

REFLEXIVITY AND INNOVATION: CONFLICTING COUNTERPARTS?

by Anil K. Jain/Tobias Hallensleben/Daniela Manger

Abstract: The paper discusses the relationship between learning, innovation and (institutional) reflexivity. It is often held that reflexivity is a crucial factor for learning and innovation processes. However, a rather formalistic approach to reflexivity is predominant. We propose to overcome this limitation and to develop a more meaningful concept of reflexivity which »reflects« the contingent, relational, dynamic and complex character of organizational environments and reality. Based on this broadened understanding it appears that reflexivity is immanently a dialectic category and, under specific circumstances, it can also inhibit innovation. This is especially the case when reflexive tools are abused to push performance only. In order to illustrate our concept and hypotheses we added two case studies which highlight the conflicting counterparts of reflexivity and innovation and pointed us to important cultural »success factors«.

Keywords: innovation; learning; reflexive learning; double loop learning; reflexivity; reflection; dynamic capabilities; deflexivity; deflection; static capabilities; organizations; reflexive culture; difference

1 (SORT OF AN) INTRODUCTION: THE BASIC QUESTIONS

The ability to learn and to transform itself is a key feature for any organization which seeks to survive in a constantly changing environment. What is more, integrating the various (sub)divisions and the (ever more) heterogeneous crowd of people forming larger organizations adds to the difficulty to master the task of sustaining the organizational framework while »tolerating« difference and being open to change. In order to succeed in this taxing project and to learn from past mistakes the organization must develop modes that allow for a critical review of its structures, rules and routines. In other terms: it must acquire capabilities which are generally closely associated with the term reflexivity. Reflexivity is a fundamental condition for learning processes – especially in our late modern age [see Dyke (2001); (2009)].

Only where learning manifests in new products and services do economists speak of innovation [see the classic definition of Schumpeter 1934 (1911)]. But innovation is not only connected to reflexivity via learning. Innovation is itself a »reflexive« process: any innovation can trigger a dynamic which reacts upon the innovator (e.g. when competitors take the challenge and thus the market conditions again change). This creates a reflexive innovation loop so that, indeed, it is true: innovation demands reflexivity and reflexivity demands innovation.

The dilemma for the organization is obvious. Not only is one trapped in the dialectics of sustainment and change, but permanent change can easily become a routine itself which then inhibits true innovation. However, when in fact dealing empirically with organizations, it appeared to us that in most cases the actual dilemma is of a different nature: one is usually so much bound to one's routines that they are hard to overcome – even if it results in weakened

competitiveness and/or unnecessary suffering from limiting rules and structures. And also when change programs are installed at high expense – the application is often half-hearted so that the percentage of failed projects is rather high.

These are some of the main problems and questions we deal with in the context of a research project on »Innovation Capability and Institutional Reflexivity« (based at the TU Chemnitz, Germany). Our approach to address these questions is interdisciplinary (but mainly influenced by sociological and economic concepts), and we seek to find new theoretical approaches (see section 2) as well as we apply empirical studies (see section 3).

2 THEORETICAL FRAMEWORK

2.1 REFLEXIVITY AND LEARNING: TRAPPED IN THE FEEDBACK LOOP

Reflexivity has become one of the core concepts of social science. It is a crucial term in the work of such prominent figures as Anthony Giddens, Pierre Bourdieu, Niklas Luhmann and Ulrich Beck. In the context of Giddens' [1984] theory of structuration, reflexivity represents the general mode of action monitoring, i.e. »actors not only monitor continuously the flow of their activities and expect others to do the same for their own; they also routinely monitor aspects, social and physical, of the contexts in which they move« [ibid.: p. 5]. But especially social science bears a reflexive »double hermeneutic« of which it has to be aware, since there is a permanent exchange between the frames of meaning of everyday life and of social science [see ibid.: p. 374]. In a similar vein, for Bourdieu and Wacquant [1992] reflexivity in the context of social science implies the self-consciousness that the social position of the scientist determines the perception of the social field and that any research has an effect on the object of study (and vice versa). In fact, both arguments can be traced back to the Thomas theorem, which states that »If men define situations as real, they are real in their consequences« [Thomas and Thomas (1922): p. 572] and – however, in a much narrower sense – to Robert K. Merton's concepts of self-fulfilling prophecy [see Merton (1968): p. 477].

Niklas Luhmann [1995: p 443ff.] developed a more general and elaborate concept of reflexivity. However, not (exclusively) reflexivity but (autopoietic) self-reference, through which social systems reproduce themselves, is at the core of his theoretical framework. He distinguishes three modes of self-reference: in the case of *basal self-reference* parts refer (and relate) to themselves as parts of the system and thus reproduce it, whereas *reflection* is »an operation by which the system indicates itself in contrast to its environment« [ibid.: p. 444]. Finally, *reflexivity* or *processual self-reference* is equivalent to a recursive operation, i.e. »a communication about communication«, »the observation of observation« [ibid.: p. 443] – and so on.

Another notion of reflexivity was elaborated by Ulrich Beck [1992]. With his concepts of risk society and reflexive modernization he stresses the reflexive character of side-effects which means that the more complex technological development becomes the more (negative) side-effects

will occur and thus lead to a general questioning of the principles of »old« modernity and its model of linear progress. In other words: the reflexivity of side-effects causes a modernization of modernization (to which Beck also refers to as »second modernity«). This argument is not only similar to the skeptical remarks of Lyotard [1984] in his fundamental work on the postmodern condition, it also influenced the later works of Giddens [see especially Giddens (1990)] and lead to an intense discussion [see also Beck *et al.* (1994)]. Nevertheless, the way Beck's theory is outlined reminds one of the most problematic part of Marxist theory: the philosophy of history. As the contradictions of the capitalist mode of production will by necessity lead to its sublation, according to Beck, the reflexivity of the side-effects will (and already does) cause (sub)political counter-movements challenging the old modernist consensus and giving modernity a new direction.

We will readdress the important issue of side-effects in a later section more in detail (see section 2.3.1.). However, for the moment it shall be sufficient to detect a similarity among the various presented concepts of reflexivity: all suppose that reflexivity is a processual category and, if we think in cybernetic terms, reflexivity, as it was characterized above, is nothing else but the description of a feedback loop. Yet, in the case of reflexive modernization, reflexivity performs not a simple but a double feedback loop, i.e. there is a feedback of feedback implied in the sense that the conditions that originally lead to the feedback are also reflected (so that a new direction of development is initiated). Now, this double-looped model of reflexivity shows a striking similarity to the concept of double-loop learning as outlined by Argyris and Schön [1978]: while in single-loop learning errors are detected and corrected without questioning underlying governing variables, double-loop learning exactly starts by first examining those, and only after that all consecutive actions are taken under critical review.

Unfortunately, organizational double-loop learning rarely occurs and people seem to have great difficulty dealing with it. The reason for this is identified in the limiting power of existing routines and theories-in-use [see Argyris (1992): p. 7ff.]. In spite of that, Argyris [*ibid.*: p. 33] is not merely pessimistic in regard of the possibility of double-loop learning in organizations. Since people probably actually would prefer a more open environment, they might be ready to learn new skills which will likely lead to new attitudes. And also colleagues with a different point of view could draw the attention to problematic routines of which one is not aware – and thus bring in »reflexive« input.

Both, the double loop learning model and the (double) feedback model of reflexivity, however, share a basic problem which, for systematic reasons, cannot be overcome: as they are basically formalistic concepts they do not provide any »concrete« criteria (e.g. for what to call »reflexive«). It is exactly this formalism that seem to make reflexivity and reflexive learning attractive for approaches of artificial intelligence – with corresponding problems involved. On its website, the »Artificial Intelligence Lab« [1994] of the »University of Michigan« explains: »Reflexive learning is learning that is done »automatically«, i.e. the agent does not consider the possible costs of learning a particular piece of knowledge. These costs hinge on the usefulness of knowledge: reflexive systems learn everything, even knowledge that does not promise to enhance

the agent's behavior.« Therefore, »reflexive architectures try to compensate for this by employing a very efficient matching function, so that extraneous knowledge does not appreciably degrade performance« [ibid.]. Again, the criterion of relevance (the matching function) has to be taken from outside reflexivity. And another problem is mentioned in the cited text: the excessiveness of reflexivity. It will potentially lead to an infinite loop of which there is no escape (some people call this life-long learning). Therefore, any recursive function in computer science must have a defined stop case or stop rule. All the presented models of reflexivity lack such a rule. So, maybe, we need a different approach to reflexivity?

2.2 A DIFFERENT APPROACH TO REFLEXIVITY

A first step to a new concept of reflexivity was presented by Moldaschl [2005; 2007] – and it was, in fact, the starting point of our (re)search. His integrative approach seeks to show that reflexivity is not just about self-reference, the effects of side-effects or reflexive action-monitoring, but that reflexivity must contain all three dimensions. In addition, he stresses, that reflexivity demands a self-critical consciousness and »that reflexivity is *situated*: its extent and quality depend on context« [Moldaschl (2007): p. 7].

However, also an integrative model of reflexivity cannot overcome the formalism of the dominant approaches. And although, intuitively, one might hardly disagree with the notion that context matters and a self-critical consciousness is important to reflexivity, the essential question: »why is this so?« remains unanswered. So why not reflexively direct the self-critical consciousness to oneself? Why not dare and try a fresh new start by (»metaphorically«) exploring the very basic meaning of the term?

The term reflexivity is derived from »reflection«, respectively its Latin root »reflexio« which literally means »bending back«. Thus, in optical reflection (which is the classic domain), an object is »visually« *represented* by light-rays which are »bent back«. The (reflected) object, however, is not the source of the light. The object's surface is »mirroring« the incoming rays and when they hit the eye of the beholder a projection of the object is created. This is a very important point: the projected object is a transformed object, it is as well a representation of an external entity as an expression of subjective (perceptive) structures, which, in fact, means that through reflection objectivistic, ideal representation is never possible.

Indeed, idealistic concepts of representation and reflection have been criticized for good reasons during the last decades [see also Sandywell (1996)]. Reflection in the sense of an ideal representation is simplifying, since, as explained, a one to one projection is a mere fiction. It is objectivistic, since it ignores the »subjectivity« and »relativity« of perception. It is ahistorical, since it disregards social dynamics and social framings. And it is a reification, since it dismisses the contingency of every »imagination«. Thus, reflection in the mode of ideal representation creates identity (or »sameness«) – and is therefore hardly suited for initializing change and fostering learning and innovation. However, exactly by »realizing« its projective character, reflection

can be a most adequate mode to address reality – if we depart from classical ontology which holds that true being is essentially stable and just appearance varies [see Plato (1941); Aristotle (1998)]. Therefore, we should continue the further reflection on reflection from a different image and interpretation of the character of reality which takes into account both the scientific relativization of positivism [see e.g. Popper (1959)] and the postmodern fading of metanarratives [see again Lyotard (1984)].

In this new image, the reflected reality is not a material, »objective« entity, but the totality of all »effective« appearance, which means: all that has an effect on us, which is accessible to our experience and which we (interactively) also shape and create. Obviously, in this image, reality is also a reality of difference, since all its major aspects represent specific dimensions of difference: a) Reality (in regard of its basic ontic state) is *contingent*: there is a difference between actuality and potentiality. b) Reality (in regard of its socio-spatial dimension) is *indeterminate and positional (or relative)*: there is an interpretative scope and a true difference of view between the various individual and *diverse* positions. c) Reality (in regard of its time dimension) is *dynamic*: there is a difference between temporal states. d) Reality (in regard of its structural dimension) is *complex*: there is a qualitative difference between local and global effects caused by interdependence.

Accordingly, reflecting reality would mean the cognitive-symbolic (and emotional) mirroring of the reality of contingency, indeterminacy or diversity, dynamics and complexity. And, fully unfolded, the new understanding of reflection could imply even more: the appreciation and the *active* creation of the dimension of difference which is »essentially« entailed in contingency, indeterminacy, dynamics and complexity. This practical aspect of reflection shall be referred to as »*refraction*« (which is the short for reflexive action). Both reflection and refraction can finally crystallize in structures, and it is exactly this coagulation of reflexive elements which shall be called *reflexivity*. Reflexivity, conceptualized along these lines, is thus not opposed to or transcending reflection (as suggested by Sandywell [1996]), but it is merely its structural correspondence. It leads to the structural opening and reinforcement of spaces of contingency, of ambivalence and diversity and of dynamics, and it hence also results in an increase of complexity or connections (instead of separations). A reflexive structure is enabling and sustains reflection as well as reflexive action.

This approach to reflexivity is obviously bound to more concrete criteria, especially the »real« manifestations of the dimensions of difference (see also section 2.4.1.), and thus avoids pure formalism. Of course, exactly this »materialism« (which itself is indeed contingent) can be criticized, since the whole concept is dependant on one's agreement to the actual image of reality and the supposed »nature« of reflexive mirroring and difference. On the other hand, once agreed, this »high definition« makes it a very promising concept for empirical research. What is more, in contrast to related concepts like dynamic capabilities, which are unidimensional and primarily center on the adaptive force external factors [see Teece *et al.* (1997) and section 2.3.2.], reflexivity, as conceptualized here, addresses several core dimensions: contingency, (socio-spatial) indeterminacy and diversity, (temporal) dynamics and (structural) complexity. And it is not limited to a view which externalizes reflexive inputs but it also captures the difference

from within. However, the problem of the infinite loop respectively the excessiveness of reflexivity still remains unsolved. But we will later see that our understanding of reflexivity is embedded in a dialectical concept which »sublates« this problem (see section 2.4.2.).

2.3 THE REFLEXIVITY OF THE ENVIRONMENT

Generally speaking, reflexive structures deal with and generate difference. This reflexivity can occur inside or outside the organization. We will first address environmental reflexivity and its influence on organizations (and their modes of learning).

2.3.1 The Reflexivity of Side-Effects

The reflexivity of side-effects is, as already mentioned above, a major aspect of Beck's [1992] concepts of risk society and reflexive modernization: modern technologies produce (global) risks and the recognition of these risks »produces« (sub)political movements questioning the guiding principle of linear progress and thus push the movement of modernity into another direction [see also Beck (1996)]. However, in our understanding of reflexivity the reflexivity of side-effects is of a different kind than in Beck's model: it is not so much technological threat which works in a reflexive way, but the reflexive structures which arise when dealing with side-effects. Thus, in relation to Beck's model, it is the subpolitical structures which we would call reflexive and not the risk dimension, since in the subpolitical sphere difference is »produced«, i.e. a space of contingency for new ways of social and technological development is opened, a potential for (social) dynamics is created, different points of view are taken, and the subpolitical network creates connections between formerly disconnected spheres (nature and culture, politics and consumerism, etc.).

Let us demonstrate this a bit more in depth with a short example from the automotive industry. The classic line of argument would probably look like this: cars produce not just mobility but also pollution which again causes subpolitical mobilization and, finally, governmental regulations restricting the pollution output of cars so that new technologies (like catalytic converters) have to be developed satisfying the new demands. Also image campaigns might be necessary to appease and reintegrate those parts of the population who otherwise would be lost as potential customers.

Of course, this sort of (feedback) mechanism is real. But it is not necessarily to be called reflexive but rather adaptive (in the sense of dynamic capabilities). And it gets a lot more interesting if one applies our understanding of reflexivity to the above case. Along with the subpolitical movements also the social structures and cultural patterns change which creates new possibilities for different forms of mobility (and related products like electric vehicles). What is more, spaces for (formerly suppressed) positions are created, which bear the potential to even completely

transform, say, a car producer both culturally and in its market direction. For example, it is very likely that in a large automotive company there are numerous employees who take a more radical position on environmental issues than the official statements express. Those, whose perspective was most likely silenced in the past, now at least could get the chance to articulate their position since there are powerful reflexive external structures which encourage them. Besides, the organization gets inputs in order to reconfigure its structures and to reconsider the existing separations, like, for example, between controlling (which has to optimize profit) and marketing (which has to optimize communication with the organization's environment), or, between management (which supposedly has to lead) and staff (which supposedly has to follow). This, however, already covers part of what will be briefly discussed in the section on »the reflexivity of reflexivity«.

2.3.2 The Reflexivity of Dynamics

However, before we enter there, we shall have a look at the concept of dynamic capabilities. Following Teece et al. [1997] the ability to change is a core competence of an organization since it has to adapt to changes in the environment (which are ever more drastic in the recent years). Therefore, it has been argued that organizational learning – in different modes – is crucial for dynamic capabilities: Eisenhardt and Martin [2000], for example, center on experience and practice, while Zahra et al. [2006] rather emphasize improvisation and imitation, and Zollo and Winter [2002] concentrate on cognitive processes such as knowledge circulation and codification. Additionally, it is pointed out that in a dynamic organizational context simple learning is not sufficient, but that a kind of learning how to learn has to be developed. Zahara et al. [2006] therefore introduce the term »second order capabilities«, which especially serve problem solving, and Zollo and Winter [2002] speak of routines, that are dedicated to changing other routines. This is, actually, where reflexivity comes in, as it obviously relates to structures that open spaces for the articulation of difference. However, also in these concepts there are little hard facts provided on how these »second order capabilities« are shaped. The problem is just passed one level up. And the dynamic aspect is also tied too closely to the economic environment in the original formulation of the dynamic capability concept. Thus, one has to extend the perspective to the wider angle which will be done in the following section.

2.3.3 The Reflexivity of Reflexivity

In the course of sustained modernization we experience an increase of (social) dynamics, doubt and contingency [see in an overview Jain (2009)]. Just to name a few, this has been captured by concepts like »individualization« [Elias (1991); Beck (1992)], the »multi option society« [Gross (1994)], or, »liquid modernity« [Bauman (2000)]. And through globalization we have reached

a new level of complexity and interdependence. In fact, globalization can be defined as »the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa« [Giddens (1990): p. 64]. But globalization not only means increased complexity but also points to cultural diversity and difference, which, again, is a major topic of post-modern/post-structuralist discourse [see e.g. Derrida (1978)]; and while it was the project of early modernism to unify and to create identity [see Bauman (1991)], in late modernity this has changed – at least on the level of ideology: cross cultural management teams and hybridity are held as valuable resources for securing competitiveness [see e.g. Kanter (1995), Zachary (2000), and, with special respect to knowledge management Holden (2002)]. It is more and more a generally accepted assumption, even in technology based approaches, that diversity – which essentially relies on difference – has a positive impact on innovation [see e.g. Bonifacio and Molani (2003)].

All that is a sign and an expression of the development of reflexive structures (which lead to increased contingency, dynamics, complexity and diversity). This pushes any organization to reflect external reflexivity by itself, developing reflexive structures in order to keep up with the dynamics of change. But reflexivity enters the organization also on another level. Its members are not only part of the organization but are also part of the society so that social change is internally »represented« (respectively »reflected«). The people are the intermediaries carrying environmental reflexivity inside the organization, and if this manifests in organizational structures (like decentralized networks or programmes in order to increase team diversity), we, in fact, can assert a reflexivity of reflexivity.

2.4 THE REFLEXIVITY OF THE ORGANIZATION

Let us therefore now turn to the inside of the organization and explore how reflexive structures can work as triggers for learning and innovation from within:

2.4.1 Reflexive Structures as Triggers for Learning and Innovation

As Ely and Thomas [2001] pointed out in regard to diversity, in order to unfold a positive effect the general cultural frames or »perspectives« of an organization matter a lot. We may assume a similar relevance of cultural factors for the difference which is created by reflexive structures (and how it can be transformed into learning and innovation). Or, to be more exact, also symbolic and discursive structures are indeed part of an organization's reflexivity. And, of course, we may distinguish different levels of reflexivity ranging from merely instrumental and limited to radical and transgressive forms. Let us explore these distinctions a little bit more in detail by contrasting instrumental and transgressive reflexivity.

In regard of the dimension of contingency, instrumental reflexivity centers on the enhancement and optimization of existing structures and procedures while the cultural patterns are characterized by the striving for control. On the other hand, transgressive reflexivity directs itself to targets which transcend the organization's existing horizon. The culture is characterized by the awareness that things might be otherwise. Concerning the dimension of indeterminacy and diversity a strictly instrumental form of reflexivity would integrate other views only insofar as they stay within the existing frame and contribute to efficiency. Culturally, one can expect to find identification and submission to be the dominant modes. But the further we reach to the level of transgression, the more open is the organization to different positions which even radically question the organization's main targets, and, correspondingly, in this case the culture is participatory and appreciates difference as a value in itself. As to the dimension of dynamics, even radical change is welcomed and sometimes initiated while, in the case of instrumental reflexivity, only minor (adoptional) changes are envisioned. Finally, as far as complexity is concerned, instrumental reflexivity limits interconnections to the necessary demands in order to keep clearly distinguished divisions and make the performance of control easier. In contrast, transgressive reflexivity seeks to generate interconnections across the whole organization wherever possible and even to open the organizational network to the environment.

Obviously, the higher the level of reflexivity the better the conditions for learning. The awareness of contingency and the readiness to transcend one's own horizon creates a receptivity for different approaches and solutions. The appreciation of difference and the integration of diverse positions enable critical self-reference and add to the ability to generate new ideas. And the openness for change and the dense interconnections lead to a free exchange of information and knowledge. Reflexivity thus may indeed work as a trigger for learning and innovation.

2.4.2 The Dialectics of Reflexivity

In reality, however, reflexivity often seems to be at a very low level. But this becomes easily understandable when we embed our understanding of reflexivity in a dialectic concept [see also Jain (2000)]: any reflexive reference to being and reflexive structures may cause dialectic counter-movements in the shape of defensive reactions, or, as Jain [2010] suggests calling them, *deflexive responses*. The reason for these deflexive responses lies exactly in the challenge caused by reflexive impulses. As already mentioned, reflection cannot stop. It implies a never ending questioning and it potentially produces dissolution and fragmentation. Reflection, on the other hand, encounters resistance, since the dynamics it creates endangers the power of the beneficiaries of the status quo and gives rise to the fear of the unknown. Finally, the reflexive structures of reflexivity open up spaces of contingency which add to this fear, and their complexity makes understanding and control more difficult. On a more general level, we can thus identify the root of deflexive responses in the perceived threat created by a (social) reality which is precisely

not clearly defined, simple, constant and final, but again and again bears possibilities for (radical) change and, as a consequence, also failure and loss (of control).

Erich Fromm [1984] impressively described a part of this reflexive dilemma in his book »*The Fear of Freedom*«: »in furthering ›freedom from‹, this principle [of individual freedom] helped to sever all ties between one individual and the other and thereby isolated and separated the individual from his fellow man« (p. 93). In order to escape this threat of a loss of social ties we tend to flee into authoritarian structures, destructive practices and conformism, as Fromm states [see *ibid.*: pp. 117ff.]. Another important aspect of the dialectics of reflexivity is addressed in the work of Zygmunt Bauman [1991] on »*Modernity and Ambivalence*«. For him the movement of modernity was nothing but a never-ending war against ambivalence provoked by the desire to sustain order in a world of drastic change. Whenever ambivalence appears, new efforts of ordering and classification are made which, as a consequence, create new possibilities for ambivalence. Paradoxically, according to Bauman, the movement of modernity thus produces exactly by its efforts of ordering those ambivalences which then have to be fought more and more rigidly.

Both the flight mechanism described by Fromm and the war against ambivalence pictured by Bauman can be interpreted as defensive reactions to reflexive processes. The »effective« reality of contingency, indeterminacy, dynamics and complexity and its reflexive mirroring is perceived as a chance *and* as a threat and thus always causes deflexive responses, too. They can finally solidify in deflexive (environmental and organizational) structures, or, as we suggest calling it (in analogy with the term reflexivity): deflexivity. While reflexivity produces difference, deflexivity basically means the production of identity, unambiguity and firmness by means of structural momentum and structural violence.

But neither is reflection/reflexivity merely »positive« nor is deflection/deflexivity fully »negative«. Both carry »productive« and »destructive« elements. The perpetuated self-questioning and the openness invoked by reflexivity are counterproductive when it comes to the practical appliance of learning experience and new ideas, i.e. innovation. This is exactly the strength of deflexivity. However, deflexivity is obviously less useful for learning, and it inhibits change in favor of proven arrangements, so that deflexivity can be called an expression of »static capabilities« [see Goldstein and Hilliard 2008]. In reality, both elements are always mixed and their dialectics are one of the possible reasons why potentially reflexive tools (when implemented in an unfavorable environment or at a wrong stage) have a relatively high rate of failure – as many studies do show [see e.g. Burnes 2004 or Erwin 2010].

3 QUALITATIVE CASE STUDIES

The target of the two case studies presented in the following is to illustrate the use of our concept in order to analyze methods of organizational development and learning processes. In our opinion, the cases also clearly show the dialectics of reflexivity, i.e. the fact that reflexive elements

are always conjoined with deflexive responses. In reality there are different configurations and amounts of reflexive and deflexive elements and in order to unfold a reflexive potential it matters a lot how a method is applied and what the cultural framework is like. Our first case gives an example of a relatively reflexive approach and application, whereas in the second case, from the point of view of reflexivity, a promising start is turned into »stabilizing« deflexivity. Regarding our research methods, we carried out numerous semi-standardized interviews with narrative components and relied on participant observation. Thus, it was possible to get access to the concepts as well as cognitive and normative organizational narratives without ignoring the protagonists' knowledge.

3.1 CASE 1: A »CROSSWISE NETWORK« IN A MARKETING DIVISION – WORKING ON THE WHOLE ON THE SMALL LEVEL

Our first case illustrates how reflexive organization development methods may (indirectly) foster organizational learning processes on both the management and the employee level. We want to present here an innovative tool named »crosswise network« which was established by the respective company itself (a large German automotive firm) and which is basically about the employees carrying out a self-defined project. Regarding its development and guiding principles one of the tool's fathers explains: »And then we had the first time the idea [...] to work with a small group which has to be perfectly mixed, because we assumed that one can achieve with this small group all that which can be achieved in the whole organization. But as it is a reasonable size, it can be managed and it does not knock you out as it may happen when you trigger the whole organization. And at some point we introduced the name »Quergestelltes Netzwerk« [crosswise network] for it.« To sum it up: the tool seeks to work on the whole on the small level since the underlying assumption is that the learning processes in the network group spread all over the organization.

3.1.1 The Selection and Composition of the Project Team: Maximum Difference?

Accordingly, the respective employee group should represent the complete organization – with all its problems, contradictions and diverse perspectives. As a deputy unit, in the course of the process, it enacts the manifest and latent conflicts and reflects on their reasons. In order to be successful on this task it is crucial that difference is maximized, as another organizational developer pointed out: »To express it theoretically one can say: we artificially create difference, somehow. It's about working with difference and, therefore, conflict and the differences in perception are part of the concept [...] Yes, by reflection it [the organization] develops. By the experience of difference [...] Well, actually, with our aid the organization continuously reflects upon itself from different perspectives.« Thus, difference, especially regarding the (space-)

dimension of relativity, explicitly plays a key role in the program of a crosswise network. Different perspectives are the triggers for an internal dynamic opening up new possibilities (of self-realization but also in work organization).

The actual background of the introduction of the crosswise network of our case was a relatively bad score of the marketing division in the annual employee survey of the company. Therefore, the internal organization development unit organized a series of workshops with the management of the marketing. One of the attending division heads briefly sums up his resulting insight as follows: »We need to do something. We need to work on our culture. We need to work on our external perception. We suffer from quite a number of fundamental problems.«

As is suggested by the general concept, also in our case the guiding selection principle was to maximize difference. But in practice there is often a tendency of the management to shape the selection results according to their preference. In accordance with that one of the interviewed department heads revealed: »Yes, I have to admit it honestly, we [...], of course, tried to select people with a positive attitude, who, I believe, are open to the new.« One can thus assume that the initial target of maximizing difference was not fully reached in reality.

3.1.2 The Course of Events: From the Management Back to the Management

Although the method centers on a self-defined project of the employees, it actually starts (and ends) in the management: »Usually, we are called by the leading management in the context of some situation of change«, explains one of the organizational developers. When it then becomes apparent that the existing problems are related to the culture and/or identity of the organization(al unit), it is suggested to introduce a crosswise network. From the point of view of the organizational developers it is important that beforehand (and in parallel) there is a process initiated in the management so that the relevant people there are ready to take the »risk« of a method as open as the crosswise network. And, indeed, one of the department heads openly let us know: »In the beginning, I had a hard time to get around with it, since I believed that in order to solve process problems and communication problems we need analyze measures and define targets mathematically. However, I was finally convinced of the idea of a crosswise network and the contexts.«

In our case, the actual course of events was as follows: After the idea of a crosswise network was born in the management workshop and the people were selected three employee workshops followed (each lasting for two days and at a time distance of a couple of weeks). The first workshop and especially the first day was kept very open in all regards. The main target was to find an agreement on which project to realize in the following. In regard of the bad general mood in the division, the group opted for the carrying out of a (non-anonymous) employee survey according to the method of an appreciative inquiry. The (exhaustive) survey was completed before the second workshop which was devoted to the analysis of the results and the building of some (provocative) hypotheses. These were presented to the management during the third

workshop. In the final discussion several central problem areas were identified and in the following corresponding work teams (each consulted by a division head) were initiated.

3.1.3 Results: The Journey Is the Start

In this case, the presentation of the results in fact represented the starting point of a long term institutionalized process. And indeed, the hypotheses as the manifest outcome do not represent the real result of the crosswise network which is rather the triggered dynamics in the self-images and relations of the division. When asked, most participants even had a hard time remembering the contents of the hypotheses – and they only partially identified with it, as the following statement proves: »The hypotheses we had created, one can surely discuss some [controversially]. And they are in some respects formulated quite weirdly. Well, for sure one does not have to agree with every hypothesis. I neither agree with every hypothesis which was formulated there [at the workshop], and I did not fully understand each and every one. That is not even the intention of that thing. The task was to sharpen it and, to some extent, to provoke and thus, so to say, to touch on a sore point [...] One of the hypotheses [...] which I never could agree to was the headlock hypothesis [which says] that the management and the employees mutually keep each other in a headlock [...] with claims and counterclaims. I never felt it that way [...] What I, for example, found very good is [the hypothesis]: »happiness [is] at [...] [our division] so much of a threat that it has to be permanently reassured by [the creation of] small conflicts and problems.«

As noted above, the relevant result of the crosswise network, anyway, is not the hypotheses themselves but the long-term dynamics initiated by the establishment of the network. And also one of the participants we interviewed clearly expressed this view: »That which is much more crucial for me is the process that was started by the crosswise network [...] One got to know colleagues from other divisions and neighboring departments and then, to some extent, a different form of dealing with each other emerged, too.« The crosswise network thus contributes to the development of a more complex »image« of the organization and to the creation of new relations between people. Additionally, by the generated distance to the usual work routines, it enables the participants to realize the contingency and relativity of one's own situation and view – so that new possibilities (of self-positioning) may arise.

Up to now, these positive effects are primarily present only with the members of the original crosswise network group and it did not yet spread – at least this did not show in the official employee survey which followed the project some months later. The primary reason for this might be that spread-effects are generally to be expected only mid to long term. What is more, so far the basic problems of the division (like high work loads etc.) did hardly improve. So we can conclude that the crosswise network did not effectively improve what it originally was meant to improve. But, for the future, there is a good chance that it might serve as a vehicle for the organization to learn about itself.

3.1.4 The Difficulties of Dealing With Difference and the (Mutual) Fear of Freedom

It is usually very hard for the management, which seeks for control, to accept controversial opinions. Especially, when the employees develop their very own perspective on the whole of the organization conflicts easily arise, as one of the internal organizational developers explains: »Well, in principle there is always a conflict, and that is when the management realizes that, in the course of the network, the employees do something which originally is a task of the management: that is seeing the organization in its entirety [...], or, generally, when leadership is addressed, well, then the management quickly says: »Hey, our kids don't obey anymore. Now we need to call them down again.«

The following reaction on the presentation of the network group, as revealed by one of the department heads, clearly illustrates that: »I would lie if I told that I was very happy about the feedback [...] When I saw it for the first time, I thought by myself: »oh, oh, what an impertinence, that's impossible. How can one [dare to] criticize like that here.« However, finally he admitted: »But it simply was true [...] The impression of the employees was or is like that. Well, if I do not allow to express that openly, I lost. Then I do not need to put in bold letters that I want to change or improve the culture. So you have to swallow it.«

The reason for the wide-spread desire for tight rules and high definition of tasks in organizations is the fear of a loss of control. Therefore, as the above quoted organizational developer explains, it is important »to reflect on one's own fear in the organization. I'm happy when it is at all perceived and accepted.« The reflexive acceptance of fear and the commitment to open situations which cannot be fully controlled and which may lead to unforeseeable ends, however, is a challenging project – especially, in the beginning. And that is also valid for the side of the employees, as pointed out by the head of the division: »Well, we had to tell the employees again and again: we really mean it. You will get the space to unfold, you can really do there what you want, you can work on the topics. And I believe, at first, the employees did not believe it. They thought, there must be something else behind it. It was suspicious that we gave them so much freedom and so little concrete jobs to do.«

Here, we may see the effects of the dialectical reflexive responses that every kind of reflexivity triggers (see above). Accordingly, one of the participants of the crosswise network remarked: »In any case I understand the argument that they wanted to give us as much space as possible, but at some points I believe it would have been more successful to lead a little bit more.« As it shows, the »Fear of Freedom« (Fromm 1984 [1941]) is not only big on the management level but also within the employees. »The employee of an organization who seeks for freedom at the same time equally fears it«, states the organizational developer who was also cited in the beginning of this chapter. »It is much easier to carry on as a dependent in an organization. I might complain, but I am completely safe. Nothing is safer than dependency.«

Because of the (primarily fear-driven) tendency of (over)control, tools and methods founded on openness and the articulation of difference cannot be implemented everywhere, but rely on certain institutional and cultural preconditions. Thus, one of the interviewed department

heads put it clearly: »As a leader, you need the courage to step into an openness which has to be dealt with at the end of the day. A very strictly led and hierarchical organization unit with a strict leader will probably have a hard time with the Q-Netz [crosswise network].« However, openness also creates chances, as he adds: »The more specific the task, the more limited the analysis. The broader the scope of the task, the bigger the chance that we fully get to the real trouble spots by means of the Q-Netz.«

The chances are also clearly observed by the employees, as the following statement of a participant shows: »Basically, we were instructed [by the advisors] to think in other directions from different points of view [...] I found it agreeable to accept other views and to formulate such a thing.« In reality, however, this target, which is fundamental to reflexive organizational learning processes, is difficult to achieve. As a method the crosswise networks seeks to provide a reflexive anchor point – but it is still permanently endangered to dissolve difference into (new) identity and that openness is reduced to the unambiguity of a clear result.

3.2 Case 2: Reflexivity Versus Legitimacy – The Establishment of Integrated Health Management in a German Regional Government Agency

Our second example deals with the dilemma between the pressure for legitimacy and the establishment of reflexive practices. The case is about the introduction of integrated health management in a German regional government agency. This agency is under massive pressure to innovate. As funds are being reduced by the state while demands are increasing, the agency has to improve its efficiency – which is even more difficult considering the structure of its employees who are above average age. An important element of the organization's efforts is thus the introduction of integrated health management. Good health management – as is assumed – is the key to everything: it will raise the awareness for stress factors as well as burnout risks and, finally, it will thus help to also increase job satisfaction and motivation so that productivity gains can be expected. From the beginning, the process was linked to a supporting cost-and-effect analysis and quality management measures in accordance to the EFQM. It can be assumed that the reasoning behind this is not only to ensure the success of the health management measures but to legitimize its costs and to stage a pioneering role in comparison with other state agencies. With the (thick) description of the relevant organizational processes, we seek to demonstrate how the need to gain legitimacy can work against reflexivity and learning. The case shows how even originally reflexive approaches can turn into meaningless routines and practices of justification. Consequently, according to the criteria presented in the first part, the reflected reality appears as a simplified, »objective« fiction that does not take into account the contingent, relational, dynamic and complex character of organizational change, but merely mirrors the expectations of the environment.

3.2.1 A Whole Bunch of Measures

The agency not only has to cope with an unfavorable age structure of its employees, but in the course of a comprehensive structural change (new products, new markets, new regulations), the employees reach the limits of their cognitive and physical capabilities and can no longer meet their own professional claims. Instead of experiencing just temporary stress peaks, a high stress level becomes a permanent companion. As one of the employees remarks: »You have to keep proving yourself every day, and at the same time, you receive less and less encouragement.« Age-selective downsizing made the situation even worse. As a result, many employees complain of sleeping disorders or stomach problems. According to the unpublished results of an employee survey the cases of burnout, tinnitus and depression have increased a lot.

In order to react to these severe problems, a large number of measures and instruments were established under the label of »integrated health management«. It was the intention to initialize change by creating awareness about the complex and ambivalent set of interactions behind the existing burdens. To this end, all levels of management and also the ordinary employees were included in the process so that commitment could be established and the employees' knowledge would be integrated at an early stage. A number of health panels played a crucial role during this initial stage. In moderated group discussions, health-related strain and risk factors in the employees' working environment were identified, discussed, and systematized. Furthermore, ideas had to be developed by the employees how strain could be minimized. Subsequent measures were an employee survey on the health situation, a disability data analysis, workplace inspections (carried out by an ergonomist) and a series of workshops.

Obviously, the mere existence of these measures does not reveal much about the actual ability of the agency to learn and to innovate. They just provide a framework so that the space of contingency in principle can be opened, diverse points of view can be taken in, potential for (social) dynamics can be created and a more complex picture can be achieved. However, as we will see in the following, in reality existing practices are questioned only insofar as this questioning contributes to an increase of efficiency and stabilizes the dominant discourses.

3.2.2 Diversity Converted Into Unity

During our visits we got the overall impression that the organization is a social system which is very much reflected and which successfully presents itself as an open, participatory and highly sensitive environment. And indeed, the measures taken seem to prove this. However, as our interviews revealed, the organization's real »sick-makers« systematically remained unaddressed. The more ambitious the investments in soundproof windows, ergonomic chairs or modern air conditioning units were, the less questioning of hierarchical structures in fact occurred – even though hierarchy is experienced as an enormous burden, as constantly reiterated by the

employees. The social tensions are worked out on the material level. The health management's effectiveness is believed to be ensured by ergonomic chairs and anti-stress trainings, whereas leading practices, such as control techniques or the agency's information policy, are not subject to negotiation. The following critical statement of one of the people in charge may be sufficient to illustrate this: »criticism is perceived as an attack on the management and is thus equivalent to high treason«. Although the applied tools (unintentionally!) uncovered the voices of difference and critique, there is obviously no space to unfold them. »Developments from the workshops aren't communicated, proposals for change disappear locked into drawers and sensitive information is withheld at management level«, as even the organization's health report from 2009 (p. 12) states.

Thus, what we can observe here is a potentially reflexive practice, since it is, in theory, fostering awareness of the contingent and complex structure of health threats in the workplace. But, as in fact applied, it turns into the opposite and leads to an »immunization« against influences from the outside and critique so that learning is inhibited. Despite the development of an accurate health information system, including diagnoses of working contexts and stress profiles, the underlying causes of health-related strain are being transformed into a coherent discourse of an ageing workforce. It is precisely this discourse which actually eliminates critical review of an increasingly business management-oriented organizational model in which the employees are the mere objects of strategic controlling. As a spokeswoman of the agency's largest unit explained this hits at the very core of the professional self-conception of many employees. However, voices expressing the conflicting interests between professional aspiration and entrepreneurial commitment as well as deviating perspectives and discourses are experienced as a threat and not as valuable input. Strain factors are regarded exclusively from an economic point of view, whereas cultural or professional aspects systematically stay excluded. But as much as this kind of organizational imagery provides identity, orientation and stability and might help to succeed in marketable service performance it also leads to a counterproductive self-limitation. Tools that potentially could add to the establishment of reflexive structures turn into the opposite and work in a deflexive way.

This ignorance towards alternative patterns of thought and heterogeneous discourses causes two far-reaching consequences: firstly, it is quite self-evident that this kind of suppressive practice fuels a negative attitude towards change, fosters alienation amongst the workforce, and may justify defensive reactions. This is all the more true since the agency's employees are tired of change projects which were quite frequent in the recent years. Secondly, the development of the ability to learn is impeded because the views of the superiors are presented to the employees as expressions of »objective« facts which cannot be changed. The real heterogeneity of perspectives and the diversity of opinions are reduced to a monological discourse the target of which is not understanding and learning from each other but reassuring the sovereignty of interpretation of the superiors. This practice is not arbitrary. It stabilizes the official discourse of prevention and performance measurement which tends towards instrumental rationality and seeks to eliminate ambivalence. Alternative concepts of a »healthy organization« are

systematically suppressed. The whole bunch of the taken measures thus leads to the same ends.

3.2.3 Deflexive Turns

These »deflexive counterparts« are driven by the fear of a loss of control, which, as a result, leads to a general interest in order, unity, and consensus – and so, for »good« reason. Firstly, an increasingly radical and transgressive kind of reflection would cause extensive organizational change and demand profound mutual learning – which is a tough task and forces to deal with uncertainty. Secondly, in a reflexive view, the belief that there is only one best way is obsolete. »It could be otherwise« is the mantra of reflexivity which, however, contradicts »traditional« legitimation patterns in bureaucracy, which demand unambiguity. Thus, higher levels of reflexivity can only in rare cases meet the necessary organizational legitimacy requirements. Consequently, the scope to unfold contingency, diversity, dynamics and complexity remains limited to a narrowly defined discourse controlled by selected key stakeholders. Instead of an irritation and revision of well-established strategies, perspectives, and objectives, change is reduced to clearly defined and highly symbolic action programs.

With the demonstrative production of rationality symbols as »facades of rationality« (Mayer/Rowan 1977), the agency seeks to prove the kind of modernity which is commonly expected in an «innovative» organization and thus gain legitimacy. But in mirroring the expectations of the environment the organizational discourse does not reflect the real variety of competing perspectives on health-related issues. However, the people in charge can justify their actions and point to the compliance with standard strategies. That conditions for real change are thereby undermined (because complex learning often is opposed to proper functional practice) is a dilemma which will probably remain unsolved.

As it seems, legitimacy can only be achieved at the cost of reflexivity. So, instead of exposing oneself to the uncertainty of organizational participation and questioning proven knowledge in favor of alternative interpretations, it is easier to reduce complexity and hide behind controlling tools that document the profitability and efficiency of the implemented measures. The implied quantification of healthcare (on the basis of sickness figures, etc.) delivers simplifying and self-serving, yet coherent and plausible explanations. In the light of these conclusions, the relevant question to answer is no more: »which are the problems and possible solutions?« but »cui bono?« Who are the beneficiaries of the actual problem definition and how do the taken measures serve to the staging of innovation capability and the production of legitimacy?

4 Conclusion

In the first part we proposed a new concept of reflexivity which is less formalistic than the standard concept and centers on the idea that reflexivity means structures that produce difference on various levels so that an organization can »reflect« (and react on) a contingent, indeterminate, dynamic and complex reality. The reflexive structures of reflexivity do provide a positive environment for learning and innovation since they create a kind of (critical) »self-difference«, an openness for new ideas and directions, and allow for the making of new connections so that new possibilities are created.

Our first case study showed that methods of organization development may help to create reflexive structures within an organization. However, in order to reach this target, the management as well as the employees have to be ready for openness and must refrain from the desire for control and unambiguity. Although we identified various deflexive tendencies, the reflexive elements were more prominent. However, with our second case study we have an example of how a reflexive change project can take a deflexive turn. The need to justify the expenses of the measures increased the general inclination not to question established patterns of leadership and dominant discourses. By relying on »proven« standards one could ensure both commitment and acknowledgement with the given structures staying untouched.

But it is important to note that any reflexive action triggers defensive responses. What is more, the deflexive elements, which seek to limit and control difference and thus inhibit learning processes, could sometimes, as we believe, even turn out to work in a positive way – when it comes to the successful implementation of learned knowledge and new ideas. Reflexivity and innovation can thus indeed be held as conflicting counterparts: *counterparts*, since any innovation process needs openness to different views and unlimited learning at earlier stages. And thus, reflexivity is essential to innovation. But later on, when reliable decisions have to be taken and new ideas have to materialize, a *conflict* between the excessiveness of reflexivity and the practical focus of innovation might arise, whereas the power of deflexivity to create definition and identity could be supportive. Yet, this topic needs further investigation.

Another important aspect in this respect is the question for the conditions of reflexivity. As our case studies suggest, in organizational settings where control is prevalent and a high pressure to legitimize acts is felt, even reflexive tools and methods hardly may reach their potential. In fact, reflexivity often is transformed into merely »symbolic actions« [see also Edelman (1971)]. But the abundant waste of reflexive learning potential could become problematic in the long run – especially in case of a high external dynamic. Thus, it would be most interesting and relevant to also carry out further research on the (cultural) conditions of reflexivity and to what extent it actually affects learning and innovation.

REFERENCES

- Argyris, C. (1992): *On Organizational Learning*, Blackwell, Cambridge/Oxford.
- Argyris, C./Schön, D. A. (1978). *Organisational Learning: A Theory of Action Perspective*, Addison Wesley, Reading.
- Aristotle (1998). *Metaphysics*, Penguin Books, London.
- Artificial Intelligence Lab of the University of Michigan (1994): Reflexive Learning. <http://ai.eecs.umich.edu/cogarch0/common/prop/reflexlearn.html>
- Bauman, Z. (1991). *Modernity and Ambivalence*. Cornell University Press: Ithaca.
- Bauman, Z. (2000). *Liquid Modernity*. Polity Press, Cambridge.
- Beck, U. (1992): *Risk Society: Towards a New Modernity*, Sage. London.
- Beck, U. (1996). *The Reinvention of Politics: Modernity in the Global Social Order*, Polity Press, Cambridge.
- Beck, U., Giddens, A. and Lash, S. (1994). *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*. Stanford University Press: Stanford.
- Bonifacio, M and Molani, A. (2003). The Richness of Diversity in Knowledge Creation: An Interdisciplinary Overview. *Journal of Universal Computer Science*, 9/6: 491–500.
- Bourdieu, P. and Wacquant, L. J. D. (1992). *Invitation to a Reflexive Sociology*, University of Chicago Press, Chicago/London.
- Burnes, B. (2004). *Managing Change*, Prentice Hall, London.
- Derrida, J. (1978). *Writing and Difference*, University of Chicago Press, Chicago.
- Dyke, M. (2001). *Reflective Learning and Reflexive Modernity as Theory Practice and Research in Post-Compulsory Education*, Doctoral Thesis, University of Surrey/Educational Studies, Surrey.
- Dyke, M. (2009). An Enabling Framework for Reflexive Learning: Experiential Learning and Reflexivity in Contemporary Modernity. *International Journal of Lifelong Education*, 28/3: 289–310.
- Edelman, M. J. (1971). *Politics as Symbolic Action: Mass Arousal and Quiescence*, Markham Publishing Co., Chicago.
- Eisenhardt, K. M. and Martin, J. A. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal*, 21: 1105–1121.
- Elias, N. (1991). *The Society of Individuals*, Blackwell, Oxford.
- Ely, R. J. and Thomas, D. A. (2001). Cultural Diversity at Work: The Effects of Diversity Perspectives on Work Group Processes and Outcomes. *Administrative Science Quarterly*, 46/2: 229–273
- Erwin, D.G. (2010). Resistance to Organizational Change: Linking Research and Practice. *Leadership and Organization Development Journal*, 31/1: 39–56.
- Fromm, E. (1984). *The Fear of Freedom*, Ark Paperbacks London.
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*, Polity Press: Cambridge.

- Giddens, A. (1990). *The Consequences of Modernity*, Stanford University Press, Stanford.
- Goldstein, D. and Hilliard, R. (2008). Organisational Capabilities for Sustainable Production. http://www.dime-eu.org/files/active/0/Goldstein-Hilliard_dime08.pdf.
- Gross, P. (1994). *Die Multioptionsgesellschaft*, Suhrkamp, Frankfurt.
- Holden, N. (2002). *Cross-Cultural Management: A Knowledge Management Perspective*, Pearson Education: Harlow.
- Jain, A. K. (2000). *Politik in der (Post-)Moderne: Reflexiv-deflexive Modernisierung und die Diffusion des Politischen*, edition fatal, München.
- Jain, Anil K. (2009). Sociology, Contingency and Utopia. *Asian Journal of Social Science*, 37/3: 408–414.
- Jain, A. K. (2010). Reflection and Deflection: Approaches to a Dialectical Concept of Reflexivity. <http://www.power-xs.net/jain/pub/reflection-deflection.pdf>.
- Japp, K.-P. (1992). Selbstverstärkungseffekte riskanter Entscheidungen: Zur Unterscheidung von Rationalität und Risiko. *Zeitschrift für Soziologie*, 21/1: 31–48.
- Kanter, R. (1995). *World Class: Thriving Locally in the Global Economy*, Simon & Schuster, New York,
- Kieser, A. (1997). Rhetoric and Myth in Management Fashion. *Organization*, 4/1: 45–74.
- Luhmann, N. (1995 [1984]). *Social Systems*, Stanford University Press, Stanford.
- Luhmann, N. (2002). Deconstruction as Second-Order Observing. *Theories of Distinction: Redescribing the Descriptions of Modernity*, ed. N. Luhmann, Stanford: Stanford University Press: 94–112.
- Lyotard, J.-F. (1984 [1979]). *The Postmodern Condition: A Report on Knowledge*, Manchester University Press, Manchester.
- Merton, R. K. (1968). *Social Theory and Social Structure*, The Free Press, New York.
- Meyer, J. W. and Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83: 340–363.
- Moldaschl, M. (2005). Institutionelle Reflexivität: Zur Analyse von »Change« im Bermuda-Dreieck von Modernisierungs-, Organisations- und Interventionstheorie. *Die »Organisation« der Arbeit*, eds. M. Faust, M. Fulda and M. Moldaschl, Hampp, München and Mering: 355–382.
- Moldaschl, M. (2007). Institutional Reflexivity: An Institutional Approach to Measure Innovativeness of Firms. http://www.tu-chemnitz.de/wirtschaft/bwl9/forschung/fprojekte/reflex/ergebnisse/download/Institutional_Reflexivity_07.pdf.
- Perkmann, M. and Spicer, A. (2008). How are Management Fashions Institutionalized? The Role of Institutional Work. *Human Relations*, 61/6: 811–844.
- Plato (1941). *The Republic*, The Modern Library, New York.
- Popper, K. R. (1959 [1934]). *The Logic of Scientific Discovery*, Hutchison, London.
- Sandywell, B. (1996). *Reflexivity and the Crisis of Western Reason: Logological Investigations*, Routledge, London/Yew York.

- Saxenian, A. and Hsu, J.-Y. (2001). The Silicon Valley-Hsinchu Connection: Technical Communities and Industrial Upgrading. *Industrial and Corporate Change*, 10: 893–920.
- Schreyögg, G. and Kliesch-Eberl, M. (2007). How Dynamic Can Organizational Capabilities Be? *Strategic Management Journal*, 28: 913–933.
- Schumpeter, J. (1934 [1911]). *The Theory of Economic Development*, Harvard University Press, Cambridge.
- Teece, D. J., Pisano, G and Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18/7: 509–533.
- Thomas, W. I. and Thomas, D. S. (1929). *The Child in America: Behavior Problems and Programs*, Alfred A. Knopf, New York.
- Weick, K. E. and Sutcliffe, K. M. (2001). *Managing the Unexpected: Assuring High Performance in an Age of Complexity*, John Wiley & Sons, San Francisco.
- Zachary, G. P. (2000). *The Global Me: New Cosmopolitans and the Competitive Edge*, Public Affairs New York.
- Zahara, S. A., Sapienza, H. J. and Davidsson, R. (2006): Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda. *Journal of Management Studies*, 43/4: 917–1055.
- Zollo, M. and Winter, S. G. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science*, 13/3: 339–351.

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