performing a task of persuasion as well as a task of forming diffusion nodes. A diffusion node is "a place in the world" where a specific pattern – i e an autonomous work group – can be seen "in practice". Those who want to learn what an autonomous group "is" do not have to rely on theory and/or "distant descriptions" but can actually go and look at and talk to the actors involved.

From Experiments to Diffusion

Although there is little doubt that the experiments – in a wire drawing mill, a mechanical assembly plant, a pulp department and a fertiliser plant (Emery and Thorsrud 1976) – were major advances and made contributions to "the discourse on work", nationally as well as internationally, far beyond what "pure texts" could have achieved at the time, they also ran up against difficulties: central in this context was the diffusion problem – the problem of getting new workplaces to use, or copy, what had emerged in the experimental sites. In spite of the major interest in the themes involved in the experiments, and the rather intense discourses to which they gave rise, there seemed to be some major barriers in moving from experiments to new practices in wider circles of workplaces (Bolweg 1976; Gustavsen and Hunnius 1981).

One process to emerge out of this was a successive dismantling of the experimental design criteria, inherited from Lewin and associates (Lewin 1946; Lewin et al 1939). It was found to be increasingly difficult to treat social actors in more

or less the same way as inanimate objects, to be able to perform experiments. Clearly, even Lewin and colleagues did not want to deny the subjectivity of the people partaking in experiments. They did believe, however, that it was possible to suspend this subjectivity for experimental periods, only to reintroduce it when the experiment had come to an end. This called for a delimitation of the experiment in time and space which proved extremely difficult, not to say impossible, to achieve. It demanded, furthermore, that the experimenter could turn the subjectivity of the partners off and on, according to need, another difficult condition to meet.

Along with this there emerged a successive decoupling of field efforts from one single, grand theory of the kind represented by the early version of the socio-technical school. Since no unequivocal set of design criteria could mediate between theory and experiment, the relationship between theory and "practice" had to become looser. Different theories or elements of theory could be introduced, to help deal with processes of change, even in one and the same workplace.

The most significant event to follow in the wake of the experiments was a workshop organised jointly by the labour market parties and research throughout most of the 1970s (Engelstad and Ödegaard 1979). It was in this workshop that the major break with the experimental approach emerged for the first time, in the form of a rather simple change, but one that had far-reaching consequences. While the workshop started out as an event in the service of the diffusion of the experiences from the experiments, it subsequently changed direction, becoming a discussion forum that focused on the problems and challenges of the participating enterprises. These were placed in focus, and experience from the experiments fed into the process only to the extent that it could help the participating enterprises deal with their challenges. *In this could be found a major change in the figure/ground configuration: instead of the experimental sites emerging as the figure, with new enterprises forming a background, the new enterprises were lifted forwards to become the figure and the experimental sites shifted into the background.* From here and onwards the experimental sites were being identified as resources to be utilised but not as "models to be applied".

The notion of "theory" as commonly understood is a set, or series, of words, "about" reality. Generally, in "theory language", the world is treated referentially, that is, as something that exists in an objective sense. Furthermore, this "external object" is described in terms of what in Shotter and Gustavsen (1999) is called a "single order of connectedness" or, if this is found difficult to actually achieve, it still functions as an ideal. But is it really possible to actually design and steer real developments from such a platform? Can an objectified, distanced, single order understanding really help us when faced with practical situations that

26

are, at least on the surface, experienced as being "near", crowded with subjects and displaying a number of different orders of connectedness?[2]

Developing Practices: From "Using a Tool" to Building Institutions

To turn to "practice" is one thing. But what does this imply? What "is" practice? In principle, this question should be easy to answer since practice must be all that is not "theory". Since theory is a highly cherished concept in all kinds of research, one should expect "theory" to be well defined. But this is not the case, and for rather strong reasons. To see an exceedingly complex world as falling within one or the other of two pre-given categories is, of course, not possible. Words like "theory" and "practice" are parts of an infinite number of language games and each such game must be penetrated to understand its meaning. Along with the disappearance of universal reason goes the disappearance of the universal meaning of the word which expresses the domain within which universal reason can be "found".

Instead, what we need to do is literally speaking to find a practical way of defining practice. (Incidentally, if we need to find a practical way in which to define practice we need to find a practical way in which to define theory, too.) A practical way means to take, as a point of departure, the situation in which one finds oneself and the language games used by the "inside actors". In these games the word "practice" will appear in certain contexts, and so will the word "theory".

When research looks at "practice" as a theme, the examples tend to be simple, such as grabbing a hammer and driving in a nail (generally relying on "tacit knowledge"). Obviously, there are exceptions; e g Habermas (1973) who deals with practices as the construction of society. Even in the work group phase, the kind of practices of interest to work research were somewhat more complex than driving nails, since most work groups, even in simple production processes, face more complex tasks. In the next major "campaign" to confront developmentally oriented work research in Norway, however, the complexity of the practices involved became the core issue.

The campaign in this case emerged out of the discussions on workplace health and safety that were triggered off in the 1960s as a part of the then emerging

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[2] In efforts to approach this problem, in the context of the 1970s and early 1980s, the analysis performed by Habermas in *Theory and Practice* (1973) proved a fruitful point of departure. In this analysis Habermas argues for a *separation* between theory and practice: while formation of theory is, as a point of departure, a search for "truth" or "rightness", practices are shaped to achieve success in the real world. Theory can inform practices, and practices are often the raw materials of theory, but there is no one-to-one relationship between theory and practice. They belong to different realms of human activity.

debate on pollution of the environment. During the 1970s most industrialised countries took steps to introduce new strategies and new practices in this field, generally with new legislation as the main element. In Norway this process took off in 1972, when the government decided on a new, major reform in workplace health and safety. In this reform, the research group that had organised and designed the development process from the field experiments with new forms of work organisation, up to and including the participative forms of development emerging in the early 1970s, was asked to participate (Gustavsen and Hunnius 1981).

Many of the contributions from this research group came to dwell on questions having to do with how to mobilise local actors to actually focus on, and do something about, risks and dangers in the workplace. It would be all to the good to introduce a new generation of demands, requirements and threshold limit values for exposure, but it would lead to little unless adequate workplace activities could be initiated. To some extent bodies like the public labour inspectorate could be used in this context but it would be an illusion to believe that a major reform in working life could be carried through without a reasonable degree of active involvement from a reasonable share of Norwegian workplace actors, on both sides. The question to emerge, then, was how to achieve this?

Without going into detail here (the interested reader is referred to Gustavsen and Hunnius 1981) this implied a rather complex strategy involving the way in which the legislative requirements were expressed, the way the role of such bodies as the labour inspectorate and the occupational health services were shaped and much more.

First, the law itself had to be designed in such a way that it could help promote local activity and not merely lay down new specifications and threshold limit values. To achieve this, the law had to deal with issues like local activity plans and employee participation and it had to incorporate issues like work organisation in its measures.

Second, the bodies and agencies operating in the interface between public policies and enterprise actors had to be able to master activity-initiating parameters and not only to formulate requirements or contribute expert knowledge.

Third, the local parties had to be induced to view health and safety as a major prerequisite for productivity and quality, to really get them to mobilise the requisite interest.

Fourth, insofar as constructive development depends on knowledge and competence not present among the workplace actors, these resources had to be made available from outside.

Finally, all elements need to work along the same trajectory to mutually reinforce each other.

To "construct" such a "reform machinery" is, fundamentally, a practical task. The construction to be created, however, has a very high degree of complexity, posing numerous challenges along the road. These challenges cannot be met simply by "doing", they also need reflection, or discourse, but, as Habermas points out: first and foremost practical discourse. What, then, about "theory"?

Building Institutions and the Role of Research

To build a new "institutional order" in working life is a task that can be informed, but not steered by, theory. On the other hand, it turned out to be rather difficult to maintain a clear separation between theory and practice. It was, for instance, not possible to "first" clarify what theory had to say about such a reform and then carry out the reform itself as a "second" and separate step. What could be done "in advance" was to give some outline, some sketches, of what the reform could look like that could draw on theory. Even the theoretical inputs into these sketches were no simple portfolio, however, that could easily be located in "theoretical space"; rather, they ranged from theory about policy formation and administration, via legal theory and theory of organisation, to theory within fields like preventive medicine and epidemiology and further on to sociotechnical and related theory about the workplace.

When the reform started to roll and the various processes were launched, questions of using theory to help identify and deal with issues and problems emerged in literally thousands of contexts. The interplay between theory and practice soon turned into an exceedingly complex landscape that nobody could oversee. Rather than "setting the scene" ahead of time, theory (and related resources) actually came to function as an on-line resource in numerous part-processes at numerous points in time and space.

In this context a number of new challenges emerged, going far beyond simply stating that theory and practice are different discourses. Among the challenges that came to take on serious proportions during this reform campaign was, for instance, to locate the right contribution at the right place in social space at the right time. To state that theory and practice can mutually inform each other is one thing, but how to actually create situations where such mutual information could occur, is something different. We had, for instance, numerous workplaces where there was reason to believe that "stress", in the sense given the word by Selye (1957), was present and we had, not least in Scandinavia, a good portfolio of research, theory, methods and experts in the field (Frankenhauser and Gardell 1976; Levi 1971; Karasek and Theorell 1990). But how was one to bring them together; how could we create flows of theoretically generated ideas into the workplaces that could help "enlighten" the actors as well as lead them to construct new practices? Obviously, in dealing with more than six million workpla-

ces in Sweden and Norway alone, the problem could hardly be solved by sending the best theoretical authorities on lecture tours to the workplaces, nor were people in general able to read the research texts. This led to issues like the possibilities of getting the essentially naturalist occupational health services to work with issues of "stress" and work organisation, and what would be needed to achieve this; more developmentally oriented roles for the public labour inspectorate, and much more.

The point that it was insufficient to bring challenges and theories together once and for all on some kind of macro-level, i e in the context of deciding on instructions and byelaws, provided the grounds for a process perspective on theory. Theory is not used in "one-time" situations but has to play a role over extended periods of time, often indefinitely. As theory can help inspire the development of new practices, the new practices start to represent new inputs to the theoretical process, and so on. Furthermore, there was no question of "one theory" but of numerous theories. In fact, a health and safety reform in working life can actually come to mobilise just about all theories "that are", since there is almost no limit to what can be relevant. The problem was not so much to declare the mutual interdependence between theory and practice as to give a specific form to this interdependence; or rather: forms, since it is not a question of one single type of link. Rather, the links were numerous, different as well as continuously shifting. If, say, a local union somewhere came to express an interest in "stress" the core problem was not to get "the best authority" to give a talk, it was to give them whatever authority had some time available to help provide for a setting where theory and practice could mutually inform each other in such a way that fruitful developments could occur, even if the authority was not even the second or third best. "Place", "time" and "context" were the core issues in playing theory into the extremely complex process landscape.

To summarise, the experience from this "campaign" was a strengthening of the need for a process perspective on theory, together with a need to have a broad range of theoretical resources available. Rather than identifying "the best theory" in the abstract, the problem was "to get the right theory to the right place at the right time" – in literal terms, one of logistics. This is linked to the character of the "reform process": great complexity, a large number of themes, numerous points of enlightenment and formation of practices.

This problem of "logistics" can also be seen as one of communication: on the one hand we have a "practical situation" that can be enriched by something we can call "theory"; on the other hand there are sources of relevant theory; both represented by people. How does one get them on speaking terms?

By posing the problem in this way we move directly into the field created by Habermas (1973), when the relationship between theory and practice is seen as one of mutual dependence but not one of structural identity. Theory is generally

"about" practice but is not, in itself, practice. Nor can it be turned into practice simply by making practice correspond point-by-point to the theory. Theory can inform practice; it can help make it better or more rational, but the process through which this takes place is one of interplay and not one of converting the one directly into the other. The problems and challenges facing the one who has to develop practice are different from those facing the theoretician. The "mechanism" through which theory and practice mutually influence each other is communication.

The LOM Program and Communication as the Core Element in Workplace Development

While a "turn to discourse" gradually emerged as an inherent part in the developments sketched above, it was the LOM program in Sweden that gave this turn a more explicit shape in terms of program design as well as in terms of the more specific approaches to workplace development. This program is presented in Gustavsen (1992) and in Naschold et al (1993) as well as in a series of later analyses and treatises. In the brief review given below, the emphasis will be on two main aspects: first, the basic approach, or "mechanism" of the program, called "democratic dialogue". Second, the "discourse formation" within which this generative mechanism was applied.

Although the program primarily aimed at workplaces, it was a major point to locate each workplace within a broader terrain made up of other workplaces and of various kinds of supportive and institutional actors. This sum total of actors and the patterns they form can be seen as a discourse formation.

The Idea of Democratic Dialogue

In line with his view on the relationship between theory and practice as being discursive rather than one of "direct conversion", Habermas placed his main focus on the discourse as such (Habermas 1984/87; McCarthy 1976). Basically, the degree of rationality inherent in a given social order depends not only on its structural characteristics but also on the way it has been created. Is it, for instance, the product of traditionalism and superstition or is it created by free and informed agents in open discourse? That this makes a difference is a point on which it is easy to reach agreement in our knowledge-oriented dynamic world. From this point – rather simply expressed here – Habermas goes on to create a new reason with communication at its centre. In principle, good solutions demand good communication and the problem becomes to define what good communication "is".

From this point of departure Habermas erects a major construction, with claims to universality. At the core of this construction is a set of perspectives on "good" or "free communication", such as the need for the communication to be free of such forms of pollution as power and manipulation.

However well argued and persuasive this theoretical construction looked, it nevertheless posed some challenges to people involved in rather pragmatic development processes. If it is so that what we have witnessed over the years is a successive breakdown of universal reason and grand theory pertaining to the structure of the phenomena we work with, and an ensuing turn towards the mechanisms through which the phenomena are created, is it reasonable to try to express these generative mechanisms in terms of (a new) universal reason? While it was seen as well founded to retain the basic idea there was, in a pragmatic workplace development context, a need to develop an alternative platform for the criteria used to identify good communication. Two points of anchorage offered themselves.

First, experience as it had actually been acquired over the years in projects, programs and other processes. The "turn to discourse" was a change in figure/ground relationship rather than the introduction of a completely new element. There had been quite a number of "discourses" involved, for instance, in doing workplace experiments (in fact, the significance of "the discourse" can be said to go as far back as Hawthorne, in the sense that in some of the classical interpretations of this project a rise in productivity was linked to "the surrounding activities" rather than the experiment itself (Gillespie 1991); these "surrounding activities" can hardly have been anything but conversations). Reflecting on these discourses, it would be possible to establish some criteria.

Since no explicit research had been done on this aspect at the time, the criteria would have to be tentative. However, this was not seen as a major problem. We were entering a new phase of workplace development projects and these projects would in themselves come to function as a learning ground. The intention was not to exclude communication criteria from the learning process. Consequently, it would be possible to test them against "what works" and to perform processes of reflection "on line", as the processes started to unfold (Räftegård 1998). In this way a self-validation mechanism was built into the program.

A further possible point of anchorage was democracy as institutionalised and given practical expressions in society. Communication is, after all, a main element in all democratic constitutions. The written ones, generally with roots in the French constitution of 1791, emphasise, for instance, freedom of speech, freedom of association, the right of those concerned to be heard before decisions are made, and a number of other elements relating to communication. These provide further points to draw on when giving direction to workplace discourses. The institutional characteristics and operative practices of democracy as an historical

heritage do not give unequivocal pointers; they need to be interpreted to be applicable at a workplace level. At this point, however, it is possible to rely on the learning potential of the process itself; no initial interpretation needs to be fixed and absolute, it just needs to be given starting points.

Since it is quite common, not least in theoretical reflections about the practices of democracy, to point out all the ambiguities and "model differences" associated with the concept of "democracy" it may be worth while to point out that many of these are theoretical rather than practical. Problems of the type "What if the dictator is elected by a majority?" seldom emerge in practice and in particular not in workplace development practice. The problems that tend to emerge are problems like what mandate a shop steward has from his constituency; who can be said to be concerned by a decision, and such like. Even problems of this kind are difficult enough – when they are decontextualized. When they emerge in specific settings, with reference to specific questions and issues, many of the difficulties tend to evaporate. The questions need not be answered in the general and abstract; the need will relate to what mandate a specific shop steward has in relation to a specific issue from a specific group of fellow workers or to who, among a specific circle of people, are concerned by a specific issue, such as the organisation of a production line.

On the basis of these points, the ideas of good, or constructive communication, was expressed in the following set of criteria:
- Work experience is the point of departure for participation.
- All concerned by the issues under discussion should have the possibility of participating.
- Dialogue is based on a principle of give and take, or two-way discourse, not one-way communication (participants must be responsive to each other).
- Participants are under an obligation to help other participants be active in the dialogue.
- All participants have the same "rank" in the dialogue arenas.
- Some of the concrete experiences possessed by the participants on entering the dialogue must be seen as relevant.
- It must be possible for all participants to gain an understanding of the topics under discussion (time must be spent on achieving this).
- An argument can be rejected only after exploration of its details and not, for instance, on the grounds that it emanates from a source of limited legitimacy.
- All arguments that are to enter the dialogue must be expressed by the actors present.
- All participants are obliged to accept that other participants may have better arguments than their own.
- Among the issues that can be made subject to discussion are also the ordinary work roles of the participants – no one is exempt from such a discussion.

- The dialogue should be able to integrate a growing number of differences (indeed, it is precisely from their integration into a whole that a specific perspective attains a meaning and that a relational landscape can emerge).
- The dialogue should continuously generate decisions that provide platforms for joint action.

This is the version of dialogue criteria given in Shotter and Gustavsen (1999); there are some details that differ from the original conceptualisation (Gustavsen and Engelstad 1986; Gustavsen 1992).

While they were, in the beginning, called "criteria", they were later renamed "orientational directives" (Shotter and Gustavsen 1999). Emerging in a borderland between "theory" in a more classical sense on the one hand, and a more pragmatic "learning by doing" perspective on the other, later development has implied a continued "pragmatic turn" (McCarthy 1996) rather than a "return to theory". The shift from "criteria" to "orientational directives" is intended to emphasise this. There are, however, no major discontinuities in the way in which the criteria have been used in concrete conversations.

The combination of words inherent in "democratic dialogue" can be seen as a market oriented slogan where both words actually say much of the same. This specific way of conceptualising the list of criteria partly has its background in the need to make "the theory of communication" communicable – a not unimportant aspect – partly in the need to emphasise the roots of the criteria in democratic practices rather than in classical theory.

Local Learning Arenas

A core challenge in the work environment reform was to reach all enterprises and workplaces – there are about 300,000 enterprises in even a small country like Norway, to which can be added a substantial number of public agencies and institutions. Furthermore, each workplace could need different types of knowledge and the needs could shift over time. Adding to the problems was the point that much knowledge, to have an impact, needs to function over some time, whereas a number of workplaces are subject to turnover of personnel or other changes that can easily break a learning process.

To feed each specific workplace "directly" with the knowledge needed was in actual practice not only an impossible task but also a pointless one. Instead of going straight to the knowledge issue, there was a need to create learning environments in terms of workplace mechanisms that could receive and absorb knowledge and put it into play over time. The enterprise level work environment (health and safety) committees were supposed to fill this role, but they could do this only to a limited extent, since each committee often had to cover far too many workplaces to really deal with them in knowledge terms.

34

During this reform, quite a substantial number of additional bodies and groups emerged that could function as nodes in learning processes. Since they were not part of the formal system instituted by the law, however, no data is available that can provide a basis for an assessment of how widespread "project forms" of work actually became at the time. What can be said for sure is that, although they were on the advance, they were less widespread than what the reform actually demanded.

In the light of this experience, much emphasis was placed on local learning environments in the LOM program. Besides democratic dialogue, this was the main element of the program. Being an early effort to create learning environments, the LOM program had a fairly simple design, departing from four levels, or types, of arenas:

- Arenas inside each organisation, which could range from conferences to project groups and workplace meetings.

- Joint arenas for small groups of organisations; as a point of departure the program was based on linking organisations in groups of four. Again, conferences was a main measure, together with other linking events, such as joint project and work groups, mutual visits and more.

- Joint arenas for combinations of such "groups of four", in this program called networks.

- The program as such, where some joint arenas were established, in particular for the researchers.

In addition to this, there were some efforts aimed at creating links between the program, the labour market parties and other "macro-level actors", but these came to little. The Work Environment Fund, which organised about ten programs of the same volume as LOM, did not link the programs to each other, nor to other reform processes in Swedish work life, such as the Work Life Fund (Gustavsen et al 1996). One consequence was that each program could not become more than a "pilot" and if a pilot is not converted into broader action streams it will not survive. While the LOM program certainly came to play a role in emphasising "dialogue" and "arenas" as core aspects of organisation development – words that have become mainstream in this context – the specific structures generated by the program did not survive. The experience was, however, present when a new generation of programs was developed from the middle of the 1990s (Gustavsen et al 2001).

Concluding Remarks

What has been given above is a sketchy presentation of what has in actual practice been a much more complex development. To summarise the presentation

means, of course, to simplify even more: with this reservation we have seen a long term development with a point of origin in "science", as it was generally understood in the first post-World War II period. In this understanding, science represented a privileged access to truth. Truth, in turn, had to emerge in terms of general theory resting on full, complete, and thoroughly investigated cases. If a case was to be created it had to be done through approaches as closely related as possible to the laboratory experiment.

Whereas it was possible to build "true theory" on a reasonable number of convincing cases, it turned out to be difficult to turn such achievements into further practical changes. A "diffusion problem" emerged, which was given a number of different interpretations at the time. Through continuous efforts to create changes in working life it emerged, however, that the core problem had to do with the interplay between theory and practice. In creating true theory, research did, at the same time, turn workplace experiences into theory language, a kind of language that does not automatically function in practical development contexts, maybe not so much because it cannot be understood by the actors concerned as because it does not couch its points in action terms.

It became necessary to see theory and practice as different activities – or discourses – linked to each other but not in a one-to-one relationship. In the ensuing developments, increasing emphasis was placed on practices and in particular on highly complex practices such as national reform programs where numerous actors and institutions are involved.

In efforts to link theory and practice, the growing complexity of the practices concerned gave rise to new generations of challenges: it is not sufficient to "have" a theory, it needs to be linked to specific workplace processes, which is not so difficult if we can assume that a few workplaces can function as models for others but which becomes exceedingly difficult if such assumptions cannot be made. How do we feed theory into hundreds of thousands of workplace development processes, often with shifting panoramas of actors and problems as well?

Out of challenges of this kind there emerged a focus on workplace-based learning environments and on communication; partly within each constellation of learning actors, partly across its boundaries to other constellations. The LOM program in Sweden became a kind of test program, or pilot program, for a communication-learning-arena-based approach to workplace development. It is not possible to design a strategy of this kind that can reach all workplaces in one sweeping round. What was believed to be possible was to create a process that could gradually "pull in" more and more actors and organisations so that it could become a significant wave in working life. The LOM program did not achieve this, but in designing later programs this was actually seen as the core challenge.

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