

Jürgen Deeg*

Organizational Discontinuity: Integrating Evolutionary and Revolutionary Change Theories**

Facing an age of tremendous change and transformation, the ability to cope with such radically, i.e. discontinuous changing contexts is not only a major challenge in present organizational practices, but also a “true test” for organization science. Thus, the paper pursues a critical study of the organizational change discourse and provides an integrated view of organizational discontinuity by linking evolutionary and revolutionary theories of in a model of “constructive destruction”. Furthermore a “re-evolutionary” perspective is presented, conceptualizing the delicate interaction between evolutionary (structural) and revolutionary (political) processes. Finally some implications for theory and research on organizational change are also provided.

Key words: evolutionary change, discontinuity, organization theory, revolutionary change

* Dr. Jürgen Deeg, University of Hagen, Germany, Faculty of Economics and Business Administration, Chair of Business Administration, Leadership and Organization, Profilst. 8, D – 58084 Hagen, Germany. E-mail: juergen.deeg@fernuni-hagen.de.

** Article received: October 30, 2008

Revised version accepted after double blind review: June 2, 2009.

1. Introduction

To assert that we live in an age of unprecedented change and transformation, in which nearly every aspect of modern life is affected by the rapidity and irreversibility of such changes, has almost become a truism (Chia 1999: 209). More and more organizations are under an increasing pressure to respond to even more and more dramatic changes in order to remain viable, profitable or attractive to stakeholders (Kanter et al. 1992; D'Aveni 1994; Nadler 1998). Thus the ability to cope with such radically, i.e. discontinuous changing contexts is now a key variable for success, performance and growth (Greenwood/Hinings 1996; Brown/Eisenhardt 1998; Nadler/Shaw 1995). Therefore organizational discontinuity is the major challenge in present organizational practice (Prahalad 1998: 14) and a true test for future organization science as well (Mohrman 2001: 63). But whether organizational science has read the signs of the future in this respect is still questionable. Not only the scientific discussion of change is fragmented and no commonly accepted theory of change in sight to keep up with such a multifaceted and contradictory phenomenon, discontinuous change has so far rarely been addressed systematically. For instance, models of revolutionary change (cf. Tushman/Romanelli 1985; Gersick 1991) are referring to discontinuity *somehow*, but not always explicitly or comprehensively. Similarly, J. G. March's (1991) pioneering distinction between exploration and exploitation suggested a possible pattern for discontinuous organizational behaviour and development, yet the interplay between those twin concepts is still to a great extent unclear and incomplete (cf. Gupta et al. 2006). Moreover, applying conventional methods and perspectives on learning and change on the quite different qualities of the emerging complexity of organizational discontinuity may be inadequate with regard to its problems and consequences (cf. Scharmer 2007: 56).

The paper therefore aims at contributing not only to a critique of the organizational change discourse, but also to providing avenues of an integrative view of discontinuous organizational change as a prominent form of future change processes. Because so far the discussion on organizational change is in many respects insufficient and thus cannot address the phenomenon of discontinuity adequately. Firstly change is in a far too optimistic view still seen as a stable, predictable, and manageable process (Sturdy/Grey 2004: 4). Yet change implies far more surprise, uniqueness and otherness due to its essentially indeterminate character (Brown/Eisenhardt 1998: 6; Chia 1999: 226). Against this pervasive "pro-change bias" (Sturdy/Grey 2004: 1), the "dark side of change" has to be explored (Kotter 1996: 14). Secondly research about organizational change has to a great extent focused on gradual change (e.g. Organizational Learning, commonly seen as a continuous process; cf. Senge 1990: 3) and thereby widely neglected radical forms of change or regarded them as irreconcilable with gradual forms of change. For instance, March (1991) clearly stated, that exploration and exploitation – while both being essential for long term survival – are in fact fundamentally incompatible. Yet more and more organizations have to cope with a saltatory (punctualistic) change, which varies greatly in scope, depth and rate (Tushman/O'Reilly 1998). In addition to the pervasive incrementalistic paradigm of change, a radical, revolutionary perspective has to be developed as discontinuity becomes more and more a "conditio sine qua non" (Eberl/Koch/Dabitz 1999: 240).

Thirdly many concepts of change are (implicitly or explicitly) still based on the equilibrium model (Mintzberg/Westley 1992) and regard change as an exception of order and continuity (e.g. organization development approaches, cf. French/Bell 1998, Levy/Merry 1986: 33). As change is no longer carried out tidily and smoothly, but comes often unexpected and acute (Strebel 1990: 434), more imbalance or steady state models of (discontinuous) change are needed.

Thus the “changing nature of change” (Ford/Ford 1994) towards more discontinuity requires new ideas and visions, how this different kind of organizational change can be analysed, explained and handled. An integrative perspective on organizational discontinuity therefore relies on a meta-paradigm approach as well as a multilevel perspective to integrate the opposite paradigms of determinism and voluntarism in organizational change discussion and to take into account the various levels of organizational change processes. By combining continuous and discontinuous aspects of change and focussing on episodes and processes of change and stability and change as well, an integrative perspective of change is developed. The paper proposes that incremental and fundamental change don't exclude each other with respect to organizational discontinuity (Hamel 2001), but rather complement each other. Consequently, organizational discontinuity is seen as the interplay of order and disorder, organization and disorganization (e.g. Cooper 1990). Thereby, the duality of action and structure, which underlies any organizational process, constitutes the main driving force in discontinuous change. It is yet accompanied by the interplay of purposeful, enabling vs. erratic, restraining forces, which can be modelled by evolutionary and revolutionary theories of change. Finally a re-evolutionary perspective is developed to conceptualize the delicate interplay between evolutionary (structural) and revolutionary (political) processes in a new way. Over all the paper tries offer a new passage between the antipoles of determinism and voluntarism in organization theory via an integrative view of discontinuous organizational change as co-determinous, re-evolutionary event.

2. Deficits and limitations in the conventional discourse on organizational change

Organizational change is widely seen as a pattern of reaction by which organizations can adapt to their environment (adaptive change). Yet as the change required today is assuming alarming proportions highlighted in the phrase of “hypercompetition” (D’Aveni 1994), the possibilities of change management/management of planned change cannot keep step with the increasingly higher speed of change (cf. Kotter 1996). As pressures towards change may even be stronger in the future, the problem of change is more virulent than ever and change becomes sometimes even a traumatic event for an organization and its members. Taking into account the importance of change, the constant occupation with change issues in organization science over the last decades is not astonishing at all. But unfortunately the scientific discussion of change is extremely fragmented with no commonly accepted (unitary) theory of change at sight. Organizational change has been comprehended and conceptualized in many different ways. For example it has been seen as “organization development” (French/Bell 1998), “transformation” (Levy/Merry 1986), “turnaround” (Bibeault 1982) or “corporate renewal” (Mezias/Glynn 1993). This wide variety of perspectives

on change has also generated many models, typologies and classifications of change or change processes (Tushman/Romanelli 1985; Kanter et al. 1992; Van de Ven/Poole 1995) “abstracting, fixing and labelling” (Chia 1999: 210) the complex and multifaceted ways and modes of changing. Whilst the major part of research and literature has focused on positive aspects of change, seeking ways of mastering change, a minor part of the discourse on change has also considered its problems and pathologies: For example the resistance against change (Piderit 2000), structural inertia preventing organizations from changing in due time (Hannan/Freeman 1984) or downward spirals (Hambrick/D’Aveni 1988) and organizational decline (McKinley 1993) as undesirable developments have been analysed. Finally, the participants and agents of change (Ottaway 1983) also have gained considerable interest.

In spite of all these tremendous efforts in the field of theory and research about change, more and more scientists are ultimately under the impression that they still do not get the heart of the phenomenon itself (Chia 1999: 210) – let alone being able to address entirely new forms of change. Regarding that organization science has been dominated by paradigms of stability and continuity for decades (Nisbet 1972: 21) and that change has for a long time been viewed as an exception, epiphenomenon or episode (Tsoukas/Chia 2002: 567-68), this problem is again not surprising at all. But even while change nowadays is given greater attention in organization science than ever, some fundamental deficits and limitations are still prevailing:

Lack of theoretical sophistication:

For a long time research and theories concentrated on incremental and gradual change and fostered models of organizational adaptation or development. Such theorizing regards the mere improving or adjusting of the existing structural form of organization as sufficient for organizational survival or as an adequate response for pressures to change coming from the environment of the organization (Greenwood/Hinings 2006: 814). Thus only adaptive and reactive forms of change are addressed at all. Furthermore according with contingency theory the importance of fit and change as a means of restoring lost fit was stressed (Greenwood/Hinings 2006: 815; cf. Siggelkow 2002). Consequently, increasing organizational flexibility is seen as an adequate strategy in order to master the challenges of (future) change and maintain fit. In sum, many concepts and models of organizational change represent more or less mere variations of structural contingency theory (or contingency thought) (Sturdy/Grey 2004: 6). This gave lead to the dominance of linearity, homogeneity and determinacy in thinking about change or conceptualizing change (Chia 1999: 214). And also due to the oversimplifications of contingency thinking a rather mechanistic understanding of change is prevailing (Sturdy/Grey 2004: 5). Finally many concepts of change are (implicitly or explicitly) still based on the equilibrium model (Mintzberg/Westley 1992) and regard change as an exception of order and continuity. Thus the field of organizational change is still quite far from mature in understanding the different effects of time, process and discontinuity or context (c.f. Pettigrew et al. 2001: 697).

Lack of realism

As Chia (1999: 214) argues, a full-blown theory of change has also to be able to remain faithful to the reality of lived experience. Yet the notion of change in organization theories remained for long time far from reality. Especially as the changing nature of change towards more volatility was widely ignored, an unrealistic view of change as a predictable and manageable process was maintained in the face of the growing indeterminacy of change. Thus the discourse on organizational change reveals that the types of change which should be pursued by an organization are highly restricted (Sturdy/Grey 2004, p. 3). But as fundamental alterations nowadays happen no longer smoothly and slowly, but sharply and suddenly (Strebel 1990: 434), thinking about radical forms of change become even more necessary than ever. While it is commonly accepted that changes are accompanied and influenced by political actions of organizational actors, it is striking to note that they are surprisingly not well considered in theories of radical change (e.g. Gersick 1991), where a political perspective could be very useful. As such radical changes are of indeterminate character, comprising moments of surprise and qualities of uniqueness and otherness (Brown/Eisenhardt 1998: 6; Chia 1999: 226), new visions and ideas how this change can be analysed and explained are needed. Under such circumstances issues of managing change or change management have to be addressed in radically a different way, as there are no more general principles of action possible and simply learning from the past does no longer work (Scharmer 2007: 56). Equally, as processes of change are characterized by an interplay of order and disorder, organization and disorganization (e.g. Cooper 1990) and the “dark side of change” has to be explored too (Kotter 1996: 14).

Lack of integration

Just as organization science in general is very fragmented and seeking to gain knowledge on different ways (Rao/Pasmore 1989: 235), the discourse on organizational change lacks integrative contributions as well (Weick/Quinn 1999: 364). The enormous number and growing variety of dispersed discourses (cf. Caldwell 2005: 97) makes it difficult to see what all those theories, concepts and models have possibly in common. Firmed knowledge on change is also still rare, despite all empirical endeavours. After decades of research we are no nearer to a commonly accepted body of knowledge in any area of the discourse on change than before. Evidently, this situation is directly linked to paradigm diversity in organization science (Morgan 1990) as paradigms are highly influential on organization theory and research (e.g. Burrell/Morgan 1979; Astley/Van de Ven 1983; Burrell 1996). As long as there are no ways found to integrate different views and insights with regard to change issues the blockade on paradigmatic level cannot be resolved. Thus pathways that intersect different positions on change and bridge the fosses of incommensurability on the paradigmatic level of change are much required (Caldwell 2005: 108). Otherwise the dissatisfactory analytical cul-de-sac in which the discourses on change and organization science as well seem to be entrapped is likely to persist.

3. Towards a comprehensive of understanding of organizational discontinuity

So far, organizational discontinuity has often played a minor role in organization theory and the discourse on organizational change. Due to the prevailing notion that radical changes rarely if ever happen at all and usually result in the catastrophe of chaos (disorganization) or the disaster of dissolution, it seemed reasonable to focus on other kinds of change. Even more the idea, that organizations are basically able to perform changes of such a tremendous amount was often rejected at all. Especially from the organizational learning perspective of change via small steps and incremental improvements such an idea seemed almost presumptuous regarding the difficulties and obstacles even modest goals of successful learning were facing. Moreover, conventional learning sequences of action-observation-reflection-design-action may conceal a blind-spot, allowing organizations (and individuals) to ‘carry on carrying on’ (Senge 2007: XII) leading either to self-reinforcing rigidities or inertia (c.f. Hannan/Freeman 1984; Leonhard-Burton 1992) or myopic learning (Levinthal/March 1993). But while looking closer at the driving forces of market change and heavy “gales of destruction” in the business landscape near the millennium (Foster/Kaplan 2001: 13), the idea of discontinuity has arrested increasing attention of both researchers and practitioners in the field of organization studies and management science. It turned out that changes occurred to an extent not expected before and maybe not experienced for more than a century. A number of evidences indicate the formation of a new industrial order, which is fundamentally different to previous conditions of the economy (cf. Hamel 2001; Pascale et al. 2001). Among these are (Strebel 1990: 434; Foster/Kaplan 2001: 10-15; Bennis 2001: 4; Pascale et al. 2001):

- *The decreasing average lifetime of organizations:* More and more organizations are no longer existent for decades, but only for some years. This is clearly illustrated by thousands of “dotcom”-enterprises during the short boom of the e-economy around the millennium.
- *The limitation of success to a short period:* Even “excellent” organizations – such as for instance portrayed by Peters/Waterman (1982) in their famous study – are facing serious trouble within a short period of time, because they find it difficult to respond adequately to fundamental change in their environment.
- *The declining economical potential of organizations:* The performance of long term surviving corporations is below-average and above-average performance is most likely achieved by newcomers.

However, these signs of the future – being on the wall for quite a time – have not been read in good time. Although Peter Drucker predicted already 1969 in his book “The age of discontinuity”, the zeitgeist prevailing at this time was not open for such an idea. But as this age did arrive in our time neither by happenstance nor by chance, it is obviously rooted in fundamental changes in society, economics and politics starting many years ago. These underlying developments in the environment of organizations ultimately lead to the changing nature of change, where alterations are far more dramatically, incalculable and saltatory than ever (Strebel 1990: 434). According to

that, changes are carried out abruptly and subversively, i.e. discontinuously (Nishida/Doshita 1987: 643). This change in the patterns of change also means that approved knowledge is devalued and traditional routines or long-time grown structures are questioned by new requirements (Nadler/Tushman 1995: 23; D'Aveni 1994), which creates in turn new possibilities of an increased internal causation of organizational discontinuity. Thus, the growing discontinuity in organizational contexts stimulates increasing organizational discontinuity, which in turn may lead again to more discontinuity in the context (society, economy). Such a spiral of disruptive change could be characterized as *emergent complexity*, where organizations must deal with situations as they evolve without a clear image of what is the problem, the solution or the key factors/actors involved (cf. Scharmer 2007: 63).

Therewith processes of change are also more and more non-linear as well as indeterminate (Weick/Quinn 1999: 382). Accordingly, discontinuity (deriving from the Latin words dis= apart and continuus = uninterrupted, incessant) can be defined as opposed to/the contrary of continuity. It represents a special type of change, where alterations *don't* amount just by small steps over a long period of time in a cumulative and sequential way (Nisbet 1972: 21). In the case of discontinuous change the course of events is interrupted either for reasons of time or space. Thus discontinuity is a specific phenomenon of behavioural dynamics, noticeable in sudden, pervasive changes in the variables of an entity under observation. Usually the alterations culminate in a clear break with the previous incremental development (Nadler/Tushman 1995: 22). Within this break in the path of regular development entirely new qualities arise through the combination of hitherto unconnected variables. In discontinuous processes therefore the upcoming novelties cannot be derived from former states of the entity changed by them. Thus discontinuities are asymmetric changes, where the causal links between actions and events are interrupted (disruptive change). Additionally, as linear connections between causes and effects are missing, discontinuities can have tremendous, unexpected consequences (transformational/fundamental change). Therefore discontinuities are often associated with the terms of unsteadiness, instability, nonlinearity or jump (salutatory/punctualistic change). These terms express the high amount of dynamics which is characteristic for discontinuity, but also the complexity of discontinuous change, which comprises different forms and types of change. Thus, in a broader sense discontinuity also encompasses *both* incremental and fundamental alterations, as both are interactive and interdependent, in the sense of Giddens (1984) concept of 'duality'. As different types of change can be ranked according to their degree of turbulence (cf. Aldrich 1979: 73) associated with their appearance, discontinuity is seen as highly dynamic and turbulent as well (Ansoff 1979: 58). These characteristics of organizational discontinuity also imply that its effects are manifold, including rapid progress as well as devastating decline (cf. Strebel 1990: 438 for the broad range of possible outcomes). Thus organizational discontinuity is overall an ambivalent phenomenon or "two-edged sword", representing the best and the worst outcome possible while being nearly symptomless which direction is taken. Consequently, such a phenomenon can only be fully understood when continuous and discontinuous aspects of change as well as change *and* stability are considered simultaneously and evolutionary *and* revolutionary theories of change are combined.

4. An integrated perspective of organizational discontinuity

The complexity of change especially in the case of organizational discontinuity as its epitome requires a holistic, integrated perspective, which recognizes the connections and coherences between different individual processes and aspects constituting the whole phenomenon. At first the attempt to develop an integrated perspective has to deal overcome the problem of pervasive *paradigmatic plurality* in organization studies (cf. Knudsen 2003; Willmott 2008) as well as in the discussion of organizational change. To do so, a meta-paradigmatic perspective (cf. Dewulf et al. 2009) is adopted to demonstrate that the opposed/'dualistic' perspectives of evolutionary and revolutionary change can be complementary in the insights that each uncovers with respect to organizational discontinuity. Consequently, the notion of incommensurability within organization science – the existence of irreconcilable theories and intellectual properties/traditions (Weaver/Gioia 1994: 565) – is called into question by such an approach, as the idea of a strict separation of paradigms may not be given in reality, but owed to the principles of construction used for classification schemes (e.g. Burrell/Morgan 1979; Astley/Van de Ven 1983) using dichotomous categories to order paradigms. Rather it is assumed that there are multiple overlapping areas which connect the different paradigms (Gioia/Pitrè 1990: 592; Schulz/Hatch 1996: 534). Such overlapping areas can be used for an integrated perspective as an attempt to reconcile the conflicting positions of objectivist and subjectivist approaches (i.e. positivistic and anti-/post-positivistic approaches) in organization science. The adoption of a meta-paradigmatic perspective has three important implications (Dewulf et al. 2009: 180): First of all, it values the separate paradigms as independent, yet fruitful and coherent perspectives. Second, the simultaneous consideration of more than one perspective offers a chance for mutual learning, by revealing tensions as well as analogies, thus fostering new research questions. Third, concentrating on the permeability of paradigmatic borders, zones of transition can be detected, where different elements can be combined into new insights. Consequently, these implications are of considerable value to the problem of integrating evolutionary and revolutionary change theories with respect to organizational discontinuity.

Furthermore, this attempt to develop an integrated perspective on has to take into account the problem of choosing the appropriate *level of analysis*, as this choice has significant consequences for the outcomes of the phenomenon studied (cf. Pfeffer 1982: 14). Thus scientists in the field of organization study usually prefer to concentrate on one level of analysis to examine its specifics closer (Van de Ven/Astley 1981: 458). Unfortunately this strategy is not appropriate to organizational phenomena carrying out at different levels or being affected on several levels simultaneously. It is for this reason that a multi-level perspective has been called for in organization studies repeatedly (House et al. 1995; Klein et al. 1999). Yet it has to be kept in mind that the propositions relating to one level, cannot be easily transferred to another level or are even contrary to those of other levels (Van de Ven/Astley 1981: 458). As especially organizational change can occur within levels as well as between levels (Mintzberg/Westley 1992: 56), and because processes of different levels are usually interrelated in the process of organizational change, it should be generally addressed as a multilevel phenomenon (House et al. 1995: 73). Such a multilevel approach to change

has several advantages (Klein et al. 1999: 243) like fostering a more comprehensive understanding while also integrating partial knowledge. Both are much needed in the field of organizational change. If more research and theorizing on multiple levels of change are required yet (Caldwell 2005: 107, 109), linking micro levels of change (addressing the agency and agents of change) to the macro level of change (addressing the structural and institutional levels of change) can be a possible solution.

Besides the problem of choosing levels of analysis, there are also other requirements to be regarded when conceptualizing an integrated perspective of change. Because overall a robust, realistic and more comprehensive view of change (Van de Ven 1987; Chia 1999: 213) – as aspirated in this paper – is seeking answers to the questions “a) how structure and individual purposive action are linked at micro and macro levels of analysis, b) how change is produced both by the (internal) functioning of the structure and by the (external) purposive actions of the individuals, c) stability and instability; and d) how time can be included as key historical metric” *simultaneously*. A meta-paradigmatic perspective combined with a multilevel approach can help to make a substantial contribution in this respect. For this reason traditional dichotomies have to be revised and restated with respect to discontinuous organizational change. Thus far, evolution and revolution are widely seen as different patterns of change (Greiner 1972; Hamel 2001), being in conflict with one another or even excluding each other. Yet if being combined and applied to different levels of organization (structure/action), they can help to develop an integrated perspective on organizational discontinuity. In order to do so, an evolutionary approach is chosen for the structural level, as they are emphasizing the development of structures from a rational, functional and partly deterministic (i.e. path-dependent) view. It is contrasted with a political perspective on the behavioural level concentrating on actions/actors and stressing voluntarism and limited (bounded) rationality. Consequently, cognitive aspects or processes – as for instance highlighted by Weicks’ (1979) evolutionary model of organizing – are not considered, as they represent a different level of analysis, not being the centre of interest here.

4.1 *Discontinuous change as evolutionary process*

Especially with respect to the change of organizational structures, evolutionary perspectives can be considered suitable to conceptualize an integrated perspective of organizational discontinuity according to the requirements of a robust, realistic and comprehensive view of change mentioned before. Evolutionary theories are generally characterized by the notion of the indeterminacy of outcomes, as an evolutionary perspective treats the future always as an open question (Aldrich 1999: 33). Yet they also underline the inevitability of developments as structures are seen not only as contingent, but also as rather inert. Furthermore evolutionary theories rely on steady state models, which meet the requirements of the complexity of change better than the prevailing equilibrium models of change (Nelson 1995: 85). They include time as a variable and take into account the consequences of past steps in the process of organizational development (“path dependency”). Additionally, they consider the (internal) functioning of the structure (viability) as well as (external) forces (i.e. the environment). Over all, evolutionary theories focus mainly on incremental changes, but with-

out excluding fundamental, revolutionary changes strictly. Although an evolutionary perspective claims that radical changes are *not* the norm, they acknowledge similarly that to some extent they are possible for some organizations (Greenwood/Hinings 2006: 822). In sum, evolutionary theory stresses the erratic, restraining forces with regard to change in a rather deterministic view. Purposive actions have little or almost no influence on the outcomes of evolutionary processes, which are mainly driven by external, “natural” (i.e. environmental) selection. Ultimately, it is the paradoxical nature of evolutionary explanations which proves to be very useful for a meta-paradigmatic perspective: While providing a genuinely dynamic perspective evolutionary theorizing still explains mainly stability.

Evolution results primarily from the operation of the generic principles of variation, selection and retention (Aldrich 1999: 22-32). The complex interplay of these steps results in an ongoing development of structures by approved deviations. But as it is ultimately the environment, which is responsible for the selection, organization structures do not develop along the lines of their framers’ rational intentions or guidelines. Rather they offer considerable resistance to planned change, as characterized by the concept of “organizational inertia” (cf. Hannan/Freeman 1984). Once an organizational structure is fully developed, it can hardly be changed or adapted to new requirements at all. Consequently, organization can’t either change at all or their changes are not performed in due time as the dynamics of environmental change is faster than their adaptability. In any case, the great complexity of organizations together with the indeterminacy of the evolutionary process itself induces the inability of management to get reliable results by planned interventions in the process of organizational change. Past organizational developments (organizational history) and internal constraints result in a rather narrow corridor of possible changes. In sum, organizations can leave their path of evolution only via frame-breaking changes, with discontinuous shifts in strategy, structure and people, being implemented rapidly and simultaneously (Tushman/Newman/Romanelli 1986: 38). Such a way of changing can be called a creative destruction, while it is combing destructive actions (disestablishing old structures) with innovative actions (establishing new structures). Thus creative destruction demonstrates that existing restrictions of development can be at least overridden selectively (via punctualistic change) in order to regain lost organizational fit.

4.2 *Discontinuous change as revolutionary process*

While an evolutionary perspective of change underlines the inevitability of developments on a *structural level*, the perspective of politics in organizations stresses free zones leaving a margin to individuals for safeguarding their interests and pursuing their strategies on the *level of actions*. Yet politics never means complete voluntarism as political actors have to comply with the rules of the political games they play and also have to mind the institutional setting. Thus the outcomes of political processes are never certain, regarding the bounded rationality of the actors additionally. For this reason, it is quite common to associate radical changes (i.e. revolutions) with political behaviour or political action. A political view on organizations and their change is mostly aligned with the concept of power (cf. Tushman 1977; Mintzberg 1983). Yet a political perspective has much more to offer – not only in a metaphorical sense (e.g. Morgan

1986). Particularly “political choice” approaches (Czada et al. 1998), stressing the limits of rational decisions in politics and underlining the interrelatedness of actors in mutual relations of conflict and consensus, can help to understand organizational discontinuities as revolutionary processes on the level of actors and actions underlying the structural dynamics portrayed above. They examine the interplay of institutions, rules and actors and the achievements towards the coordination of interdependent actors, the organizing of collective interests and the exercise of control. Thus through joint achievement fundamental, revolutionary changes can be realized in principle, while in some cases only incremental, evolutionary changes are possible due to overpowering restrictions of the institutional setting. Over all, a political perspective concentrates on purposeful, enabling forces in the process of change (voluntaristic view). But while its focus is on processes (i.e. political action, politics) rather the establishment of order and stability despite all conflict or dissension is thereby explained. This paradoxical nature of political explanations is also very useful for a meta-paradigmatic perspective, like the paradoxical nature of evolutionary explanations pointed out before.

The apparent disorderliness of political processes (e.g. decision making; Cohen et al. 1972) has led to the erroneous impression that there is very little order in collective choice. But since the origin of this confusion may lie in the inadequacy of the theoretical ideas by which observed events are ordered, rather than in the phenomena themselves, the notion of order/disorder has to be revised. Therefore, the organizational basis of politics (March/Olsen 1989) has to be considered closer. In order to analyse the structures of political actions in organizations, configurational approaches to politics in organizations can be helpful, while they are linking aspects of action and structure into ideal-typical forms (configurations/gestalts). Probably the most significant ideal type of politics in organizations is the political arena (cf. Mintzberg 1985). A political arena can be defined as a place or “institutional terrain”, where conflicting interests are colliding and struggles about a political issue are occurring (cf. Bolman/Deal 1997: 198). It is a temporary, mutable and recurrent configuration of politics in organizations (Mintzberg 1983: 421). Thus a political arena helps to determine, which problems are paid attention to, who participates in decision making and whose aims are finally realised (Bolman/Deal 1997: 198). Via such configurations politics turn out to be only a temporal sorting (cf. March/Olsen 1989: 11), providing plenty of opportunities for revisions of prior outcomes. According to that, revolutionary change can be understood as a series of political arenas, with different disputing actors or parties and intermittent, but partly recurrent and intersecting lines of conflict. Depending on the degree of conflict, the importance of interests, or the power of actors involved, the political processes in the gestalt of an arena can be discontinuous themselves and thus contributing to discontinuous change at an organizational (structural) level to a considerable extent. Leaps in the discussion of political issues and abrupt changes in attention to such issues increase the variability of the whole organization and the pressure to experimentation (cf. March/Olsen 1989: 169). Such indeterminate, experimental (“random”) searches for a consensus on political issues, which is usually hard to find, can lead organizations to the “edge of chaos” (cf. Brown/Eisenhardt 1998). In this state discontinuous change is highly probable, as many organizational variables are

already changeable and oscillating. Thus from the edge of chaos it is only one more step to organizational discontinuity.

4.3 *Discontinuous change as re-evolutionary process*

Punctualistic models of change have already seen evolutionary and revolutionary processes as the underlying forces of organizational dynamics (cf. Tushman/Romanelli 1985). Yet in these models evolution and revolution (convergence and re-orientation) are alternating, consecutive phases. But with respect to discontinuity they are not strictly sequential but intermittent and concurrent, as actually the duality of action and structure, which underlies any organizational process, constitutes the main driving force in discontinuous change. This underlying tension between structure and action is accompanied by evolutionary and revolutionary forces *simultaneously*, increasing until the destruction of the existent order and easing with the construction of a new order. Yet, at the beginning of the change process it is never clear, whether the tension is high enough to reshape and restructure the organization or the forces towards change are actually too weak. Similarly, it is not for sure in which direction change will move (indeterminacy of change), nor whether the outcomes of change are useful or destructive. Discontinuous change can lead an organization also back to their old path of development or to a destruction without creation (e.g. decline or dissolution). As the idea of re-evolution is yet not well developed in organization science, accordingly with its notion in the natural sciences re-evolution it can be defined as process of reacquiring characteristics, competencies or functions originally lost in previous steps of evolution or respectively the return to an anterior functional solution or state. With respect of organizational discontinuity in an integrative sense, re-evolution can also imply the creation of entirely new paths of development as well as undesirable, catastrophic developments (e.g. organizational decline, “devolution”). Thus re-evolution is marking the point, where an organization is at a crossroads: The signs of the future are on the wall, but the direction is open to the shadows of change and its shady sides as well as to the shininess of change and its sunny sides.

Thus, re-evolution is proposed as a concept, *how* the interplay of different organizational levels can be imagined in a multilevel-approach of organizational discontinuity, as it addresses the duality of actors/actions vs, structure in a different way. Specifically, it could also explain whether organizational discontinuity leads to subsequent evolutionary or revolutionary pathways (e.g. the exploitation of present practices or exploration of new strategies, or a new convergence period trying to embank the consequences of change and restore the old order or an additional upheaval period enforcing and strengthening alternatives). In this respect, the concept of re-evolution might also help to overcome bivalent antinomies of change by offering complementary or interconnected ways of development.

In addition to emergent, autonomous processes, targeted interventions in re-evolutions are also possible, influencing the direction yet to be taken. Especially leadership can be seen as way of (dis-)balancing organizational discontinuity and therefore contributing to the re-evolutionary process of discontinuous change to a large extent (in either way regarding its dysfunctions just as well). In an evolutionary perspective it is one of the key adaptive mechanisms by which organizations as a community are

shaped (cf. Nicholson 2001: 391). Insofar as leadership comprises voluntary as well as determined aspects, it can influence the interplay between evolutionary and revolutionary forces of change in both ways. While leadership is also a relationship (Kouzes/Posner 2001: 84), it is able not only to relate but to mediate as well. Accordingly (inter-)relational approaches to leadership, as they point out relational alternatives to individualism (Hosking et al. 1995), are helpful in the face of discontinuity. Being critical to entitative discourses with their subject-object relations and to unidirectional approaches being centred on singular forces, the post-dualistic understanding of organization and leadership of the relational paradigm is helpful for conceptualizing an integrative perspective of organizational discontinuity with respect to the fragmented change discourse and its dichotomous notions of change. Furthermore “relating” is a “reality-constituting practice” (Edwards/Potter 1992: 27), in which shared understandings are developed, negotiated and socially constructed. While the essence of all radical changes – as highlighted in the idea of creative destruction as well – is the underlying necessity of dissolving old assumptions, habits and practices before genuinely new (i.e. discontinuous) forms of organization can be implemented (Nicholson 2001: 390), such (re-)constructive contributions or practices are much required. This clearly demonstrates that the behaviour at the individual level is ultimately the key factor in shaping the evolution of other entities (Tsoukas/Chia 2002: 567). As one particle can alter the macroscopic organization, the role of the individual is now more important than ever. Thus a re-evolutionary perspective of organizational discontinuity has to consider the individual level of organizational analysis equally. Yet it has to be regarded that fundamental changes are always accompanied by strong reactions of fear and resistance, when traditional values, ideas and attitudes are devalued. Additionally, for such a (behavioural) transformation – i.e. bringing the members of an organization from the past to the future – the concept of transformational leadership (cf. Bass/Riggio 2006) with its idea of changing individuals’ attitudes and goals could make a considerable contribution to a purposive re-evolution similarly.

5. Implications for theory and research

The integrated model of organizational discontinuity questioned the commonly assumed incommensurability in organization theory and, even more, tried to enable new research perspectives that transcend the incommensurability argument. Such an approach to organizational change allows operations in more than one paradigm and the consideration of opposing approaches by juxtaposing them and illustrating the nature of their understanding and representations. By encompassing various research directions, an integrated model provides a more accommodating framework that mirrors better the plurality and complexity of organizational discontinuity. In this regard, it may reveal seemingly disparate, but interdependent, facets of the phenomenon under study. It offers a new path to transcending binary arguments in which bivalent either-or antinomies might encourage a ‘black or white view’ of the problem. The opposite paradigms are seen as co-determined, i.e. in a mutual, complementary and interconnected position. An integrated view enables also the exploration of paradigmatic orientations from within, which reveals differing assumptions, arguments and implications. A re-examining and questioning of fundamental assumptions of various theories

and practices form a meta-perspective, enhances experiential learning that elevates paradigm development further. This in turn may protect researchers from becoming trapped within a peripheral view or a limited range of conceptual possibilities and helps them to understand a phenomenon more comprehensively. Nevertheless, an integrated view does not necessarily promote eclecticism. By its inclusive character, various theories, methodologies and insights can find their place in a broader scheme systematically. Therefore paradigms are seen as indeed different, yet mutually constitutive and interdependently interconnected within a context of knowledge and methodologies, characterized by a both/and notion of complementarities. Additionally, with its meta-paradigmatic foundation the integrated model encourages greater awareness of theoretical and methodological alternatives. Thereby it facilitates discourse and/or inquiry across paradigms (paradigm interplay), fostering greater understanding within pluralist and even paradoxical organizational contexts (Lewis/Kelemen 2002: 258).

Apart from these general advantages, a meta-paradigmatic perspective can help to clarify the relation of evolutionary and revolutionary theories of change. Seen through the lense of duality and applied to appropriate levels of organization, they don't exclude each other, but also complement each other. Both evolutionary and revolutionary processes of change contribute to organizational discontinuity being neither the result of fundamental nor gradual change *only*. Likewise, as illustrated above, a meta-paradigmatic perspective contributes to obtaining new, unexpected results, which also allows exploring what different paradigms can learn from another. While providing a genuinely dynamic perspective evolutionary theorizing still explains mainly stability. Similarly, while the focus of the revolutionary perspective is on processes (i.e. political action, politics) rather the establishment of order and stability despite all conflict or dissension is thereby explained. This example clearly demonstrates, how different paradigmatic perspectives can be complementary in the insights that they uncover with respect to organizational discontinuity and where possible zones of transition can be found. Given the distinct emphasis on structure vs. action, both paradigms could profit from one another in order to reconsider of what they underplay. For instance, inspired by the evolutionary theories of change, the revolutionary theories could do more longitudinal research to reveal how the emergence and decline of political configuration (political arenas, actor networks) shape the organization and its path of development over long periods of time. Finally, according to the idea of permeability of paradigmatic borders, zones of transition can be defined, where elements of both paradigms can be connected into new concepts, as illustrated by the idea of revolutionary change processes.

6. Conclusions

Understanding organizational change is nowadays commonly accepted as a central question within organization theory and research (Greenwood/Hinings 2006: 814) and is one of the great themes in the social sciences, too (Pettigrew et al. 2001: 697). Unfortunately, the growing fragmentation and complexity of organization studies prevents progress towards a more comprehensive understanding of change increasingly. The mere accumulation of unconnected knowledge on single, separated issues, derived from incommensurable paradigms and using different methods, does not neces-

sarily enhance insight in the complex nature of change. Yet, this dissatisfactory situation is not only due to meta-theoretical problems but also the result of a myopic and biased view on change in the common literature. Neither is the relation of change and continuity entirely explored, nor is the full range of different types of change really considered. In the discourse on change the problematic “pro change bias”, striving for change regardless of its costs and consequences (Sturdy/Grey 2004: 7), is still prevailing. This bias reflects a simplistic thinking that “new” is always good while old is “bad”, being inappropriate and insufficient for the post-modern complexity of change and its other side. Besides, forms of radical, revolutionary change fall still well outside the central perspectives and debates of organization theory and of the mainstream discourse on organizational change. But the need to abandon the prevailing assumption of continuity (Foster/Kaplan 2001: 15) is now more evident than ever. The signs of discontinuity are on the wall of the future and are open to read if a closer look is taken. Yet a reorientation of the change discourse is to a large extent still overdue with respect to discontinuous changes specifically and radical forms of change in general.

A much greater gap exists between the theory of (radical) change and the management of change. In this respect organization science maybe pretends to know more than it actually does (Greenwood/Hinings 2006: 836). Change management still tries to make change more manageable via oversimplifying and creating hyper-rationalistic models, typologies or methods. Given the complexity, fragility and volatility of organizational discontinuity – as portrayed before – this strategy seems more than ever an illusion. But with respect to the tremendous consequences of such forms of change it is a very dangerous illusion indeed. Organizational discontinuity can have devastating effects coming quite often close to catastrophic consequences. Its weak signals and rapid progression make it difficult to react timely and specifically. Moreover, organizational discontinuity is in many respects beyond the control of those seeking to control it (Shaw/Walton 1995: 274). This is a serious challenge to the traditional self-image of many managers, as it calls into question their ability of control and will induce increasing helplessness. As there is no more cruise control for leaders to coast on the momentum of recent success because the good fortune of today can easily evaporate with tomorrow’s events (Sonnenfeld 2001: 189), the notion of heroic leadership may actually experience its greatest defeat in the face of discontinuity. At least lessons from the past can no longer be brought to the future directly. It is maybe for this reason why Weick (2001: 99) proposed “to drop the heavy tools of rationality” and “to gain access to lightness” (i.e. intuitions, feelings, stories etc.). As there are only weak ties between causes and consequences in organizational discontinuity, acting in accordance with this proposal may be more successful than adhering strictly to rational choice. Likewise, it might be beneficial for practice not to rely on one paradigmatic view/concept of change exclusively. As Bolman and Deal (1997: 309) noted earlier, managers’ ‘inability to consider multiple perspectives continually undermines efforts ... to change organizations.’ Hence, an integrated framework based on a meta-paradigmatic perspective and a multilevel approach can provide fresh insights for training managers (and employees) to approach problems from various directions and to see the world of organizations and their phenomena through multiple lenses.

In all, the current delusion about a thorough understanding of radical change is potentially dangerous to the scientific study of organizational change and the management of change as well. Research on the causes and consequences of organizational discontinuity has clearly to be intensified if organization science doesn't want to leave managers and management without help facing the troubles of struggling with an ever faster changing world and more radical (i.e. fundamental and transformational) change. But taking into account the nearly inextricable complexity of such forms of change, it may take more than the decade Greenwood/Hinings (2006: 836) merely suppose to reach a profound understanding. The obstacles organizational discontinuity is posing for both scientists and practitioners can be seen as a fresh opportunity to meet unfamiliar challenges. Yet, it is by no means clear that we will meet the challenge as in looking ahead uncertainty is all too predominant and trying to predict future can be very risky. Furthermore future is said to have no shelf life (Kouzes/Posner 2001, p. 81) – come what may it comes irresistibly. Nevertheless, it is not completely determined, but also open to deliberate intervention. The realization of what is yet to come has always been and still is a difficult intellectual venture. While the future can never be fully foreseen, being prepared for it is still useful. At all events, enlarging and deepening the understanding of organizational discontinuity can be of great help for preparations to the future for organizations and organization science in many respects. Yet, clearly more work is still needed to better understand the interplay of evolutionary, revolutionary and re-evolutionary processes constituting organizational discontinuity in its full range.

References:

- Aldrich, H.E. (1979): Organizations and environments. Englewood Cliffs/NJ: Prentice Hall.
- Aldrich, H.E. (1999): Organizations evolving. London: Sage.
- Ansoff, H.I. (1979): Strategic management. London: MacMillan Press.
- Astley, W.G./Van de Ven, A.H. (1983): Central perspectives and debates in organization theory. In: Administrative Science Quarterly, 28: 245-273.
- Bass, B.M./Riggio, R.E. (2006): Transformational leadership, 2nd Edition. Mahwah/N.J.: Lawrence Erlbaum.
- Bennis, W. (2001): The future has no shelf life. In: Bennis, W. et al. (Eds.); The future of leadership: Today's top leadership thinkers speak to tomorrow's leaders. San Francisco: Jossey-Bass: 3-13.
- Bibeault, D. (1982): Corporate Turnaround. New York: McGraw-Hill.
- Bolman, L.G./Deal, T.E. (1997): Reframing organizations: Artistry, choice and leadership, 2nd Edition. San Francisco: Jossey-Bass.
- Brown, S.L./Eisenhardt, K.M. (1998): Competing on the edge: Strategy as structured chaos. Boston/MA: Harvard Business School Press.
- Burrell, G. (1996): Normal science, paradigms, metaphors, discourses and genealogies of analysis. In: Clegg, S.R. et al. (Eds.): Handbook of organization studies. London: Sage: 642-658.
- Burrell, G./Morgan, G. (1979): Sociological paradigms and organizational analysis: Elements of the sociology of corporate life. London: Heinemann.
- Caldwell, R. (2005): Things fall apart? Discourses on agency and change. In: Human Relations, 58: 83-114.
- Chia, R. (1999): A „rhizomic“ model of organizational change and transformation: Perspectives from a metaphysics of change. In: British Journal of Management, 10: 209-277.
- Cohen, M.D./March, J.G./Olsen, J.P. (1972): A garbage can model of organizational choice. In: Administrative Science Quarterly, 17: 1-25.

- Cooper, R. (1990): Organization/disorganization. In: Hassard, J./Pym, J. (Eds.): The theory and philosophy of organizations: Critical issues and new perspectives. London: Routledge: 167-197.
- Czada, R.M./Héritier, A./Keman, H. (1998): Institutions and political choice: On the limits of rationality. Amsterdam: VU Press.
- D'Aveni, R.A. (1994): Hypercompetition: Managing the dynamics of strategic manoeuvring. New York: The Free Press.
- Dewulf, A./Gray, B./Putnam, L./Lewicki, R./Aarts, N./Bouwen, R./van Woerkum, C. (2009): Disentangling approaches to framing in conflict and negotiation research: A meta-paradigmatic perspective. In: *Human Relations*, 62: 155-193.
- Eberl, P./Koch, J./Dabitz, R. (1999): Rebellion in der Organisation – Überlegungen zu einer Führungstheorie radikalen Wandels. In: Schreyögg, G./Sydow, J. (Eds.): Führung - neu gesehen (Managementforschung 9). Berlin/New York: De Gruyter: 239-277.
- Edwards, D./Potter, J. (1992): Discursive psychology. London: Sage.
- Ford, J.D./Ford, L.W. (1994): Logics of identity, contradiction and attraction in change. In: *Academy of Management Review*, 19: 756-785.
- Foster, R.N./Kaplan, S. (2001): Creative destruction. New York: Currency and Doubleday.
- French, W.L./Bell, C.H. (1998): Organization development: Behavioral science interventions for organization improvement. Englewood Cliffs/NJ: Prentice Hall.
- Gersick, C.J.G. (1991): Revolutionary change theories. A multilevel exploration of the punctuated equilibrium paradigm. In: *Academy of Management Review*, 16: 10-36.
- Giddens, A. (1984): The constitution of society: Outline of the theory of structuration. Cambridge: Polity.
- Gioia, D.A./Pitiré, E. (1990): Multiparadigm perspectives on theory building. In: *Academy of Management Review*, 15: 584-602.
- Greenwood, R./Hinings, C. R. (1996): Understanding radical organizational change: Bringing together the old and the new institutionalism. In: *Academy of Management Review*, 21: 1022-1054.
- Greenwood, R./Hinings, C.R. (2006): Radical organizational change. In: Clegg, S.R. et al. (Eds.): *Handbook of organization studies*, 2nd Edition. London: Sage: 814-842.
- Greiner, L.E. (1972): Evolution and revolution as organizations grow. In: *Harvard Business Review*, 50: 37-46.
- Gupta, A.K./Smith, K./Shalley, C.E. (2006): The interplay between exploration and exploitation. In: *Academy of Management Journal*, 49: 693-706.
- Hamel, G. (2001): Revolution vs. Evolution: You need both. In: *Harvard Business Review*, 79: 150-155.
- Hambrick, D.C./D'Aveni, R. (1988): Large corporate failures as downward spirals. In: *Administrative Science Quarterly*, 33: 1-23.
- Hannan, M.J./Freeman, J. (1984): Structural inertia and organizational change. In: *American Sociological Review*, 49: 149-164.
- Hosking, D.M./Dachler, H.P./Gergen, K. (Eds.) (1995): Management and organization: Relational alternatives to individualism. Aldershot: Avebury.
- House, R./Rousseau, D.M./Thomas-Hunt, M. (1995): The meso-paradigm: A framework for the integration of micro and macro organizational behavior. In: *Research in Organizational Behavior*, 17: 71-114.
- Kanter, R.M./Stein, B.A./Jick, T.D. (1992): The challenge of organizational change. New York: The Free Press.
- Klein, K.J./Tosi, H./Canella, A.A. (1999): Multilevel theory building: Benefits, barriers and new developments. In: *Academy of Management Review*, 24: 243-248.
- Knudsen, C. (2003): Pluralism, scientific progress and the structure of organization studies. In: Tsoukas, H./Knudsen, C. (Eds.): *The Oxford Handbook of Organization Theory*, Oxford: Oxford University Press: 13-36.
- Kotter, J. P. (1996): Leading change. Boston/MA: Harvard Business School Press.
- Kouzes, J.M./Posner, B.Z. (2001): Bridging leadership lessons from the past to the future. In: Bennis, W. et al. (Eds.): *The future of leadership: Today's top leadership thinkers speak to tomorrow's leaders*. San Francisco: Jossey-Bass: 81-90.

- Leonhard-Burton, D. (1992): Core capabilities and core rigidities: A paradox in managing new product development. In: *Strategic Management Journal*, 13 (Special Issue): 111-125.
- Levinthal, D.A./March, J.G. (1993): The myopia of learning. In *Strategic Management Journal*, 14 (Special Issue): 95-112.
- Levy, A./Merry, U. (1986): *Organizational transformation*. New York: Praeger.
- March, J.G. (1991): Exploration and exploitation in organizational learning. In: *Organization Science*, 2: 71-87.
- March, J.G./Olsen, J.P. (1989): *Rediscovering institutions: The organizational basics of politics*. New York: The Free Press.
- Mezias, S./Glynn, M.A. (1993): The three faces of corporate renewal: Institution, revolution, evolution. In: *Strategic Management Journal*, 14: 77-101.
- McKinley, W. (1993): Organizational decline and adaptation. In: *Organization Science*, 4: 1-9.
- Mintzberg, H. (1983): *Power in and around organizations*. Englewood Cliffs/NJ: Prentice Hall.
- Mintzberg, H. (1985): The organization as political arena. In: *Journal of Management Studies*, 22: 133-154.
- Mintzberg, H./Westley, F. (1992): Cycles of organizational change. In: *Strategic Management Journal*, 13: 39-59.
- Mohrman, S.A. (2001): Seize the day: Organizational studies can and should make a difference. In: *Human Relations*, 54: 57-65.
- Morgan, G. (1986): *Images of organization*. Beverly Hills: Sage.
- Morgan, G. (1990): Paradigm diversity in organizational research. In: Hassard, J./Pym, D. (Eds.): *The theory and philosophy of organizations: Critical issues and new perspectives*. London/New York: Routledge: 13-19.
- Nadler, D.A. (1998): *Champions of change*. San Francisco: Jossey-Bass.
- Nadler, D.A./Tushman, M.L. (1995): Types of organizational change: From incremental improvement to discontinuous transformation. In: Nadler, D.A. et al. (Eds.): *Discontinuous change: Leading organizational transformation*. San Francisco: Jossey-Bass: 15-34.
- Nadler, D.A./Shaw, R.B. (1995): Change leadership: Core competency for the twenty-first century. In: Nadler, D.A. et al. (Eds.): *Discontinuous change: Leading organizational transformation*. San Francisco: Jossey-Bass: 3-13.
- Nelson, R.R. (1995): Recent evolutionary theorizing about economic change. In: *Journal of Economic Literature*, 23: 48-90.
- Nicholson, N. (2001): An evolutionary perspective on change and stability in personality, culture, and organization. In: Erez, M. et al. (Eds.): *Work motivation in the context of a globalizing economy*. Mahwah/NJ: Lawrence Erlbaum: 381-394.
- Nisbet, R. (1972): Introduction: The problem of social change. In: Nisbet, R. (Ed.): *Social change*, Oxford: Blackwell: 1-45.
- Nishida, T./Doshita, S. (1987): Reasoning about discontinuous change. In: *Proceedings of the National Conference on Artificial Intelligence (1987)*: 643-648.
- Ottaway, R.N. (1983): The change agent at work: A taxonomy in relation to the change processes. In: *Human Relations*, 36: 361-392.
- Pascale, R.T./Millemann, M./Gioja, L. (2001): *Surfing the edge of chaos: The laws of nature and the new laws of business*. New York: Three Rivers Press.
- Peters, T.J./Waterman, R.H. (1982): *In search of excellence: Lessons from America's best-run companies*. New York: Harper&Row.
- Pettigrew, A.M./Woodman, R.W./Cameron, K.S. (2001): Studying organizational change and development: Challenges for future research. In: *Academy of Management Journal*, 44: 697-713.
- Pfeffer, J. (1982): *Organizations and organization theory*. Boston: Pitman.
- Piderit, S.K. (2000): Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward an organizational change. In: *Academy of Management Review*, 25: 783-794.
- Prahalad, C.K. (1998): Managing discontinuities: The emerging challenges. In: *Research Technology Management*, 41: 14-22.

- Rao, M.V.H./Pasmore, W.A. (1989): Knowledge and interest in organization studies: A conflict of interpretations. In: *Organization Studies*, 10: 225-239.
- Scharmer, C.O. (2007): *Theory U: Leading from the future as it emerges*. Cambridge/MA: SOL.
- Schultz, M./Hatch, M.J. (1996): Living with multiple paradigm: The case of paradigm interplay in organizational culture studies. In: *Academy of Management Review*, 21: 529-557.
- Senge, P.M. (1990): *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Senge, P.M. (2007): Foreword. In: Scharmer, C.O: *Theory U: Leading from the future as it emerges*. Cambridge/MA: XI-XVIII.
- Shaw, R.B./Walton, A.E. (1995): Conclusion: The lessons of discontinuous change. In: Nadler, D.A. et al. (Eds.): *Discontinuous change: Leading organizational transformation*. San Francisco: 272-276.
- Siggelkow, N. (2002): Evolution toward fit. In: *Administrative Science Quarterly*, 47: 125-159.
- Sonnenfeld, J. (2001): Heroic leadership's greatest battle: The defeat of disappointment versus the disappointment of defeat. In: Bennis, W. et al. (Eds.): *The future of leadership: Today's top leadership thinkers speak to tomorrow's leaders*. San Francisco: Jossey-Bass: 189-208.
- Strebel, P. (1990): Dealing with discontinuities. In: *European Management Journal*, 8: 434-442.
- Sturdy, A.J./Grey, C. (2004): *Beneath and beyond change: Exploring the discourses of organizational change*. Discussion paper, Imperial College, University of London.
- Tsoukas, H./Chia, R. (2002): On organizational becoming: Rethinking organizational change. In: *Organization Science*, 13: 567-582.
- Tushman, M.L. (1977): A political approach to organizations: A review and rationale. In: *Academy of Management Review*, 2: 206-216.
- Tushman, M.L./O'Reilly, C. (1998): Unternehmen müssen auch den sprunghaften Wandel meistern. In: *Harvard Business Manager*, 20: 30-44.
- Tushman, M.L./Romanelli, E. (1985): Organizational evolution: A metamorphosis model of convergence and reorientation. In: *Research in Organizational Behaviour*, 7: 171-222.
- Tushman, M.L./Newman, W.H./Romanelli, E. (1986): Convergence and upheaval: Managing the unsteady pace of organizational evolution. In: *California Management Review*, 29: 29-44.
- Van de Ven, A.H. (1987): Review Essay: Four requirements for processual analysis. In: Pettigrew, A.M. (Ed.): *The management of strategic change*. Oxford: Blackwell: 330-341.
- Van de Ven, A.H./Astley, G.W. (1981): Mapping the field to create a dynamic perspective on organization design and behavior. In: Van de Ven, A.H./Joyce, W.F. (Eds.): *Perspectives on organizational design and behavior*. New York: Wiley & Sons: 427-468.
- Van de Veen, A.H./Poole, M.S. (1995): Explaining development and change in organizations. In: *Academy of Management Review*, 20: 510-540.
- Weaver, G.R./Gioia, D.A. (1994): Paradigms lost: Incommensurability vs. structurationist inquiry. In: *Organization Studies*, 15: 565-589.
- Weick, K.E. (1979): *The social psychology of organizing*, 2nd Ed. Reading/Mass.: Addison-Wesley.
- Weick, K.E. (2001): Leadership as the legitimation of doubt. In: Bennis, W. et al. (Eds.): *The future of leadership: Today's top leadership thinkers speak to tomorrow's leaders*. San Francisco: Jossey-Bass: 91-102.
- Weick, K./Quinn, R.E. (1999): Organizational change and development. In: *Annual Review of Psychology*, 50: 361-386.