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School of Science and Technology  
Department of Industrial Engineering and Management  
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# **CHANGE IN ORGANIZATION - EMERGING SITUATIONS, CHARACTER AND PRAXIS**

**Tapio Keränen**



Aalto-yliopisto  
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Tapio Keränen

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<p>Abstract</p> <p>The purpose of this study is to analyze how change is constructed by local actions and interactions of an organization. Drawing on critical realism and assuming organizational change to be a practical and social performance, a mediating entity – organizational character – is postulated to account for relationship between structure, agency, and action. The empirical study addresses local transformation and organizational character through analyzing events that are related to the development of service business in the context of a large energy company.</p> <p>In the empirical study, the organizational character in context consists of prudence, and of the pursuit of technical excellence and operational efficiency. Prudence is an action disposition in context when encountering new situations. The pursuit of technical excellence was a result of the past construction era. The pursuit of operational efficiency is a typical characteristic in an industry context. Three modes of praxis were identified: the habitual mode of praxis consists of fragmentizing and ensuring, and is aimed at operational efficiency for maintaining the organization; the transformative mode is directed toward the future and consists of envisioning the future and searching for new alternatives; and the contingent mode entails judgments to cope with current problems in the present and is characterized by improvisation.</p> <p>The integration of the relationships identified in the empirical study results in a model of local change. The local changes continuously and recursively construct outcomes of praxis that result in new configurations. In emerging and evolving situations new actions become necessary. Human agents engage in creative and transformative actions that are affected by the organizational character. Organizational character, in the context of this study, overshadows creative and transformative capacities of human agents but does not prevent local changes to the context. With regard to the practical outcomes of the study, a suggestion for the management of organizational change is that attention must be paid to internalized action dispositions in which the organization, human agents, and social consciousness about context and action, are intertwined.</p>			
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<p><b>Tiivistelmä</b></p> <p>Tässä työssä on tarkoituksena tutkia, kuinka organisaation muutos konstruoituu paikallisessa toiminnassa ja vuorovaikutuksessa. Lähtien kriittisen realismin oletuksista ja oletamalla, että organisatorinen muutos on tulos käytännöllisestä ja sosiaalisesta toiminnasta postuloidaan rakenteen, toimijuuden ja toiminnan välille välittävä entiteetti: organisaation luonne. Työn empiirisessä osassa analysoidaan organisaation paikallista muutosta ja luonnetta palveluliiketoiminnan kehittämiseen liittyvien tapahtumien kautta suuren energiayhtiön kontekstissa.</p> <p>Työn empiirisessä osassa organisaation luonne koostuu varovaisuudesta ja pyrkimyksestä operatiiviseen tehokkuuteen ja teknilliseen erinomaisuuteen. Pyrkimys teknilliseen erinomaisuuteen on jälki menneestä rakentamisen aikakaudesta. Pyrkimys operatiiviseen tehokkuuteen on tyypillinen ominaisuus organisaation toimialalla. Varovaisuus on kontekstuaalinen taipumus toimia esiin nousevissa tilanteissa. Tässä kontekstissa tunnistettiin kolme toiminnan kokonaisuuden moodia: tavanomainen moodi koostuu organisaation jakamisesta pienempiin yksiköihin ja varmistamisesta, jonka tarkoituksena on operatiivinen tehokkuus organisaation säilymiseksi; muuntava moodi suuntautuu tulevaisuuteen ja koostuu tulevaisuuden visioinnista ja uusien vaihtoehtojen etsimisestä; satunnainen moodi pitää sisällään esiin nousevien ongelmien ratkaisemisen kullakin hetkellä ja sitä luonnehtii improvisointi kussakin tilanteessa.</p> <p>Yhdistämällä tutkimuksen empiirisessä osassa tunnistetut riippuvuudet, saadaan paikallisen muutoksen malli. Paikalliset organisaation muutokset konstruoiduvat jatkuvasti ja rekursiivisesti käytännön toiminnan kokonaisuudessa, jonka tuloksena syntyy uusia organisatorisia asetelmia. Esiin nousevissa ja kehittyvissä tilanteissa uudet toimenpiteet tulevat välttämättömyksi. Silloin organisatoriset toimijat ryhtyvät luoviin ja muuntaviin toimenpiteisiin, joihin organisaation luonne vaikuttaa. Tämän työn kontekstissa organisaation luonne peittää varjoonsa toimijoiden luovan ja muuntavan kapasiteetin, mutta ei estä paikallisia muutoksia kontekstissa. Käytännöllisenä johtopäätöksenä on, että organisaatioiden muutoksissa on kiinnitettävä huomio myös yhteisesti sisäistettyihin toimintatapoihin, joissa kietoutuvat toisiinsa organisaatio, toimija ja sosiaalinen tietoisuus tilanteesta ja kuinka siinä tulee toimia.</p>			
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## Preface

Now my dissertation is on stage and there is good reason to look backwards. Undertaking my doctoral thesis in addition to my daily job was for me for long time an unattainable challenge. This work started from a notion and from a dream but many persons contributed to my work during the past years. It is appropriate to pay attention to them now.

In the very beginning I explained my first ideas to Emeritus Professor Tapani Jokinen and he advised me to turn to the professors in the Industrial Engineering and Management department. His assistance gave direction to my work and by chance I met Professor Karlos Artto who later became the supervisor of my dissertation. Karlos introduced me to Professor Juha-Antti Lamberg who became the instructor of my work. The support from Karlos and Juha-Antti, their patient tutoring and constructive criticisms have been invaluable in this study. I am thankful to the pre examiners Professors Päivi Eriksson and Saku Mantere for their invaluable comments that challenged me to revise the manuscript. I would like to thank Mr. James Collins and Ms Carly Jaques for their revision of my English in completing this dissertation. I am thankful to Mr. Timo Ripatti for drawing the figures of the revised manuscript.

During past years I had the opportunity to participate in the group of doctoral students tutored by Emeritus Professor Tapani Jokinen. During discussions I had an excellent opportunity to elucidate the central themes of my study. My best thanks to the members of the group for encouragement during the project. A special group that I am grateful to is my interviewees. I appreciate their trust and openness during the interviews. I would also like to thank all my colleagues at Fortum who have shown interest in my academic work during past years.

A doctoral dissertation is not only a thesis it is also the process of intellectual growth. In this sense my schoolmates from Töölön Yhteislyseo the so-called “reading circle”, Eero



Aro, Hannu Kuuskoski and Raimo Tero deserve special thanks. Together during my study we have created and buried many ideas. But everything has been worth it.

It is just a coincidence that in the start of my study I made the acquaintance of Ms Taina Lehtiö. Together we have wondered about organizational change and leadership. In addition we have discussed everything under the sun. It is impossible for me to find words to express my gratitude to her for her constant support and friendship.

It is self evident that producing a doctoral dissertation in addition to ones daily job requires patience and understanding from those who are close to your heart. During these years our daughter Eeva and our son Juha have graduated at universities and I have become a grandfather. My warmest thanks to them and especially to my wife Helena who has, most of all, made it possible for me to use so much time with my dissertation.

Finally, if you have a dream, start to realize it promptly. There will be no better occasion.

Espoo, August 2010

Tapio Keränen

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# 1 Introduction

Many organizations and institutions, in particular certain business organizations, have existed for a long time. Throughout their existence they have been forced to change and renew, creating a paradox between the need for change and the assumption of stability that is tied to the concept of an organization. Consequently, a general question may be posed:

*“How do organizations change and renew themselves continuously?”*

In such cases change is no longer a rare event or an episodic sequence of events, but a process without clear beginning or end (Demers 2007: 115).

Organizations embody stability and continuity and exist, through their reproduction, over time. Repeatability and reproduction also mean that the consistency of organizational response in various situations results in continuity and immutability. On the other hand, immutability can be considered a drawback in a changing environment since emerging situations make new and novel actions necessary. It is almost conventional to ask; *“Why it is so difficult to make changes at the action level within an organization?”* This question can be formulated in an alternative way, suggesting the genuine property of an organization that mediates the consistency of action.

*“What properties of organizations maintain the consistency of actions and interactions in emerging situations?”*

The two questions above have guided my study, which aims to contribute to an understanding of organizational change studies by viewing them from a social dynamics perspective (Demers 2007). Employing this perspective, organizations can be considered social systems that are networks of persistent and regular relationships between components of social reality. As a social structure, an organization is a matrix of human actions and interactions existing through its reproduction in time and continuously transforming through human action and interaction.



A basic assumption of my study is outlined by stating that “*social systems are irreducible to other types of systems because they are made up of human beings who are purposeful and reflexive, and who make history as well are constrained by it*” (Demers 2007: 118). With reference to continuous change, this question concerns the ultimate reasons for events, the moving forces of processes and the effect of human agency – creative and transformative capacity – on processes.

The underlying assumptions related to the questions presented above mean that an organization is both a pre-existing structure and an emerging pattern through actions and interactions (Tsoukas and Chia 2002). Organizational configurations are the outcome of free and creative reconstructions based on the judgments made in each situation (Benson 1977). Likewise, organizations as the embodiment of the social world are unfolding relations between elements (Emirbayer 1997).

The notion organizational change is used to refer both to those organizational changes that have become institutionalized and to continuously changing human actions that occur when individuals try to accommodate emerging situations (Tsoukas and Chia 2002). In the first case, the focus is on structures, whereas in the second the focus is on actions and interactions. In this study, I follow the idea of continuously changing action as human agents cope with emerging situations. From a broader point of view the whole of human action – praxis – is an incessant oscillation between what is possible and what really occurs (Sztompka 1991). Local transformations and situated change (Orlikowski 1996) emerge through social interactions over time when structure predates action and interaction resulting in organizational reproduction, and transformation or unintended outcomes (Archer 1995, Fleetwood 2005, Reed 2003).

Established productive and social practices and their combinations are related to pre-existing structures containing the traces of the organizational past. A genuine property of organization – character (Selznick 1953, 1957) and internalized practices – habitus - (Bourdieu 1977, Sewell 1992, Chia and McKay 2007, Jarzabkowski et al 2007) engender action and maintain consistency in emerging and evolving situations.

As a matter of fact, various emerging and evolving situations disturb daily practices and operations. People not only accommodate to various situations, because emerging situations often make new actions necessary. A local transformation is an outcome of routines and situation action (Demers 2007: 209) – a practice-centered approach within the framework of social dynamics. In that view tension between routines and improvisation is the force driving change in organizations.

The general question of my study relates to

*How does change occur or how it is constructed through local actions and interactions in organization?*

In other words, how do individuals act and interact in new and evolving situations when enabled and constrained by pre-existing structures, and what are the outcomes of such actions and interactions. The purpose of my study is to obtain an *ex post understanding* of how organizational configurations emerge and develop. Empirically, I attempt to contribute to an in-depth and thorough understanding of organizational phenomena that is closer to the reality of everyday practice, focusing on generative mechanisms and tendencies that have effect on actions and interactions in organizational context (Ackroyd 2004, Fleetwood 2004).

Theoretically there are two broader questions that are related to my study. The first question concerns whether the social world, including organizations, consists of substances or processes, static things, or dynamic unfolding relations (Emirbayer 1997). The second question is related to structure and action, including dynamics: is the moving force of events, processes and phenomena located in structures, in actions and interactions between them, on the contradictions between conceptions of agents and existing structures (Benson 1977), or does the human character provide the dynamics for movement and change (Sztompka 1991, Archer 1995).

### *Context of the study and research approach*

The empirical part of the study addresses local transformations by analyzing events during the development of service business in the context of a large energy company. With regard to epistemology, I have concluded that there is a world independent of the consciousness of individuals, but knowledge about the world is socially constructed – critical realism (Eriksson and Kovalainen 2008). Critical realism (Bhaskar 1998, Archer 1995, 1998, Fleetwood 2005, Ackroyd 2004) postulates that in social theory, structures and agents are separable analytical levels. Social processes and changes are the outcome of causal powers of structures and agency – the capacity to change and transform. Distinction is made between the real, actual, and empirical (Fairclough 2004, 2005). Real refers to the domain of structures and human beings, actual refers to the domain of actions and interactions, and empirical is the part of real and actual experienced by individuals (Fairclough 2005). Finally, theories and models based on empirical are constructed by researcher.

All the assumptions discussed above have influence on research methods. Humanistic research is generally thought to be conducted using a hermeneutical or interpretive method. Hermeneutics is understood to be a general philosophic tradition (Niiniluoto 1980). However, in my study the notion hermeneutical is associated with the interpretive methodology for understanding qualitative data, including the accounts of participants and other written material (Creswell 1998, Czarniawska 1998, Langley 1999, Miles and Huberman 1994, Pentland 1999, Prasad 2002, Prasad and Prasad 2002).

### *Structure of thesis*

Chapter 2 reviews the relevant social dynamics literature to elaborate my research questions by focusing on the interaction between structure and action, to establish an understanding of the existing knowledge and to compose a framework for analyzing organizational reproduction and transformation that will present my findings and contributions. Chapters 3 to 5 form the empirical part of my study. Chapter 3 presents

the context of the study and outlines the details of the research process. Furthermore, I demonstrate in detail how data has been created and interpreted.

In Chapter 4, I present the emerging phenomena in the context and the relatively enduring characteristics of the organizational context that maintain the consistency of actions and interactions. In Chapter 5, I analyze events in order to understand how organizational configurations emerge and develop within the limits and potentials of existing conditions. Finally in Chapter 6, I integrate the concepts generated into a model of continuous local change in the organization, and compare the findings and contributions of my study to those in the literature and outline the implications for further research and practice.

## 2 Literature review

*Organizations are seen as social systems that are continuously changing. First, I present three theoretical approaches, the dialectical view, the morphogenetic approach, and the theory of social becoming, to discuss the moving forces of organizational dynamics. Second, I review the interaction between structure and action, and elaborate upon the concepts of agency and praxis. Third, I review the emergence and local transformation and consistency of response in emerging situations, and elaborate a model for analyzing change, and finally I present my research questions.*

### 2.1 Social systems and moving forces of organizations

According to Demers (2007), the various strands included in the social dynamics literature are, on the one hand, the radical and postmodern approaches, and on the other hand discursive and practice centered approaches. In the social dynamics perspective, taking agency into account is critical for understanding organizational change and dynamics (Demers 2007:118). In the following, I first consider the dialectical view on organizations (Benson 1977) that was among the early calls to study organizational change from a critical perspective. The moving forces of organizational dynamics are various contradictions and the social world is constructed by people through their interactions. Second, I review the morphogenetic approach (Archer 1995), drawing on critical realism that links structure and agency in time. Third, I review the theory of social becoming (Sztompka 1991), as a synthetic framework to link action with structure and continuity with change. In this view, agency is located between structure and action. Agency is eventuated as praxis in the course of events that are ultimate elements of social reality.

#### 2.1.1 A critical perspective: dialectical view on organizations

Organization is an embodiment of continuity, repeatability, reliability, and accountability. Ecological theories (Hannan and Freeman 1977), hold that most of the variability in the core structures of organizations comes about through the creation of new organizations and organizational forms and the demise of old ones. This is an

extreme theory according to which the only structural changes of organizations are birth and death. There is no room for change in organizations; it is only populations of organizations that are different from each other.

If the social world is conceived as a process and as a series of dynamic unfolding relations, then we face a fundamental dilemma (Emirbayer 1997) between substantial thinking and relational thinking. In substantial thinking, various kinds of substances and entities constitute the subjects of study. For example, when studying interactions between entities it is assumed that they do not change during interaction, and entities do not depend on the existence of other entities (Emirbayer 1997).

Following this idea, process can be understood as a logic that explains causal relationships between independent and dependent variables. The problem, however, is that organizational entities such as structures, strategies, work groups, or practices among others may change all the time. Consequently, the aforesaid relationships between entities are contextual and situated. Alternatively, process can also mean individual and organizational actions, such as workflow to accomplish particular tasks. The third meaning of process is a sequence of events or activities that describes how things change over time (Van de Ven 1992). A process can also be understood as a progression of events that unfold during an organizational entity's existence over time (Van de Ven and Poole 1995).

Contrary to static entities, a dialectical view of organizations (Benson 1977) foregrounds the process through which organizational arrangements are produced and maintained. The dialectical view incorporates four principles: social construction/production, totality, contradiction, and praxis. Extending these principles to the analysis of organizational arrangements, any organization is always in a state of becoming. Organizational entities are also continually changing.

According to the dialectical view, people are continuously constructing the social world through their interactions with each other. Social patterns are gradually built and

eventually organizational arrangements – structures – are established. Consequently, as a product of past actions of social construction the relationships between components in any organization are predictable and self-replicating. But these relationships – structures – cannot be considered the same as the causal relationships that determine actions and interactions at individual and group levels.

The principle of totality means that any particular organizational structure is conceived as an element of a larger whole (Benson 1977). Therefore, social phenomena should be studied relationally, with attention to their multiple interconnections. The links between components are neither complete nor coherent. The processes of social construction occur in unique and autonomous contexts that are not always centrally controlled and regulated (Benson 1977). The organization as a whole is characterized by ruptures, breaks, and inconsistencies. Consequently, it is an abstraction (Benson 1977) to see the organization as a coherent, integrated, and functionally adjusted system. Totality includes both newly emerging social arrangements and those already in place (Benson 1977), thus meaning the coexistence of multilevel structures.

In dialectics, contradictions provide a continual source of tensions that may shape the consciousness of organizational members, tending to change the present order. As a consequence, contradiction is the ultimate cause of change and transformation. Contradictions may produce crises, which increase the potential for the reconstruction of organizational arrangements (Benson 1977). Dialectical explanations should reconstruct sequences of events on the basis of historical evidence to investigate the social process through which the relations have been produced and reproduced. A contradiction is the moving force in society and in organizations, not individuals and their aspirations. There is, however, one missing aspect in the dialectical view, because it seems that language and culture are not considered, but organizational arrangements are constructed through actions and interactions and caused by contradictions.

The basic contradiction is between the constructed social world and the ongoing process of social construction (Benson 1977). This notion can be applied to local change and

transformation in organizations. The basic tension is between routines and local improvisations (Demers 2007). The future cannot be predicted through an extension of the present order. The future has many possibilities and its final determination depends on human action (Benson 1977). This leads to the idea of situated and contingent change, and the possibility of unpredictable and unintended outcomes. This view adheres with the assumption of critical realism, wherein a particular configuration does not always bring about certain effects, but tends to do them (Fleetwood 2004). What people actually do when acting and interacting are a combination of pre-existing structures and the creativity of individuals. The whole of action and interaction is characterized by the concept of praxis: “*free and creative reconstruction of social arrangements based on analysis of both the limits and the potentials of present social forms*” (Benson 1977: 5). However, the notion of praxis has various meanings in different theories (Sztompka 1991, Reckwitz 2002).

Benson (1977) maintains that every organization is unique because of the contingencies that affect social construction. This argument is not unproblematic because many structures and institutionalized practices are repeated and imitated in various organizations, such as requirements for accounting, safety practices, and other statutory requirements. Also, many institutional pressures tend to increase conformity in organizations. In any case the present order entails potentiality for the future and the future has many possibilities (Benson 1977) that depend on situationally embedded human agency.

Dialectical principles applied to organizational analysis can be summarized as follows (Seo and Creed 2002). Organizations can be understood as multilevel social arrangements that are produced and reproduced by social interactions. These ongoing multilevel processes produce complex interrelated, often mutually incompatible, organizational arrangements. Such incompatibilities provide a continuous source of tensions within an organization. The ongoing experience of contradictions reshapes the consciousness of agents, and they act to transform the present social arrangements – *praxis*.



The dialectical view presented above can be linked to relational sociology (Emirbayer 1997). For example, individuals or organizations are not posited as a starting point for analysis, but rather, are inseparable from the context in which they are embedded. Relationships are preeminently dynamic, unfolding, ongoing processes, rather than the static ties seen amongst entities or substances (Emirbayer 1997).

The dialectical view on organizations (Benson 1977), by its very nature, emphasizes contradictions and conflicts that are the driving forces in social dynamics. I conclude that this conception of the development in organizations is justified, but on many occasions in organizations the conflicts tend to be resolved in order to maintain consistency within the organization. The dialectical view of organizations (Benson 1977) does not focus on the ontology of society and organizations. The main questions are; what is social reality? What analytical strata exist?

### **2.1.2 Social structure and agency in time**

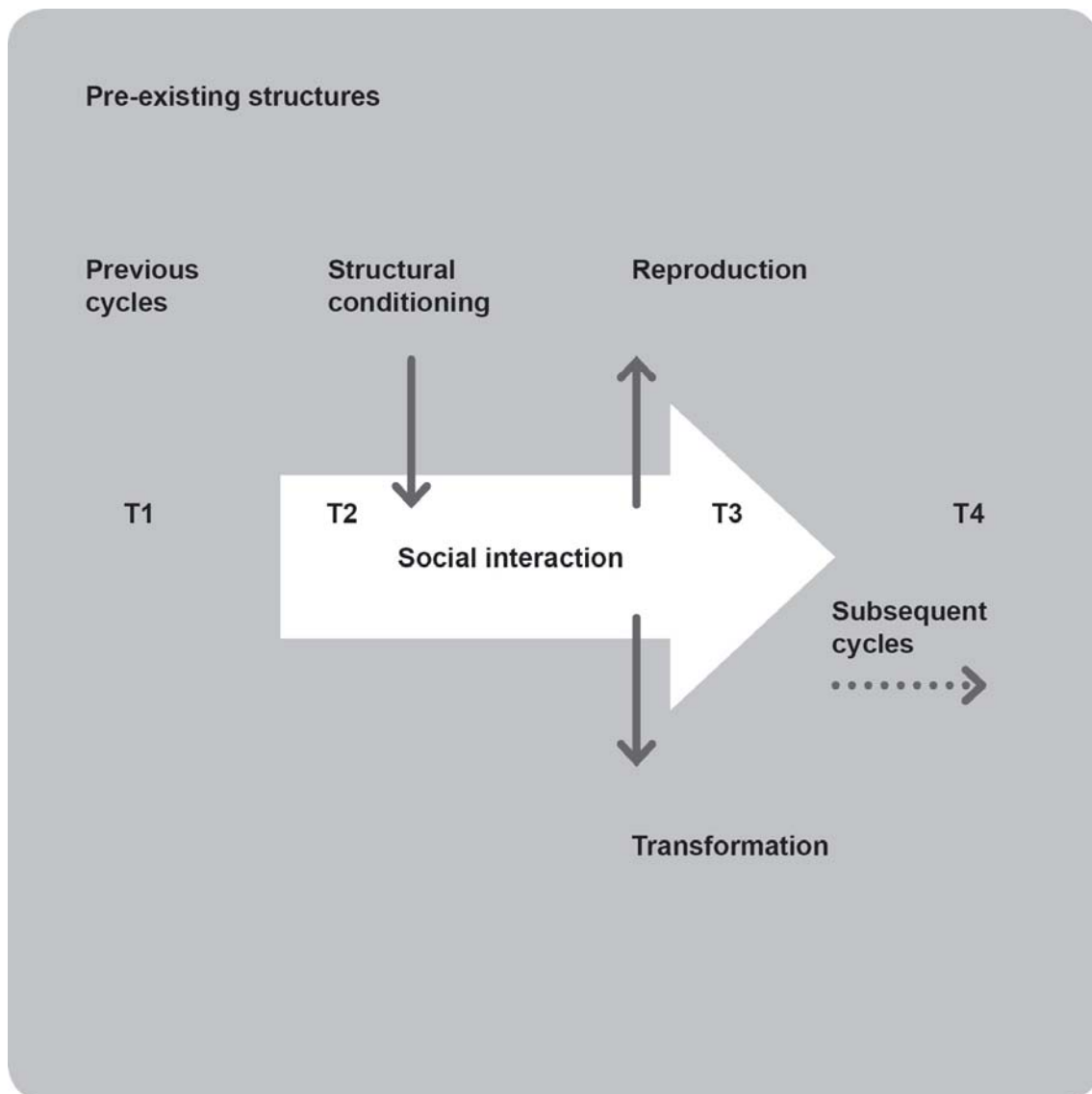
Critical realism assumes that structure and human agency are separable analytical levels, and time is accorded a central place in social theory. The premise *stratification* in critical realism involves three domains of realities: the real, the actual, and the empirical (Archer 1998). The stratified nature of reality introduces a necessary historicity for the explanation of a particular event; meaning that it is conditional on antecedents.

Social structure means simply the pattern of relationships among members of a group or society (Sztompka 1979). Structure is a property of systems that consist of elements that are in relationship with each other. Pattern means a combination of qualities forming consistent or characteristic arrangement of elements. With regard to social systems and their operation structure, this refers to the tendency of social relationships to be reproduced even when actors do not desire their reproduction (Sewell 1992). In this view, structure has a dynamic dimension and causal power as a tendency to reproduce relationships. Structures are not only reproduced, they are also transformed – by agency – and by the creative capacity of people over time. The questions remain that ask how

the transformation over time takes place, and how structure and agency are linked in time.

As stated earlier, agency means, in concise terms, the creative capacity of groups of people. In the morphogenetic approach, agency as a generic term refers to people who are reflective, purposive, and innovative (Archer 1995). Those characteristics of agency are required if social interaction operates as the mechanism producing stability and change (Archer 1995). In this approach, structure and agency are linked in time, (Archer 1995) as follows. Morphogenetic cycle or the transformational model of social action (Archer 1995, 1998, Fleetwood 2005) consists of three phases (Figure 1): structural conditioning, social interaction, and structural elaboration.

At the moment  $T_1$ , the pre-existing structures emerge from a prior cycle constituting structural conditions that govern social interactions (Figure 1). The property of a system at the moment  $T_1$  is the combined consequence of past actions and interactions. The outcomes of past actions have constraining and enabling influence on actors (Archer 1995). Social interaction is conditioned, but not determined, by social structure because agents possess power of change: creative and transformative capacity. Thus social interaction incorporates creativity and innovative responses in the face of contextual constraints.



**Figure 1 Transformational model of social action**

At the moment  $T_2$  (Figure 1) the agents interact with pre-existing structures and the production process starts where the agents act within the framework of structures, or in other words, are enabled and constrained by them. Between  $T_2$  and  $T_3$  pre-existing structures undergo change, which is completed at  $T_4$  where structures are reproduced or transformed. This distinction that structures are either reproduced or transformed can be supplemented. For example, in innovation studies (Van de Ven et al 1989) it has been observed that during the development of innovation setbacks and mistakes are

encountered. However, these unintended outcomes can be interpreted as transformations compared with the system at the moment  $T_1$ .

After  $T_4$ , a new cycle starts (Figure 1). Structural elaboration – modification and changing relationships between parts – is interpreted as unintended consequence. The modification of previous structural properties and the introduction of new ones is the combined product of different outcomes of various social groups acting simultaneously.

The structural condition in a morphogenetic cycle consists of a given structure – a complex set of relations between parts – which conditions, but does not determine social interaction (Figure 1). Social interaction arises both from organization and also from agents, leading to structural elaboration or modification and changing relationships between parts where morphogenesis has taken place (Archer 1995).

With reference to structural and agential transformation, given structures and any given agent have a mutual temporal relationship composed of priority and posteriority that are relative to each other. Archer (1998: 202) suggested that morphogenetic cycles are based on propositions “*that structure predates the actions which transforms it and that structural elaboration necessarily post-dates those actions, provide social realism with a method of explaining social structuring over time in terms of interplay between structure and agency-which can be used to generate practical social theories in particular domains*”.

The morphogenetic approach aims to link structure and agency in time by studying their interaction in time (Archer 1995). This implies that society has no predetermined form or shape. Simultaneously, it is accepted that society is shaped by the actions of agents, and by the intended or unintended consequences of their actions (Archer 1995).

### **2.1.3 Agency and praxis between social structure and action**

The theory of social becoming (Sztompka 1991) assumes that social reality is ultimately composed of events that can be observed in continuity and change, structures and action, and potentiality and actuality. The theory aims to link action with structure, and

continuity with change, by combining the ontological assumptions of the modern theory of agency and of historical sociology (Sztompka 1991).

The assumptions of agential theory can be fused with the assumptions of historical sociology to form six principles (Sztompka 1991). According to first principle, the social world can be viewed on both a systemic and individual level as historical. Second, both individuals and society have to be considered relational structures: society is nexus of changing social relationships. Third, both wholes and individuals have the inherent potentiality for self-transcendence that is actualized in social and individual developments, if there are not any blocking obstacles. Fourth, this actualization or agential capacity adheres to the specific configurations of human collectivities and systemic conditions. Fifth, agents shape history and are shaped by history. Sixth, the operation of a society is not inevitable, but contingent on people: what they do or have done creates the conditions for current deeds, which are embedded in historical tradition.

In the theory of social becoming, the dialectic ontology of the constructed, constructing, and historical world includes the assumptions of structuralism, creativism, processualism, possibilism, and reflexiveness. The model of social becoming (Sztompka 1991) presents a conceptual model of society. The model is rooted within the assumptions mentioned above. The meaning of these concepts is briefly defined as follows (Sztompka 1991).

Structuralism means that the only truly existing objects in a society are human actors and their actions, and that individuals are linked by networks of social interactions and relationships (Sztompka 1991). Social structures can be understood that they do not have a substantive ontological existence, but rather they are attributes of reality. Sztompka (1991: 59) proposed that: “*Social structure is the hidden network of relationships between components of social reality which significantly controls their operation*”. This idea of social structure leaves open the question: if structures are just properties of reality, how does structure control social reality? Nevertheless, Sztompka

gives priority, from an ontological point of view, to human actors and their actions and interactions that are affected by structures.

Creativism presents the image of an individual who reflexively modifies his or her actions and changes her or himself under the impact of realities. This kind of individual is the embodiment of sovereignty in a constrained world. Processualism, as an assumption, means that history consists of only events that are causally interrelated with each other and are sequentially ordered and cumulative in time. In this sense, the present has a genetic relationship with the past, and the present includes traces of past events.

Possibilism concerns the human role in society and history. Possibilism means that individuals act on a field of possibilities that is always subject to change. Furthermore, individuals have a limited, but not inconsiderable, effect on the operation of their societies and, of course, on the organizations in which they act.

Reflexiveness is related to the consciousness of social and historical phenomena on the part of actual participants. Reflexiveness, as an assumption, means that society has a real existence and that social consciousness is causally effective in influencing the course of events and processes. This conception of reflexiveness (Sztompka 1991) concurs with the assumption of critical realism; that both structures and agents have causal powers that affect the actual (Fairclough 2005).

Linking together structure and action, continuity and change, two levels of social reality are distinguished – individuality and totality – and two modes for the existence of social reality, namely potentiality and actuality (Sztompka 1991). This distinction, known as analytical dualism, adheres with the relationist view of the structure agency dilemma (Reed 2003), and the morphogenetic approach to social action (Archer 1995). Inherent tendencies for the future, capacities, and abilities refer to potentiality, whereas actuality refers to processes, transformations, development, conduct, activities, and so on. Structures are treated as potentialities, unfolding in their operation, and agents as potentialities actualizing themselves in action. These separate and distinct levels – structures and agents – are linked creating an intermediate level, agency and praxis.

With regard to society, agency refers to structural circumstances and agential endowment. Agency is limited by the constraints and resources provided by existing structures and by the capacities of societal members and organizational collectivities, groups and social movements. Agency is neither reducible to structures nor to agents or actors.

In the theory of social becoming, praxis is a synthesis of what is going on in a society and what people are doing. It represents the confluence of operating structure and acting agents. Agency is actualized in praxis as a manifestation of ongoing social events, and the link between agency and praxis is covered by the contingent term, eventuation: it is possible but not necessary (Sztompka 1991). Consequently, there is a causal connection between agency and praxis, but praxis and its outcomes are not predictable from agency. To sum up, praxis is the manifestation of ongoing social events, whereas agency refers to the capacity of society to conduct praxis and produce social events. In this way agency is reshaped by praxis.

The notion of becoming captures the idea that there is an incessant oscillation between what is possible and what actually occurs and its temporal extension. Social reality is “*a living socio-individual field in the process of becoming*” (Sztompka 1991: 95). The reality of social becoming is made up of events that are elementary ontological objects bridging all the three dualities: individualities and totalities, persistence and change, potentiality and actuality.

Ongoing social events merge with structural operation and the action of agents influence structures and agents at the later time. As a result, new agency emerges and the potentiality for praxis is changed. When agency is actualized, it is manifested in a new praxis and expresses itself as the fusion of the operation of new structures and the actions of new agents. In turn, new praxis begins an analogical cycle at a later time, and so on.

Sztompka (1991) distinguishes agency and praxis from each other, whereas Emirbayer and Mische (1998) do not separate agency from the dynamics of actions and interactions that are unfolding in emerging situations. In Sztompka's theory of social becoming, the ultimate premise is that human nature moves all. The dialectical view of the organization (Benson 1977) assumes that contradictions move organizational change. The simplest image of human nature, which is assumed to be a necessary prerequisite of all social becoming, consists of creativeness, educability, the need for self-realization (Sztompka 1991), and the potentiality for self-transcendence. These traits of human beings are prerequisites for the dynamics of social becoming and provide the ultimate moving force of both society and organizations.

#### **2.1.4 Three models of continuous change**

Three approaches to continuous change: the dialectical view of organizations (Benson 1977), morphogenetic and critical realist approach (Archer 1995, 1998, Fleetwood 2005), and the theory of social becoming (Sztompka 1991) are summarized in Table 1.

The dialectical approach emphasizes autonomous and emergent change. The morphogenetic approach and social becoming focus on the interplay between structure and action. Social structures constrain and enable actors and agents, but also shape context and structures through their actions. The basic theoretical assumption is that social structure, agency, and process in terms of actions and interactions are separable analytical levels. Existing structural conditions establish the conditions under which any ongoing sequence of social interaction and its organizational outcomes must be explained.

The social world is historical, society and individuals are considered as relational structures, both the social world and individuals have the potential for self-transcendence, agential capacity adheres to a specific configuration of human collectivities, and systemic conditions, agents shape history and are shaped by history. The operation of society is not inevitable but contingent upon what people have done in



the past. Human agency is the ultimate cause of events and provides the dynamics of change and development.

**Table 1 Models of continuous change and moving forces**

	<b>Dialectical view (Benson1977)</b>	<b>Morphogenetic approach (Archer 1995)</b>	<b>Theory of social becoming (Sztompka 1991)</b>
Assumptions and focal problem	Transformation through which organizational arrangements give way to new ones.	Conceptualization to analyze the interplay between structure and agency over time and space.	Theories of historical sociology and agency. Aims to link action with structure and continuity with change.
Ideas about the existence of people and organization	No discrete pre-formed units can be posited as ultimate starting points of analysis.	Critical realism. Analytically separable levels: structure and agency. Stratification: Real, actual and empirical.	<i>Dialectic ontology</i> structuralism, creativism, processualism, possibilism and reflexiveness.
Model and process of change	Social construction: emergent, autonomous processes. Through interactions social patterns are gradually built and eventually institutionalized. Unpredictable and unintended, depending on human action.	Morphogenetic/static cycle with three phases: structural conditioning, social interaction, structural elaboration (morphogenesis, transformation) or structural reproduction (morphostasis)	Agency conditioned by existing structures and by agential capacities for action; agency eventuates as praxis – a synthesis of what is going on and what people are doing. Structures are reshaped by operations; agents are reshaped by their action and agency by praxis.
Moving force for the dynamics	Contradictions provide sources of tension and feed into the social construction process.	Social interaction is conditioned by structures; structure predates action which transforms it.	Three traits of human nature: creativeness, educability and the need for self-realization.
Contribution to this study	Situated and emergent change. Social world is conceived as consisting in dynamic unfolding relations.	Social structures are reproduced and transformed.	Linking structure and action, continuity and change.

These ideas, focusing on the problem of “*identifying key mechanisms of organizational reproduction, elaboration and transformation*” (Reed 2003: 305), provide a basis with which to analyze the dynamics of organizations and local transformations and changes in organizations.

## **2.2 Social structure and action**

The purpose of this section of review is to deepen the notions of structure and agency to elaborate the model of continuous change in terms of social dynamics. First, I review the issues wherein organization can be interpreted as repeated practices, or reproduction, in context. Second, I review the interaction between structure and action. Third, I elaborate the notions of agency and praxis that are critical for understanding of organizational dynamics.

### **2.2.1 Recurrent practices in context**

The orientation labeled determinism favors an explanation in which structures determine actions irrespective of the aspirations of agents and actors (Reed 2003). In terms of the morphogenetic approach, downwards reduction means that agency is subordinate to structure and actors do not shape structures (Archer 1995). Structure is then regarded as unaffected by agency and agency disappears as a distinctive generative mechanism. In other words, there are trans-individual structures that have an effect on individuals and on their actions and interactions. Consequently, in determinism, actions and interactions of people are only epiphenomenon or the emanation of structures (Sztompka 1991).

But existing structures may rather provide resources and facilities for organizational actors (Sztompka 1991) than determine their actions and interactions. Practices – habitual ways to accomplish tasks – provide resources for human actors in organizations, and from this point of view, social and productive practices can be conceived as a set of practices that provide resources for actors. In terms of everyday

language, in my study, practice means the customary, repeated, and systematic performance of tasks, and repeated performance for any particular purpose.

Repeatability is an essential element of social structure. Human social activities are recursive, which means they are continually recreated by social actors when they express themselves as actors. In structuration theory, structure refers to the rules and resources (Giddens 1984:23) that people use when acting and interacting. Structure thus refers to the structural properties which make it possible for similar social practices to exist across various spans of time and space. Structural properties of social systems are both a medium, and an outcome, of the practices they recursively organize. Structure is not a constraint but is both constraining and enabling (Giddens 1984: 25).

Structuration theory links structure with social practices, emphasizing that the basic domain of study of social sciences “*is neither the experience of individual actor nor the existence of any form of societal totality but social practices ordered across space and time*” (Giddens 1984: 2). Poole and Van de Ven (1989) make the distinction between a system and a structure when referring to the theory of structuration. System refers to reproduced relations between actors or collectivities organized as regular social practices. System is the outcome of the application of rules. Therefore organizations can be understood as reproduced relations between actors organized as regular social practices.

The application of structuration theory gives preference to structure in the form of rules and resources. Barley and Tolbert (1997) concluded that actors would rather follow behavioral regularities than change them. This makes comprehensible why institutions and organizations are enduring, and why structures, or in other words, practices, rules, and resources change slowly.

The concept of social structure is one that is most central, but there are different understandings about its meaning. It can refer to patterns of aggregate behavior that are stable over time, to law-like regularities that govern the behavior of social facts, to systems of human relationships among social positions, and to collective rules and

resources that structure behavior (Porpora 1998). The last two meanings have particular significance to my study.

A system of relationships among social positions and people in them may constitute a mechanism that causally affects their action. In turn, the system of relationships is affected by the actions and interactions of people. This system of relationships is not deterministic; actors may respond in creative ways in emerging situations regardless of the interests of their social position (Porpora 1998). Rules and resources that structure behavior refer to the organizing principles behind organization. That conception of structure – organizing principles – refers to cultural structuring.

Structures consist of mutually maintained cultural schemes and sets of resources that enable and constrain social actions. Structures have a tendency to be reproduced in action (Sewell 1992). Cultural schemes can be invisible taken for granted assumptions, but are not forms of behavior resulting in stable and repeated behavior. Structures provide opportunities for actors and structures that are realized as continuously unfolding outcomes of social interactions, which are understood as a matrix of social interaction.

The concept of structure is not unproblematic (Sztompka 1979). For example, structures are “*not patterned social practices that make up social systems but the principles that pattern these practices*” (Sewell 1992: 6). The conception of structure entails the reproduction of patterns of relations even though actors may be aware of patterns and do not want their reproduction (Sewell 1992). The idea of structures can be expanded to the extent proposed by Jelinek and Litterer (1994), whereby even shared cognitions of organizational members constitute a separable unit of analysis, and organizational members share common schemes to interpret data and to guide action. In these cases, such schemes are a kind of structure. If these schemas have causal properties, then ultimately structures can be mental models, besides the rules and resources people use when acting and interacting.

I conclude that an organization can be seen as a process of reproduction within a relatively slowly changing structure. Furthermore, an organization as a social structure means a system of relationships among social positions and people constituting a mechanism that causally affects their action. An organization becomes visible in various situations through actions that are the embodiments of various practices that, in turn, are reproduced. It follows that structures and practices also maintain the consistency of action in organizations.

#### *Practices in context*

From a broader point of view, social order and action can be explained using three types of theories (Reckwitz 2002). The purpose oriented theory of action (Reckwitz 2002) has as its model “*homo economicus*”, and explains action by invoking individual purposes, intentions, and interests. Social order is the outcome of individual interest (Reckwitz 2002). Accordingly, the normative theory of action and its model, “*homo sociologicus*”, explains action by invoking collective norms and values.

Reckwitz (2002) includes practice theories of action as cultural theories. The understanding and explanation of action is based on reconstructing symbolic structures of knowledge that enable and constrain agents to interpret the world according to certain structures. Social order is embedded in collective cognitive and symbolic structures that enable a socially shared way of perceiving the world, and allow agents to act accordingly.

Social practices refer to physical and mental routines (Reckwitz 2002) and to shared routines of behavior; including traditions, norms, and procedures for thinking, acting, the use of objects (Whittington 2006), and includes discourse (Fairclough 2005) as a practice (Reckwitz 2002). To illustrate this intuitively, various meeting practices in an organization can be considered as social practices. For example, in a production plant people may arrange daily and weekly meetings in order to exchange information regarding production plans, incidents that require action, and many other issues. Meetings have social dimension, for example, while taking a cup of coffee and

discussing quite broad issues. These quite informal conversations may convey valuable information about occurrences outside the agenda.

According to practice theory, agents are bodies and minds that carry and conduct social practices. The social world is populated with diverse social practices that agents carry and mediate. A single individual, as a physical and mental agent, acts both as a carrier and performer of practice. As a carrier of practice an agent is neither autonomous nor involuntary. He or she understands the world and uses the skills and knowledge according to the requirements of any particular practice (Reckwitz 2002).

Practice theories postulate that structures change through everyday crises, vagueness, and a lack of knowledge that individuals conducting practices have in various situations. Practice theories (Reckwitz 2002) place the “*social*” in practices that are units of social analysis. Practice is routine behavior consisting of several interconnected elements (Reckwitz 2002), such as physical activities, forms of mental activities, things and how to use them, know-how, sentiments, and motivation.

Practices give a characteristic orderliness to the world of human beings (Reckwitz 2002). Characteristic of the social structure is “routinization” and routines of social practices constitute organizations (Reckwitz 2002). The notion of routine embodies the temporal dimension of structure. Social order is essentially social reproduction and social order can be paralleled by social structure. Practice means repetitive performance in order to attain a “*recurrent, habitual or routinized accomplishment of particular actions*” (Jarzabkowski 2004: 531).

Practice is an ongoing social process and has adaptive characteristics (Jarzabkowski 2004). Changing practice is carried out within the micro-contexts of interaction with the ongoing process of social becoming (Sztompka 1991) and is realized through a chain of social events or practice (Jarzabkowski 2004). Local practice may even generate new practice when people in the context solve problems through social action and interaction (Jarzabkowski 2004).

**Table 2 Structure and practice: contributions to this study**

<b>Selected literature</b>	<b>What structure and practice mean</b>	<b>Contribution to this study</b>
<b>Structure</b>		
(Giddens 1984), (Sztompka 1991)	Structure as rules and resources, as practices, as cultural schemes, and as relationships among groups of people. Organization as reproduction of structures. Structures are self-replicating.	Structures affect actions and interactions but do not determine them.
<b>Practice</b>		
Bourdieu (1977), Reckwitz (2002), Jarzabkowski (2004), Chia and Holt (2006), Chia and McKay (2007)	Practices as physical and mental routines to accomplish tasks, as implicit rules preserved by group memory e.g. Habitual and routinized accomplishment of tasks. No explicit rules are necessary for the existence of practice. Practice can be culturally and historically transmitted through interactions.	Consistency of response in emerging situations. Idea that social practices function as mediating entities between structures, processes and events. Practices have causal efficacy. Human agents carry and perform social practices.

The concept of practice also includes an idea that customary rules preserved by group memory enable individuals or groups of individuals generate practices that adapt to changing situations (Bourdieu 1977). These rules or schemes may engender actions and interaction without ever being constituted as explicit principles. Consequently, it is not necessary to assume any explicit rules and resources for the existence of practices and social structures.

With regard to strategy as practice (Jarzabkowski 2004) and strategy as practical coping (Chia and Holt 2006), the concept of practice is slightly ambiguous. It can refer the actual activity, events, or work, while practices may refer to traditions, norms, rules and routines through which particular work is constructed. Practices on the other hand can also be considered as social skills that people in a particular culture share as a consequence of everyday interactions (Chia and Holt 2006). This entails the idea that practice can be culturally transmitted. Furthermore, the consistencies of actions taken in

various emerging situations can be explained via *opus moderandi*: an internalized disposition to act in a manner that is coherent with past actions (Chia and Holt 2006, Chia and McKay 2007).

Practices can be considered culturally and historically transmitted regularities that can be observed as the patterns of activities actually carried out (Chia and McKay 2007). An issue regarding the link between structures and action emerges from the practice approach. It is claimed that social practices are necessary for critical realism as mediating entities that account for the relationships between structures, processes, and events (Fairclough 2005). Social practices are, however, more or less durable articulations of social elements.

### **2.2.2 Interaction between structure and action**

For arguments sake, I make the distinction between the concepts of behavior and action. Behavior refers a manner of action and is the aggregate of observable responses toward others on particular occasions. Behavior is often performed without any particular awareness and patterns of behavior are stable. The concept of action refers to performances and deeds that are consciously made and which may be characterized by physical or mental activity. Action has implicitly contained the idea of intentionality and henceforth, when using the concept of action, an underlying assumption is the practical inference (Von Wright 1971) to understand and explain action.

The dilemma of structure and action refers to the paradox that people are creators and their actions construct the world, but that the constructed world also constrains them (Sztompka 1991: 16). In the following section, I review and discuss the literature on the interaction between structure and action, accepting that organizations possess mutability, and interaction between structure and action engenders new structures. Because I have postulated that structure and action are separable analytical strata, the link between structure, agency, and action deserves attention. Concerning change and transformation, human agency produces effects by drawing on existing structures and practices that are reproduced or transformed by action. Critical realism aims “at



*explaining social processes and events in the terms of causal powers of structures and human agency and the contingency of their effects” (Fairclough 2005: 923).*

Finally, human beings have the capacity to exercise free will: to have done otherwise, to think and act creatively, to do novel things. This means that social agents also have causal powers because they affect the actual (Fairclough 2005) by actions and interactions. The idea can be extended to cases where emerging and evolving situations require action. It is consistent to assume that human agents and actors draw on existing practices in response to emerging situations, and consequently new practices and structures may emerge.

#### *Institutional properties and normative structures*

Although the interaction between technology and the organization is somewhat beyond the scope of my study, the structurational model of technology (Orlikowski 1992) provides a model of interaction between the institutional properties of the organization and human agents mediated by technology. Furthermore, the model, inspired by the theory of structuration, incorporates the subjective and objective dimensions of social reality. Technology is created and changed by human action and is used by humans to accomplish actions (Orlikowski 1992). Technology is the medium of human action because since it is used by people it mediates their activities. Technology facilitates and constrains human action, for example, by facilitating an accomplishment of particular tasks in a certain manner (Orlikowski 1992). Human agency is needed to use technology and there is always the potential to use technology for something other than its intended use.

The human capacity to exercise free will means that technology can be used in different ways within the limits and potentials of its form. Situated human action is shaped by the organizational context, such as intentions, norms, knowledge, and available resources. When using technology human action reinforces the properties of organizations or transforms them. The implementations of IT systems that have many features and functionalities are often tailored to specifications of a particular organization. Within the

organization people learn various ways to code data or create their own shortcuts to make the use of system more comfortable. Furthermore, people learn to use the system in different ways and somebody who is more familiar with it may become a local support person. Consequently even new roles may emerge within the organization.

From a broader point of view, institutions are normative structures and activities that provide stability and meaning to social behavior (Scott 1998). Institutions can be interpreted as socially constructed templates for action and are generated and maintained through interactions (Barley and Tolbert 1997). The notion of recursiveness and reproduction are integral parts of the interaction between action and institution (Barley and Tolbert 1997). Defining an institution as “*shared rules and typifications that identify categories of social actors and their appropriate activities or relationships*” (Barley and Tolbert 1997) they suggest that it is applicable to various levels of analysis including individuals, groups, and organizations.

Institutions can be treated as a product of, and as a constraint on, human action. Concerning continuous actions and interactions, Barley and Tolbert (1997) used the notion “*observable, recurrent activities and patterns of interaction characteristic of a particular setting*” through which an institution is enacted. With regard to day-to-day interactions Barley and Tolbert (1997) emphasized the concept of behavior and its observable regularities and stability when stating that scripts are viewed as behavioral regularities rather than mental models or plans (Barley and Tolbert 1997).

The sequential model of institutionalizations specifies the relationships between episodes of actions and interactions, and institutional principles (Barley and Tolbert 1997). Changes in technology, economic downturns, and similar events force actors to conceptualize how they must modify structures. The idea of modifying structures seems to exclude free and creative reconstitution of organizational arrangements in response to emerging situations. In the absence of contextual change, actors are likely to behave in a scripted manner without implementing any institutional or organizational change

(Barley and Tolbert 1997). Consequently, the structures seem to determine action and behavior in the context.

Adopting and implementing innovations may result in significant changes of structures, practices, and action in organizations. When developing new ideas and innovations in established organizations, the interaction between action and structure is encountered (Hung 2004). The domain of structures consists of rules and resources. Rules consist of institutional logic that constrains organizational action, whereas rules are not fully coherent and consistent (Hung 2004). Resources consist of the legitimation that gives access to networks of firms and actors in the external context to enable difficult transactions (Hung 2004).

The domain of action in the process of innovation is constituted by the active performance of people. The action is purposive, and actors develop relationships with one another. Furthermore, action is creative and transformative and is defined by an actors' ability to make choices and differences (Hung 2004) embodying the causality of agency.

The innovation as a structuration process (Hung 2004) is constructed by a reciprocal link between structure and action in the technology path model. The dimension of structure represents order and stability and the dimension of action represents disorder and change. In this way structure and action are in a dialectical relationship with each other. Causality is assigned alternatively to structure at a certain moment and then to action at the subsequent moment and so on. With regard to the reciprocal link between structure and action Hung (2004) emphasized rules and resources that make development and continuous action possible. Hung (2004) explicitly draws on structuration theory, institutionalism and resource dependence but implicitly assigns the causality in the process of innovation both to structures and to creative action. This implicit assumption is coherent with the assumptions of critical realism.

In summary, the applications of theory of structuration (Orlikowski 1996, Barley and Tolbert 1997, Hung 2004) give priority to structures, but assign causality to human agents, actors and to agency.

### **2.2.3 Agency and praxis: creative capacity and the whole of action**

A fundamental question is the significance of agency in the interaction between structure and action, and the nature of the forces that drive processes and phenomena. The notion of human agency is not self evident and some clarification of this concept is necessary. Human agency can be considered to be “*habitual, repetitive and taken for granted*” (Emirbayer and Mische 1998: 963) when it refers to experiences from the past.

Giddens (1984) and Archer (1995) consider that agency does not refer to the intentions of people. An important aspect of agency is the capacity to act differently and to make a difference in society. Agency refers to the capacity of agents to act (Sztompka 1991), to be creative, and to utilize the resources and facilities that existing structures provide. Therefore, agency can be interpreted as the capability to act rather than intentionality, although action may have both intended and unintended consequences (Orlikowski 1992).

The idea of agency as creative and transformative potential can be re-conceptualized (Emirbayer 1997, Emirbayer and Mische 1998) so that it is inseparable from the unfolding dynamics of situations including their problematic features. Agency involves different ways of experiencing the world that define the ways in which actors may enter into relationships with persons, places, and events. Agency is a dialogic process by which actors engage with others in collectively organized action contexts, temporal and spatial.

The concept of agency also has other temporal dimensions. When agency is oriented toward the future its goal is to create new opportunities within the context of currently emerging situations (Emirbayer and Mische 1998). Therefore, human agency as a dynamic concept also involves a change in its perspective over time. The definition of

human agency involves the idea that in temporally constructed coalitions of actors - the temporal related contexts of action – actors reproduce and transform structures in interactive response to emerging situations (Emirbayer and Mische 1998: 970-971).

Human agency as a process of social engagement (Emirbayer and Mische 1998) can be divided into three temporal orientations: toward the past – iteration or repetition; toward the future – projectivity; and in the present – practical evaluation. The iterative dimension, or the iterational element, refers to the activation of past patterns of routine thought and action. Routine actions provide stability and order to the social world. The iterative dimension of agency refers to past experiences, repetition, and learning from them.

The projective element refers to the creative production of future trajectories of action when existing structures of thought and action may be reconfigured in relation to actors' expectations for the future (Emirbayer and Mische 1998). The practical evaluative element entails the capacity of actors to make practical judgments when faced with several possible trajectories of action in response to presently emerging situations. The concept of iteration is related to the habitual dimension of action and to recurrent patterns of action. The projective dimension, on the other hand, is related to creativity and the self-realization of individuals, and to providing shape and direction for future possibilities of thought and action.

In the theory of social becoming, (Sztompka 1991) praxis and agency are related in time. Temporally, agency predates praxis in the similar way that structure predates action. Praxis is the eventuation of agency, and praxis describes the whole of human action and is a synthesis of the broader context and individual action. Praxis is comprised of an interconnection between the actions of different individuals and groups and the structures or institutions within which individuals act and contribute (Jarzabkowski et al 2007).

In this regard, one aspect of praxis related to the practice turn in strategy research (Whittington 2006) is worthy of mention. Usually, strategy is something that

organizations have – e.g. growth strategy or competitive strategy (Porter 1980) – for success in their industry. But strategy can also be seen as a practice: strategy is what people really do. Practice has two meanings: practices guide activities, and it is activity itself. Whittington (2006) makes distinction between practice and praxis. Praxis refers to actual activity what people do. The domain of praxis in the context of “strategy praxis” includes the routine and the non-routine; the formal and the informal activities within organization. Without going into great detail, in the context of practice turn in strategy research praxis means all activities, from the creation of a strategy to its implementation. People developing strategy rely on strategy practices, but they are not passive, “*praxis is an artful and improvisatory performance*” (Whittington 2006: 620).

According to the dialectical view, praxis means the creative construction of organizational configurations based on the analysis of constraints and possibilities of current organizational arrangements (Benson 1977). Praxis refers to local and situational actions and interactions among several actors that are enabled and constrained by structural conditions and contradictions, particularly in changing and emerging situations.

The dialectical view of institutional and organizational change (Seo and Creed 2002) consists of the idea that institutional contradictions are moving forces and human praxis is a mechanism that mediates contradictions and change. Praxis as a mediating mechanism means that any change in social structure results in social reconstruction implemented by actors within a specific structure (Seo and Creed 2002). In this case praxis is a mediator and also includes temporal dimension. Praxis consists of three elements: the critical understanding of actors of current circumstances where needs and benefits are not met, the mobilization of actors based on the common understanding of current situations, and the collective action for the reconstruction of new structures (Seo and Creed 2002).

**Table 3 Focal concepts: agency and praxis**

<b>Selected literature</b>	<b>Agency and praxis</b>	<b>Contribution to this study</b>
<b>Agency</b>		
Giddens (1984) Sztompka (1991), Emirbayer and Mische (1998), Archer (1995)	Agency as creative and transformative potential including temporal orientations, capacity to act differently.	Potentiality for action, the capacity of actors to act creatively. Temporal orientations: future, past present
<b>Praxis</b>		
Benson (1977) Sztompka (1991) Seo and Creed (2004) Whittington (2006)	Praxis as the free and creative construction of organizational arrangements. Artful and improvisatory performance	Praxis as eventuation of agency. What people really do and the whole of action. Situated socially accomplished flows of activity. Creative construction of organizational configurations.

In my study, human agency means the potential for action and the capacity of actors to think and act creatively while enabled and constrained by social structures. In the temporal dimension human agents can draw on habitual models of thinking and acting, imagine alternative trajectories of future action, and make practical judgments among many alternative possible trajectories of action in response to emerging situations. In this study praxis is the eventuation of agency. Praxis is what people really do in emerging situations. As a whole of action and interaction, praxis means the situated socially accomplished flow of activity including creative construction of organizational configurations. The outcome of actions and interactions can be either a reproduction or a transformation of structures, practices, learning and so on, and can also lead to unintended outcomes.

### **2.3 Emergence and local transformation**

An organization is not always a reproduction of structures that routinely respond to external stimuli. Organizational transformation can also be emergent and structures may emerge as the outcomes of actions and interactions. Various emerging situations do not follow any prior regularities, and actions and interactions are contingent. Furthermore, I review how an organizational response can be consistent in various emerging situations.

### 2.3.1 Organizational becoming

According to critical realism, structures predate actions and structures have causal properties. An alternative assumption is that all we have are processes and emergent configurations of relations. This starting point leads to process theories and to the concept of organizational becoming, that is, change as ongoing in organizational interaction (Fairclough 2005). Accordingly, the driving assumption behind process thinking is that social reality is not a steady state, but that social reality occurs rather than exists (Pettigrew 1997, Sztompka 1991). The question concerning language systems of being and becoming was raised by Pettigrew (1987) who suggested a contextualist analysis of process and change, implicating primacy to reality as a processual and emergent configuration of relations.

The idea of becoming-realism emphasizes process over fact (Chia 1996) and favors a style of thought whereby movement and change are accentuated. In becoming-realism, reality is in perpetual flux and transformation, and is “*unpresentable through any static conceptual framework or paradigm of thought*” (Chia 1996: 46). The becoming of things, events, and stabilized effects, is given ontological primacy and there are no fixed entities, but transition is the ultimate fact (Chia 1997). Change and novel outcomes are prerequisites for social reality (Chia 1999), and change implicates the existence of organization. Organization “*is not a thing or entity with established patterns but the repetitive activity of ordering and patterning itself*” (Chia 1999: 224). Furthermore, an organization resists change and maintains activities that stabilize the real, allowing purposeful action in response to the many external stimuli requiring attention (Chia 1999).

The metaphysics of change (Chia 1999) recognizes the certainty of an external changing reality, but denies the ability to accurately represent reality using established symbols, concepts, and categories. This idea adheres with the assumption of critical realism, that a world independent of our consciousness exists, but interpretations may be different. Consequently, all representational attempts are forms of human abstraction that create order. Furthermore, Chia (1999) maintains that this reversal has consequences for the



understanding of the fundamental character of organization and change, as well as transformation and renewal.

Organization and change must not be interpreted as complementary concepts but as intrinsically opposing tendencies that create tensions and contradictions (Chia 1999). The conceptualization of organizational change must be created in a way that takes into account the inherent complexities and indeterminacy of the organizational change processes.

Organization is the act of arresting, stabilizing, and simplifying what would otherwise be an irreducible dynamic and complex characteristic of life (Chia 1998). The slow and complex formation of modes of thought, codes of behavior, ethical codes, and so on, help us to act when encountering our environment and when interacting with each other. Organization is an activity involving the historical aggregation of efforts to produce recognizable social objects which are accepted by a particular community. In this sense organization is a world-making activity and organization provides a framework for interpretation of the world.

Organizational becoming is an ongoing juxtaposition of what is possible and what actually occurs in time (Sztompka 1991). What is possible depends not only on the present situation, but also on past developments. The principle of immanence as an axiom used in process metaphysics means that the past is immanent in the present and this implies that each situation always contains the events of the past (Chia 1999). Each organizational outcome incorporates and implicates traces of its past which creates potential and constraints in the future. The present is not the successor of the past, but rather a novel outcome of it.

### *Critical approach*

Organizational becoming can also be interpreted in a way that organization is perceivable only at certain moments in time and space (Clegg et al 2005). Organization, or order, can be seen as an opposing action and movement. Conventionally, the

irrational, emotional, unpredictable, and undefined are organizational pathologies that have to be controlled – organized and even erased. A totally different view sees the world as chaotic and in flux; meaning that our attempt to organize is an intrinsic human activity meant to create order out of disorder, cosmos out of chaos (Clegg et al 2005).

Focusing organizational analysis on local actions and interactions means that organizations can be considered to be “*in a constant state of becoming*” (Clegg et al 2005: 158). Management and managerial action are no longer at the center of analysis, and this new focus introduces a critical stance to the study of organizations. Organization is not only in the intentional actions of individuals, but also arises from the tension between order and disorder (Clegg et al 2005). This repeats the idea that interaction between routines and improvisations produce change (Demers 2007).

Concerning the notion of becoming, the organization as a whole, its sub-units, and groups can achieve things that management – captive in its prejudices – cannot imagine. Organization is between order and disorder. But one question remains: what are stable elements of organization? Is there any identity that would maintain the consistency of movement? Paradoxically, structures are characterized by immanent instability but the organizational processes of deconstruction and reconstruction are stable (Clegg et al 2005).

### *Empirical findings*

Starting from process theory, narrative psychology, and practice approaches to psychology, Carlsen (2006) approached organizational becoming as a dialogic imagination of practice. Selznick (1957) conceptualized the formation of organizational character as a historical and dynamic process closely related to practice (Carlsen 2006). Primary attention has been given to organizational identity as a relatively stable social characteristic, to their differentiating qualities and to forms of individual belonging.

Carlsen (2006) aimed at reviving Selznick’s approach, and to link the authoring of identities to organizational development and at exploring the notion of organizational

becoming as a set of ongoing authoritative acts situated in everyday work (Carlsen 2006). Becoming is a set of ongoing authoring acts situated in everyday work that simultaneously address individual life enrichment and organizational development. Becoming has three dimensions, becoming as a process, becoming as life enrichment, and becoming as the imagination of practice.

Becoming as life enrichment means that human agency is open ended, reflexive, and purposive, and has the generative propensity to seek transformation and meaning (Carlsen 2006). In a specific sense, this means that the power of authoring identities in organizational development may be concentrated on maintaining hope for the future rather than achieving retrospective coherence (Carlsen 2006). Becoming as an imagination of practice means placing the authoring of identities within the experience of everyday work (Carlsen 2006). Usually, identity is an answer to the question – “Who are we?” – but the questions – “What are we doing, or what do we want to do?” – could also be applied in terms of the future trajectories of social practice (Carlsen 2006).

A critical question may be raised: if ontological priority is given to change and process then structures change, continuously emerging and disappearing, and what then is stable. Structure is reduced to action and agency and consequently order and organization are exceptions. Organization is just an island of relatively stable orders in a river of continuous change (Chia 2003). Organization and change are opposing forces and organization is aimed at ordering and routinizing changes through human interactions. This way of thinking tends to conflate structures to agency – upwards reduction (Archer 1995).

In this thinking structures and organizations become epiphenomenal because the social and organizational context consists of people and actions. The principle of immanence means that each situation contains the events of the past, and organizational outcomes incorporate traces of its past. Organization stabilizes reality so that agents can act purposefully in response to emerging situations that require attention. The next question is whether the embodiment of the past maintains a purposeful and consistent response.

The theoretical focus is no longer on organizational features, but on the entities that maintain consistency of action.

### **2.3.2 Emergence of order and situated change**

Change and the process of change can be described as a series of evolving sequences of action and interactions that occur over time and space, changing or sometimes remaining the same in response to the situation or context (Strauss and Corbin 1998). The action may be strategic, taken in response to problematic situations, or may be routine, carried out without much thought. Besides the response to external stimulus, organizational change can be autonomous and emergent. The system level order may also emerge from repeated actions and interactions.

Postmodern thinking is an attempt to focus on the emergence of organization and to examine organizational actions and interactions and the social relationships which give rise to relatively stable configurations that then are assumed to be discrete entities or events. Organizations are seen as a matrix of human actions that creates order from disorder; a question is how some kinds of interactions become recursive and succeed in stabilizing and reproducing themselves to create “*patterned effects such as organizations*” (Chia 1996:53).

Regarding the relationship between structure and action or agency, the reductionist view reduces structure to agency (Reed 2003) so that social practices and emergent structures can be treated as outcomes of individual behavioral dispositions. Behavior is caused by physical or biological factors, and choices of actions are determined by mechanical calculations of individual utility. From the practice theories point of view, this is also an embodiment of purpose oriented theory of action (Reckwitz 2002).

This model is, however, an extreme case to explain the emergence of structures from individual interests. There is not much room in it for social interactions and social construction. When addressing organizational change, I have concluded that practices and networks of social practices constitute organizations. The question is how order and structure may emerge from local actions and interactions. In common language

emergence means *"the appearance of new properties in the course of development that could not have been seen in an earlier stage"* (Webster's 466-467).

With regard the renewal of organizations, innovations provide a continuous source for change and development. Although innovations as creations of new ideas, and including processes of developing and implementing them are beyond the scope of my study, it is worth mentioning that a theoretical contribution of the Minnesota studies (Van de Ven et al 1989) was the idea of an emergent process motor. It specifies the process that drives development and regards this process as either socially constructed or seemingly random (Van de Ven et al 1989). An emergent process motor leaves the development path open, and focuses on the process of social construction and on random events by which development occurs.

The morphogenetic approach and critical realism postulate that structure pre-dates the actions that transform structure (Archer 1995). If the alternative assumption is made that all we have are actions, interactions, and local orchestration of relationships (Chia 1995), then the legitimate focus for organizational analysis is the micro-practices and micro logics of organizations, not the characteristics or traits of organizations.

#### *Coherence and sense making*

The situated change perspective (Orlikowski 1996) begins with the idea that emergent change is *"the realization of a new pattern of organizing in the absence of explicit a priori intentions"* (Orlikowski 1996: 65). In this perspective, the primacy in organizational change is premised with organizing practices. Organizational transformation is an ongoing improvisation whereby organizational actors try to make sense and act coherently. The process of situated change is defined as ongoing local improvisations in response to deliberate and emergent variations in practice. Those variations that are repeated, shared, and sustained can, over time, produce perceptible organizational changes (Orlikowski 1996).

Deliberate or intended change is the realization of a new pattern of organization as was originally intended. Intended, top-down change initiatives tend to lead to both intended

and unintended consequences (Balogun and Johnson 2005). Intended strategic change comes about when management provides a plan for change. It is implemented through social processes of interaction between managers as change recipients and change agents when they try to make sense of change interventions. Emergent outcomes of change implementation arise from the interaction of processes that occur between recipients and senior managers, and from processes between middle managers (Balogun and Johnson 2005).

These social processes may take the form of verbal communications such as documentation and presentations, or may be much more informal communications in the form of storytelling and gossip. The way the plans operate is determined by the new routines created by a change in recipients through their interpretation and response to a change in plans. Emergent outcomes are the result when people try to make sense of designed change goals and interventions through the social processes of interaction.

Even at the population level, the emergence of order may take place as an unintended outcome of the action and repeated interaction of the lower level components of a system (Chiles et al 2004). To explain the development of musical theatres in a certain geographical locale, from a nascent beginning to a prosperous industry, they applied the model of emergent self-organizing: spontaneous fluctuations that initiate a new order, positive feedback that reinforces fluctuations, co-ordinating mechanisms that stabilize the emerging order, and recombinations of existing resources to construct a new order. Systemic order arises from the action and repeated interaction of lower level components without intervention from an upper level or a central controller.

Starting from the premise that change is pervasive, it is not then the property of organization (Tsoukas and Chia 2002), but organization is an emergent property of change. Organizations can be interpreted as a state of becoming because action that is situated within them is creative (Tsoukas and Chia 2002). Organizations are, however, sites within which human action takes place, and organization in the form of structures has an impact on but does not determine human action.

On the other hand, organizational patterns that emerge are based on the outcome of human action. Organizations and organizational phenomena should be treated as processes in which actors interactively make choices about the local conditions by drawing on rules and resources. Organizations, therefore, are more or less stable structures and sites of human action from which organizations emerge through the ongoing agency of organizational actors (Tsoukas and Chia 2002).

To summarize, emergence and situated change assume that no centralized control is needed to explain a systemic level of emergence. Order, structure, and practices emerge from actions and interactions when people try to make sense of the situation and act in a coherent and consistent manner. Variations that are repeated produce, at the least, local transformations. Even strategy can be construed as “*an organized consistency of purposive actions*” (Chia and Holt 2006: 636), or can be perceived as a consistent pattern in a stream of action. Strategies may even emerge as an outcome of spontaneous human action, rather than from careful managerial design.

When the focus is on processual analysis, social categories such as individuals and organizations are no longer considered, thus, phenomena exist at different levels and change at different rates (Mutch et al 2006). The focus is on local transformations, on the emergence of organizations, on micro-practices, and on the micro-logics of management (Chia 1995, Chia 2003). However, people try to act consistently and coherently in organizations when encountering new situations and trying to make sense of them. The question to be addressed here is where does the consistency come from?

### **2.3.3 Organizational character and consistency of response**

Organizational becoming emphasizes change, situationality and the temporal nature of structures in stability and persistence. On the other hand, organizations represent stability regardless of change. Predictability and consistency of actions and interactions are embodiments of stability when encountering various emerging and evolving situations. An answer to the question of the consistency of organizational action can be found in routines, culture, identity, and organizational character.

With regard to organizational culture, Pettigrew (1987) emphasized the meaning of culture as a source of coherence and consistency in organizational life. The dominating beliefs and ideologies provide systems of interpretation for environmental and intra-organizational signals. Practices, on the other hand, provide behavioral, cognitive, procedural, discursive, and physical resources through which multiple actors are able to interact in order to socially accomplish a collective activity.

When explaining the routinized nature of practice, Jarzabkowski (2004) refers to theories of social order, such as structuration (Giddens 1984) and to insights of Bourdieu (1977). In this regard, social order resides both in people's minds and in the habitus, which functions as a form of collective memory (Jarzabkowski 2004). However, such practices also have their adaptive nature leading to the problem of recursiveness (Jarzabkowski 2004).

The concepts of habitus (Bourdieu 1977) as an internalized generative practice, and organizational character (Birnholtz et al 2007) as a genuine property of an organization, provide an approach for the study of the consistency of organizational response. As stated earlier, the interaction between structure and action is related to the recurrent, habitual and routine accomplishments of tasks. Practice also means that social order resides in peoples' minds and in habitus. Through habitus, the structure (that has produced habitus) governs practice (Bourdieu 1977) by a process other than mechanical determinism.

Habitus "*as an acquired system of generative schemes objectively adjusted to the particular conditions in which it is constituted the habitus engenders all the thoughts, all the perceptions, and all the actions consistent with those conditions and no others*" (Bourdieu 1997: 95) tends to reproduce structures so strongly that even improvisation reproduces structures (Sewell 1992). Altogether, habitus is a critical link between structure and agency (Mutch et al 2006).



Strategy can be regarded as a consistency of purposeful action within an organizational context. The focus is then on what strategic actors actually do in practice. Chia and Holt (2006) argued that a practice based view of strategy needs to be re-conceptualized by looking at agency, action and practice and how they interrelate. The practice based research approach to strategy is focused on everyday actions that lead to the formation of organizational strategy rather than relating the formation of strategy to issues of competitive advantage and organizational performance.

Strategy can be construed as “*an organized consistency of purposive actions*” (Chia and Holt 2006: 636). In any case, strategy can be perceived as a consistent pattern in a stream of action, and strategies may emerge as an outcome of spontaneous human action. The so-called practice turn puts relationality – action, interaction and habituation – at the center of the analysis. Habitus (Bourdieu 1977) can be considered as immanent strategy emphasizing the relational and dispositional character of social practices (Chia and Holt 2006).

Habitus enables actors to cope with changing situations so that their actions appear to be sensible within a specific context. With regard to habitus and strategy as practice, Chia and Holt (2006) concluded that strategy in action takes place without the need for strategic intent or an overall strategic plan. Strategy is immanent in practical coping because the dispositional character of human behavior ensures the consistency of action.

From the social practices point of view, everyday strategic practices are discernible actions arising from habituated tendencies rather than from deliberate goal-setting initiatives (Chia and McKay 2007). Consequently, the internalized practices or schemata of action or habitus (Bourdieu 1977) are the real authors of everyday coping action (Chia and McKay 2007). Somewhat inconsistently, intentionality is not a prerequisite for the creation of strategy; it may emerge as a consequence of the inherent predisposition of an actor to respond to external circumstances in a manner that can be retrospectively recognized as consistent (Chia and McKay 2007). This view focuses on the transmission of practice rather than agency as the center of analysis.

Concerning a practice centered approach to organizations, there is a theoretical dilemma regarding (Chia and McKay 2007) the way an individual is viewed in the strategic process. Is the self-containing, self-motivating human agent the author of strategic change or is change brought about by historically shaped dispositions internalized by actors? In terms of this study; is organizational change the outcome of individual free will or do trans-individual practices determine what is actually done in organizations?

### *Organizational character*

With regard to the genuine property of an organization and its enduring characteristics, Selznick (1953) introduced the notion of character. The essence is that organizations, like individuals, strive for a unified pattern of response when encountering unanticipated occurrences. This unity will define the general attitudes of personnel to specific problems that arise.

Regarding individuals or entities, character means a wholeness of features and traits that distinguish an individual or entity from others. Character also means visible and salient action and enduring qualities. Somehow intuitive organizational character manifests itself in the way that an organization is disposed to change and to emerging situations.

*“Perhaps the most obvious indicator of organizational character as a palpable reality is the abandonment of old organizations and the creation of new ones when changes in general orientation seem required” (Selznick 1957: 41)*

The question is “How does an organization act and behave when something occurs or is anticipated to occur?” Consequently, an analogy to the character of individuals would be useful (Selznick 1957), but this is not often used in organizational studies.

Rather, organizations can be seen as interpretive systems (Daft and Weick 2001) when they react to changes in their environment (Meyer 1982, Dutton and Dukerich 1991, Fox-Wolfgramm et al 1998). Culture entails internal models (e.g. patterns, exemplars) molded during the development of an organization. Culture means short regularities in the behavior of members of a society, whereas identity is related to the mission of the

organization. Identity is an inter-subjective structure that answers the question “*Who we are?*” (Hämäläinen 2007). Character means deep and intrinsic aspects of action when the states of affairs are disturbed (Selznick 1957). Culture, identity, and character are three entities in which organization and human agents, and their consciousness about context and situation and how to act, are intertwined. They also contain traces of an organization’s past.

The concept of organizational character has been used to explain the reproduction of an organization after a period of dormancy (Birnholtz et al 2007). During dormancy there are no routines and practices that are repeated. Only the physical facilities remain, and the experiences of actors from previous seasons. These authors proposed that organizational character, consisting of an ensemble of action dispositions, is consistent, persistent and necessary for seasonal regeneration (Birnholtz et al 2007) of an organization. They revived the view advanced by Selznick (1957) that organizations have a property similar to individuals: character. At both the individual and organizational level the concept of character focuses attention on how actions are generated by a coherent set of dispositions that are recognized as the same by those who are familiar with the organization.

The term action dispositions capture the notions of traits, habits and skills (Birnholtz et al 2007). Action dispositions, as well as individual roles in organizational routines are retained in individuals as procedural memory. The procedural memory of participating actors contributes to collective action dispositions, such as routines and practices. This is the basis that leads to the notion that organizational character is a genuine property of an organization (Birnholtz et al 2007).

In their discussion concerning the overlapping notions of character, organizational identity, and organizational culture, Birnholtz et al (2007) proposed that the concept of organizational character suggests powerful transmission mechanisms rooted in human habits and procedural memory that link organizational culture and identity (Birnholtz et

al 2007). However, there still remains the question concerning the relationships between concepts of organizational culture, identity, and character.

The literature suggests that the consistency of organizational response to emerging situations can be summed up as follows. Critical realism postulates that social practices function as mediating entities between structures, processes, and events. Organizational structures and practices, by their very nature, tend to maintain stability of organizational response. In emerging and evolving situations, actions that are otherwise not necessary are often required. Based on the literature review, I postulate that the response to emerging situations is mediated by character and habitus. Consequently, responses tend to be patterned, repeated, and recognized as the same. This kind of response is habitual supported, but not determined by an internalized schema of action – habitus – and on an organizational level, by a consistent and persistent ensemble of action dispositions – character.

Both habitus and character incorporate traces of an organization's past in the minds of agents and actors, and are predisposed to act and interact in a habitual way. The concept of organizational character supplements the transformational model of social action and the model of social becoming. However, in many situations new practices emerge, are repeated, and produce local transformations. This means that local actions and interactions may include a creative element based on the creative capacity of agents and resulting in transformational modes of action and interaction.

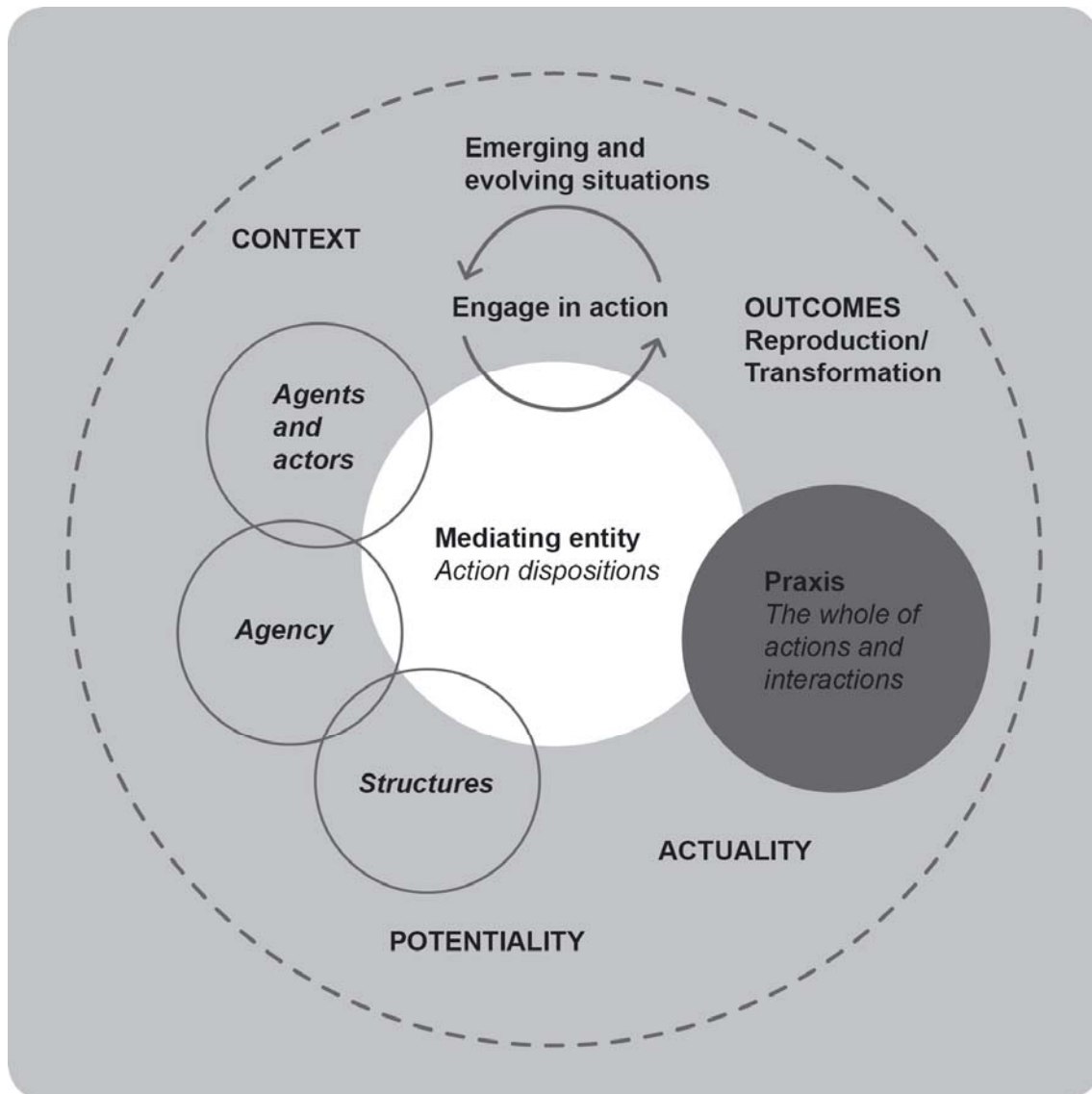
## **2.4 Change as practical and social performance**

In this section I summarize the ideas of continuous change drawing on the ideas of critical realism, on the theory of social becoming, and settle on the view that local transformation is practical and social performance. Finally, I present my research questions.

### **2.4.1 Ontological considerations**

I have assumed that organizations are “social systems are irreducible to other types of systems because they are made up of human beings who are purposeful and reflexive, and who make history as well are constrained by it” (Demers 2007). The dialectical view on organizations (Benson 1977), and related views (Tsoukas and Chia 2002), emphasize that the social world is in a state of becoming. Organizations are only temporary states of order in the flow of events. On the other hand, critical realism postulates that the world has structure that predates action. The engagement of people with structures is transformational (Ackroyd 2004). Drawing on the assumptions of critical realism (Archer 1995, Archer et al 1998, Fairclough 2005, Ackroyd 2004, Fleetwood 2004, 2005), and on the closely related theory of social becoming (Sztompka 1979, 1991), and on practice theories (Reckwitz 2002), I conclude that local transformation can be considered as practical and social performance.

Figure 2 summarizes the focal concepts of my study. An organization and organizational change are intertwined but for analytical purposes the organizational existence is divided into two modes: potentiality and actuality. I have approached the concept of organization by considering it as a social structure that is a network of persistent and regular relationships between components of social reality (Sztompka 1991). Following the ideas of the theory of social becoming (Sztompka 1991), I have divided potentiality into three separable analytical levels: structures, human agents, and human agency. With regard to potentiality, each organizational outcome incorporates and implicates traces of its past – immanence (Chia 1999) – which both creates future potentialities and constrains them



**Figure 2 Change as practical and social performance**

.I postulate that the structure of an organization has no substantive existence, but it is socially real because it has an effect on the action and behavior of human agents. Organizational structures consist of social and productive practices and relations between individual actors. Practices provide cognitive and physical resources through which actors are able to interact and accomplish collective activity (Jarzabkowski et al 2007). Structures as networks of relationships and practices constitute conditions that

both constrain and enable actions and interactions. The fundamental character of an organization is that it sustains continuity and repeatability. An organization can be regarded as a network of social practices (Fairclough 2005) and it exists through the practices and relationships of human actors (Fuchs 2003). To be more specific, my interpretation is that organizations can be considered as networks of iterative social practices – routines – in a particular context. Practice means repetitive performance in order to attain “*recurrent, habitual or routinized accomplishment of particular actions*” (Jarzabkowski 2004: 531).

Concerning human agents and actors (Figure 2), human individuals are real and tangible elements of potentiality. I postulate that human agents both maintain the continuation of operations, and have the capacity to change the states of affairs. Agents are bodies and minds that carry and perform social practices (Reckwitz 2002) that maintain stability and order. The necessary prerequisites of the dynamics of organizations consist of creativity, learning potential, and the need for self-realization (Sztompka 1991). Furthermore, human beings have the capacity to exercise free will within the limits of pre-existing structures: to have done otherwise, to think and act creatively, and to do novel things. Accordingly, social agents and actors also have causal powers that affect the actual (Fairclough 2005).

The third element of potentiality is human agency. This means that social structures emerge and are differentiated through social action and interaction, thereby implying collective creative and transformational tendencies. Human agency cannot be reduced to individual activity. Human agency entails creative and transformative potential (Reed 2003) and can be situated in time informed by the past – iteration; oriented toward the future – projection; and toward the present – practical evaluation (Emirbayer and Mische 1998).

Agency, when informed by the past, or iteration, is related to the concept of practice and habitus. It has been proposed that social practices are mediating entities that explain the relationship between structures, processes and events (Fairclough 2005). Furthermore,

habitus as an acquired system of generative schemes engenders all the actions consistent with a particular situation and conditions, implying that even improvisation repeats structures (Sewell 1992), and habitus is also a link between structure and agency (Mutch et al 2006: 613). Taken together, habitus as it relates to practices and organizational character (Birnholtz et al 2007), links social structure, agency, and processes.

The second mode of organizational existence, actuality (Figure 2), focuses on actions, interactions, and on the local orchestration of relationships (Chia 1995). I assume that actions and interactions are observable entities, although they also have no substantive existence. Actions and interactions occur in a broader context including, among others, varying environments, technology, emerging situations, and contingencies. In the context of events, people act within structures, practices, actions, and interactions to shape structures. All this is related to the second mode of organizational existence: actuality whereby potentiality unfolds as praxis (Sztompka 1991): situated socially accomplished flows of activity and creative reconstruction of organizational configurations.

Various emerging situations and contingencies are related to actions and interactions in the context. Praxis entails both what is going on in an organization – practices – and what people actually do in emerging situations resulting in either reproduction or in the transformation of the organization. On the basis of the literature review the dispositional character of human behavior – habitus – and at an organizational level – character – ensure consistent responses to emerging situations and the reproduction of an organization.

When structural conditions are supportive, the transformative potentialities actualize in a lasting form (Reed 2003). From this perspective, local organizational change is premised by local actions and interactions. Organizations are transformed by creative responses to emerging situations, and organizational transformation includes the ongoing involvement of actors in different structural environments in interactive responses created by emerging situations.



The outcomes of creative responses can be divided as follows. New practices become stabilized by temporarily transforming organizational configurations into networks of practices: the modification of pre-existing configurations and the emergence of new ones (Figure 2). Sometimes these outcomes can be the unintended consequences of actions and interactions.

The entrenchment of new practices and routines means that structures are in flux, and if new practices become internalized habitus is altered accordingly. This kind of change is historical, cumulative, incremental, and continuous (Sztompka 1991, Demers 2007). The second type of change is realized when, due to the outcome of actions and interactions, people change their ways of action; that is they learn by experience. Hence, changed structures, including practices and changed human agency, result in the emergence of modified praxis (Sztompka 1991). The process of change is, by its very nature, recursive. Structures and system level orders may arise from repeated local actions and interactions without external intervention.

#### **2.4.2 Model of local transformations and research questions**

I started to study the literature on social dynamics to answer two general questions:

*“How do organizations change and renew themselves continuously?”*

*“What properties of organizations maintain the consistency of actions and interactions in emerging situations?”*

The literature on social dynamics is still less convergent (Demers 2007) than many other perspectives on organizational change and transformation. Related to the practice centered approach and relational approach the following dilemma concerning structure, agency, and action has been discussed in the literature.

With regard to organizational change, the notion agency becomes problematic if primacy is given to structures that tend to be reproduced. Consequently, organizational change becomes problematic because change is then a rare occurrence although, on the other hand, change is immanent everywhere. The notion of structure becomes

problematic if primacy is given to action. In that case the observed consistencies and regularities in patterns of actions in various situations need explanation. Consequently, consistencies have to be explained by invoking culturally and historically mediated action dispositions – various social practices – that possess structural properties.

An alternative way to understand organizational change and transformation is based on the assumption that agency, action, and structure are separable analytical strata. Both structure and agency possess causal powers of their own and organizational outcomes are results of actions and interactions constrained and enabled by pre-existing structures.

Table 4 and Figure 3 sum up the main concepts and contributions of the selected literature, focusing on social dynamics and local transformation – change in the organization.

**Table 4 Dynamics of change: synthesis**

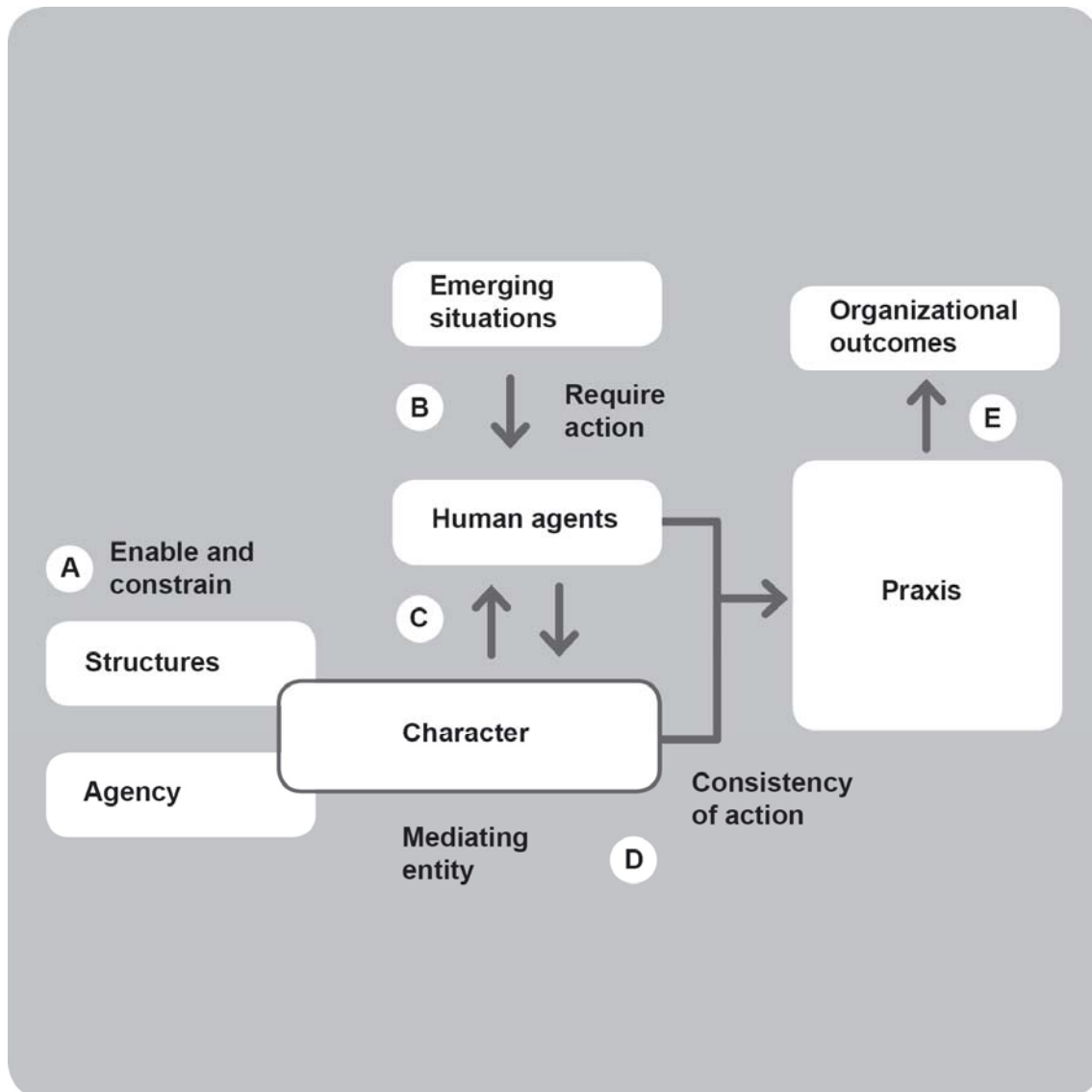
Relation	Type of influence	Nature of influence
A	Organization and social structure (structuring properties)	Enable and constrain human action by providing facilities and resources, repetitive activity of ordering and patterning itself. Network of persistent and regular relationships between components of social reality which controls their operation. (Archer 1995, Sztopmka 1991, Sewell 1992, Giddens 1984)
B	Emerging and evolving situations as sources of variation	Contextual elements, such as events, contingencies, development of technology, etc so that new and different actions become necessary.
C	Mediating entity as a product of past actions Habitus and character	History rooted in organizational character and habitus. Principle of immanence: organizational outcome incorporates traces of its past and social order residing in people's minds and in acquired system of generative schemes. Link between structure, action, and agency generating action.
D	Mediating entity that generates consistency of action	Mediating entity as ensemble of action dispositions and as internalized practices (schemata) that engender the actions consistent with particular conditions including strive for unified pattern of response when encountering unanticipated occurrences. (Bourdieu 1977, Chia and McKay 2007, Selznick 1957, Birnholtz et al 2007)

Relation	Type of influence	Nature of influence
E	Organizational consequences of local actions and interactions	Praxis is what people really do in emerging situations. As a whole of action and interaction, praxis means situated socially accomplished flow of activity including creative construction of organizational configurations. Praxis results in reproduction, local transformation or unintended outcomes. (Benson 1977, Sztompka 1991, Seo and Creed 2002)

The model of local transformation comprises the following components: Organizations consist of a social structure that has structuring properties; human agents as actors that accomplish social and productive practices; a postulated mediating entity maintaining the consistency of action; the emerging and evolving situations that human agents have to cope with; and of praxis – what people really do in emerging situations.

The following discussion of the recursive model of local transformation refers to the relationships depicted in Figure 3.

- A. Structures enable and constrain. An organization exists through its reproduction over time enabling and constraining human action but also providing resources and facilities for human agents as organizational actors.
- B. Emerging and evolving situations make new and different actions necessary.
- C. A mediating entity (character and habitus) – ensembles of action dispositions and internalized practices – are the product of history and are outcomes of human action and interaction that incorporate traces of past organization.
- D. A mediating entity (character and habitus) as ensembles of action dispositions and internalized practices – schemata of action – engender consistency of action in various emerging and evolving situations
- E. Organizational consequences transformations and reproduction are outcomes of praxis – situated socially accomplished flows of actions and interactions.



**Figure 3 Model of local transformations**

In the morphogenetic model of change (Archer 1995), structure predates action that changes structure. But the questions are: how does structure really impinge on agents? And how do they react in order to reproduce or transform structure? (Archer 1995). The literature, inspired by critical realism, assumes the existence of an agency mediator (Archer 1995) or a mediating entity (Fairclough 2005) that links structure, agency, and

processes. Furthermore, the mediating entity is related to practice, habitus and organizational character (Chia and Holt 2006, Chia and McKay 2007, Bourdieu 1977, Birnholtz et al 2007). With regard to local transformations, the question of how agency and consistency of actions taken in emerging situations are related still remains.

The focus of my study is to empirically contribute to the concept of organizational character in the model of local transformations (Figure 3). Organizational character is an assembly of action dispositions, which consist of internalized practices. In the organizational change literature there are only few references to organizational character (Wright 1968, Banerjee 2003, Gustavsson 2003, Srinivasan 2003) and few studies that empirically contribute to the concept of organizational character (Birnholtz et al 2007).

Thus, the research question and related sub-questions for this study are the following:

1. How is change constructed within local actions and interactions of an organization?
  - 1.1 What kind of strategies for actions and interactions are related to emerging situations in context?
  - 1.2 What kinds of properties of the mediating entity – organizational character – maintain the continuity of an organization?
  - 1.3 What kind of transformative and creative elements are related to the mediating entity?

The first sub-question concerns what really is going on in an organization when human agents encounter emerging situations, and in what actions and interactions do they engage. The second sub-question focuses on the consistency of action in emerging situations. The third sub-question concerns the link between structure and agency.

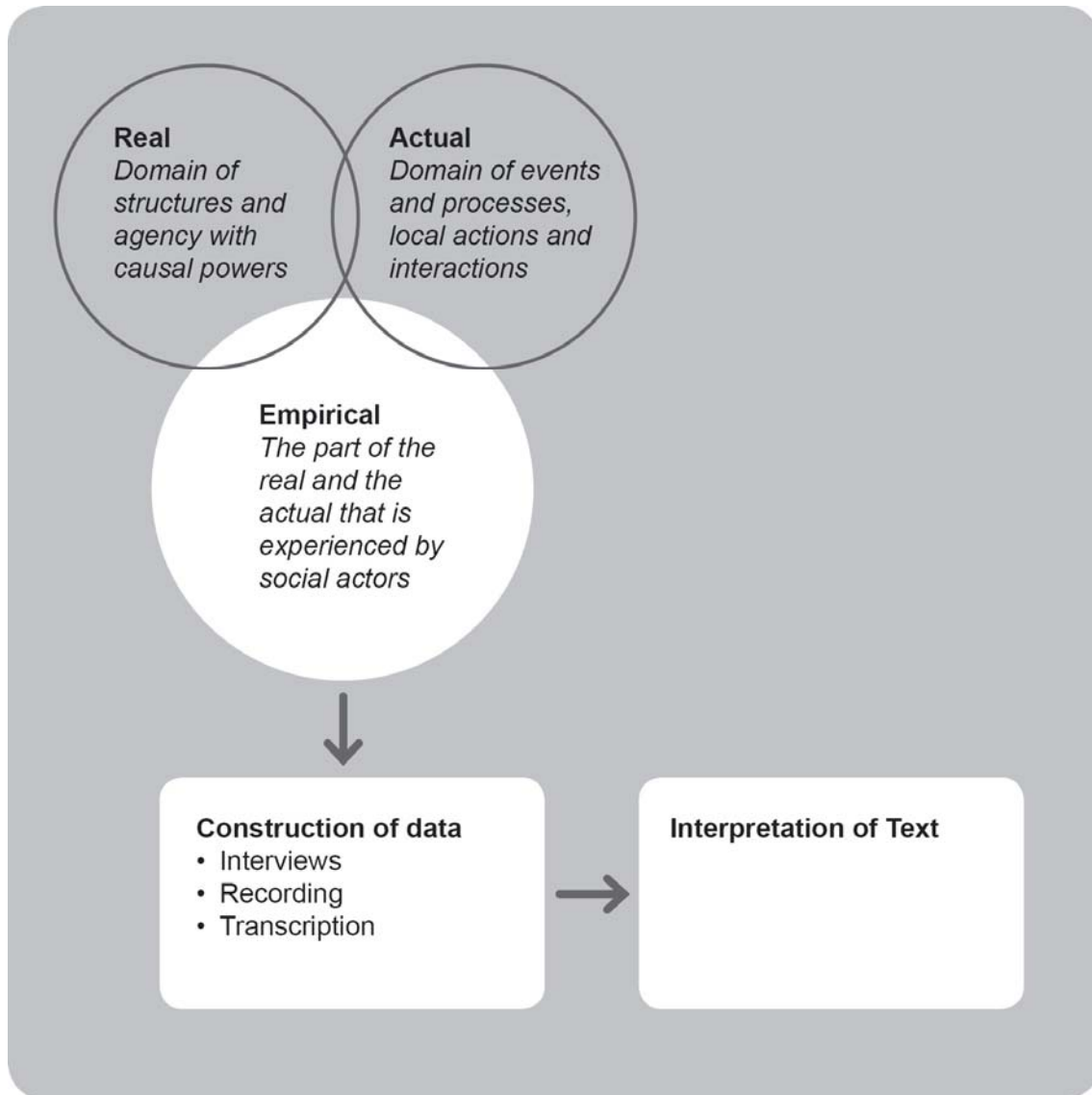
#### *Change as practical and social performance*

I address these questions by adopting a view that organizational change as a social process is created by human agents through their actions and interactions. Social and organizational life is a process of structural emergence through actions that both

reproduce and transform pre-existing structures. Moving forces are the interplay between actions, structures, and human agency: creative and transformative potential and capacity. Individuals as actors and agents are creative, able to learn, and are self-realizing. Action occurs in the context of structures, which in turn, shapes action. Time and history are at the center of the analysis, and events and such chronologies are the building blocks of theory.

Figure 4 presents my research process. Following the ideas of critical realism, processes, events, and structures are different strata of social reality and each have different properties (Fairclough 2005). The real refers to the domain of structures and agency with associated causal powers; the actual refers to the domain of events and processes, and the empirical is the part of the real and the actual that is experienced by social actors. The actual does not, in any simple way, reflect the real. Human agency produces effects through drawing on existing structures and practices that are transformed or reproduced in action (Fairclough 2005, Archer 1995, Reed 2003). Both structures and human agency affect on processes and events, but their effects are contingent and contextual.

The analysis of events related to contingencies and emerging situations provide the material to study local actions and interactions, effects of structure and agency, and consequently, organizational transformation at a local level. A question still remains. What can we know about the reality? In this regard, how can the research process convey knowledge from reality or from the domain of structures and agency with their causal powers? Even the experiences of social actors and their intersubjective conception of events and occurrences can be deficiently constructed.



**Figure 4 Summary of research process**

The researcher has to interpret data and several interpretations are possible based on the constructed data. Access to the world is mediated by subjective beliefs or intersubjective conceptual resources such as accepted theories or social norms (Fleetwood 2005). These considerations have methodological consequences that are discussed in the following chapter.

### 3 Context of the study and research approach

*In this chapter I present the organizational context of my study and I briefly review the development of the context. The research approach is discussed, based on the assumptions of critical realism. Thereafter, I present the focal elements of the research process: construction of data, and interpretation of the text. Finally I shed light on the analytical approach to my data.*

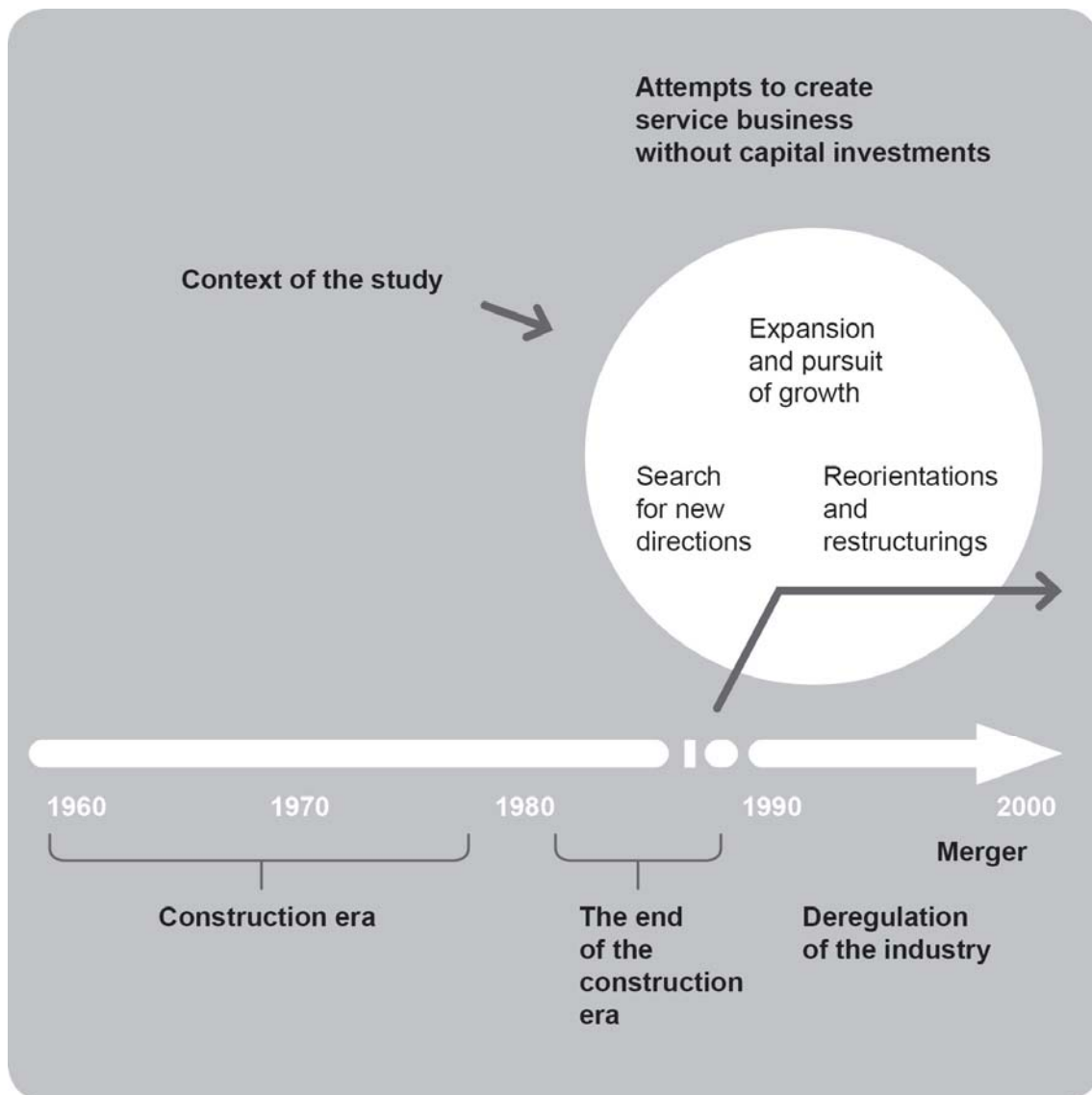
#### 3.1 Context of the study

The unit of analysis of my study is the local actions and interactions within several sub-units of a large power and heat generating company with which I am familiar. The period under investigation starts from the end of the construction era during 1980. Several companies may own power plants, transmission lines, and distribution systems. The electricity power generation, transmission, and distribution systems are closely related to each other regardless of the ownership of the system components. From a technical point of view the operation of the system has to be coordinated in order to maintain the required voltage levels and frequency of the system. The need for coordination and cooperation between companies with regard to technical questions distinguishes the power generating industry from many other industries. These structural properties are global and the life cycle of investments is considerable (Joskow 1999). The requirements for reliable system operation are high: the systems must be kept running without interruptions.

A characteristic of the power generation industry during 20<sup>th</sup> century in Nordic countries was the construction of transmission lines and power plants until the 1980s (Auer and Teerimäki 1982, Gradin 1984, Vasala 1991). In the context of my study the construction era came to an end at the beginning of 1980s. At this time, all large power plants had been successfully taken into commercial operation in Finland and the construction of the high voltage transmission grid had been completed. The number of large construction projects was considerably reduced during 1980s and it became necessary to mobilize the released resources for other tasks in the context of my study.



The organization that has been focused upon, the construction and effective use of durable power generation assets, provides an opportunity to study how practices as outcomes of long historical development enable and constrain actions and interactions in various emerging situations. The time line of the context of this study is presented in Figure 5.



**Figure 5 The context of the study**

Within the organizational context I identified an established business unit that provides maintenance services for various industries, henceforth referred to as *Alpha*. The origin of this unit dates to 1988, when the firm's management made a decision to expand its maintenance business by a joint venture with other industries. After several stages of development, Alpha had established its position and growth was expected into the future. The origin of one of the focal sub-units, *Zeta*, engaged in the operation of management services for power plants, began in the 1990s and has experienced first strong growth and later reduction abroad, and there have been ongoing attempts to grow abroad.

The former research and development unit, referred to as *Gamma* came about during the 1980s and was an attempt to transform a research and testing laboratory into a product development organization. After several development stages, Gamma was dismantled, devolved and partly amalgamated into business sub-units by the end of 2001. The unit *Delta* was the embodiment of competency in design and engineering in any power company. Their focus was primarily on design and construction, and later on the maintenance of power transmission lines, substations, and communication systems. Delta was broken up during strategic reorientations of the broader organizational context during 2001.

The development of *Beta* started to take shape in 1997. The basic idea was to develop a new business model to aggregate services. After several development stages, Beta faded by 2001 without tangible results.

Within the context of my study *Epsilon Alpha* and *Epsilon Gamma*, condition monitoring and condition management of equipments represent attempts to establish new business activities that are based on the expertise of critical components of production processes. Epsilon Gamma emerged in the 1980s, and Epsilon Alpha emerged in the 1990s. They have progressively developed into small businesses with expected future growth.

**Table 5 Central Subjects**

<b>Subject</b>	<b>Characteristics</b>
Alpha	<i>Various services for industry and power generation plants, development of new business: Maintenance services: Emergence of Epsilon Alpha</i>
Delta	<i>Design, construction and maintenance of power transmission lines and substations: Design and engineering competencies</i>
Gamma	<i>Research and development activity, attempts to sell expertise, transformation of core purpose, stagnation and devolvement</i>
Zeta	<i>Operations management, growth, decline</i>
Beta	<i>An idea to develop aggregate services</i>
Epsilon Alpha	<i>Condition monitoring and management: Emergence and evolution of an idea</i>
Epsilon Gamma	<i>Condition monitoring: Evolution and transformation. Persistence of an idea.</i>

Table 5 summarizes the main characteristics of the “subjects” of this study. All of the subjects represent attempts to create a service business without capital investments that was divergent from the ongoing operations of the organization, that is, based on specific investments in power and heat generation. The most far-reaching emerging situations, and the major strategies to cope with them are briefly summarized as follows.

*The end of construction era: search for new directions.* During the end of the construction era, three organizational entities; Gamma, Alpha and Delta, utilized different strategies to cope with a new situation in context. The first strategy was internal change related to goal and mission transformation; the second represents the trade of excess resources; and the third represents the redirection of design and engineering competencies.

*Deregulation: pursuit of growth.* The effect of the deregulation of electrical power generation and sales was manifested in the organizational context as the incorporation of functions and as various efforts to expand into external markets in response to evolving situations. This time period saw the ends of the intervention from a corporate owner.

*Merger: reorientations and restructurings.* A dramatic change of the organizational context occurred when the owner of the company intervened in the development of two companies and made a decision concerning the merger of the two firms. As a consequence of the merger, a series of reorganizations occurred and financial performance and operational efficiency were emphasized to an even greater extent than they had in the past.

## **3.2 Research approach and methods**

Starting from the assumptions of critical realism the objective of this section is to discuss the research approach in general, and the applicability of qualitative methods in particular. The interpretive approach is based both on existing material, such as annual reports, brochures, and memos, and on empirical material that has been obtained through interviews.

### **3.2.1 Assumptions of critical realism**

I have concluded that people and their actions constitute the basic elements of organization. An organization consists of distinct structures and emergent relations linking individuals, whereas structures are outcomes of social interaction. Therefore, I accept that reality – the conception of change in organization – in this study is an output of social and cognitive processes (Eriksson and Kovalainen 2008).

The idea of critical realism reflects that the developments of social reality, such as changes in organizations, are considered through causal mechanisms or tendencies that operate in particular contexts (Ackroyd 2004). Mechanisms under study become visible through the actions and interactions of individuals and groups in their contexts. This approach coheres with the questions of my study. The second issue relates to the extent to which these groups reproduce and transform the wholes in which they act. The focal challenge concerning the actions and interactions in organizations is to identify the tendencies or dispositions to act in some direction; tendencies do not relate to outcomes but to inherent forces or habits (Fleetwood 2004).

The assumptions of critical realism have some consequences concerning research methods and practices. Generally speaking, individuals and groups have, in the social field, the power and capacity to do otherwise, and they cause processes that can be observed as events. Social wholes cannot be reduced to individuals that are isolated from each other; rather they have emergent properties that become visible in actions and interactions. These properties and causal mechanisms are not directly observable, but they can be identified through careful investigation guided by theory (Ackroyd 2004).

There are two sides to a research method: conceptualization based on theory, and empirical investigation. Empirical research can be seen, on the one hand, as theory testing, but on the other, as theory elaboration, and the development of knowledge through scientific research is conceptually driven.

With reference to the whole research process, theory is necessary for the conceptualization of the study. But the findings from empirical data are independent of theory, at least to some extent. Over a period of time, I adopted an approach that allows the use of existing theory and concepts to guide research (Strauss and Corbin 1998, Creswell 1998), and the interpretation of data. In principle, direct observations concerning human action in response to emerging situations would be an ideal source of data, and consequently qualitative data relating to situations is valuable. For the study of generative mechanisms the data should not be isolated, but must be analyzed in its context.

The research approach based on critical realism does not privilege any type of data, because the mechanisms generating events and processes may reside in structures, practices, in the creative capacity of individuals, or in a combination of these. Furthermore, the study is, by its nature, interpretive and creative. There is no procedure or routine that would guarantee that a better understanding of the causes of events would arise from data collection (Ackroyd 2004). The use of qualitative methods is well grounded in many cases, but the data itself is not sufficient, rather is the meaning in data that describes generating mechanisms.

The whole research process is iterative and continuously moves forward. In a broader view, a model of organizational change is not the ultimate goal, but only a step in the development of knowledge. The critique of existing organization and management studies is a legitimate goal of study, and the managerial point of view is not the only starting point for research. Based on the aforesaid points of view, qualitative methods are appropriate from the critical realism point of view. In my study, the emphasis is on the interpretation of generating mechanisms and the tendencies behind the events and actions. This kind of theory development, which studies the tendencies of organizations and groups of individuals, can be a guide to what happens, but does not predict every case. The efficacy of the theory resides in the identification of causal powers and tendencies, but the theory does not necessarily predict future patterns of events (Ackroyd 2004).

### **3.2.2 Qualitative research approaches**

The characteristics of qualitative methods are; a natural setting as a source of data, the researcher as a key instrument in data collection, data collected as words or pictures, outcomes as process rather than products, the analysis of data inductively, attention to details, and a focus on participant perspectives and their meaning (Creswell 1998).

The second component of qualitative study consists of methods and techniques for organizing, interpreting and understanding data (Eriksson and Kovalainen 2008). These methods include the conceptualization and reduction of data, the elaboration of categories according to properties and dimensions, and the way they are related to each other through a series of propositional statements.

There are several traditions of qualitative study (Creswell 1998) or qualitative research approaches (Eriksson and Kovalainen 2008). These include ethnography, case study, grounded theory research, narrative research (Eriksson and Kovalainen 2008), discursive research, and critical research. The characteristics of the approaches are discussed from the research questions' point of view. The main question concerns both

actions and interactions in context, wherein people are responding to emerging situations enabled and constrained by pre-existing structures.

Ethnography focuses on describing and interpreting the culture of a group of people by examining observable and learned patterns of behavior and ways of life, including the artifacts that people use. Ethnographic approaches require a long period of observation, and even participation in the life of the group (Creswell 1998, Eriksson and Kovalainen 2008).

My research questions concern actions and interactions when responding to emerging situations. This would suggest using a grounded theory approach as a means to develop a model of change in organization (Glaser and Strauss 1999). Burgelman (1983), Brown and Eisenhardt (1997), Cule and Robey (2004), and others, suggest the use of a grounded theory method for the study of an organization. The aim of grounded theory study in its ideal form is to generate an analytical schema of a phenomenon that relates to a particular situation. The primary outcome of a grounded theory study is a model with specific components as follows: a central phenomenon, causal conditions, strategies, intervening conditions and context, and consequences that are prescribed categories of information in the theory (Creswell 1998). The grounded theory method can also be applied to process research (Strauss and Corbin 1998). Process can be described as a series of evolving sequences of action and interactions that occur over time in response to a situation in context.

The application of grounded theory method in my study is not without problems. With regard to the development of organization, all the actions and interactions are related to emerging and evolving situations. During long periods of time there will be variety of emerging situations, contingencies, and ruptures that have to be coped with by the human actors who have to take into account all circumstances in a particular event.

The underlying assumptions of my study implicitly contain elements of critical research, although it is not an explicit approach to change in organization. A postulated mediating

entity between structure and agency/action means that there are trans-individual mechanisms affecting people and their action, but there can be several theories and understandings of these structures and mechanisms (Eriksson and Kovalainen 2008).

The challenges and difficulties related to analysis and interpretation of qualitative data can be summarized as follows. When interpreting texts based on interviews in any specific organizational context subjects may deal with events that a researcher is less familiar with, that involve multiple levels and subjects whose boundaries are ambiguous (Langley 1999). Text regarding subjects and process tend to be eclectic and there are often gaps remaining in the development of the subject. Furthermore, researchers seldom have the opportunity to conduct a study without any limitations on time and resources. Consequently, when studying an organization, the researcher must combine several methods and techniques to concoct his or her own mechanism (Czarniawska 1998) with which to tackle the material at hand.

### **3.3 Construction of data**

There are several potential sources of qualitative data such as interviews, observations, documents, recordings, and pictures (Creswell 1998). The empirical part of my study is based on interviews with several individuals who experienced the change and development of an organization. I have transcribed the interviews into documents, which is the primary source of data. Hereafter, I refer to this data as Text. The supplementary material I have used includes annual reports, internal newsletters, internal unpublished memos, and personal notes and documents made by interviewees and obtained from them.

#### **3.3.1 Interviews**

I interviewed fifteen people who were selected as follows. The formal structure of the organization was known at the end of 2001. The interviewees represent the middle management that is close to everyday action. The interviewees' job within the organization involved taking care of smaller changes, managing development projects, maintaining contact with customers, and preparing proposals for larger development



projects, but they did not involve making decisions about organizational structures and the allocation of monetary resources. The interviewees were selected from the group of persons with whom I had a personal rapport, thus allowing for profound and in-depth conversation. Of the fifteen people I interviewed I conducted one interview with ten persons, I talked to four people two times and to one person three times. This was a process that continued until it was difficult to obtain new information (Table 6).

**Table 6 Interviewees and their contributions**

Interviewee	Number of interviews	Alpha	Delta	Gamma	Zeta	Beta	Epsilon Alpha	Epsilon Gamma
Ex site manager A	2	X						
Ex manager B	2			X		X		
Ex manager C	3					X		
Ex manager D	2			X	X			X
Development manager E	2		X					
Product manager F	1	X					X	X
Development manager G	1		X					
Product manager H	1			X				X
Site manager I	1	X						
Project manager J	1			X	X			X
Area manager K	1	X					X	
Development manager L	1			X				X
Maintenance manager M	1				X			
Researcher N	1							
Development manager O	1				X			
X = Denotes contribution of interviewee to particular subject								

To guide each interview I prepared a template which is presented in Appendix A. Interviewees did not see the template, aside from a couple unintended of exceptions. I started each interview with a short introduction during which I explained the objectives and the nature of my study. I also emphasized that each interviewee should recount how

he or she had experienced the discussed development and occurrences and to be unconcerned with the validity of their conclusions. All interviews were tape-recorded with the permission of the interviewee. During the discussion I took notes about interesting issues so that I would be able to return to these whenever necessary. The duration of discussions varied between one hour and two and half hours with a typical duration of two hours.

Methodically I followed the idea of ethnographic interviews, which are repetitive, open and extensive. They provide the researcher with the opportunity to retrospectively document an account of events in an organization (Czarniawska 1998). Furthermore, the essential elements of this approach – establishing rapport with people, open questions, and free discussion provide the means for multifaceted documentation of events in the organization and to obtain points of view that would be ignored during structured interviews. An integral element in the ethnographic approach is tape recording of interviews and making notes during discussion (Eriksson and Kovalainen 2008).

I carried out interviews between January 2002 and August 2003. The first series of interviews took place between January and March 2002 when I conducted two successive interviews with four people. A comparison of the texts produced during this initial stage with those produced later provided suitable material for textual analysis and interpretation. It is worth mentioning that two of the four interviewees were given notice of termination at the end of previous year before the interviews. The third interviewee was given notice at the beginning of 2003, and the fourth retired in the autumn of 2003. Hence their experience of organizational change, and including downsizing in particular, was very personal and intense.

The second series of interviews took place during September and October 2002 when I interviewed eight people. Six were within the organization under study and two were part of the organization that had been sold. As a follow up I interviewed one person in January 2003 after he had moved to another business unit within the corporation. The third series of interviews took place between April and August 2003 when I interviewed

four people. Two were new and two I had interviewed earlier: one interviewee I had interviewed once before and the other twice previously.

In general, the interviewees spoke very openly and only rarely did I get the feeling that the interviewee was trying to guess what kind of answer I was expecting. Whenever I became aware of this I encouraged him or her to speak freely and not to think about my expectations. At the end of the interview, I acknowledged their participation and asked if they would be available for further questions at a later date. I emphasized that I alone would transcribe the tape recordings and that only I, and the members of my doctoral committee, would have access to the information. In Appendix B, an extract from the beginning and the end of an interview that details this information is presented. I also sought input from my interviewees as to other individuals that might contribute to my study. I did not reveal to any of my interviewees the identities of any of the other people involved with the study. All discussions and conversations took place at the office premises, either in a conference room or in a workroom.

During interviews I tried to stick to the original issue that I presented in the introduction. However, the discussion revolved freely around the subject and at some phase I decided to end the discussion in a specified form. During the discussion, the interviewees also told stories, which can contribute a valuable angle both to organizations and to my research (Boje 2002, Czarniawska 1998). From the methodological perspective I can report that more or less structured interviews tended to transform during interviews to informal or even narrative interviews (Eriksson and Kovalainen 2008).

### **3.3.2 Transcribing of interviews**

I started transcribing the interviews in order to record their factual content. Consequently, the idea was to treat the text from the factual point of view and to focus on what had been said. I started to study the texts at the end of 2002. Immediately, I suspected that I had omitted information, and further investigation revealed that I had

made some misinterpretations during the transcription process and many of the nuances had been filtered out.

Based on this insight, I decided to re-transcribe all of the taped interviews based in the recordings so that the correspondence between the text and the recording would be accurate. I transcribed the tapes so that language use was preserved. I did not indicate pauses and other vocalizations except when they were longer than few seconds or the interruption was significant. The aim was to record speech in as authentic a way as possible for analysis and interpretation. Each transcript was marked when I considered it ready for interpretation. The first texts that fulfilled these conditions were completed in January and February 2003, forcing me to move the research process backwards.

At the beginning of April 2003 I had completed the transcripts of nine tapes, resulting in a 274-page text. Based on this I started reading, coding and interpreting the text. In September 2003 I transcribed a further seven tapes and by the end of September 2003 I had transcripts for 16 tapes that were ready for interpretation. They constitute the primary material of this study. Altogether the transcribed text comprises 450 pages.

### **3.4 Interpretation of Text and analytical approach**

The interpretation of Text began with the organizing and reduction of Text. It comprised three long working sessions during which I coded, analyzed, and conceptualized quotations of Text. The development of the model of local transformation was based on detailed analysis of coded quotations in order to reveal the generating mechanisms and tendencies behind events.

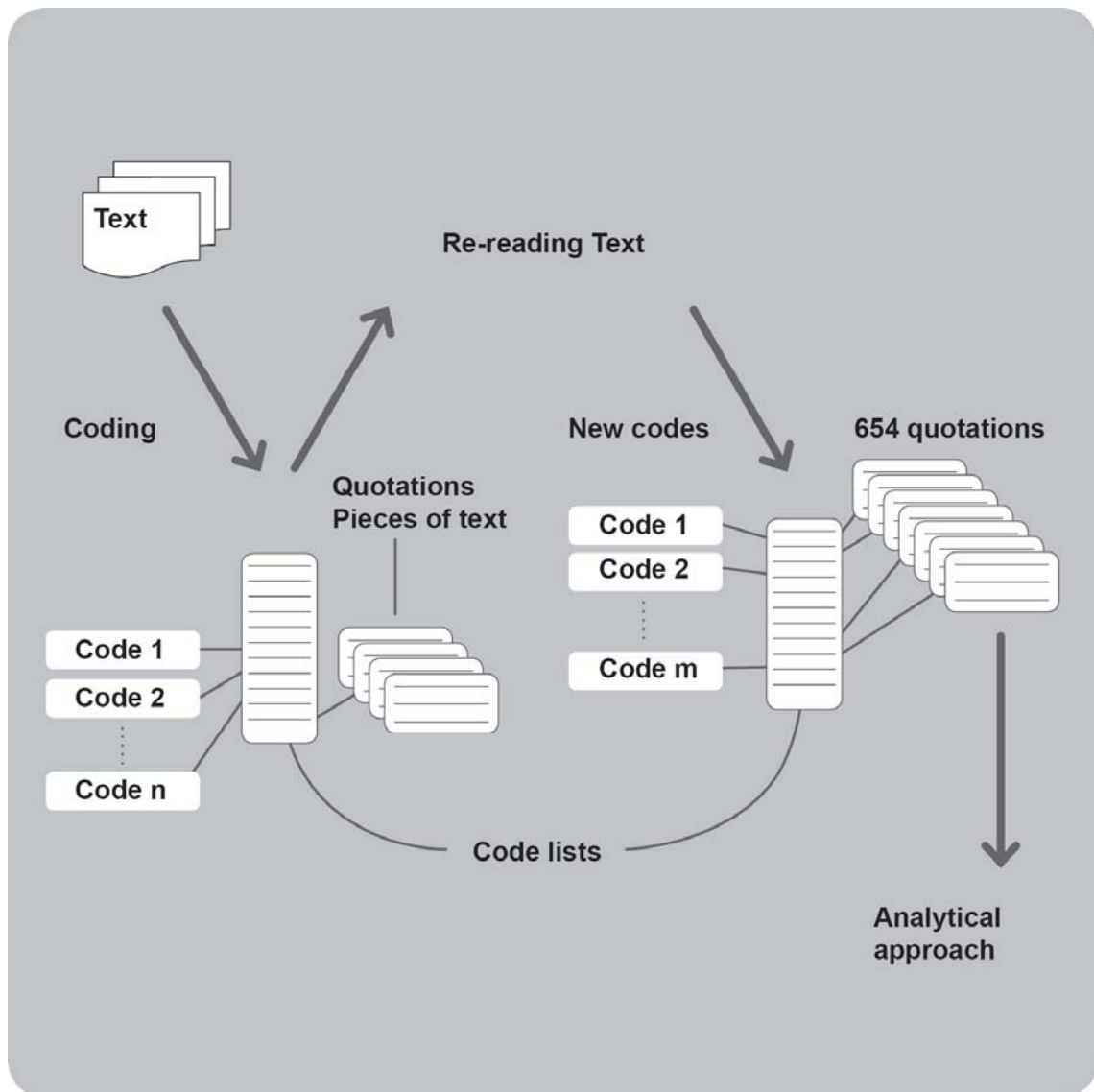
#### **3.4.1 Data reduction: process of coding**

The first task related to the interpretation of Text was to organize the data into appropriate categories. This is based on careful reading and investigation of text and attaching codes to the pieces of Text. The coding and reduction of data took place in three major stages which I call encounters with the Text, following the ideas of Mantere

(2003). During these encounters I also reviewed literature concerning organizational change and consequently the interpretation framework was continuously developed.

My first encounter with the Text was listening to the tapes and starting the transcription in spring 2002. At that phase, I first tried to recognize patterns and regularities in the Text. In the beginning, I was able to extract information about plenty of phenomena and events but it was difficult to discern any major regularity. An obvious issue was the multitude of development ideas that fade out without any major impact on the organization or context which could be interpreted immutable within the organizational context. The second issue was what I call “technology faith” whereby a tendency toward technical excellence reflected the characteristics of the organization that I studied. I continued the preliminary study of the text from the end of 2002.

Subsequently the organizing and reduction of data proceeded as illustrated in Figure 6. I started a more thorough interpretation of the Text in April 2003 using transcripts from nine of the interviews. I established the first hermeneutic unit using the ATLAS ti program for qualitative analysis. I started to organize the data by attaching codes "in vivo" to quotations. The codes were first rather more descriptive than analytical, and the codes were related to the content of pieces of text. Examples of codes are: customer; diversification; not invented here; informal; failure; uncertainty; differentiation; isolation; and so on.



**Figure 6 Conceptualization and reduction of data**

The length of the quotation varied from a single sentence up to passages containing several paragraphs (Boje 2001, Czarniawska 1998). I finished phase one in June 2003. The number of in-vivo codes was 140. While analyzing the Text I wrote several dozen memos. In June 2003, I continued the coding process and was able to reduce the number of codes to 99. The first summary of this encounter was finished in August 2003 and a result was the first working paper about the sources of changes and change processes.

I proceeded with the second encounter with the Text in September 2003. Using the first conceptual model I established a new conceptual model for the second encounter. In this phase the entire Text was 450 pages long. Further analysis using the new conceptual model lasted until the beginning of December 2003. A result of this analysis was that instead of a synthesis, my analysis had become more detailed and fragmented, which created problems. At this phase it started to become obvious that the pure development of a grounded theory model (Creswell 1998, Strauss and Corbin 1998) around central phenomena and categories is not enough when studying change processes (Langley 1999).

**Table 7 Concise statements**

Category	Concise statement
	<b>Representative quotations</b>
Attached Codes: [Centralized decision making] [Character][Delta] [Organization] [Subsystem] Memos: [Concise statement]	<i>A: Well yes the culture in [name of company] during 1970-80 was and still during 1990s was well regulated and hierarchical. And yes it reflects partly in that way that people were in their compartments or they had their own boxes ... it was safe and clear. Today it seems that power and responsibility is delegated strongly but objectives are delegated as well ... objectives are tough but reaching objectives will also be rewarded.</i>
Attached Codes: [Commercialization] [Problem solving] [Technical system] Memos: [Concise statement]	<i>A: It has been the meaning that within [name of company] almost without exception the innovations have started at the internal customer interface. Or if I say based on the problem solving in power plants. ... I would maintain that the products that I just mentioned were not designed as commercial products. To be sold locally or globally. Rather they were made to fulfill our own needs. And then we have seen that they can be offered to markets.</i>

However, this procedure did not produce any progress, rather the creative solution was to identify concise statements in the Text describing event, action and phenomena in context. An illustrative concise statement is presented in Table 7.

The outcome of the detailed analysis of concise statements was that the questions concerning organizational character emerged. Even the code “character” is attached to

the representative quotation above. In this phase, the contextuality of the interpretation was emphasized and concepts related to culture, identity, and organizational character emerged. A useful approach was to contemplate the coherent, distinctive, and ambiguous features of the organizational context.

During this stage I arranged the events coded in the Text according to their temporal progress. I supplemented this scheme with a narrative – my goal was to gain a deeper understanding of the meanings and mechanisms of change. The outcome was an event scheme that depicted the development of central subjects as illustrated in Appendix C. This approach produced, by the end of April 2004, an interpretation of the characteristics of the organization where the events occurred. I recognized changes within the environment and the related activities and interactions within the organizations (Strauss and Corbin 1998).

I proceeded to the third encounter with the Text in May 2004, – the basis of this encounter was the interpretation that emerged during the second encounter. At the most basic level, the industry was maturing, which meant the end of the construction era and consequently various strategies to cope with such an environmental shift emerged. From a theoretical point of view, during the third encounter I analyzed quotations in detail, elaborated concepts, and their relationships. The elaboration of concepts is presented in the following paragraph.

### **3.4.2 Analytical approach: detailed analysis**

During the last stage of data reduction the numbers of codes was 72, and quotations 654. In this phase I started a detailed investigation of quotations in order to find underlying factors that have an effect on the actions and interactions in context. For the sake of illustration, a reason for action “pursuit of operational efficiency” and its efficacy emerges from the Text as follows. In general during the coding process codes such as “cost efficiency”, “economy”, “efficiency” and “focus on operations” were attached to several quotations.



**Table 8 Detailed analysis of a representative quotation**

Category	Representative quotation
<b>Pursuit of operational efficiency</b>	Attached codes: [Conception] [Cost efficiency] [Focus on operations] [Subject Alpha]
Lines 1-4	<i>A: Well then in the beginning of 1990 that site where I we started from hourly rate contract. We were selling labor such an hourly rate marks per hour we were selling goods included and charged few percents on that based on handling of goods</i>
Lines 5-6	<i>We have started from similar contract concerning maintenance here in [name of area]</i>
Lines 7-8	<i>During years we have achieved progress with that matter that we have been talking about availability targets and contract were</i>
Lines 9-11	<i>And for example so many marks per production output and that would be the basis of pricing plus additional works pricing of which is based on hourly rates. Or contract based on plant output</i>
Lines 12-13	<i>Then there were at the background bonuses versus sanctions depending on plant output and on reaching availability objectives.</i>

In the representative quotation (Table 8) an interviewee describes how the pricing concerning outsourced service was developing during course of time. At the beginning (lines 1-4 and lines 5-6) the interviewee talks about the pricing based on hourly rates of workforce and after that about more advanced pricing principles (lines 7-8). The target for plant availability (lines 7-8) refers to attempts to increase the utilization rate of machines at an industrial plant. The pricing based on plant output (lines 9-11) aims at better predictability of plant maintenance costs from the plant owner's point of view. It comes down to the improvement of financial performance of industrial production.

When carefully analyzing the quotation above, and similar quotations, the conclusion is that consistently there is an inherent tendency for improvement of operational efficiency. The concept “*pursuit of operational efficiency*” captures the idea of a dynamic factor that both reproduces and transforms productive practices and structures. Altogether, my approach to the interpretation of the Text was a combination of the theory-driven approach and empirically grounded refinement of a model of local change.

## 4 Consistency and tendencies in context

*In this chapter I present the tendencies that emerge from the empirical material. First, I analyze prudence and ensuring as embodiments of consistency in the organization and second, I analyze the emerging notions of compartmentalization and affiliation. These tendencies have an effect on the actions and interactions in emerging situations and are related to organizational reproduction and local transformations.*

### 4.1 Consistency of action: prudence and ensuring

The passages below are representative of the introduction to the characteristics of the organizational context.

*A: Let's speak about a 10 years time span ... all the operations of [name of firm] were integrated and could be interpreted as a total service ...*

*A: We have been an engineering company, electricity producer that with certain tariffs and policies has ensured its future but not by searching various alternatives and by comparing the different meanings of alternatives*

At first sight, the whole organization had been functionally integrated, but on the second pass elements of the character of the organization as a whole becomes apparent.

#### 4.1.1 Pursuit of operational efficiency

The operational efficiency is, in any industrial context, an immanent characteristic that is emphasized in the competitive environment. After the investments in specific production technology have been completed, the operational efficiency in energy production concerns two issues. First, the reliability of operation has to be ensured because the costs due to lost production are high. Second, the operation and maintenance costs including fuel have to be minimized both at the plant level and the company level.

Table 9 Pursuit of operational efficiency

Pursuit of operational efficiency	Representative quotation
<b>Use of production assets</b>	
Return on investments	<i>A: As a matter of fact part of the ... old business was not profitable... it had to be reorganized. There was and as far as I know emphasis on the development of new business cases ... so they had only precious little to invest in there ...</i>
Efficient and effective operation of plants	<i>A: ... but earlier heat rate, availability and maybe costs were the most important issues and were measured ... emissions whatever but ...that is overseen by the media ... you just have to live with that</i>
Efficient and effective operation of plants	<i>A: ... that there, in the field, we were focusing on that facilities work and power and heat is delivered as agreed, and we get along with our partners</i>
Cost savings	<i>A: It seems that we strive for cost savings by any means (Q: Yea) Of course there are the requirements for heat rate and availability they must still be good although you try to operate and maintain them as cheaply as possible</i>
Performance of production process	<i>A: Well yes if you now afterwards think ... process simulators that [name of product] represents or other products ... there was the question about making more effective</i>
Development of operations	<i>A: The virtual operator concept ... as a matter of fact I remember the focal point was ... a virtual all encompassing model of production plant or network of plants ... and using that model you could as a matter optimize both production and maintenance so that ... profit will be maximized.</i>
Focus on present	<i>A: The pressures are like hell to make economical profit but the easiest way is to do with current know-how activity and resources. Or the power of financial indicator is so significant that this operational business rules... because the pressure is concentrated on this operative economical result...</i>
<b>Efficient use of human resources</b>	
Economic value added	<i>A: That we could produce 20-30-40% return on capital employed so it would have been the only value for the owner</i>
Billing rate	<i>A: It was during the first three years sales of workforce ... the question was that we could increase utilizing rate that all hours could be sold, that was the first phase</i>
Profitability of single services (Compartmentalization)	<i>A: The only evaluation criteria is then I see that am I able to manage the projects that I can reach the results ... customer's money, that I don't exceed the budget.</i>
Profitability of single services (Compartmentalization)	<i>A: It is tough as a product manager to make a billing rate 90 percent and in addition to it a new financial systems and new follow up systems and all</i>
Customer and external context	<i>A: these periods of time are related ... to cases when customer must have been scrutinized this business and defined which business they want to be in perhaps they have been pursuing efficiency. Or there has been efficiency, then there has been some kind of operational reliability, availability and then these financial issues</i>
Viability of operations	<i>A: ... although we would have measured customer satisfaction and customer feedback ... top marks ... if the financial result is negative well then. Those are the issues we are focusing on.</i>

Table 9 summarizes representative quotations from the Text related to operational economy, cost efficiency, and operational efficiency. The generating mechanism or rather tendency that has an effect on actions and interactions can be captured using the concept “pursuit of operational efficiency”.

The pursuit of operational efficiency is related to the productivity of power generation and to asset productivity. A focal issue is to manage plant availability and the objective is to prevent any failures occurring. The second focal issue is to manage the consequences of unanticipated failures in order to minimize the down time of the plant. At an extreme, the pursuit of operational efficiency is related to cost savings and cost cuttings. However, it emerges from the Text that the pursuit of operational efficiency decreases interest and the potential to search for new trajectories in the future.

The development of technology has focused on the improvement of process performance. Even at the whole company level, methods have been studied and developed to control operations for improvements in profitability. The pursuit of operational efficiency has stimulated the development of technology and has been a generative mechanism in the context.

The pursuit of operational efficiency in the context – the development of services without capital investments – is also related to the use of human resources. At the business level the requirements for financial performance in terms of the return on capital employed are given and consequently result in requirements for the billing rate. Furthermore each separate organizational sub-unit has to be viable and profitable. Industrial customers also strive for their operational efficiency, and this creates pressure to maintain and improve the operational efficiency. The pursuit of operational efficiency is inherent at all levels.

#### *Pursuit of operational efficiency and organizing*

The organization of Alpha – providing maintenance services – was based on the location of power plants and on an attempt to create economies of scale. The method of

organization is consistent with the basic characteristics of the internal organizational context: pursuit of operational efficiency. The normal way of action in the realm of Alpha was a reaction to the contingencies of the technical core, rather than the production of outputs according to predetermined plans based on the forecasted needs of customers. There was a great deal of interdependence between Alpha and its customers: the output of Alpha – maintenance services – is the input to the customer's production process that embodies the symbiotic interdependence between parties.

The following quotes demonstrate the increasing pressures to improve operational efficiency with regard to Beta.

*A: And then of course it had an impact on our all organizing so that as far as I remember in 1999 these new ... structures were created. And since that this process of change has been ... continuing once a year.*

*A: ... when we are talking about performance units they had to make profit. They were doing their own business and they had a pressure to improve their financial performance. They had to finance their by themselves renewal too ... when they were squeezed they didn't want to put money for development ... neither they were enthusiastic about it*

In pursuit of operational efficiency during reorientations and restructurings, a major change in the organization was the dividing of the firm into several smaller sub-units called performance units. The main outcome of this restructuring was the increased pressure to improve financial performance, and the aspiration was to “*provide opportunities to increase operational efficiencies further*”. On the operational and action level the fragmentation into even smaller independent units decreased foresight to the development issues.

*A: And it was postponed and postponed and ... at the beginning of September it was announced that the whole corporate will be readjusted. And these 32 performance units will be terminated and then there came about a remarkably reduced number and they became amalgamated...*

The last major reorganization during restructurings and reorientations was to simplify the overall structure by amalgamating the aforementioned performance units into larger independent business units and once again “*organizational changes were needed to improve our performance*”.

#### 4.1.2 Pursuit of technical excellence

The second characteristic that emerges from the Text is the pursuit of technical excellence in operations. The pursuit of operational efficiency was also related to the development of technology related to the power transmission and generation. The following quote is an introduction to the context as it was experienced in the past: technical expertise.

*A: ... I think that ... concerning the technical expertise in the past ... it was related to the technical skills when designing and constructing our own power plants and transmission lines ... we were technically cultivated (skilled, competent) and demanding buyers. We required very thorough and careful solutions from vendors to our own use ... the price was not at that time any issue (during 70s)*

It is worth paying attention to the use of “we” and of interpreting as a collective feature that joins people or a group together. Nevertheless, comprehension of technical expertise was shared by all interviewees. There are also plenty of references to the quality of technical expertise. The interviewees repeatedly draw a parallel between technical expertise and other expertise. Sometimes emerge juxtapositions what organization does not know or cannot do. Table 10 provides a sample of quotes depicting the quality of technical expertise.

The quality of technical expertise was often compared with the economy, sales and marketing, project and market expertise, and know-how. The other domains were deemed vulnerable, with the exception of the pursuit of operational efficiency, which often parallels cost efficiency. Expertise regarding the maintenance of the technical core was considered to be, without a doubt, excellent.

Technical expertise was emphasized, but it is more a method to improve operational efficiency. With regard to pursuit of technical excellence and operational efficiency, it was a perception that the introduction of anything new would be difficult. Technical expertise in particular was devoted to purchasing, operating, and maintaining expensive investment components. Those components were used to construct power generating plants that are complex dynamic systems.

**Table 10 Pursuit of technical excellence**

<b>Pursuit of technical excellence</b>	<b>Representative quotation</b>
<b>Construction of plants</b>	
Technical versus economy, historical development	<i>Well then such a thing was moving that this is the first time and new, exclusive, unique, and the team was young and enthusiastic and inexperienced in that project ... then let's say that we had money that ... economical thinking did not grow and develop there And a reason might be that we only made this technically excellent</i>
Technical system versus projects	<i>... And then we had strong faith in this know-how that we have acquired. And obviously it was so that we could accomplish power plants from components but ... such management of international projects it was here that we seemed to limp.</i>
History, trailblazer	<i>A: ... when [name of power plant] was constructed so it had to make ... huge investments when the organization that was never involved with nuclear power had to construct a power plant independently using [name of institute] as a right hand, then a project organization not only had to be established but a research organization as well...</i>
History, resources	<i>A: As I have said, during past decades were laid the foundation for the development of condition monitoring. ... but as a company [name of affiliate company] it could afford to invest in good personnel could afford to educate could afford to purchase proper instruments and so on. And in a way it was ... a platform for that issue.</i>
History, resources	<i>A: Then I could say as a matter of fact close to myself there were plenty of special measuring instruments and apparatus in the electrical laboratory to fulfill some special needs. Special problems had been solved or rectified.</i>
<b>Pursuit of operational efficiency</b>	
Optimizing of operations, technical	<i>A: Using this special expertise we can optimize maintenance and total costs for customer are smaller and even we can get a better margin. This was the basic idea.</i>
Distinguish from others	<i>A: ... and that we wanted ... to differentiate somehow ... we are partners we introduce ... new ways to make maintenance new ways to make equipment more durable new ways to optimize maintenance</i>
Technical versus cost savings	<i>.. that was the cost saving ... I think it was that basic argument with which we were proceeding and a second one then our outstanding know-how to maintain that equipment technically</i>
Top expertise	<i>A: ... we did not ... want to be quite ... a normal routine doer but ... by top know-how we can certainly optimize maintenance and its costs.</i>
Technical excellence versus operational efficiency	<i>... and ... yeah our opinion was that when we have taken care of power plant maintenance technically very well. Somebody asked is it also economically good; I have no answer to it.</i>
Technical versus markets	<i>A: ... and we were wondering when the customer does not understand our good and high level know-how ... our marketing organizations have been thin and light ...</i>
Decision making and marketing	<i>A: ...well as a matter of fact well crystallized when we production assets we have they are well looked after ... but even in this marketing when we see something new pops up it really feels very difficult.</i>

Pursuit of technical excellence	Representative quotation
Development of technology	
Present: Problem solving	<i>A: there are commercial service applications that are based on core technologies ... on the understanding of phenomena that our competitors don't possess. ... Then here is vibration monitoring... In these areas we have critical mass there are more than two or three persons working with problems when it is possible to develop and by solving problems to get feedback and fuel for such an development</i>
Future projections	<i>A: But regarding research and development, it has taken on burning or boilers ... We try to identify issues that equipment manufacturers are not interested in ... these models are excellent then its is possible to make improvements concerning burning technology. The goals have not been as clear as I describe here. While doing it together and having reached results we continued efforts together.</i>
Future projections	<i>A: Then there was 1986 the new methods for operation which was the largest area. If we think the end of 1980s was important, if we look at the current areas of strong expertise such as condition monitoring then we made modeling technologies. They started as a matter of fact at that time. ... The fundamental investment was then by the end of 1980s.</i>
Pursuit of perfection	<i>A: If we think that [name of firm] had as its main product condition monitoring systems for rotating machines, and if we think that in that product we made both the electronics and software ourselves. And then we show that the software was best in the world.</i>
Distinguish from others	<i>A: Yea let's say that a basic principle in Gamma was to make the so-called high tech spear heads (that we called crown jewels).</i>
Distinguish from others	<i>A: Let's say that these products were considered ... that they are such technical issues... that distinguish us from other firms.</i>
Distinguish from others	<i>A: And let's say that at that time the idea about crown jewels was such that ... it was not acceptable to sell those crown jewels to whoever customer.</i>
Profound expertise	<i>A: And we ... were working there in the research unit and analyzing carefully technical details and gaining our know-how</i>
Understanding phenomena	<i>A: ... which are based on this core technology so to say ... or through modeling on the management and understanding of the phenomena that our competitors as such do not have.</i>
Modeling	<i>A: ... These models are quite good ... with regard to burner ... it is equipment but using mathematical models we can improve burner technology. These were always not so crystallized and when we captured the thing then we are able to try hard onwards.</i>
Technology faith	<i>A: ... there was this know-how as a matter of fact such a mantra that with that know-how we can compensate that we don't understand markets customers' models of thinking ...</i>

The following quotations are an introduction to the qualities of technical expertise within the organization

*A: ... again considering this retrospectively ... [name of firm] was at that time as we called it ... multiple skilled firm within energy industry.*



*A: ... one could say that a distinguishing feature of a power plant ... from any other process ... is that there are few very critical sub systems ... and you have to be in control of a rather complex wholeness ... No doubt our strength is the process know-how that supports the technical process of power generation.*

The content of technical expertise was related to the electrical power generation process. At the core of the thinking were the critical components of the energy conversion process and managing the uncertainty related to failures, disturbances, and contingencies.

The dimensions of technical expertise were characterized as the capability to optimize;; means to distinguish from others; profound expertise and understanding phenomena; top expertise; and outstanding expertise. In general confidence in technical expertise was high. Paradoxically the interviewees did not seem convinced of the quality of this kind of advanced expertise. The volume of routine jobs was substantial. The pursuit of economical optimization was the most highly valued form of expertise which was associated with one sub-unit in particular. Understanding phenomena and solving technical problems is an extreme embodiment of technical excellence in this context. Solving problems at the technical core was also a source of change and learning.

The pursuit of technical excellence was seemingly very deeply rooted in conceptions. This kind of entrenchment was an outcome of past experiences during the period of this study. Evidenced by the quotations below, the roots of technical expertise and the skills of the organizational members were an outcome of problem solving during the construction era.

*A: ... because then I had already asked myself how we have got ... specific know-how when we have get this learning quite long time ago from these older operators equipment providers not advertising the firms but in Germany there were [names of three equipment manufacturers] who were our masters.*

*A: If ... I still would return to the subject of condition management ... we concluded that we had developed ... during years significant expertise about electro technical condition monitoring and particularly about rotating electrical machines, generators and high voltage machines in general.*

Senior management valued technical expertise and it was partly an outcome of the construction of nuclear power plants which constitutes a significant share of the

technical core. Technical expertise was an element of maintaining and ensuring the integrity of the technical core. Some of the expertise was adopted from abroad and from equipment manufacturers. Prior to the construction of a nuclear power plant, the technical core consisted of hydro power plants and of course conventional power plants that use fossil fuels. Technical expertise focused on managing contingencies in energy production and in the technical core rather than on the development and commercialization of new products and services.

The quality and dimensions of technical expertise form the baseline for other types of expertise. Technical expertise was related to particular equipment and to managing complex dynamic systems. However there was always a question about the technical core: power plants and electrical transmission systems. At the extreme, the quality of technical expertise was like a “*faith in technology*”. Technical expertise was a manifestation of high performance, which can compensate other deficiencies.

#### **4.1.3 Prudence and ensuring**

Prudence and forethought also emerge when engaging action. In Table 11 first provides representative quotations that sum up traits or characteristics of organizational context that I label ensuring. Prudence, ensuring, and carefulness are characteristic features that are visible in managing business and operations.

Within the organizational context, there was a tendency to maintain a stock of knowledge and expertise and it was a systemic development goal that was supported by the management. However, it seems that the purpose of maintaining the stock of expertise was to handle contingencies and to prepare for unanticipated problems – new situations – and to reduce the dependency on the environment. Consequently, maintaining a stock of knowledge is part of the maintenance of an organization that ensures the continuity of operations. Altogether, there was tendency to ensure and safeguard operations.

Table 11 Prudence and ensuring

Prudence	Representative quotation
<b>Ensuring</b>	
Present, only one future projection	<i>A: ... it is good to repeat ... we are reacting...to current events or past events ... from which we then get information statistics calculations ... But ... that we would think what we want to be for instance in five years in the future. Which devices we are using... in which segment. Do we go by experimenting or by the determined ... this I have seen ... has not been typical of ... seeing far and high and the reason would be that we have been engineering company, electricity producer that with certain tariffs and policies has ensured its future but not by searching various alternatives and by comparing the different meanings of alternatives</i>
<b>Pursuit of technical excellence</b>	
Ensuring resources	<i>A: I return to the subject ... stock of know-how [name of executive] supported it and I see that he considered it important ... whenever problem emerges or we should solve problems ... that we have somewhere specialists of our own who can cope with problems</i>
Ensuring the operations in technical core	<i>A: ... or we do not need to resort to the offerings of manufacturers but we can ... even at the moment ... well respond to the hydropower plants...</i>
<b>Continuity of operations</b>	
Technical core	<i>A: There the idea was that in the beginning low NOx burners were introduced. They were in the beginning unstable. It was ensured using a monitoring system that during a low load the flame would not become unstable. The market was in embryo at that time.</i>
Environmental impacts	<i>A: Then we had contacts concerning dam safety and then fires in tunnels ... they cause demand for special products to grow. The idea is to secure, in advance, that these kinds of accidents wouldn't happen.</i>
Reliability of components	<i>A: It is rather expensive from a customer's point of view and certainly we can achieve excellent results. As a product it has better applicability where higher reliability is required such as a power plant or oil refinery. Perhaps not in our environment.</i>
Safeguarding of interests	<i>A: Yes when these outsourcings occurred at the beginning of 1990 then customers probably perceived that we are entering a new world. They and others didn't exactly know how it works and they wanted in a way to safeguard their interests so that operations will develop and proceed in expected and agreed directions. And now when this has proceeded as was assumed then the customers perceives that they have no need to be involved in maintenance activities. They focus on their core activities and buy services.</i>
Competence and people	<i>A: But however I understood that the market situation in the area was at that time such that several new gas fired power plants were constructed. And to these plants people were recruited from our own organization. ... But then to ensure that we would not be in trouble if several persons should leave the company.</i>

Prudence	Representative quotation
Engage in action	
Reluctance	<i>A: ... I don't know the reason that should management make decisions related with risk ... this kind of unwillingness to take risk comes from the background</i>
Ensuring	<i>A: There were very sharp limits about which countries to go, what to offer, and what each project should earn and in some cases we got. But I believe that there would have been chances for more.</i>
Ensuring	<i>A: I think the reality was not quite as it was talked ... at least looking back afterwards... we did not start to conquer the market passionately... but in all projects we had to have "belt and braces" and even more suspenders and after that we had lost the case</i>
Ensuring	<i>A: ... from where ... the money comes and where the benefit goes was not the steering element but when you say it now this way I would just crystallize that the administrative route was decisive but not the business utility</i>
Organizing	<i>A: ... but among other things then at the same time when thinking organizing ... an idea was to dissolve the whole unit and move people elsewhere ... or do we keep it ... as centralized ... And then ... the conclusion of the committee was that ... keep it kind of integrated ...</i>

In everyday language, prudence is understood as “*the quality or fact of being prudent*” (Webster's 1989: 1158) and prudent means “*judicious cautious in practical affairs*” and “*careful in providing for the future*”. Prudence was for a long period of time a consistent feature in the organizational context and its relatedness to decision making and to the maintenance of technical expertise was focused on the technical core (Table 10). It is clear that prudence and ensuring were entrenched characteristics of the organizational context. I interpret prudence as an intrinsic element of the organizational context and related to ensuring; a seemingly internalized way of acting when coping with new and emerging situations.

#### *Organizing and ensuring*

With regard to the establishment of Gamma, prudence and ensuring had an effect on creative reconstruction of organizational configurations. The establishment of an internal supervisory body for Gamma emphasized continuity and existing administrative structure (see Table 11). However, representatives of the business units were not involved in the supervisory body. The supervisory body soon terminated and Gamma started to establish itself as an autonomous organizational sub-unit. The control device worked so that it ensured the operations rather than to set objectives for the new sub-

unit, Gamma, and was a manifestation of immanent logic of practice – prudence. Furthermore the dismantling of Gamma had been considered long before the final dissolution. However, the conclusion was to maintain established positions and it seems that the immanent logic of practice was prudence and no actions were engaged to change the state of the affairs.

## **4.2 Compartmentalization and affiliation**

Emerging from the text are two related and antithetical phenomena: compartmentalization and affiliation. Both can be interpreted as tendencies that have an effect on organizational reproduction and local transformation.

### **4.2.1 Meaning of compartmentalization and affiliation**

The following quote is an introduction to a recurrent phenomenon related to the characteristics of the organizational context: its structure and organizing.

*A: And this business or its different functions still live as worlds of their own.*

The passage above hints at distinctive issues when an interviewee states that the functions are living in their own world. This short passage embodies the functional organization. It is not often referred to explicitly but it is sufficiently clear to be considered a basic characteristic of the organization. The business as a whole has long been an administrative system, and operational functions have been differentiated and segregated.

A concept used to characterize the structure of the organization is compartmentalization. In the everyday language compartmentalization means the division of an entity into compartments. Compartment refers to an entity that is perceived as a separate aspect existing in the human mind in particular. But in terms of this study the concept of compartmentalization has a profound meaning and a dynamic content.

A quotation set out in Table 12 concerning the extent of compartmentalization refers to a result of several reorganizations. Eventually, the financial performance was measured

at a sub-unit and a small product or service level. This refers to the extent of compartmentalization. Financial performance is a measure of whether any particular sub-unit is viable as a separate business entity. Henceforth, rather than only referring to compartmentalization as a structural characteristic, it also refers to the extent to which the sub groups of an organization operate as discrete units following the definition offered by Wilson (1998: 13). Compartmentalization manifests itself at several levels: the structural and administrative level, the cognitive level, and on the level of organizational identity. Compartmentalization also means that, within a context, new issues are dealt with separately in smaller enclaves, in other words segregation. In the following section I contemplate the embodiments of compartmentalization from different angles, summarized with supporting quotations in Table 12.

**Table 12 Compartmentalization from different angles**

<b>Compartmentalization</b>	<b>Representative quotation</b>
<b>Structure</b>	
Administration	<i>A: ... If you think of.. assets as "between ears" ... mental capital so according to my opinion ... our ... persons ... ensconced or isolated themselves within the administrative organization ... so they think within the framework of that unit and they really don't know and unfortunately even don't want to know what some neighboring unit ... is doing and thinking ... we have this kind of ... island behavior where administrative structure is strongly overemphasized.</i>
Operations	<i>A: ... Business has been among us ... an administrative organization and operative function.... function word we have never really used. But I argue that the business ... means this operational and production oriented approach.</i>
<b>The extent of compartmentalization</b>	
Organizing and fragmentizing	<i>A: Because of this equation [name of activity] it is ... not solved as I a minute ago stated that [name of company] ... as five or ten people profit centers are measured as separate [name of activity]</i>
Fragmentizing	<i>A: ... concerning the business environment I recognize... a significant change. It is ... 1993 when ... [name of corporate] changed its businesses and ... [name of sub-unit] was established and production and maintenance became separated and ... most significant from our point of view was ... that we moved approximately during one night ... from a production company into a service company ...</i>
Fragmentizing and pursuit of operational efficiency	<i>As a matter of fact yes I would ... as a business ... milestone see ... the establishment of the [name of firm]. After that ... clearly ... the factors having an effect on the competitiveness of power generation ... were recognized at the plant level and it started from those kinds of issues.</i>

### *Compartmentalization and organizing*

The change of the organizational structure - intensified compartmentalization - forced cognitive and emotional change in the individuals involved, and the resulting distress was probably a manifestation of divesting oneself of power and autonomy. Decisions concerning the daily activities now seemed to be vested to someone outside the organization. The separation of functions was commensurate with the pursuit of the operational efficiency of ongoing operations. At the sub-unit level the maintenance of power plants were separated from operations management. This was an embodiment of the increasing compartmentalization within the limits of established structures.

### *Affiliation*

The following is a lengthy quotation (see Table 13) that serves as an introduction to the concept of affiliation, which refers to a tendency during the development of several organizational sub-units.

**Table 13 Affiliation**

<b>Affiliation</b>	<b>Representative quotation</b>
<b>Personal relations</b>	
	<p><i>A: ... it was such a dream that [Gamma] in a way would have been an essential element of business ... that strategy never was realized. Not with any organization. Q: You were talking about dream so whose dream was it? Was it a common dream [Gamma] of middle management or top management or even dream of businesses? A: Well sure it was not a dream of businesses because it would have been realized better. It was ... [Gamma] such a ... vision ... in the management team that we could be ... and it was rather an ambition that there would be persons who could understand the worries of businesses. And they would be such trusted persons and in that way ... part of that business strategy ... but it remained quite strange ... [Gamma] however. Yes it ... has been considered rather as an oddity than really as an element of the process of development. At least looking from here it seems like that.</i></p>
<b>Trusted persons</b>	<p><i>Well if you think of the beginning of 90s after this production or this organization was separated. And then we in [Gamma] thought it-wise that we too have to organize according to customer sectors. We can't be such a lump, when someone asks here something then we do it.</i></p>

Affiliation	Representative quotation
Linking with other organizations	
Operations in main business	<i>Then in the beginning of the 90s you could say was the significance of the expertise or linking expertise with businesses</i>
External organizations	<i>Then we began then as if to search for partners from [list of research institutes] in which our experts had been working ... Or in that way to involve the internationalization</i>

For example, based on the quote (the first quote presented in Table 13) connections between organizational sub-units were established through trusted individuals. It also emerges that these kinds of connections are established at several organizational levels. The concept of affiliation, with regard to the context of my study pertains to building, or to attempts at building, associations and connections between organizational sub-units in terms of personal relations and these relationships may extend across organizational boundaries, including other organizations and institutes.

#### *Affiliation, actions and interactions*

An endogenous survival strategy used by Gamma was affiliation with other organizational sub-units. The embodiments of affiliation were co-optation with representatives from other business units and the joint use of control groups in the development of projects and “*key technology process*”. Both were attempts to establish links between Gamma and ongoing operations. The management of Gamma wanted to maintain full control over development teams. Within Gamma there emerged an attempt to expand in to external markets before there were any major structural changes within the whole organization.

The linking of expertise with ongoing operations (Table 13) concerns the attempt to create links between Gamma and other organizational sub-units. The motive had been dissatisfaction with the increasing segregation, and the aspiration to change the state of affairs: to affiliate with business functions and to establish a strong position. These actions were oriented toward the future in order to reconstruct organizational configurations. At the same time, Gamma attempted to search for partners outside the organizational context – action to cope with an emerging situation – and attempted to



start cooperating with business units at the strategic planning level. Furthermore, within Gamma attempts were made to establish a nexus with external organizations. Gamma had been identified as a research organization and it started to become estranged from other sub - units of the organization and to affiliate with external organizations.

#### **4.2.2 Dimensions of compartmentalization**

Based on the analysis, in the following I elaborate on the analytical dimensions of compartmentalization; the extent of compartmentalization, its relationship with the pursuit of operational efficiency, and the embodiments of compartmentalization as organizing.

With regard to *structural dimension*, the quotations in Table 14 demonstrate the extent of compartmentalization: product and service (action) level. The compartmentalization extended from the business unit level to all subgroups, including the individual level. Intermediate levels included regional sub-units and sites that were monitored as separate sub-units. Some of the organizational sub-units were organized along product lines and were considered separate businesses. The quotes also reflect the interviewee's disapproval of this kind of extensive compartmentalization, demonstrating the tension between perceived structures, practices, and local actions.

The quotations in Table 14 also demonstrate the compartmentalized nature and multiple identities of the organizational context. At the beginnings of Alpha the action was divergent, related to the pursuit of growth. Joint ventures were established with customers, and organizational structures were amalgamated, but different identities remained. To avoid conflicts within Alpha from the outset, the identities and cultures became compartmentalized and a class division between sub-organizations was also experienced. Furthermore, different organizational cultures and traditions prevailed within sub-units, even regarding the working pace. At the level of sentiments, conflict could have even been an outcome of the amalgamation of two organizational sub-units. For example, the staff within Alpha that possessed the technical and managerial skills for the maintenance of the technical core – power plants – was perceived as belonging

to an upper class, when compared with newcomers who were focused on the maintenance of smaller industrial sites. Referring to historical factors demonstrates that identity was perceived to be an outcome of history and of past events and actions.

*Compartmentalization as organizing: fragmentizing*

At the time of the end of the construction era, internal trade was introduced within the organizational context. The quotes (see Table 14) indicate that internal trade resulted in confusion, and even confrontation. The creation of profit centers within Delta, by dividing larger departments into smaller sub-units, *increased compartmentalization*. The main goal of compartmentalization was to improve operational efficiency. Eventually, internal trade became a persistent internal governance mechanism. The dynamic content of compartmentalization as an intentional action to reorganize can be captured using the concept, *fragmentation or fragmentizing: to break organization into separate parts that function independently from each other*.

The deregulation of the power generation and the electrical network industries resulted in a requirement to separate electrical sales and distribution from each other. Also, activities on a technical level such as construction and the maintenance of electrical distribution were separated into their own business areas. One interviewee considered this to be a creative solution, but it was more about a habitual response to the demands of a situation – *organizational reproduction* – when coping with the new situation.

**Table 14 Dimensions of compartmentalization**

Dimensions of compartmentalization	Representative quotation
The extent	
Structure	
	A: ... And even today I am worried that here in the [name of business unit] there are too many small product areas. ... Based on my experience the proper size of a product would be at least ten persons ... when they are so small ... it takes quite a lot effort from one person to sell and organize and to integrate elsewhere (Q: yes) And the efficiency is not big when there are myriads of these small areas.

	<i>And now if, for example, here in [name of business unit] you see clearly that they are too small. Then they dare not to go beyond the limits of product area organizational boundaries and then each of them tries to sell their own small know-how ... even internationally.</i>
	<i>A: ... they are still too separate if we speak ... the main business of the [name of function] ... they are separate services. So in general. Time will show how strongly they will become elements of the main business.</i>
	<i>A: ... so the financial challenge is that measured separately will they be profitable (Q: Yeah) ... at the moment the wholeness is not economically sound measured separately (Q: Yeah) ... then the challenge is ... commercialization through offers we get orders and then the economical side is appropriate.</i>
<b>Identity</b>	
	<i>A: Then at the beginning of the 90s when ... we began to do maintenance with an industrial customer, so then we had two separate organizations ... industrial maintenance group and ... power plant maintenance group.</i>
	<i>A: Well we felt that ... the power plant maintenance group ... as if it would not be the only maintenance in the [name of corporate] at that time ... however its role was foregrounded compared with that industrial group.</i>
	<i>... really we became recognized as two separate organizations until then. Q: This is a very interesting word this "marking"? A: We had some kind of stamp on the forehead or in back. Q: From where did that stamp had possibly come, and who sees that stamp? A: I do not know how people in power plant maintenance saw and experienced it. There were ... quite strong historical elements in the background.</i>
<b>Organizing</b>	
<b>Fragmentizing in pursuit of operational efficiency</b>	
	<i>... in that phase when the engineering unit was formed then ... as far as I remember ... three sub-units were born [names of units]. And ... they were purely and for the first time profit centers that did ... internal business ... that was ... a big change and a subject of wondering.</i>
	<i>... And then ultimately rather sad things, when we always started to speak in our internal pricing ... then the [name of institute] was some kind of price reference</i>
	<i>One of the troubles of these performance units is that they do internal business and unfortunately they will do internal business in the future as well. Or the power of the financial indicator is so big that this operational business rules.</i>
<b>Fragmentizing and emerging situations</b>	
	<i>.... First were ... grid services then as an element of deregulation ... came pressures ... to the distribution side then it started to differentiate businesses. Electricity market law ... required electricity sales and distribution ... our insight in the [name of corporation] was ... that ... from the very beginning starting from our own distribution systems ... we started to separate construction, maintenance into business areas of their own.</i>
	<i>So then this separation of sales and distribution. It is a more complicated case in that sense ... when the law came into operation in</i>

	<i>1995, seven years ago then at that time, and even today there were in Finland more than one hundred ... distribution companies that sell and distribute power. So there the solutions have been diverse.</i>
	<i>So then if you think of the beginning of 1990 ... the organization differentiated. And then within [Gamma] we were thinking that we have to organize ourselves according to customer sectors.</i>
	<i>A: ... that here are ... laboratory heads who sell to their customers then here are ... research and development responsibilities ... who partly sell direct. This becomes so complicated that although it seems on paper so that people's ways of action an internal organization it is difficult to discern who is accountable for what... first it has to be defined . Who is responsible for what? So this, by the mid 90s was made simpler</i>
<b>Segregating sub-units</b>	
	<i>A: ... that somehow the development was as if located always in the C house [Gamma] that there those inventors produce new products and services for us in order to be successful in the future as well.</i>
	<i>A: ... though we were there at [name of technology village] we were in a development environment we were rather confined related with the [name of corporate] ... When ... in some phase we moved back ... so our contacts with businesses became better. And through that way ... it helped to orientate the development when we clearly got problems that we had to solve.</i>
	<i>A: It has been analyzed there quite a lot what it requires, and due to the cost cutting of research unit each product and service has to finance its own development. Then the consequence to us is that ... there are not so many big projects in [name of corporate] that in big projects we would cooperate. But it has fragmented into small pieces.</i>
<b>Segregating new ideas</b>	
	<i>A: A quality ideology started in April 1992 on board a ship between Turku and Stockholm. Q: Who has brought it on board? A: I introduced it and it was a luck I wasn't thrown over the railing into the sea because we are doing business not paperwork.</i>
	<i>... We chatted a little about that situation, what kind, where we go, and what a job would it be to apply for certification for that activity. We made a self evaluation of our own activity, did various interviews and concluded that was quite a slog.</i>
	<i>A: They were called here, quality managers. These quality system jobs we attempted to promote certainly, it was, I would say, a little hard-headed when they were separate systems. We could not implement it as a managing system or operating system.</i>

### *Alignment with customer segments*

The whole organization became compartmentalized into independent businesses as a managerial response to the deregulation of industry. From Gamma's point of view this structural change meant the fragmentation of Gamma's environment, or rather its enacted environment. This new situation forced the internal reorganization of Gamma.

Based on an assessment of the evolving situation, appropriate actions were made in a straightforward manner. The organizational structure of Gamma became very complicated because the pre-existing structure of two internal functions remained.

In this case, the local structural change rather than economic pressure was the reason for the actions. The outcome of this reorganization was an ambiguous organizational structure, if it can be called a structure at all. However, the objective of this reorganization was to achieve congruence between Gamma and its fragmented environment.

#### *Compartmentalization as segregation*

Fragmentizing as an intentional act had an extreme embodiment as segregating. The quotations presented in Table 14 illustrate how research and development activities were separated from the ongoing business operations. Gamma was perceived as discrete from ongoing operations and other sub-units. The main task within Gamma was to develop new products and to ensure its operation by maintaining a stock of knowledge for unanticipated events. This kind of organizational sub-unit could be perceived by others as an oddity. This is a paradox because the pursuit of technical excellence was a consistent characteristic throughout the organizational context. Individuals in Gamma were perceived as inventors who were far removed from any practical businesses. Research and development was physically separated from other functions in that they were located in different buildings. The increasing compartmentalization was extreme in that even small sub-units had to obtain financing for their own research and development.

New ideas and initiatives also became segregated. During the end of the construction era, the idea of a systematic development of operations within Alpha was introduced by an individual. The idea of quality development was introduced in such a way that there were several loci that operated concurrently and seemingly without any mutual dependencies or co-ordination. Within Delta, systematic quality development cropped up at the beginning of 1990s, this also occurred in Alpha a little later.

With regard to Alpha, systematic development first emerged autonomously at ground level. After a brief period of consideration, the idea was put aside for a while until it got off the ground. As a discrete organizational sub-unit, Alpha was fragmented and decision making was decentralized. Quality development was introduced with other new ideas and the unit became segregated for a lengthy period of time. Even within the same organization there was a variety of responses and emergent strategies for coping with a new idea such as development of quality systems.

### *Summary*

The organization of ongoing operations was based on differentiated functions. Interviewees perceived different cultures, multiple identities, and plurality, within the context. Altogether, these demonstrate that compartmentalization is a central phenomenon in the context of my study and show the *structural property* of the organizational context. I conclude that compartmentalization is also a tendency that generates action for organizational reproduction in emerging situations and in pursuit of operational efficiency. The embodiments of compartmentalization at an action level are fragmentation and, at the other extreme, segregation. Compartmentalization was also related to the complexity and is an embodiment of an intention to divide operations into as many small independent sub-units as possible. Compartmentalization even extends to identities and to the introduction of new ideas. New ideas were first compartmentalized or segregated and then, over the course of time, were integrated or amalgamated with existing operations and activities: transformed and then reproduced. The compartmentalization of new ideas was not necessarily related to the pursuit of operational efficiency.

### **4.2.3 Affiliation as a tendency to gravitate toward one another**

I have previously delineated that compartmentalization was a recurrent managerial practice related to the pursuit of operational efficiency when coping with emerging situations. Affiliation, as a tendency to establish personal relationships and to cooperate, also engenders action and interactions in context. After its establishment, Gamma had

the distinct and definite support of management that was aimed at the creation of integrated elements that would link Gamma with business functions (see Table 15).

**Table 15 Affiliation as a creative tendency**

<b>Affiliation</b>	<b>Representative quotation</b>
<b>Bridging with other units</b>	
Development of technology	<i>A: ... at least some persons understood that if I am such an internal service unit so ... we should be ... an integral element of the extension of the business. We would integrate our competencies with it. In that way we could guarantee to ourselves ... a strong position.</i>
	<i>A: Yes as I said yesterday it was such a goal that we would integrate ... quite seamlessly with these businesses and these small product areas ... would ... support those bigger products. It was ... clear that no ... big business can be done with a product with few persons. But the integration was the main issue however.</i>
	<i>.. and finally if there was disagreement where to put money so [first name of executive] could do it and start projects in the order of magnitude of tens of millions ...</i>
	<i>... some of the people who saw this issue and I'll tell you where the difference will be ... between traditional research and development and then business oriented doing. So it was the end of the 80s when ... technology strategy and thinking began.</i>
	<i>A: It went up in smoke a year or a year and a half after that (Q: yeah) those key projects and ... one could say that it was some kind of prelude to productization but ... And then it was organized in a 60 persons seminar... But ... the jobs after the seminar were not assigned or organized ... The idea was to integrate technology with the business.</i>
<b>Tendency to affiliate</b>	
Restructuring	<i>Yes it was born in about 1995. ... to depict more detailed that idea then ... there was simply the starting point was a focus on the core competence, and core processes is the beginning and the end. And on various occasions when I have talked to my colleagues ... certainly the key is... to develop the total service concept that each party... first defines ... what is strategically important ...</i>
Sales and co-operation	<i>A: (Silence) when we started to invest in marketing and sales and to search for new customers. The time was 1994 because I remember that [name of sales manager] went to pursue these targets ... And ... there was some kind of connection that [Alpha] and energy sales could go hand in hand.</i>
Sales and co-operation	<i>A: We were not able to articulate well why the energy would be cheaper when operated by us or better functionality or something else, and it was left ... , [name of corporate] made the initiative not [name of firm].</i>
Individual initiative	<i>A: ... and some such discussions with [name of executive]...in about 1995 sometimes we should more strongly start ... discussions with businesses at the strategic planning level. But [name of executive] just stated I have told you and many others too ... that when they don't understand the significance of the technology ... or benefits of it in their businesses so ... we do these jobs and when we succeed so then someone will use these.</i>

Within Gamma, the view emerged that individual initiative was required to establish a closer connection with ongoing operations and activities. The intention was, in the words of the interviewees, to link expertise with businesses.

Gamma had extensive autonomy and ample opportunity to invest in research and development. This autonomy and independence was also the foundation for its distinct identity as a research organization. A practical method for linking Gamma with businesses was adopted from an outside consultant. Two factors were influential: on the one hand, there was the anticipated contradiction between Gamma and business functions, and on the other hand there was the dissatisfaction with the existing state of affairs. The outcome of the analysis of the fragments of stories implies that the belief about the need for change and affiliation with other organizational sub-units would have been a possible strategy to maintain autonomy and establish a strong position.

*The emergence of aggregate services as an embodiment of affiliation*

A manifestation of this tendency is the multiservice concept within Delta, notwithstanding the separation of activities-referred to as fragmentizing. Fragmentation, and the consequent increase in cooperation with customers, was apparently an ambiguous phenomenon. Although structures within the external and organizational context changed what some individuals wanted to see in the new aggregated situation, the response was affiliation with a party among external organizations.

With regard to Alpha, a joint effort at the action level of two business units was made to approach a customer with aggregate services. Furthermore, despite the fragmentation members of different organizational sub-units pursued affiliation across organizational compartments when coping with new situations. This demonstrates individual creativity, initiative, and the capacity for alternative actions in response to the demands of evolving situations.

Simultaneously, there was a focus on operations and the pursuit of operational efficiency as a practice, and affiliation when encountering customer organizations.



Apparently, this seems to be a contradiction, but it is a manifestation of the intrinsic tendency to cooperate. After the first attempt at the idea of aggregate services, it did not later materialize. The objective of the cooperation was unclear, and the idea did not come to fruition. It also becomes evident that increasing fragmentation as a managerial strategy left discretion to the action level.

About midway through the 1990s Gamma was still characterized by its autonomy in terms of its decisions and actions. However, at this time some individuals within Gamma started to consider the establishment of a closer relationship with business functions at a strategic planning level. But there was a latent contradiction between Gamma and ongoing operations regarding the objectives of development activities. A practice that linked Gamma with other subunits was the decision making concerning development projects. Preference was given to projects that were aimed at improving the performance of power plants rather than on the development of new businesses. The pursuit of operational efficiency is not only an organizational outcome, but a consistent practice that conjoined various sub-units.

### **4.3 Compartmentalization and affiliation as tendencies**

Organizational compartmentalization is a manifestation of the structural level to the extent that sub-units of an organization operate as discrete viable organizational entities. The extension of compartmentalization was an immanent tendency – *modus operandi* – when pursuing operational efficiency during an increase in competition. My findings suggest that compartmentalization and affiliation are related tendencies that epitomize the interplay between managerial response in pursuit of operational efficiency and tendency for cooperation with other organizations and sub-units.

#### **4.3.1 Increasing fragmentation versus decreasing affiliation**

The following quotes (see Table 16) demonstrate how Gamma gravitated to similar external organizations: a search for external partners. Increasing fragmentation decreased the potential for Gamma to affiliate with ongoing operations and businesses. Consequently, within the realm of Gamma, the intention to seek a nexus in the external

context emerged that was a manifestation of affiliation springing into action. Gamma was, at least in part, a research organization and was becoming estranged. This development occurred at several organizational levels within Gamma. At the administrative level funding to development projects was even also obtained from national level funding sources. At the individual level some people were visiting and working in prominent research institutes abroad, and thus establishing personal relationships with those organizations.

The merger of two companies was manifested in reorientations and restructurings during a short period of time. During the entire time, the objective was to improve financial performance and to focus attention on operational efficiency. According to management, increasing fragmentation was initially a strategy to provide an *“opportunity for improving financial performance”*.

Within Gamma, the result of the increasing fragmentation was conceived as an increasing pressure rather than an opportunity to improve financial performance. There was a decrease in investment in the development of uncertain future options and common interests between compartmentalized sub-units also decreased. With regard to Gamma, this development produced further difficulties and spawned a new situation to cope with.

#### *Tendency to affiliate*

The quotations presented in Table 16 demonstrate affiliation, and illustrate how the manager of Beta pursued cooperation with other organizational sub-units. After the establishment of the development project, the manager of Beta started to search for links and establish relationships with other sub-units. When the development project got off the ground it was still rather undeveloped. Even a retrospective interpretation reveals that nobody knew what avenue to pursue and what outcome to anticipate.

However, the project manager of Beta first attempted to affiliate with the sub-unit that was focused on the sale of electricity, but soon the project was reoriented, and an

affiliation with Alpha was established. These actions were associated with the people involved in the development.

**Table 16 Fragmentation versus affiliation**

<b>Fragmentation versus affiliation</b>	<b>Representative quotation</b>
<b>Gravitate</b>	
Search for external partners	<i>But it was ... I think such ... that ...first we do and then wish that somebody has insight ... and we were seeking valuation ... when we got [name of research institute] involved ... and hoped that [names of two institutes] would get involved ... we are in those programs ... and in that way research and development deserves its legitimacy when it is on interesting national projects and gets money from outside.</i>
<b>Performance: increasing fragmentation</b>	
	<i>But it is not so important where it originated but it is as if essential that [Gamma] was considered too large. And there are such elements that are difficult to place any more and no funding was available.</i>
	<i>The pressures are like hell to make economical profit but the easiest way is to do with current know-how activity and resources. ... And the question of investing in larger totalities, of common issues in several businesses, such a pattern I haven't found. That we would invest in big issues in a few years. Goals for the common development are not created because the pressure is concentrated on this operative economical result...</i>
<b>Tendency to affiliate</b>	
	<i>A: ... we had cooperation with [name of Daughter Company] and from there people were involved in 1998...From there ... [names of two managers and a site] were involved these. The [name of manager] was involved too ... in the project.</i>
	<i>A: So the question was that we wanted to ... first aggregate the services from different sub-units or whether to get the production in order and in that way to utilize of course in-service businesses and also to share information with others, and in a way in that phase we were speaking about industrial customers</i>
	<i>Then we too reviewed ... with the group ... [list of names]. Or we stated in that phase that the important partners in this pilot development are [names of business units]. They should absolutely cooperate. It was stated that ... heads of performance units define the models of action, both content and action-wise concerning pilot customers...</i>
<b>Affiliation at group level</b>	
	<i>A: ... we faced 2001 ...in order to survive or to look for a new job and ... even then I had ... various ... product concepts ... Certainly I was worried, we were five persons at that time whether we are silent or should we market ourselves what we are doing.</i>
	<i>And then ... the latest change was ... when in 2001 in the summer, related to the changes in [Gamma] ... a condition management center was established ... I have now been a year the head of condition</i>

	<i>management center.</i>
	<i>There were three ... service groups: power transmission, structural mechanics, and development of equipment. Three ... groups that then ..... in spring 2001 came to a decision ... immediately that they will be formed. A study was made I was involved in the study ... what are the benefits ... and what are the consequences ... if the maintenance development unit and ... condition monitoring business and then these sub-units ... [Gamma] are amalgamated....</i>

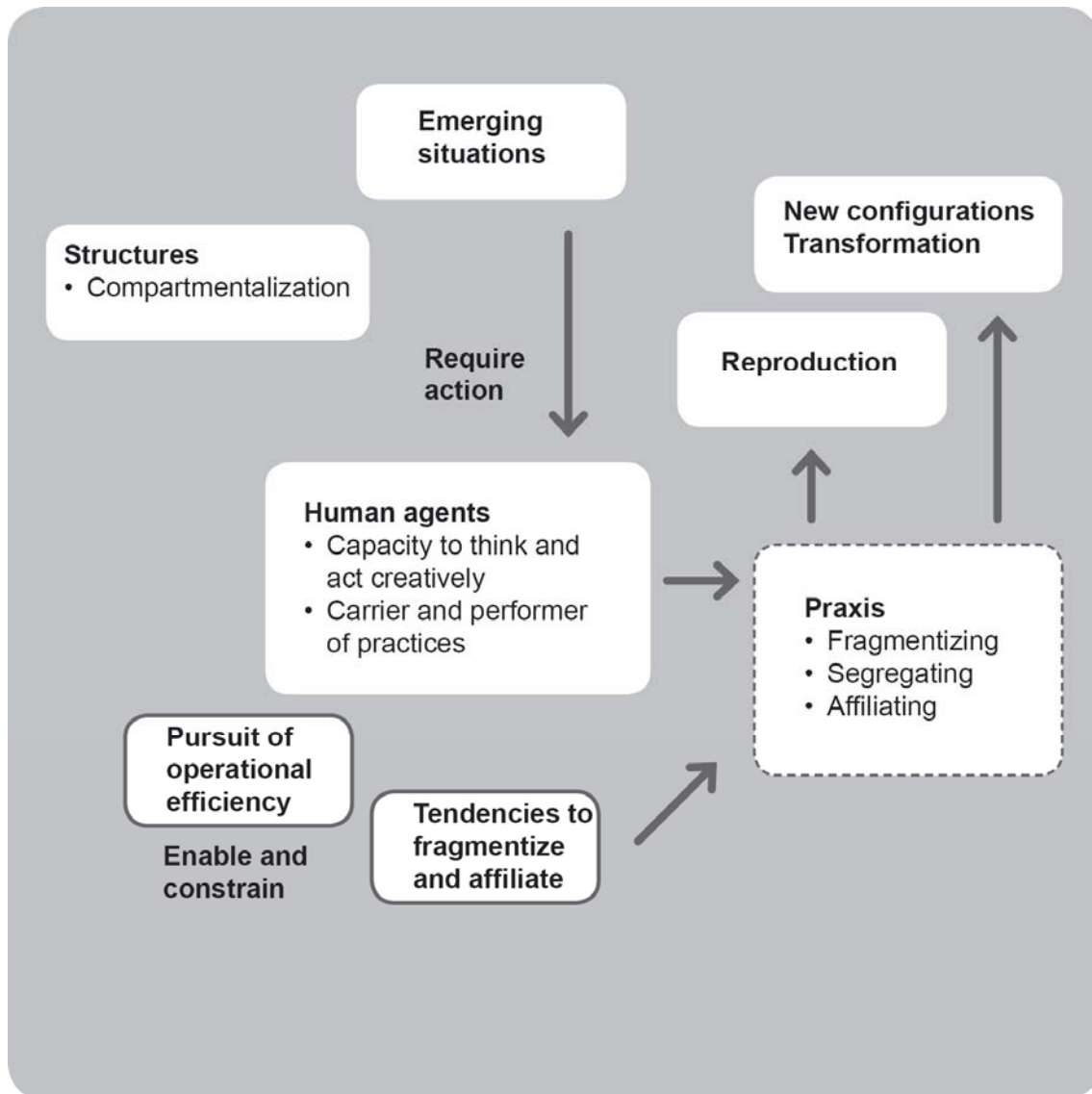
Within the whole organization the functional businesses were fragmented, but a simultaneous initiative was made to develop common guidelines and practices for the management of customer relationships. This development in context had an effect on the development of Beta, and links were created by the customer relationship project.

During this course of events, the manager of Beta sought support from the management but nothing new emerged. The role of management was neutral, it stated the importance of cooperation but this did not impinge on the organization. To sum up, increasing pressure and retrenchment resulted in that affiliation as a tendency for cooperation at the action level started to fade.

During reorientation and restructuring, affiliation manifested itself at a group level. In association with the dismantlement of Gamma and the development of Epsilon Gamma, a series of actions and interactions produced a smaller organizational sub-unit providing condition management services to substations, electrical machines, turbine plants, process equipment, and a variety of solutions using fiber optic technology. A short preparation phase preceded the establishment of the sub-unit. The intention had been to centralize the special expertise of condition management into a single organizational sub-unit. Alpha's development unit, the condition management business in Epsilon Alpha, and three smaller sub-units within Gamma were all amalgamated into one unit. The transformation of Epsilon Alpha was not only a purposeful action by individuals but also an embodiment of affiliation as an individual and group level tendency for action for survival.

### 4.3.2 Interplay between compartmentalization and affiliation

Figure 7 depicts the interplay between compartmentalization and affiliation and their relationships, with the pursuit of operational efficiency, the complexity of context, individual and group initiatives, and creativity and novel configurations as possible outcomes.



**Figure 7** Compartmentalization and affiliation

Compartmentalization is related to the pursuit of operational efficiency as follows. Increasing compartmentalization means intensifying fragmentation and reducing the interdependencies between sub-units. Compartmentalization as a structural property is related to the complexity of the environment and refers to the extent to which the sub-units of an organization operate as discrete units.

*The organization is structurally compartmentalized but there exists tendency within subgroups to affiliate with other subgroups.*

*In pursuit of operational efficiency, the managerial response to the increasing complexity of the environment and to emerging situation tends to increase compartmentalization.*

Affiliation is the tendency to establish and strengthen relationships and structures between otherwise fragmented and independent organizational sub-units and activities. At the structural and action level (see Figure 7) fragmentation and affiliation interact as follows. A creative response, at the action level, to increasing fragmentation is affiliation – the tendency to establish and strengthen (intensify) relationships between sub-units and create new configurations, and henceforth oppose the fragmentation.

Variations of affiliation are the co-ordination and integration of sub-units, personal relationships between actors in the organization, and finally personal relationships between individuals in the organizational and the external context. Affiliation is an embodiment of creativity, initiative, and capacity of individuals for action, in response to the demands of unfolding situations. Compartmentalization and affiliation are closely related and intertwined as embodiments of what managers and actors are doing. Fragmentation, as a managerial practice, ensures that operations and affiliation as a situated and emergent tendency, result in new organizational configurations; see Figure 7.

## 4.4 Contradictions and paradoxes

Several ambiguities and contradiction emerged from the interviews. The most profound of these are references to centralized and hierarchical decision making, versus discretion and autonomy, and functions, and the tendency to develop and create connections and networks between subgroups for the purposes of survival – affiliation.

The following quotes are an introduction reflecting the technical core and ongoing operations within the organization.

*A: ... let us begin from the production function ... the culture there ... development of technology was not valued at all ... production represents basically [name of firm] culture focusing on construction and operating of power plants, customers did not exist, they were just consumers. The culture had remained ... they did not want to consider the future ... a future dimension was missing*

*A: ... energy production ... they were working with smaller things ... or how to manage current problems at their own power plants.*

The characteristics of ongoing operations and the technical core of the organization are, a strong identity, a problem solving ability, and seemingly contingent action to cope with emerging situations. Managers running the ongoing businesses seemed to be indifferent and unresponsive to new ideas. This function apparently had no future dimension at all, occurring only in the present. There is also reference to a culture that embodies strong and permanent characteristics of the organization. This aspect was apparently a manifestation of reactive and defensive activity – reproduction – in a compartment of its own.

The quotations below are representative illustrations relating to operational efficiency within the organization:

*A: Yes market had priority ... when some resources were needed ... in a way we were living on the here and now time scale. That we really would think ... future success factors and to invest in those consciously ... so that the outcome would have been an owner in the future ... such a pattern we could not create and understanding.*

*A: ... the business executives at that time did not see the development ... as a backbone on which the business is based ... still the focus was on the daily operations and on the billing rate and on sales.*

A consistent characteristic of the organization was the focus on the near future within each individual's compartment. The focus on the near future is seemingly paradoxical and contradictory because investments were made on durable specific production assets for power generation. With regard to the changes and future intentions, individuals seemingly react only to changes in the environment. It seems that within the organizational context the concept of time is focused on the present rather than on the future and was related to the requirements of operational efficiency.

The following quote is an introduction to the characteristics of a variety of organizational sub-units.

*A: ... Then [name of function (three names)] is an embodiment of a service organization ... there has been such a vision ... common has been that it is worth developing technology (Q: Yea) and how things should be and what the future looks like.*

This function could be called “*it's worth developing*” and, apparently, there is a future orientation of time that distinguishes between the production function and service functions. The service function here means refers to the functional sub-unit that provides various intangible outputs in order to operate and maintain production assets.

The following quotes are illustrations of the dimensions and characteristics of control systems and compartmentalization

*A: ... When I was hired to the firm, the firm was rather complicated and bureaucratic ... an employee had to know exactly who is doing some particular task*

*A: Well we had very distant relationships ... between levels of hierarchy ... from product manager upwards to our executives ... I felt that people suffered from that ... the executives at higher levels don't know what people do ... what their problems are ... boundary has been rather strong ...*

*A: ... In the [name of spin off] small firm we were twenty thirty employees. I would say that it is illustrative that originally one administrative employee took care of reporting ... but rather soon we had to hire a second on in order to be able to report to the parent company (Q: Yea). In such a small firm.*

The use of the term “culture” makes it understandable that taken for granted assumptions maintain consistency of behavior. Job division and specialization were



complicated, and it took time for individuals to comprehend how the organization works. Hierarchy also means that individuals at various organizational levels are perceived as isolated from each other. This is one of the paradoxes that are evident in the context of my study. Those interviewees whose tenure originated in the construction era often used first names when referring to, for instance, top management, even using nicknames for executives. Some interviewees perceived that top management was remote and unapproachable and they were neither interested in customers nor in problems at the action level. Pervasive and heavy control systems as a practice embodied the basic characteristics of the organization – the pursuit of operational efficiency – and consequently it unified smaller sub-units.

The following quotes illustrate the paradoxes and ambiguities concerning decision making and discretion

*A: ... Lets say that ... concerning project management ... even with regard to commercial issues ... the decision making has been decentralized and it is very close to employee. In that sense the decision making to promote to run project is not hierarchical. Really it is so that those who do the job are allowed to make decisions and they are accountable as well.*

*A: ... in practice the situation is that at these sites we are very independent.*

*A: Yes ... organizational structures and business control have been from the beginning rather good. Financial results are monitored ... but on the other hand ... the follow-up of other results was not so efficient ... When some project was started it's progress was not followed.*

These ambiguities are related to decision making, discretion, and a willingness to cooperate, or strategic action as practice that is not in the hands of managers. An apparent contradiction exists between centralized decision making and discretion, and freedom during action. This was manifested by the indifference of management. Furthermore, the perceptions of each individual regarding certain issues may be ambiguous.

## 5 Modes of praxis: habitual, contingent and transformative

*In this chapter first I analyze strategies that cope with emerging situations and dimensions of organizational character as a mediating entity between structure, agency and action. Second, I analyze the embodiments of agency and creativity of human agents. Third I detail events in terms of local actions and interactions in order to examine how organizational character and the capacity of human agents to make a difference have an effect on praxis and local transformation.*

### 5.1 Strategies to cope with emerging situations

Emerging from the interviews are phenomena that are related to the changes that I describe using the concepts of prudence, ensuring, compartmentalization, and affiliation. There was a pattern of change that kept repeating itself. The enabling and constraining practices have been the continual pursuit of operational efficiency and technical excellence.

#### 5.1.1 Development of the environment

The following quotes epitomize the changes in the business environment, and three time periods in a few words.

*A: It includes all the construction of power transmission and power plants ... Let's say that it was substantially ready in about 1980. That was such a period of infrastructure. Then after, in the ten years period 1980-1990 it was ... improvement of operational efficiency because plants had been put into a good condition...*

*A: Period of external forces of change namely if you think about ... the deregulation of the electricity market. It was clearly such an external force of change. Until 1995 we were ... acting very ... [name of corporate] initiating by ourselves ... we could decide what to do. But when the era of external forces of change comes then the action depends, to quite a large extent, on others. It started from that. Then come of course this ... emergence of [name of corporate]. It was such a change from the influence of external change forces. ... These political decisions were quite strongly introduced.*

The interviewees consistently refer to two major developments in the external context. The first is the deregulation of the electric power industry, and the second is the merger

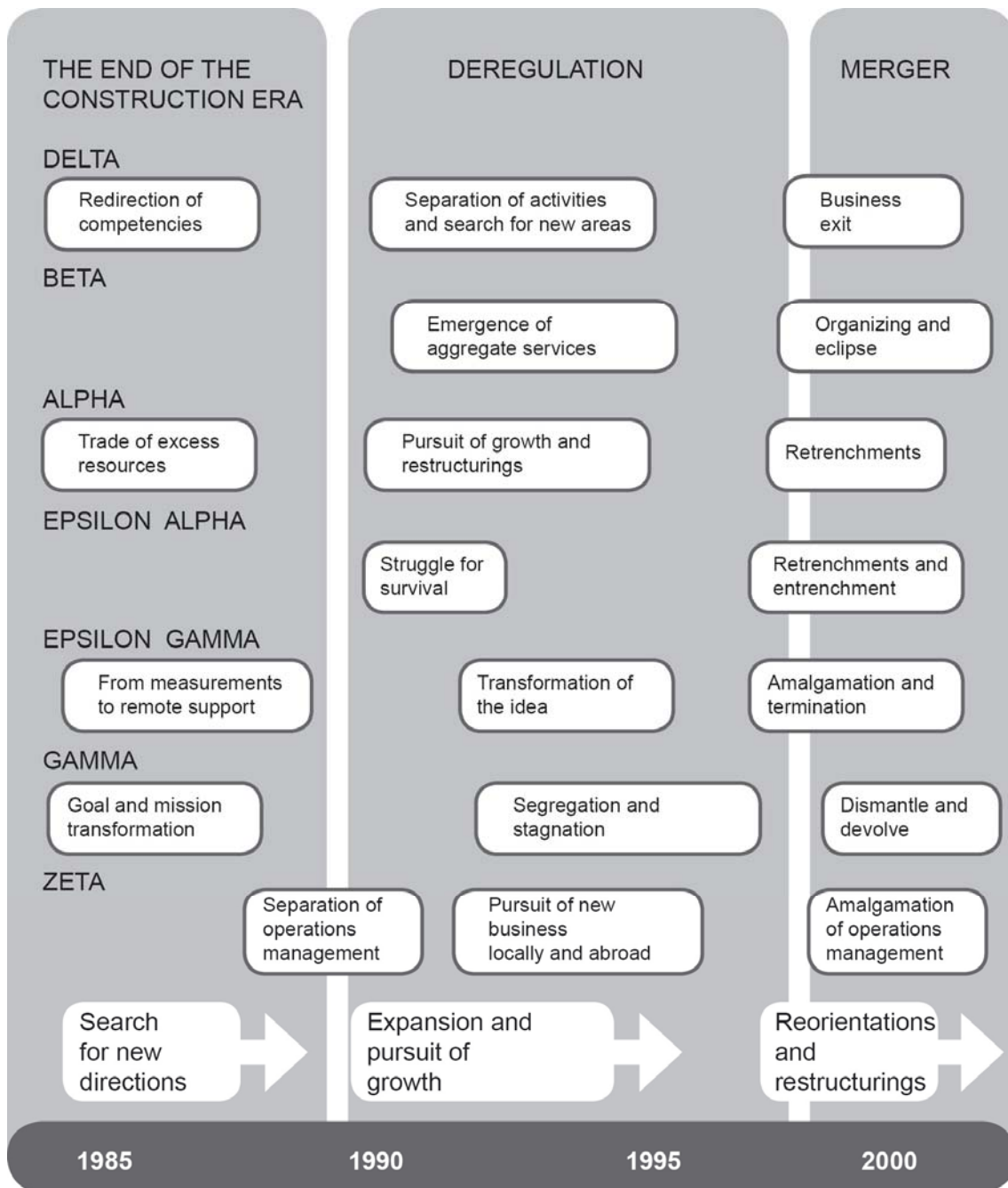
of the two corporations. The overall progression of events is divided into three time periods, based on the development of the external context:

- *The end of the construction era*
- *Deregulation*
- *Merger*

The purpose of the division into three time periods is to structure the passage of events. The first period, the end of construction era is related to a shift in the industry and resulted in a surplus of resources and expertise that could now be utilized in different ways.

The second period begins when the deregulation of the electrical power industry forces a massive environmental change, which accelerates a shift in development that was already underway. A major change to the structure was the incorporation of functions into separate business units. The second period ends and the third period begins with the merger of two companies – the intervention of an owner means increasing pressure improve financial performance manifesting in retrenchments and strategic reorientations. The intervention of owner – merger of two companies – had a major impact over a short period of time on all sub-units, and this time period can be characterized as a period of restructurings and reorientations.

Figure 8 depicts the context of my study on two levels: a change and development in the business environment, and major strategies to cope with environmental shifts as emerging situations. The Figure 8 sets the stage for a more detailed analysis in following paragraphs and chapters.



**Figure 8 Temporal display of development of organizational sub-units**

The third time period was characterized by a series of rapid and episodic structural changes and reorientations. The second and third time periods were perceived as periods of change brought about by external forces. In the words of the interviewees, the course

of events was a transition of the organization from an infrastructure builder to a modern business enterprise. When referring to the environment or to society as a whole, interviewees perceived that competition in industry was increasing and the demands for economic performance increased accordingly.

The following account primarily concerns the major events and occurrences of each sub-unit, and major changes of the organization. The development of the central subjects, models the context of the underlying phenomena, which are inescapable during the change and development of the organization Alpha, Delta, Gamma and Zeta represent the development of the organizational sub-units. Epsilon Alpha, Epsilon Gamma, and Beta, represent various product and service ideas that evolved within Alpha, Gamma and Zeta. They emerged and developed parallel to, inside of, or in interfaces of, previously described organizational sub-units. The development ideas were abundant in all the organizational subunits aside from Epsilon Gamma, Epsilon Alpha, and Beta. However, I focus on the emergent sub-units mentioned above.

### **5.1.2 The end of the construction era: search for new directions**

The following quotes are an introduction to the actions related to the end of the construction era.

*A: I would say that more than ten years ago when we went out with these project services ... the commercialization of services provided this kind of electricity producer and engineering know-how ... from that point of view it was a very significant issue ... according to my opinion.*

During the first time period, the development of the organization began with the culmination of the construction of infrastructure, such as power plants and transmission systems. The end of this era included minor events, but nevertheless it created a new situation and released accumulated resources for other uses. Over the course of time, this new situation made it necessary to take measures to resolve the question of excess resources.

*A: When you start to make operations [production maintenance] more efficient then special organizations become formed. Similarly [function] if there are no longer jobs for this kind of large organization then attention needs to be directed where there is need for services.*

*A: Then with regard to the [name of function] ... the origins of selling services to customers outside the firm was to give work to the employees of [name of function] because there was no*

*longer internal projects ... the [name of firm] had been to quite a large extent the only and internal customer.*

The end of the construction era was not abrupt, and the development of the environment was gradual. The last changes of the external context that were attributed to the end of the construction era occurred by the end of 1990s. The design, construction, and commission of power plants, power transmission lines, and substations for private spluttered out over the period of several years. A logical consequence was to attempt to trade excess resources over the market and to exploit accumulated expertise to create new businesses. On the structural level, the response to increasing pressure was to intensify the specialization of sub-units and the extreme embodiment was to establish separate independent business units.

During the end of the construction era, Gamma, Alpha, and Delta used different strategies to cope with a new situation. The first strategy was internal change related to goal and mission transformation; the second represents the trade of excess resources; and the third represents the redirection of design and engineering competencies.

#### *Gamma: Goal and mission transformation*

The emergence of Gamma as an organizational unit was related to the employment of excess resources in order to maintain them for future anticipated purposes. The following quote is an introduction to the development of Gamma's goal and mission transformation.

*A: In 1980 an era was over. And then we had to think what to do because the initializations of power plants came to an end ... most people were employed by initializations ... then we had to think what to do.*

The strategy used by Gamma – transforming expertise into research and development activities and later into product development activities – proceeded as follows. The end of the construction era meant that there was an excess of resources. Those resources were previously used for the commission of power plants and transmission systems. Such resources and expertise were now free to be invested in other activities, such as research and development. The aim was to maintain the technical expertise within the organization, which I interpret as an embodiment of prudence.

Structurally, Gamma became an independent organizational sub-unit with a new management and internal board. Gamma was further divided into two major sub-units. In the laboratory unit there was plenty of expertise that could be traded over the market. The second sub-unit was established for research and development activity, and was later transformed into a product development unit.

The following quote is in introduction to the establishment of Gamma, and it manifests the intention of management to cope with the emerging and evolving situation.

*A: ... [name of executive] retired. Consequently these two units were amalgamated ... but then in the beginning 1983 [name of executive] was appointed and it meant also that the senior management was ready to ... invest in research and development.*

It is apparent that the setting of unambiguous goals was lacking until a decision was made to invest in research and development within the technical areas of power generation and transmission. The nomination of the executive was a manifestation of the intent of management. Gamma was founded as a research organization.

*A: ... 1986 [Gamma] was established ... and the laboratory at that time was the biggest office of [name of department]. The total number of headcount was more than 250 when taking into operation power plants by the end of 70s. ...*

*A: And as a matter of fact I now confess we had such a memo that was sent to [name of CEO] by [name of executive] that we must get rid from the [name of department] ... and to become ... oriented to product development.*

*A: And it did not take many months after the memorandum was sent that the technology was born. The technology function was managed by [name of executive] and all the laboratories were put together [list of sub-units] and then became ... the research and development unit managed by [first name of an executive].*

The operation of Gamma started without delay due to the backing from management and the fact that the staff were already in place. But the actions of some middle managers had an effect on organizing the unit. The driving factor in local actions was the dissatisfaction among middle managers about the present state of affairs. Eventually, Gamma was organized and that basic structure endured until the unit was dismantled. The establishment of Gamma created structural conditions but the actions and

interactions of individuals resulted in a modified organizational arrangement: local transformation.

*A: We started to do product development with the mindset that ...when there was free capacity. And then the product development ... was not ... highest priority but was done ... when no billable work existed.*

A more or less implicit objective within Gamma was to create and maintain technical expertise inside the organization in order to cope with failures and disturbances of the power production. Even the practice of internal trade was introduced. This practice encouraged the exchange of resources with other organizational sub-units, which embodies the increasing fragmentation within the organizational context. The pursuit of operational efficiency was immanent during this time.

Obviously, the establishment of Gamma was a manifestation of survival as a generic goal, organizational reproduction and prudence rather than an intentional attempt to try to change the state of affairs in the future. Within Gamma, there were plenty of resources that could be invested in research and development, which led to numerous development projects.

An outcome of the investments was a spin-off firm; however it failed. At the same time, there was an on-going period in which the development of technology was considered as a means of improving efficiency of power generation. The intervention of management meant that the functions of the organization ought to be to invest by themselves in research and development. In spite of this intervention, a functional relationship with Gamma remained distant, which was considered to be a “*lack of business orientation*”.

An endogenous strategy used by Gamma to survive was the affiliation with other organizational sub-units. The embodiments of affiliation were co-optation with representatives from other business units and the joint use of control groups in the development of projects. Both were attempts to establish links between Gamma and ongoing operations. The management of Gamma wanted to maintain full control over



development teams. Within Gamma there emerged an attempt to expand into external markets before there were any major structural changes in the organization.

*Alpha: Trade of excess resources*

The development of Alpha was the manifestation of an emerging strategy to trade excess resources over the open market and to adapt to the environment when encountering it.

*A: ... by the end of the 80s ... when we decided to start the business ... the other industries had a lack of manpower and we had resources that were released from power plants. We could employ them in this manner and we will have volume for our business and capability to serve too ... we saw it in that way.*

The course of events within Alpha proceeded as follows. Excess resources such as the workforce and expertise about the maintenance of power plants and transmission networks were accumulated as an outcome of normal operations. There was also a simultaneous shortage in the workforce within other industries. In this new situation – potentiality – two firms established a joint venture, which is referred to here as Alpha. The idea of the joint venture was reproduced with several customers when they outsourced their plant maintenance activities. Growth was seemingly spontaneous and it can be interpreted as the proliferation of the business model, in other words the reproduction of structures.

The motives to establish joint ventures were to safeguard the interests of both parties, to reduce uncertainty, and to promote stability in operations. All motives were associated with the prudence of both parties and the aforesaid actions are the embodiments of ensuring when engaging actions in context. Pertaining to the establishment of Alpha, the intention to expand to new markets was preceded with the formation of organizational structures. The model of governance and the outcome of the organizing were contingent on the emerging situation in the environment.

A characteristic of the daily operations of Alpha was the maintenance of customer's production facilities and the dependence on customers, but not on heavy durable production assets and the efficient use of such assets. At the beginning, the upturn in

economic development precipitated the growth of Alpha. However, during the course of development, contingencies and a decline in the environment resulted in difficulties with profitability and some sub-units had to struggle for existence.

Human resources were transferred from customer firms to Alpha and remained as separate organizational sub-units. This was an embodiment of *compartmentalization* as a dominant managerial strategy.

*Delta: Redirection of competencies*

Delta represents the traditional competences of a power company, namely the design and construction of transmission lines, substations, and communication networks.

*A: And ... here in power transmission it consisted of ... traditional construction of power lines and telecommunication business and substation business. Three units altogether ... and still we made internal trade ... but also external business ... because in that phase ... during the birth of [name of function] ... so ... the emphasis of business changed from in-house unit so that eventually more than half of our turnover came ... from external customers*

A generic strategy to trade services based on the existing expertise was repeated within Delta. A novel organization model was introduced: the division of a single organizational sub-unit into three sub-units – one being Delta. Delta was further divided into three smaller units and thereafter the administrative structure was established. Altogether, the idea was that these sub-units operated as profit centers. The arrangement of such an organizational configuration was meant to establish viable separate business entities embodying increasing fragmentation. Within Delta attempts were made to search for growth outside of the organizational context.

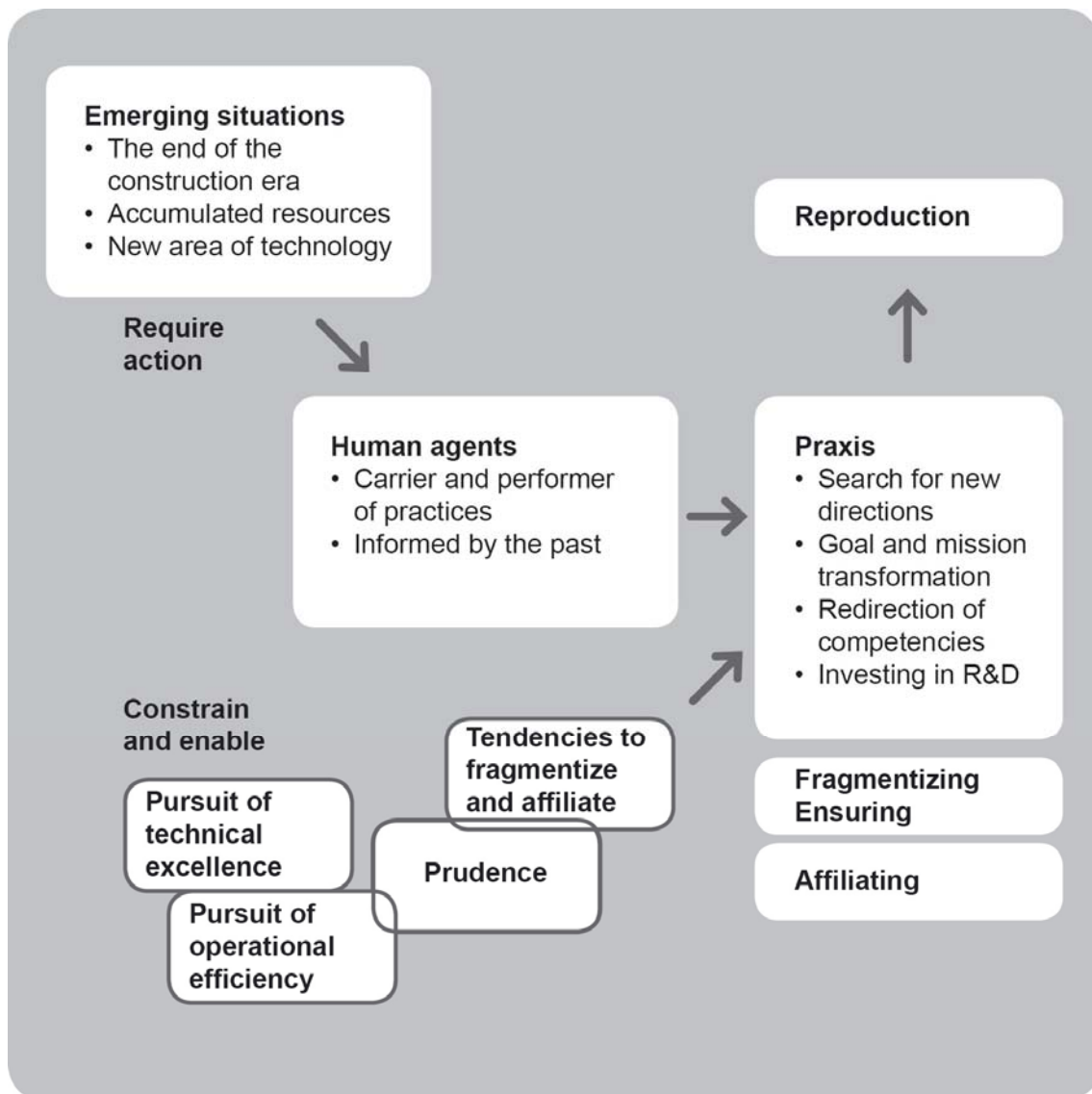
Emerging situations concerning Delta occurred during a short period of time. These situations were related to the introduction of competition within the electricity industry. The first emerging situation conjoined the anticipated consequences of changes in the environment. The deregulation of the electrical power industry produced a situation where actions were needed to separate high voltage power transmission that was to be operated by a separate company. The basic strategy was to avoid the consequences of the anticipated intervention from authorities and was not focused on future possibilities.

This meant that the majority of Delta's turnover came from outside markets. Finding new trajectories for the future would have been very difficult due to structural constraints: the power transmission system is a highly specific asset (Joskow 1999) that is entirely dedicated to the physical transmission of electric power.

The second emerging situation was associated with the introduction of a new area of technology.

*A: [Name of firm] in that phase ... entered the new business area and started to buy distribution networks and ... utilities firms. And a consequence was that ... the construction and maintenance of distribution systems became transferred to this [names of sub-units] and later to [Delta]. And ... it was ... a big change for us. A new area of technology was introduced to this business unit ... And ... regional firms were established ... and ... our purpose was as if to cover the country with various regional firms that take care of construction and maintenance of distribution networks.*

An entirely new area of technology was introduced: the construction and maintenance of distribution networks, and organizing new productive practices. This entailed a change that made new actions and interactions possible and necessary: potentiality for actions and interactions resulting in the local transformation of Delta. Furthermore the introduction of new technology area was in contradiction with previous internalized and taken for granted patterns of thought where the distribution of electricity was perceived as the customers' business. In both cases the development of the business environment required actions that were engaged by management in response to the emerging situations.



**Figure 9 Strategies for coping with the new situations**

*The end of the construction era*

Figure 9 depicts strategies, including major actions, that aimed at coping with the emerging situations within Alpha, Delta, and Gamma during the end of the construction era. Alpha, Delta, and Gamma were distinct organizational sub-units, but a common characteristic during this era was the accumulation of excess resources including expertise. All sub-units, except Gamma, had to channel their resources and expertise to the external market. There were some variations in the pattern of events but basic action

taken was to establish more or less independent profit centers that from then on had to survive and to search for growth in the external marketplace.

Pertaining to Gamma, actions were taken to transform their mission; resources were invested in research and development for the pursuit of technical excellence. However, Gamma remained inside the organization. Alpha aspired to strong growth, but outside encounters and other contingencies resulted in economic adversities that had an effect on the future. Within Alpha, the organizational structure consisted of two sub-units with separate identities and images. Delta was divided into smaller sub-units or profit centers and growth was sought in the external marketplace. A commonality amongst all of the sub-units was the increase in fragmentation related to the pursuit of operational efficiency; see Figure 9.

Some decisions and consequent actions were the introduction of internal trade, the establishment of a joint venture, and the decision to invest in research and development. Some of the outcomes are indicated, such as the deceleration of development and the basic structure remains in force. In Figure 9 phenomena that emerged are foregrounded: the immanent pursuit of operational efficiency and pursuit of technical excellence and fragmentizing and ensuring as managerial responses for the maintenance and reproduction of an organization.

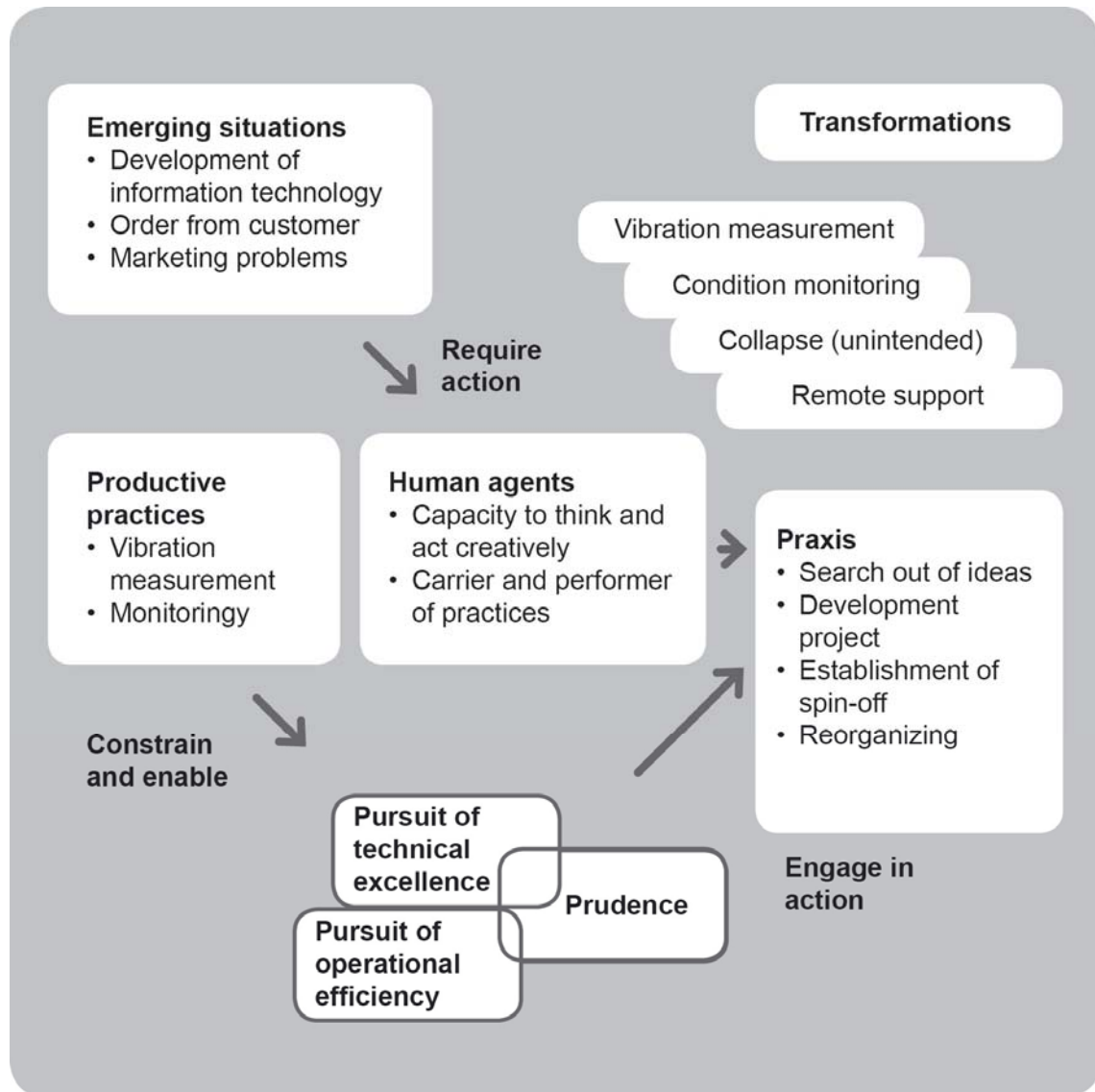
#### *Epsilon Gamma: From measurements to remote support*

Epsilon Gamma represents the development of the condition monitoring of the critical components of power plants and its transformation into a service to be offered to the external market. The following quote outlines the story of Epsilon Gamma.

*A: ... I think... from the condition management service point of view ... the most significant issue ... was however that ... [name of firm] by the mid 80s decided ... to invest in product development and in the condition monitoring of rotating machines. As a matter of fact it feels interesting that ... basic services that still are provided by [name of sub-unit] ... core services were developed during late 80s.*

The origin of the expertise and related practices was the standardized vibration measurements of rotating machines, and later the interpretation of the results –

diagnostics – in order to provide recommendations for further actions concerning the maintenance of rotating machines.



**Figure 10 From measurements to remote support**

Figure 10 depicts the early transformations of Epsilon Gamma, originating from diagnostic vibration measurements, the development of a vibration monitoring system, the decision to invest in research and development, and the consequent proliferation of technological development paths, orders from customers, commercial applications,

spin-off, marketing problems, collapse, dismantlement and devolution, and eventually the emergence of remote support as an organizational transformation.

A major event in the development of Epsilon Gamma was the decision to engage in the research and development of new methods for operations. This decision and consequent actions were motivated both by the pursuit of technical excellence and the availability of financial resources. As a consequence, a multitude of areas was developed – contingent and divergent action. Within Epsilon Gamma, potential concepts for services were investigated, and a rapid development of information technology enabled the development of ideas.

A boost to the development of vibration monitoring systems was an order from a customer in 1986, a system that was still in operation during the interview in 2002. The order set the pace for the development project that had a positive outcome. At the same time an idea emerged to develop an advanced condition monitoring system, including vibration monitoring and the monitoring of the thermal efficiency of power plant. The objective was basically the early detection of phenomena that are the result of faults and a deterioration of the thermal efficiency of power plant. The tendencies that enabled the development of Epsilon Gamma were the protection of a technical core: prudence, and the related, ensuring – and the pursuit of operational efficiency.

The first attempt to penetrate the market is embodied in the establishment of a spin-off to offer condition monitoring services. However, there was difficulty with such a new service in marketing and establishing customer relationships. The development between the environment and Epsilon Gamma was out of step and, in a way, there was a contradiction between Epsilon Gamma and its business environment. At the same time, enabling technologies were quickly evolving and the whole concept collapsed. Consequently, the spin-off was dismantled and the personnel came full circle. Some customers remained and a remote support centre center was established to serve them, but the volume of new system deliveries decreased until the decision was made to end the deliveries. Action within Epsilon Gamma converged to support established

customers (Figure 10) and this development was a series of transformations beginning from the vibration measurements of critical components, to remote support for customers.

### **5.1.3 Deregulation: pursuit of growth**

The deregulation of electrical power generation and sales was manifested in the organization as the incorporation of functions and as various efforts to expand into external markets. This time period ended due to the intervention of the owner of the company.

The following quotes embody how interviewees pieced together the consequences of the deregulation of the electricity market.

*A: ... that if you think ... the deregulation of electricity market resulted in that we ended up ... in to this kind of competitive society.*

*A: ... During the last ten years ... the changes in the environment that have been influencing no doubt ...the focal is the deregulation of electricity markets and energy business ... and ...as a consequence more than before ... the economical success of firms is emphasized ... cost efficiency will be pursued ... through many ways today.*

*A: ... Or the competition set requirements for efficiency and accordingly expectations of authorities for efficiency increased. Then through this way these focal changes emerged.*

The introduction of competition into the electricity market in terms of the deregulation of power generation and sales was perceived by the interviewees as a massive environmental shift that required not only reorganization but, over the course of time, would eventually also have an impact on the action level.

#### *Zeta: Pursuit of growth*

The deregulation of the power industry resulted in a new situation whereby in some countries independent power producers entered into the market. Daily operations of power plants require specific skills that are not usually possessed by investors. This development meant that the ownership and operation of specific power plants could be separated from each other. This separation can be interpreted as an innovative way of organizing operations management. Zeta as an organizational sub-unit was based on the idea of separating daily operations from the ownership of plants.



After the incorporation of functions the management of Zeta communicated a growth vision and the message was pervasive. Actions aimed at the implementation of the goals of growth were entrusted to middle management. The main options were improvements to operational efficiency and the trade of excess resources and expertise on the market. This resulted in the pursuit of a new local business as an embodiment of individual and group initiative.

The growth vision was re-enacted by management within a short period of time; it was related to the development of Zeta when the intention was to grow both locally and internationally.

*A: By the end of 1994 and in the beginning 1995... messages, information and so on started to come from the head office and it was said that ... the firm is expanding abroad*

The development of the activities within the context of Zeta included two subsequent attempts to create consistent common models for operation and maintenance services. Furthermore, in cooperation with Epsilon Gamma, a remote support concept was developed and implemented that was related to the pursuit of growth abroad.

#### *Delta: Search for new areas*

A characteristic of Delta was the separation of activities and the introduction of new areas of technology, namely distribution networks as a consequence of the deregulation of electricity sales. Within Delta the search for new services continued until a merger occurred as a result of the owner's intervention.

*A: The separation of electricity distribution networks and sales and deregulation of electricity sales. They were the first changes that later had an impact on me when [name of firm] incorporated high voltage grid transmission.*

*A: And ... like, it then occurred that the incorporation [name of sub-unit] as far as I remember it was the beginning 1993*

The second structural change was the incorporation of the engineering function that included the planning and design of a high voltage transmission system: increasing fragmentation of the organization. The incorporation seemed to be more of a routine

action that was consistent with the pursuit of operational efficiency. However, both the introduction of a technical area and the exit of grid services had a major impact on Delta and on its external context.

Besides the changes to the structural conditions and the establishment of regional companies, expansion attempts were made. The following quote outlines the cooperation with other companies in business areas related to existing expertise.

*A: ... It occurred earlier ... in a way an extension of business ... that our know-how of power lines resulted in that we with [name of firm] started to construct ... telecommunication masts ... quite a new business such as telebusiness. We previously had a telebusiness but it was, as a matter of fact, only ... construction of separate telecommunication networks for energy companies.*

A consistent aspect at the action level seems to be that individuals often see a larger aggregate in the organization. The emergence of the multiservice concept within Delta was related to increasing compartmentalization.

*A: But if we go back ten years to the 90s then this total service with regard to the construction and maintenance of networks ... it started in [name of firm] through separation of activities and the establishment of a network constructor [name of firm]. We even implemented, in cooperation with the network company, the construction, operation and maintenance of distribution systems. The service provider took care of control room operations during agreed period of time.*

The development of a multiservice concept got off the ground without delay and involved upper level managers. This development had come about with changes to the environment related to deregulation. The following quote is an introduction to an event that is related to the deregulation of the electric market: exit of grid services.

*A: ... but due to deregulation ... [name of firm] was established... [name of grid company] was separated ... the ownership and operations ... of power transmission and ... once again it happened ... that the internal customer changed suddenly to a completely external customer. And consequently the turnover from external customers increased.*

The separation of high voltage transmission systems and grid services from the organization meant that former internal customers became external customers creating a new situation with which to cope.

*Gamma: Segregation and stagnation*

Increasing compartmentalization made the links between Gamma and other functions weaker. During the course of events, several ideas as to the organization of Gamma were introduced such as productization and quality systems.

*A: I would like to say in this way that it was the fad of productization (laughter) (Q: Yea) Q: The fad of productization was good because this fad of allows the later use a fancy word - productization...*

The idea of productization was adopted from outside sources and its development was ambiguous. Productization was an attempt to standardize activities and therefore can be interpreted as aimed at organizational reproduction. It can also be interpreted as an aberration from ongoing action and as local transformation. However, the outcome was that the idea of productization was developed outside and had not become firmly established within the context of Gamma.

For Zeta, the pursuit of growth abroad had a substantial effect on the operations of Gamma as well generating a considerable share of the revenue. Within Gamma, research and development activities concerning operations management were carried out in close cooperation with Zeta. These actions were taken as a response to the evolving situation at the time and were enabled by the development elsewhere in the organization. Consequently, positive outcomes were realized. Factually, there was a question about subcontracting to Zeta but in the end no direct contacts with end customers could be established.

During the pursuit of growth, Gamma was still characterized by autonomy concerning the decision making of its core activity – *research and development* – and it had evolved into the current state of affairs with the aid of munificent resources over a long period of time. Within Gamma there was a strong sense that other organizational sub-units should consider which technologies to invest in. Despite these attempts, Gamma became segregated within the organization while it gravitated toward similar organizations and institutions in the external context. Attempts to cooperate with other organizational units at a strategic planning level came to naught.

Furthermore, the managements of business units could not allocate sufficient time for development issues. This was due to their focus on the operational efficiency related to changes in the environment. Eventually Gamma was driven into stagnation a state of being and the legitimacy of its identity weakened during the course of events.

*Alpha: Pursuit of growth and restructurings*

The message of growth that was conveyed by management was especially pervasive within Alpha and Zeta. The search for growth – local actions and interactions – was a major strategy for survival. The sub-units were even awarded symbolically when they were able to attain their growth targets.

Strong growth was pursued by the management of Alpha by establishing new sites that provided services for new customers. The pre-existing structures together with the new situation created the potentiality for further actions.

*A: Then too ... the challenge the grow with industrial maintenance was considered so important that among other things we established [names of sites] ... providing electrotechnical services ... workshop and a support site ... we wanted to offer comprehensive service for industry ...*

*A: So in about 1994-95 such a strong marketing effort started but perhaps we did not expand as much as we put effort on that*

*A: the companies had experienced, by the beginning of the 90s, strong pressures to develop their operations and then there was such a view, like, that to survive all enterprises ... must operate in a certain way...*

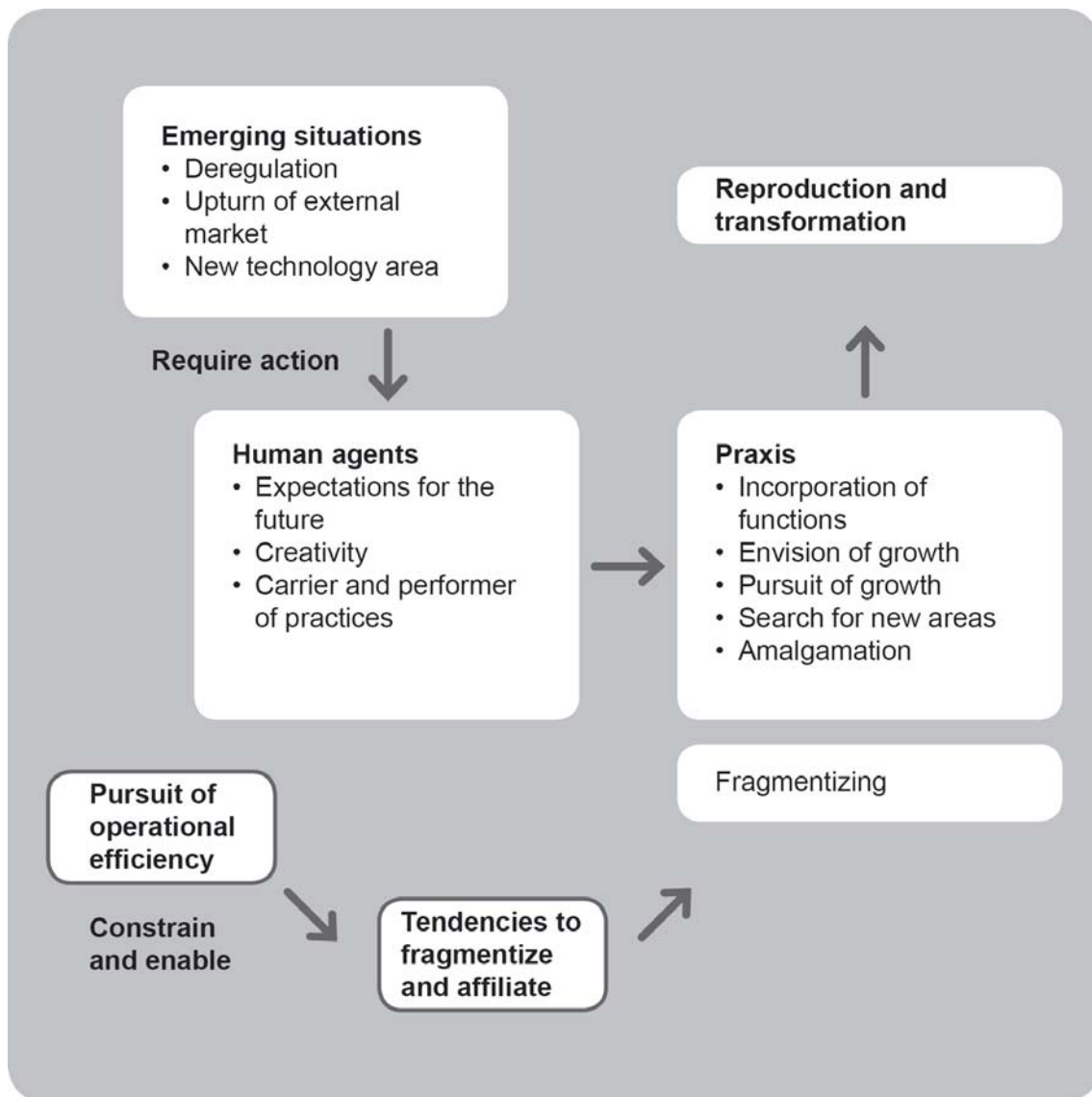
The belief of the management of Alpha was pervasive so that customer industries would in the future outsource their non-core activities. Consequently, the market potential for the services provided by Alpha would be substantial. The outsourcing of non-core activities was considered to be an option to reduce costs and survive when encountering increasing competition. One of the paradoxes is that none of the interviewees were able to explain on what basis the belief of the market potential was based. This belief, however, was rather hopeful with regard to future - generated local actions and interactions.

The incorporation of the company into separate businesses and the increasing fragmentation had direct consequences on the individual's perceptions concerning identity and decision making.

*A: ... identity issue was that when these firms were small and were operating as the holding company ... it was experienced very strongly that ... this is our enterprise. But the bigger we became ... then it was no longer experienced as our enterprise.*

Previously, smaller, more or less, autonomous organizational sub-units within Alpha were perceived to be small entities in a large firm. The managerial intention was to improve operational efficiency by unifying operations, integrating and increasing cooperation. The amalgamation of larger sub-units within Alpha at the operational level started the integration of segregated identities that were previously valued differently. The sub-units and identities had originally been segregated from each other in order to reduce the pressures on employees' financial benefits and the consequent cost effects. However, cooperation at the operational level within Alpha was perceived as so valuable that management started to reorganize. The amalgamation of separate sub-units was strongly associated with a certain manager and the amalgamation was an embodiment of praxis – creative reconstruction of organizational arrangements – in the pursuit of operational efficiency.

The actions and interactions as embodiments of praxis among Alpha, Zeta, Delta, and Gamma during deregulation and the pursuit of growth are presented in Figure 11. In emerging situations the pursuit of operational efficiency and the expectations and the hope for the future engendered local actions and interactions. The praxis consisted of the incorporation of functions, envisioning and the pursuit of growth, the search for new areas, the amalgamation of larger sub-units, and so on. Fragmentizing as a managerial strategy for the reproduction and maintenance of the organization was a recurring issue.



**Figure 11 Strategies during pursuit of growth**

Incorporation of functions to separate businesses in the pursuit of operational efficiency and as increasing compartmentalization had an impact on the organizational sub-units Alpha, Zeta, Gamma, and Delta. There were, however, a variety of effects so that Alpha was more influenced by the upturn of the external market. The objective to grow in the external market had a similar effect on Alpha and Zeta. On the other hand, there was continuous pressure to improve operational efficiency. Administrative structures within Alpha were adjusted all along. The most important structural change was the

amalgamation of two major organizational sub-units on the operational level. Within Zeta, the administrative structure was more stable and attempts to expand were based on the existing resources of ongoing operations.

The introduction of a new area of technology within the realm of Delta had an effect on the separation of functions and on growth opportunities. With regard to Gamma, the situation was different. Before incorporation and the increased fragmentation Gamma had attempted to affiliate with ongoing operations. The purpose was to exploit the expertise they had developed, but attempts to affiliate with ongoing operations came to naught.

The deregulation of the power industry manifested itself as increasing the requirement for operational efficiency. In general, the pursuit of operational efficiency was manifested as *fragmentizing*. However, affiliation was also an emergent and creative local response to increasing fragmentation. The organizational response as a whole – praxis – was not cost cutting or downsizing, but the pursuit of growth. It was guided by the growth vision communicated by management and it enabled an alternative to organizational action and interaction.

#### *Epsilon Gamma: Transformation of the idea*

The deregulation of the electric power industry did not immediately affect the development of Epsilon Gamma. Both the support of established customers and research and development activity concerning the monitoring of vibration continued within Epsilon Gamma that now was a sub-unit of Gamma. New customers were sought even though there was no intention to pursue a growth of business. During this period hardware deliveries were terminated and activities were transformed into services.

The following quote is a short summary of the transformation from condition monitoring to remote support.

*A: ... With regard to the remote support service or remote support center ... I think that [name of manager] made some kind of description of the service already ten years ago. But, like, then by*

*the end of the 90s ... when the virtual operator concept was redirected then [first name of manager] ... completed the remote support center and [name of sub-unit] was established.*

Within the broader organizational context, Zeta expanded into new geographical areas. Operations management abroad made it necessary to create back-up systems thereby ensuring the operation of power plants. This was a new situation for Epsilon Gamma that would precipitate the development of remote support and the condition monitoring system. The activity and operations of Epsilon Gamma that were embedded in Gamma were transformed so that they aligned with the development of external markets and the latest developments took place in the business context.

*Epsilon Alpha: Struggle for survival and the emergence of product development*

The development of condition monitoring of electrical motors and other process equipments within industrial production process was undertaken by Epsilon Alpha. A major event in the development of Epsilon Alpha was the division of functions into separate business units: increasing fragmentation. This action created a new situation that needed to be coped with.

A conscious choice of the management was to engage in the pursuit of growth and consequently the management communicated a growth vision. Growth was to be expected in external markets whereas the construction of new power plants for own use had ended. In the short term the only way to survive was to exploit their existing resources and expertise – productive practices – to provide services for new customers. The outcome was positive: individuals within the sub-unit learned to understand customers and they became confident in developing new services and in commercializing the existing expertise.

The emergence of product development as an outcome of local actions and interactions within Alpha can be considered an unintended outcome that was outside the scope of managerial authority. The center of the research and development unit at Gamma was part of the head office but within Alpha the center of product development sprang up as a regional sub-unit.



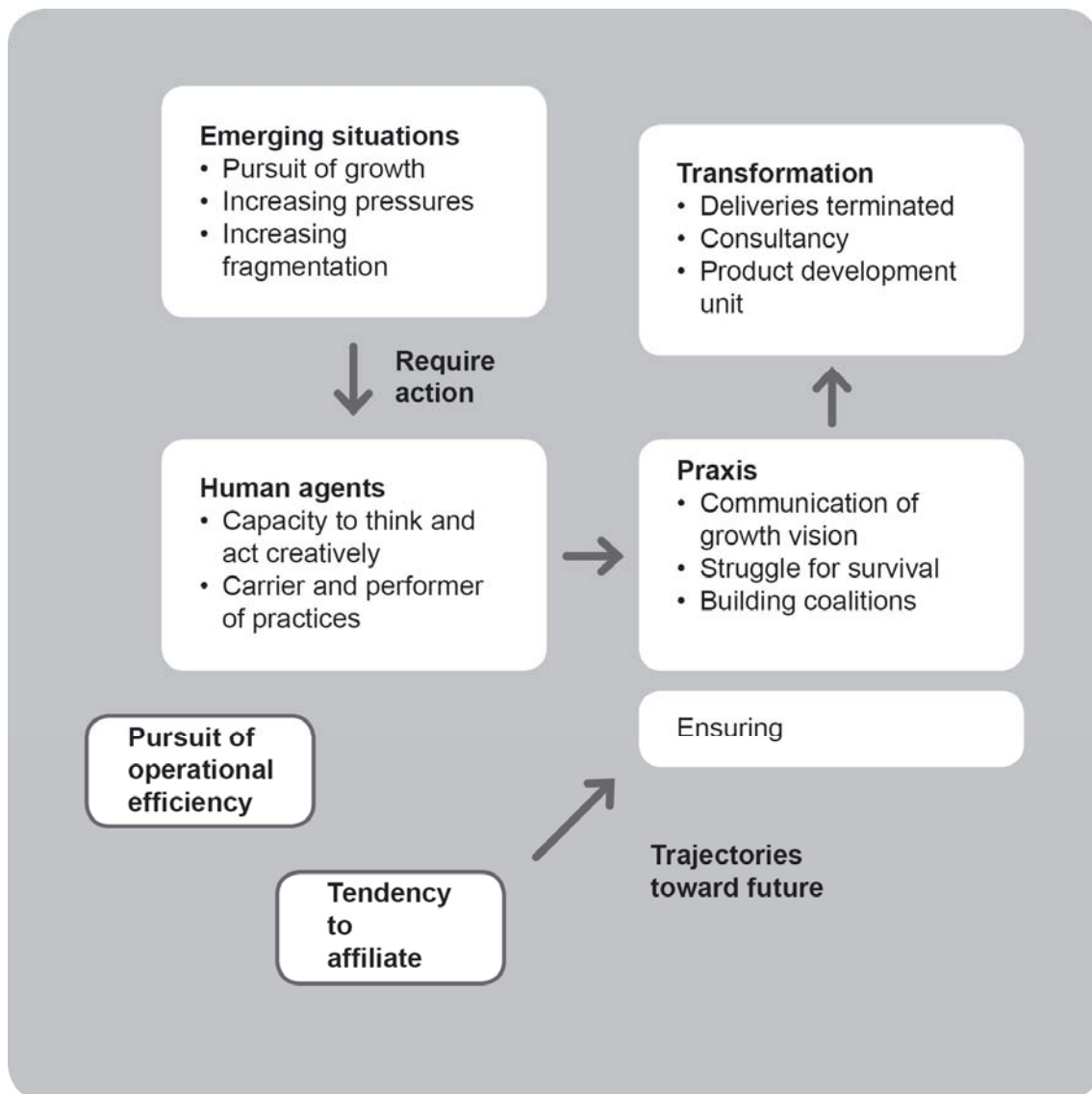
*A: With regard to the expansion of business it was established in [Name of city] a sub-unit that was devoted to condition monitoring and product development. We considered that in [Name of city]... especially the technology village is a good environment for such a sub-unit.*

The emergence of product development was due to a complex sequence of events that consisted of local actions and interactions within Alpha, which later took shape as a sub-unit that, in this study, is referred to as Epsilon Alpha. The underlying mechanism that engendered action was the aspirations of regional management to develop operations and the pursuit of new solutions for growth. To summarize, one of the outcomes of the pursuit of growth was the emergence of product development and the development of condition monitoring methods for electrical machines.

The following quote is an introduction to the emergence and development of Epsilon Alpha through the interactions with customers.

*A: With regard to innovations and product development the internal organization is not the best environment. The business environment is clearly the best environment to create real innovations. Because there is the know-how about the customer, customer expertise is there. The advantage is that whenever a new issue comes it ... meets immediately the customer with which you develop further the issue.*

Concurrently, customer industries recovered from an economic recession and sales of existing resources grew fast. The outcome of the struggle for survival was positive and the key people involved in the early stages of the creation of Epsilon Alpha recognized an opportunity for growth in new areas. The basic idea was to apply existing technical expertise to the electrotechnical condition monitoring of generators and electrical motors on the whole. A major event was, on the other hand, the recognition of the opportunity for cooperation with an external firm, an equipment manufacturer. Local actions and interactions culminated with in the meeting with Gamma as embodiments of affiliation and the introduction of the first product development project was an outcome of individual initiative.



**Figure 12 Actions and interactions during the pursuit of growth**

Figure 12 depicts various actions and interactions within emerging units during the pursuit of growth and operational efficiency in order to ensure operations in broader context.

*Beta: Emergence of aggregate services*

The idea of aggregate services was introduced for the first time during Alpha's second growth period. This idea was to the result of an individual initiative and affiliation, without managerial intention, when some individuals saw a larger entirety or that they

had a broader scope of activities. Taken together this was an embodiment of tension between existing practices and local actions and interactions. The creation of a more encompassing approach toward customers had been a recurrent issue. With this in mind, a development project was started as the outcome of the individual initiative. Later, the project drifted between various sub-units. During cost reductions and reorientations the development project gradually ceased to exist, but the idea did not disappear.

The development of Beta occurred during the merger which was a turning point for the organization. However, the first embodiment of Beta was associated with the pursuit of growth by Alpha when the idea of a joint effort between the two businesses was presented. However, this first attempt did not materialize.

#### **5.1.4 Merger: reorientations and restructurings**

A dramatic change of the organizational context occurred when the owner of the company intervened in the development of two companies and made a decision to merge the two firms. As a consequence, a series of structural changes occurred and financial performance and operational efficiency were emphasized even more than they had been previously.

On the action level, the development paths were much more complicated and dependant on the response to emerging situations. The following quote reflects the perceptions of the interviewees regarding the consequences of the merger of the two firms.

*A: ... if you think of the last ten years the most significant organizational changes it was the obviously ... [names of companies] merger, it is the topmost level.*

*A: Would that be the dawn of new management practice then ... everybody started suddenly to just watch this share value. And it went I think quite fast through the organization... that the value of share is ... the center of all essence.*

#### *Delta: Business exit*

The following quote is an introduction to the most dramatic events during the development of Delta: exit of the business.

*A: ... what was next phase so ... an indication clearly came that this kind ... constructing and maintenance engineering power transmission engineering is no longer ... core business of [name of corporation]*

It was soon announced that due to the merger the activities of Delta were no longer part of the core businesses. The old name of the Delta was preserved until the sale was finalized. Elsewhere, new names for business units were adopted but Delta continued to use its old name. The name embodied a bygone era of construction and infrastructure development.

Following the establishment of a new company, the new management communicated a vision of growth, introduced a new management system, and started to strengthen its new identity and the development of new service concepts with the intention of growth through acquisitions. The characteristics of Delta were the separation of activities, *fragmentizing*, as a response to increasing competition and economic pressures. In opposition to this was the ambition to combine service elements into larger aggregates that could be offered to customers.

#### *Zeta: Amalgamation of operations management*

During the restructuring there were attempts to develop productive practices within Zeta. An idea was the recurrence of the productization of operations management services, but the changes within the broader context undermined development efforts.

*A: So it was the second attempt for productization ... [name of manager] was leading it. I was involved too; various groups of experts from different disciplines were established. A big drawback was that it was done by the head office and ... we could not involve the line organization. In this phase the role of [Zeta] as a power plant operator in the home country was terminated. Consequently the development project was terminated.*

The sales of production assets abroad were a visible embodiment of the strategic reorientation. From Zeta's point of view these reorientations undermined growth opportunities. The termination of several operation management contracts meant retracting from certain geographical areas. The objectives of the change were to improve financial performance and operational efficiency. Strategic reorientations resulted in the amalgamation of the activities of Zeta with ongoing operations within the power generation business.

Zeta as an organizational sub-unit was considerably reduced compared to its most expansive phase. The remaining organizational sub-units were services of operations management abroad and a variety of services for the improvement of the operational performance of the power and heat generation.

*Gamma: Dismantle and devolve*

Following quotes outline the story of Gamma during the strategic reorientations: *amalgamation and termination.*

*A: So my conception is that it comes from corporate management ... ultimately comes from [names of two corporations] in 1998...*

*A: ... in that phase ... the technology and its role started to be evaluated ... in a new way. It has been ... eye-catching that still last autumn [name of executive] stated that nothing essential is occurring just keep going on. However the changes could be already be seen two years earlier.*

*A: ... And then all kinds of projects were established and as far as I remember ... as an outcome of this account it was said that there is remarkable little in common. The conclusion was if I remember correct that there was no reason to amalgamate them but the activities (operations) continued as usual.*

*A: Working in “a nature reserve” and consistent activity terminated when money was taken away. So such an essential change was that authority was taken away from [name of executive] who had controlled research and development funds*

*A: Well (sigh) during this time ... business targets have been tightened time spans have become shorter and now too in 2000 and 2001 when acquisitions of [name of firm] has been made. Quite clearly here elsewhere the economy has tightened and ... in principle it can be seen everywhere.*

With regard to Gamma, the outcome was a consequence of an unexpected tightening of the economy that occurred over a short period of time. The underlying organizational change was the restructuring of research and development activities and attempts to find synergies between research and development in the two merged companies. However, few synergies were identified and no convergence was reached. Eventually, the foundation of autonomy and identity of Gamma eroded due to the end of a mandate for allocating resources, and it was devolved to a centralized staff unit.

The following quote illustrates the significance of the termination of Gamma: dismantle and devolve.

*A: With regard to organizational changes ... certainly the amalgamation of Gamma with businesses was ... significant ...*

After the disappearance of any direction of action and during the subsequent state of stagnation, no actions were taken by the management of Gamma in order to cope with the new state of affairs. However, the simplification of structures within the organizational context was a manifestation of managerial intervention.

Gamma was dismantled by divesting some activities into separate businesses including some functional businesses. Eventually, the final announcement to dismantle and devolve Gamma was related to the establishment of a business unit organization during reorientations. Some of the activities within Gamma were considered as viable, especially those that were engaged in the condition management of the critical components of power plants. The activities related to Epsilon Gamma became amalgamated with Epsilon Alpha, and with Zeta.

*A: Then sure it started to squeeze ... especially during the last years. The services for power plants were very well employed and all the performance indicators were good until last autumn. First it started to squeeze on the side of energy use. No more funding could be obtained for the so-called new ventures and spin-off products either. However, I have the conception that the end would have been painful and floundering would have been difficult onwards.*

The sequences of events seemed to be an inevitable consequence of the increasing requirements to improve financial performance. The increasing emphasis on the bottom line meant that the focus was on operational efficiency and there were few or no resources invested in long-term development. The research and development unit was reduced to a state where only the following options were available: a considerable reduction in activities that would result in downsizing, or to spark enthusiasm for the development of new products and services in cooperation with businesses.

#### *Alpha: Retrenchments*

The following quotes represent the paradoxes that existed in the organization regarding the interpretation and conception of the environment.

*A: The predicted change, especially regarding the outsourcing of maintenance activities, did not however occur. It was probably the most significant unrealized change. Assumptions were very*

*firm then by the mid 90s that outsourcing continues very strongly but this development did not occur.*

*A: ... In 1999 as far as remember ... this kind of trend was discernible that companies ... possibly outsource or are considering outsourcing for instance entire plant maintenance and ... entire energy business within certain limits. It was perceived that the trend would offer business opportunities for us.*

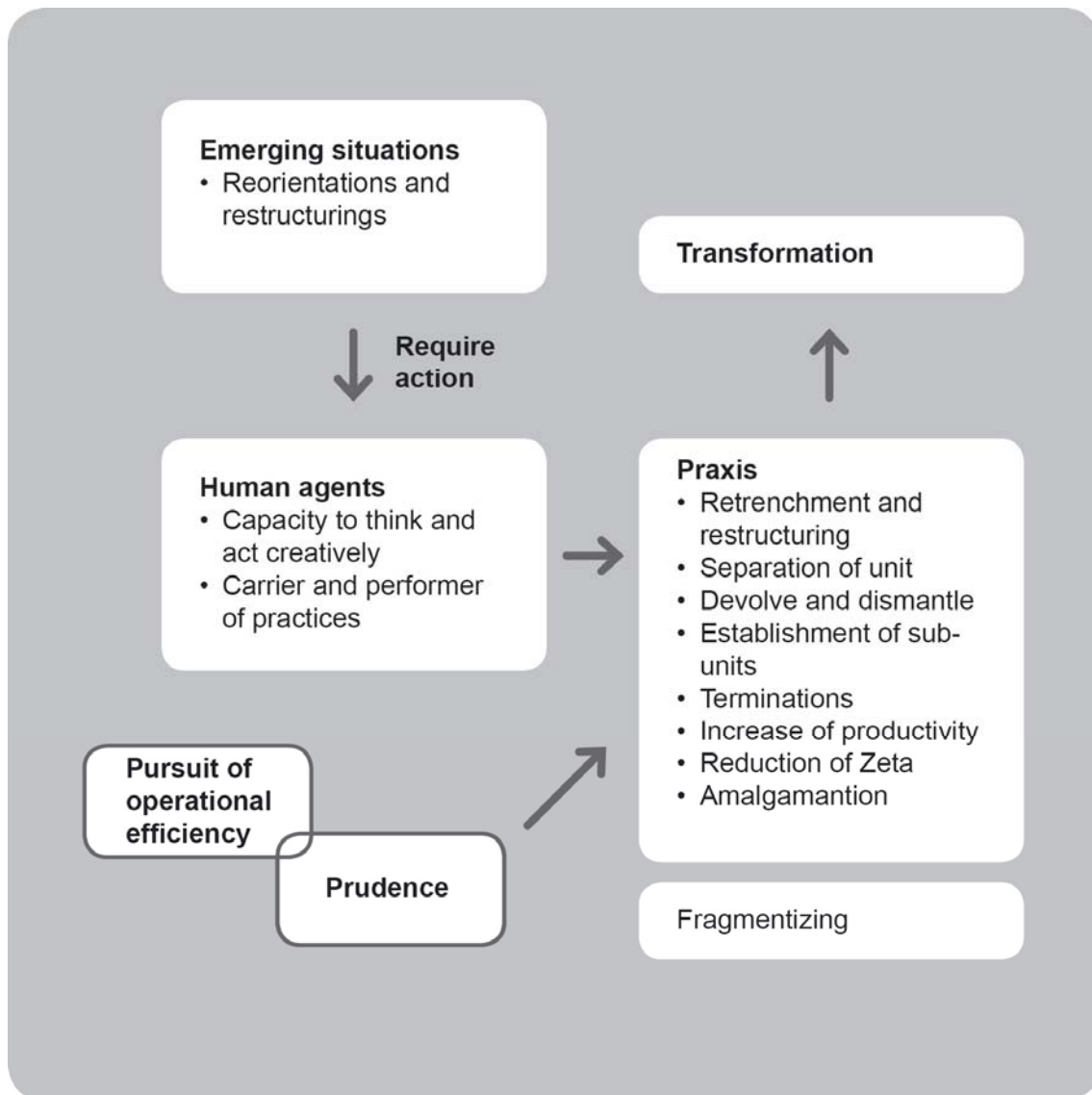
With regard to Alpha, the reorientations and restructurings as well as development in the environment created a new situation. A new concept took shape that anticipated strong growth in industrial maintenance services. The expected consequence – opportunities for expansion – did not materialize. Contradictory to this, elsewhere in the organizational context the belief remained that the outsourcing of certain non-core functions within customer industries would be a trend that continued.

The following quotes embody the consequences of a merger with Alpha, and also demonstrate the effects of the external context: retrenchment and convergence.

*A: ... by the end of 1990 the management started to look more carefully which kind of business we are in and eventually the non core activities have been dropped and during last two years we have had quite a tight financial reorganizing in this [Alpha] business. Onwards we can be on the route of expansion.*

*A: ... the real thing is when we see that radical changes occur in the customer environment.... It is unfortunately so that our position is not so strong that we could change the world. Instead we must accommodate. ... Yes it is adaptation by decreasing number of employees according to the situation.*

After the second growth period, Alpha encountered problems with profitability – a new situation – and consequently the increasing requirements of improving financial performance, and Alpha entered into a period of retrenchments. Concerning the strategic objectives and the retrenchment of the expression “*which kind of business we are in started to be looked at more carefully*” is a manifestation of conscious judgments amongst alternative future actions. The last organizational changes were implemented when several performance units were amalgamated and regrouped into larger business units. With regard to Alpha, the integration of units did not have as much effect upon actions compared to the development of the external context.



**Figure 13 Organizational sub-units during reorientations**

Figure 13 depicts local actions and interactions during reorientations in the organization.

During the time period when reorientations were taking place, the structural changes of Alpha were minor and the main question was the increase in productivity and the resulting pursuit of operational efficiency. Previous expectations for increasing demand in external markets did not materialize. Within Alpha, a small sub-unit was established to focus on research and development.



The restructuring and reorientation had a significant effect on Zeta, Gamma, and Delta. Delta was separated into a detached business. It started to develop and its connection with its previous organization dissolved. The reorientation of the broader organizational context was manifested in the large reduction of Zeta, and eventually the main part of Zeta was amalgamated as a functional element of the main business.

The changes to Gamma were significant during this time period. The status of Gamma had been previously secure, but a major part of Gamma was dismantled during the structural changes. Some parts of Gamma were amalgamated with business functions and some activities were divested, but Gamma as an organizational sub-unit was terminated.

*Epsilon Gamma: Amalgamation and termination*

As an outcome of reorientation and restructuring, Zeta was forced to withdraw from abroad and several contracts were terminated. The operation of Epsilon Gamma continued for a while as a support activity, but the distance from customers decreased its competitiveness and eventually all activities abroad came to an end.

Epsilon Gamma had originally been formed as a service unit that was embedded in Gamma and consequently the dismantlement of Gamma and the amalgamation of activities had an immediate effect on Epsilon Gamma. The following quote details how the final development of Epsilon Gamma unfolded.

*A: The termination of [Gamma] occurred so that it was not downsized but activities were outsourced or were moved to other [names of sub-units]. The activities related to condition management were split into two parts. [Name of business unit] was transferred to maintenance side and the performance services were transferred to the current [name of unit]. At the personal level, resources remained (Q: yea) [name of unit] and the resources concerning vibration diagnostics [Gamma] could be found in the maintenance side in [Epsilon Alpha]*

The dissolution of Gamma was fast paced. People were grouped into either Epsilon Gamma or Epsilon Alpha, and some people were transferred from Alpha. As a result there was a period of time where the organization was in a state of flux.

*Epsilon Alpha: Retrenchment and entrenchment*

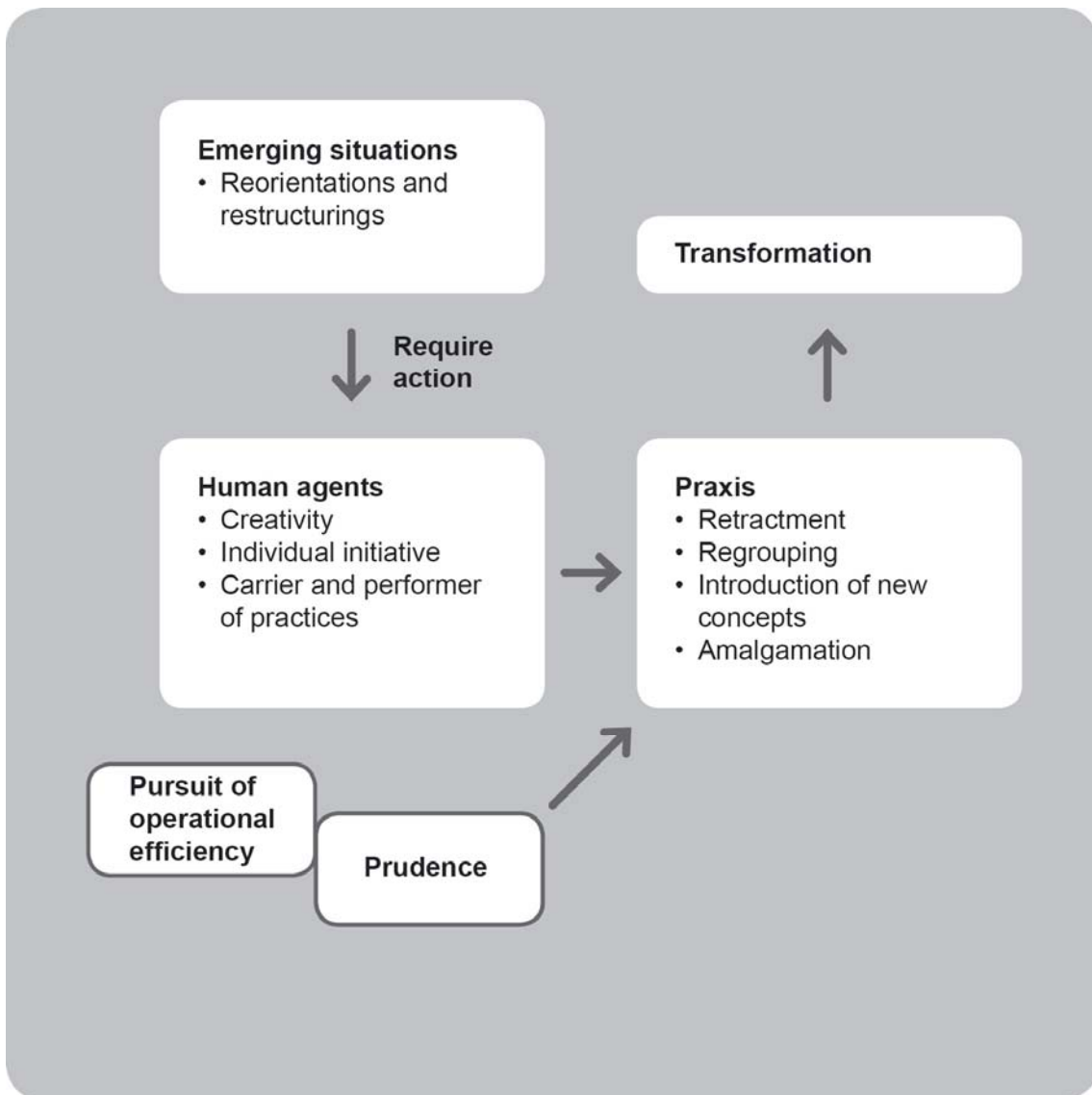
During the implementation of the product development project, subsequent serendipitous events occurred in the context of Epsilon Alpha: these related to interactions between potential customers. These events set the pace for the development project, two service concepts were introduced to the customers, and the first commercial application for monitoring the condition of electrical motors was implemented. The idea proliferated, the monitoring of other process equipment was marketed, and Epsilon Alpha was able to establish itself as a technically credible service provider in its niche. This development was an outcome of creativity and the initiative of individual actors and of the local actions and interactions between two firms.

The strategic reorientations that resulted in the dismantling of Gamma meant that some activities were amalgamated with Epsilon Alpha. As a result, Epsilon Alpha consisted of two service concepts to be traded over the market; the condition monitoring, and the condition management of process equipments. However Epsilon Alpha had to cope with the challenges of growth and profitability in the future.

*Beta: Organizing and eclipse*

When the development project of Beta got off the ground, it did not readily take shape. The manager of Beta searched for opportunities to cooperate with business units. First, a link was created with the sale of electricity that that was now susceptible to fierce competition as a consequence of deregulation. That initiative did not materialize, and as a consequence the project manager started to affiliate with Alpha and this action was dependent on the personal relationships between the project manager and other managers within Alpha.

Beta was initially developed to be independent, but eventually actions were taken so that Beta would be developed in cooperation with its customers. Several options came about, but the business units were focused on their short-term development issues and Beta was never involved with customers.



**Figure 14 Emerging sub-units during reorientations**

Figure 14 depicts the structural conditions, and the local actions and interactions within emerging sub-units during the reorientations and restructuring.

The reorientations and restructurings among business sub-units resulted in withdrawals from the development project. Paradoxically, during this time the idea of aggregate services was adopted and repeated in other business unit. Finally, the development project was put in to cold storage, but the entity that was formally Beta was never

officially disbanded. Rather, it just fell by the wayside during a major reorganization that made further attempts impossible.

## **5.2 Organizational character as a mediating entity**

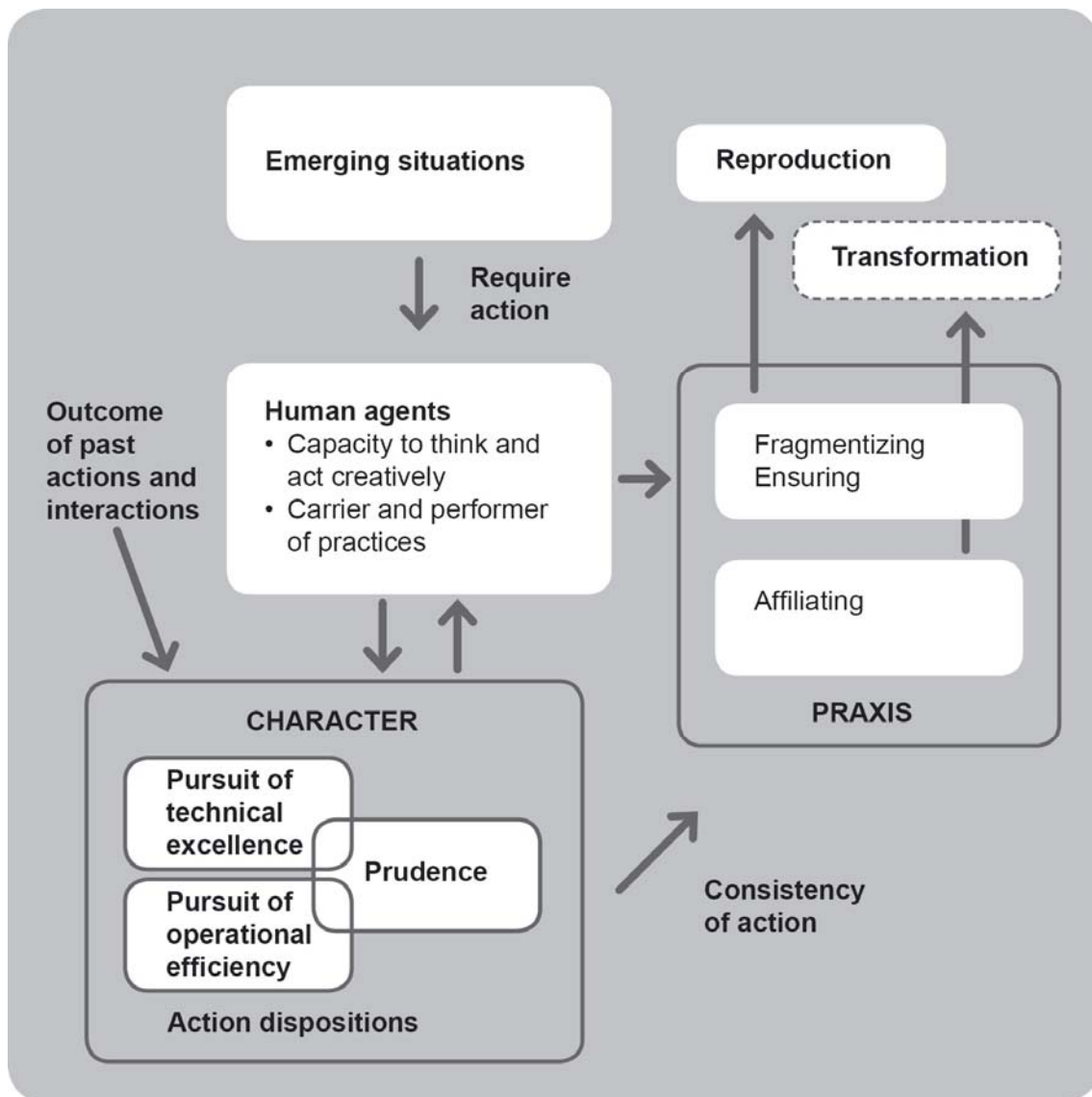
Based on the literature review on social dynamics I postulated a mediating entity – organizational character – between structure, action, and agency. It is the product of history, and the outcome of human actions and interactions that incorporates traces of the past organization. Organizational character maintains continuity of an organization and engenders consistency of action in various emerging and evolving situations.

In this concluding section I address the answers to the following resulting questions:

*What kind of strategies for actions and interactions are related to emerging situations in context?*

*What kinds of properties of the mediating entity – organizational character – maintain the continuity of an organization?*

With regard to the traces of past, two consistent, immanent and related aspects emerge from the Text: pursuit of operational efficiency and pursuit of technical excellence (see Table 9 and Table 10).



**Figure 15 Organizational character and consistency of action**

The pursuit of technical excellence is related to the past of the organization: to the construction of power plants and transmission systems. In particular the organization had been a trailblazer during the construction era. Plenty of resources were invested in solving technical problems that were encountered during the construction of power plants and transmission systems.

The pursuit of technical excellence is related to the pursuit of operational efficiency through optimizing operation and maintenance costs. The development of technology as an embodiment of the pursuit of technical excellence aims to solve technical problems in production. Furthermore, the aim was also to develop special applications to improve operational efficiency in the future and to distinguish the company from other service providers.

The pursuit of operational efficiency concerns the utilization of production assets aiming to improve the reliability of power plant operations. A focus on the efficient use of human resources is embodiment of pursuit of operational efficiency (Table 9).

Technical expertise was more concentrated on the power plants and transmission system and their related activities than on customers or on the environment. The character of the organizational context is recognizably embodied in perceptions of action and the adoption of new issues and change. The capacity of actors to make judgments about the best course of action is characterized by prudence and ensuring, therefore the major dimension of organizational character is depicted using the notion of prudent.

In the context of my study the pursuit of operational efficiency maintains the viability and the continuation of an organization. In the pursuit of operational efficiency (see Figure 15) and in emerging situations the prudence – cautious in practical affairs – is related to the choice of the most practical course of action amongst many alternatives in response to evolving situations. Concerning praxis - the whole of action, fragmentizing is a recurring managerial action to cope with emerging situations in pursuit of operational efficiency.

The actions and interactions as a response to new and emerging situations are affected by ensuring. Furthermore, ensuring is related to prudence. The prudence can be interpreted as organizational logics meaning “*the underlying assumptions, deeply held, often unexamined, which form a framework within which reasoning takes place*” (Ford

and Ford: 1994: 758) or alternatively as a structural property stretching across time and space (Giddens 1984).

My findings also suggest that both individual initiative and creativity, and organizational character affect actions and interactions in emerging situations (Figure 15). These effects are realized when solving present problems and developing technology for future needs. Situated creative actions and judgments in evolving situations are oriented both toward the present and the future. The embodiments of individual creativity and initiative are elaborated in the following paragraph.

### **5.3 Agency: embodiments of creativity**

The theoretical model of local transformations that is based on a literature review contains the concept of agency. Agency entails creative and transformative potential and temporal orientations toward past, present, and future (Emirbayer and Mische 1998). In the organizational context of this study, the organizational character that consists of the pursuit of operational efficiency and technical excellence and of prudence tends to maintain the continuity of operations.

However, there are plenty of references in the Text to the intentions of human agents to engage in creative action in emerging situations, to the introduction of new ideas to change state of affairs, and just to utterances concerning dissatisfaction with the prevailing states of affairs. Likewise, situated and creative responses emerge when encountering contingencies in context.

In Table 17 representative quotations are presented that refer to the capacity to act intentionally and creatively in various emerging situations. The temporal orientations toward present and future are major dimensions according to which the embodiments of creativity are classified.

**Table 17 The embodiments of individual and group initiative**

<b>Temporal orientation</b>	<b>Representative quotations</b>
<b>Toward present</b>	
<b>Pursuit of operational efficiency</b>	
Management Transformation	<i>A: Then we have to focus our resources to improve the efficiency of operations and for diversification because the infrastructure was completed but we were less capable of investing in the development. It refers to engineering as well, if there is no longer a job for a large organization then we have to concentrate on where resources are needed.</i>
Transformation (Group, creativity)	<i>A: This kind of pricing model has been adopted at the sawmill during 1996-97. We went through a case related to the development together with the representatives of the sawmill on order that considered points of views from both parties would guide a better result. More output for the customer and more profit for service provider through increasing production and decreasing disturbances. ... Well at that time the influential persons were from [name of are manager] and from customer's side [name of person] who have been the motors in this.</i>
<b>Practical judgments to presently emerging situations</b>	
Improvisation (Contingent)	<i>A: Then ... our way of action has been that we have been rather reactive not so proactive ... I have described that we have been a fire brigade we have not considered how to prevent a "savannah fire"</i>
Experimenting (Contingent)	<i>A: Then we acted as a development company and, how could I say, as a marketing organization for electrical installation firms. These are some examples, my opinion is that we tried several businesses and they became experiments.</i>
Identification of opportunities (Reproduction)	<i>A: I would imagine, or at least it seemed to us, that [name of plant manager] was the idea generator. ... There were a whole guard of managers and supervisors. But I have such a feeling that partly [name of plant manager] adopted the ideas, head office partly let him develop ideas that we have an organization, we have plant, we have people, what else can we do and that was the beginning. On the other hand at that time a fuel purchasing unit was established at head office and [name of plant manager] immediately smelled business.</i>
<b>Toward future</b>	
<b>Pursuit of technical excellence</b>	
Capacity to create future development paths, transformation	<i>A: Then it started that we together with [name of executive] were considering that a certain level of investment should be done in order to really develop these methods to the level that we would be in the front line. One of the outcomes was the establishment of [name of firm] to utilize these products.</i>
Distinguish from others, transformation	<i>A: Yea let's say that a basic principle in Gamma was to make the so-called high tech spearheads, or I wonder what crown jewels would be commercially used, for the investors.</i>
<b>Capacity to imagine future development paths</b>	



Envision of future trajectory, transformation	<i>A: Yes in about 1992 messages came during the spring. [Names of executive officers] were traveling and the message was completely unambiguous. The business unit wants to grow. It was presented that this is how it grows and this is where we start to grow.</i>
Envision of future trajectory, environment	<i>A: Or at that time we began to invest in marketing and sales. To search for new business ... I still think that at the time we believed in the maintenance business, worth 8 billions, and taking our share of the market that however didn't realize for any of the competitors to the extent it was supposed to.</i>
Pursuit of technical excellence	<i>A: And in about 1993-94... emerged a phase concerning R&amp;D ... it was called a key technology process which to focus on. What is the most important from the business point of view, and the persons involved were [list of names] and somebody else who made a clear structure on which to build in the long run ... this kind of key technology process ... to crystallize why we develop certain things.</i>
Pursuit of technical excellence	<i>A: and the thinking began, it was maybe the first seeds that the success and originality of the business should be described using products and technology and know-how on which they are based. And it was some kind of internal pressure, and I would say that the most enlightened persons within R&amp;D and business saw it that way.</i>
Identification of new opportunities	<i>A: ... I rather listened to ideas concerning gas turbine business and development needs and opportunities ... it was 1991 when [name of person] said that he has something to tell to me, and he told about the condition management of gas turbines and how turbine manufactures are acting, and what the potential there is.</i>
Search for future alternatives	<i>A: Well ... I have to say that I cannot say about these ideas but certain persons [list of names] have even in this situation believed in the future opportunities and especially [first names of two persons] have developed really all kinds of ideas of how we could go forward.</i>

With regard to human action the pursuit of operational efficiency is focused toward present and the near future. The pursuit of operational efficiency did not open future development paths. Creativity between human actors aimed to improve operational efficiency. The pursuit of technical excellence created development paths for the future, but these required investments in research and development (see Table 17).

In the context of the development of new services various emerging situations resulted in actions directed toward the past and the future. Practical judgments toward the present (Emirbayer and Mische 1998) entail various improvisations, identification of new opportunities based on existing resources, and on reproducing current productive practices. Related to the development of services, typical action was to adhere to existing resources for new tasks. The primary focus was not to imagine new

development paths for the future, but rather the tendencies were to ensure the viability of existing operations in emerging situations.

Individual and group initiatives were also directed toward the future. Envisioning the future by the management, the pursuit of technical excellence and investments in research and development, are the embodiments of transformative actions. Also, at the individual level, actors could identify opportunities and imagine development paths for the future.

The following quote is an introduction to Beta as a manifestation of aggregate services in emerging situation.

*Q: But once again what is the multiservice or was or it should be? A: (pause) Q: Use your own words, don't look at me. A: So yes so in principle it should have been (sigh) development of common business concept for ... the different units of [name of firm].*

Related to deregulation, increasing pressures to improve financial performance created a new situation wherein the idea of Beta was again posed. First, a smaller group of middle managers developed the idea whereby the synergy between different sub-units could be exploited: individual initiative. The idea was to combine, for instance, electricity, heat, and maintenance services into a single service package. The initial phase of the development ended when a project manager was hired from outside. Consequently, a coalition of congenial managers took shape as the embodiment of individual initiative and creativity. Formally, Beta as a development project came into existence when funding was approved and the idea of Beta was delineated and the actions started to develop the idea.

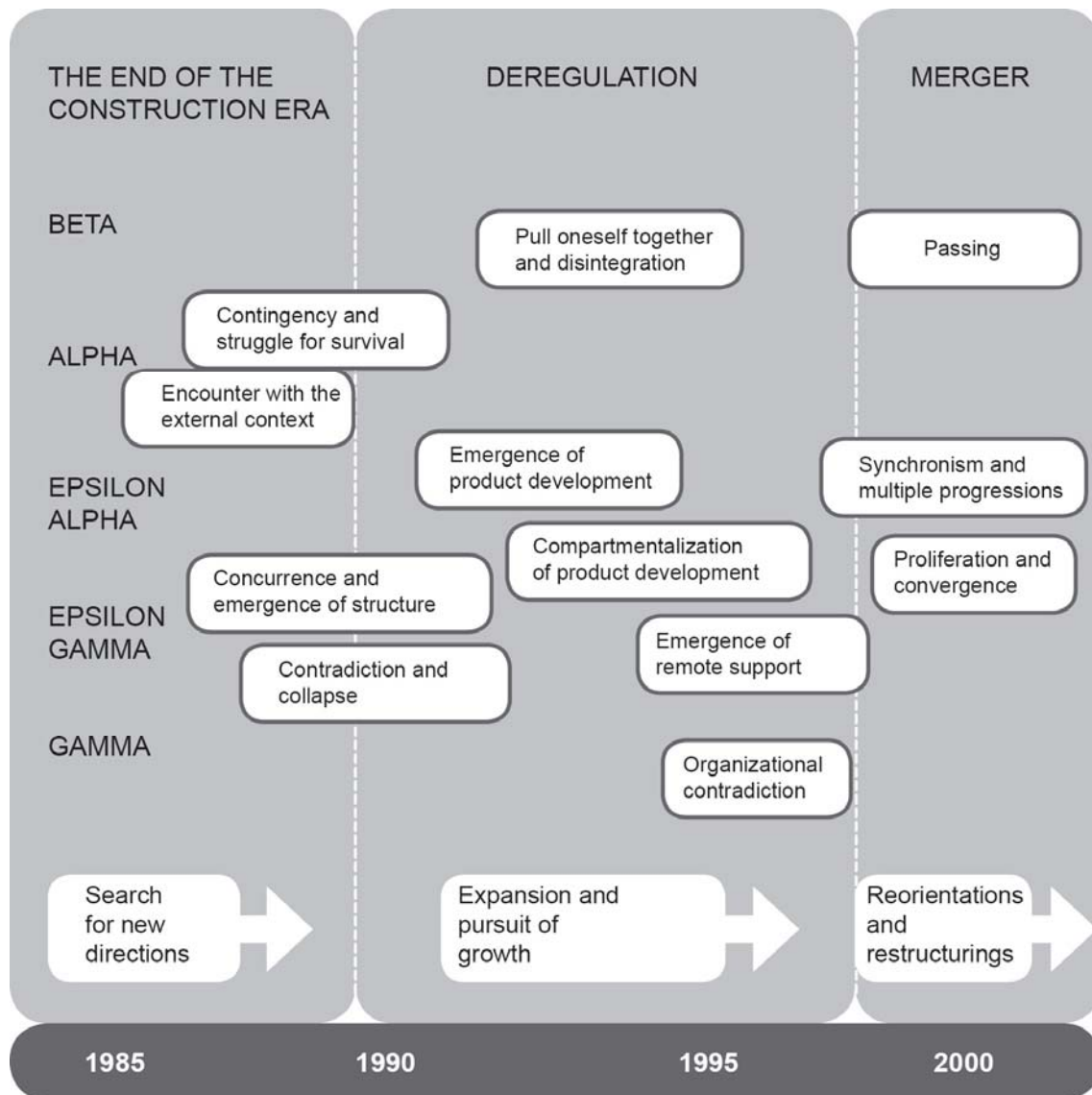
When the development project, Beta, got off the ground, it did not readily take shape. The manager of Beta searched for opportunities to cooperate with business units. First, a link was created with the sale of electricity that that was now susceptible to fierce competition as a consequence of deregulation. That initiative did not materialize, and as a consequence the project manager started to approach Alpha and this action as an

embodiment of affiliation was dependent on the personal relationships between the project manager and other managers within Alpha.

## **5.4 Situations, actions and transformations**

In the section 5.2 I explained the strategies and consistency of action in emerging situations mediated by organizational character: the pursuit of operational efficiency and technical excellence, and prudence. In this section my intention is to investigate in more detail the emerging and evolving situations-related local actions and interactions and elaborate on the local transformations and agency. In these new situations “*certain action become necessary which – the ends of action being the same – had not been necessary before*” (Von Wright 1971: 143). To be more specific, the question is: how do pre-existing structures and practices constitute a potentiality for action that unfolds as praxis – the whole of action including the creative reconstruction of organizational configurations.

The underlying question is to understand how the creative and transformational capacities of actors operate in emerging situations. There is also a question of whether different temporal orientations of agency, when actors routinely perform existing patterns of actions – practices, imagine and explore new possibilities for future or just try to solve presently emerging problems and dilemmas (Emirbayer and Mische 1998).



**Figure 16 The chronological display of events**

Figure 16 depicts the events and sequences of events embedded in the development of the environment and major organizational changes. In the environment, gradual changes occurred at the end of the construction era, ongoing deregulation, and the merger of two large companies. The consequences regarding the operations in context are; first, the search for new directions, second, the expansion and pursuit of growth, and third, an eventual sequence of reorientations and restructurings.

To elaborate on this sequence of events, the first phase is related to encounters and contingencies in the environment, the second phase is related to the emergence of organizational arrangements, and the final phase to reorientations and restructurings of the organization in a state of flux.

#### **5.4.1 Encounters and contingencies**

The release of resources and consequent search for new directions were embodiments of intentional and creative actions. With regard to Alpha and the trade of excess resources, I elaborate on the encounter of Alpha with the environment: a contingency and struggle for survival, as embodiments of creative and transformative responses.

##### *Alpha: Encounter with the external context*

The original purpose of Alpha was to trade expertise and excess resources on the market. The development of Alpha and of the external context seemingly concurred and this new situation entailed a potentiality for action. The establishment of a joint venture and a lack of resources among customers created the conditions and potentiality for further action within Alpha.

The following quotes are an introduction to the sequence of events when Alpha encountered the customers during early development.

*A: ... And the situation was when the customer had outsourced plant maintenance ... the maintenance manager of the plant remained in the plant organization and the maintenance foreman became our site manager. I would say that we had authority background, culture and experience but not the required expertise to manage a small firm as a chief executive and owner...*

*A: Yeah I'll answer that question. So such an issue emerged that our maintenance services that we sold consisted of man hours but not the expertise that would have been existed in our organization...*

*A: ... Contracts were volume cases; I would say gentlemen's agreements that mean this much we'll buy [maintenance] services from you. Regarding the contents of development and so on there was nothing about those issues. We were selling workforce based on "calls on demand"*

The preceding quotations indicate that the services provided by Alpha were in fact resources and labor rather than know-how and expertise. The concept of selling expertise transformed considerably during the first encounter with the environment. With regard to structures and expertise, the encounters of Alpha with its customers showed a contradictory position. The expertise in the customer's production processes remained within the customer's organization in the first phase.

At the operational level, the role of Alpha was to take care of routine jobs as efficiently as possible. Calls on demand were carried out by the customer, or by individuals that were outside of Alpha. The ongoing operations of Alpha were perceived as low-tech services and were seen as a manifestation of the image of Alpha. Phrases like “*selling sweat and hours*” and “*maximizing billing rate*” illustrate the pursuit of operational efficiency in terms of cost minimization.

The perception of a low-tech service provider endured for more than a decade. However, there is an internal *inconsistency* within the organization whereby a basic characteristic was perceived to be technical expertise and know-how. During the first encounter with the environment Alpha succumbed to requirements and provided only workforce for customers. There was a question about the amalgamation of two organizational units and the establishment of a dyadic and symbiotic relationship between Alpha and the customer. Altogether, the outcome of this sequence of actions and interactions was a novel structural arrangement as an embodiment local transformation.

*Alpha: Contingency and struggle for survival*

Soon after Alpha got off the ground, some sub-units encountered contingencies – a sequence of events that was related to the termination of operations of a single customer, and the consequent rupture of the symbiotic relationship with the customer. The following quotes are an introduction to the analysis of a crisis at the beginning of the development of Alpha: from contingency to new structure.

*A: With regard to [name of sub-unit] a half a year after outsourcing the [name of industrial plant] was closed; and the demand disappeared. And then after that ... the firm was quite a bad in liquidation.*

*A: It was tough work and effort and then in the beginning of 90s when ... there was an economic downturn and the demand decreased. We had at [name of site] two days backlog of orders and then about 1993 I guess we had two weeks and two months backlog of orders. We were in such a whirlpool with this employment but we succeeded however.*

The shutdown of an industrial plant created a new situation for Alpha. The consequent actions within the firm were a local search for jobs and a struggle for survival. The outcomes of the local actions were, on the one hand, survival, but on the other hand, possible future trajectories of action were reduced. It had an impact on the potentiality for future actions.

The following quotes are an introduction to the managerial reaction concerning decision making within Alpha.

*A: And when we saw the losses caused by these firms we started to treat tenders more formally. The tenders were presented to the parent company ... even to the board of the parent company for decision making.*

*A: And then there was a pursuit of profitability when these two firms ... the first was declared bankrupt and the second was salvaged [name of site]. It was necessary to ... obtain money from daughter firms for [name of parent firm].*

Control of operations increased and decision making became more formalized which was a normal managerial response to the problems with profitability. These problems reverberated far into the future, up to the beginning of the amalgamation of different groups within Alpha. A reason for the actions and interactions had been a contingency in the environment creating a new situation and consequently a struggle for survival in the pursuit of operational efficiency. The transformation was an outcome of local actions and interactions of individuals and it created the new situation: the potentiality for further actions was reduced.

The development of operations to improve the performance of Alpha was initiated by individuals. From a distance, it seemed autonomous and endogenous but also fragmented.

*A: The goal was that first we collect historical data and make the equipment register (Q: Register) maintenance history. Then data would have been entered into the maintenance management system ... and we would start to use the system. The problem was that we must push the money to [name of parent firm] and we were not allowed to use money for the development of business.*

The outcome of economic problems was the reduction of financial resources for internal local development. As a consequence the implementation of new technologies was suffocated and the low intensity of development activity endured into the foreseeable future. All these are examples of novel structural conditions and demonstrate a reduced potentiality for future actions.

I elaborate on two events related to the development of Epsilon Gamma during its search for new directions: Concurrence and the emergence of structure, and contradiction and collapse.

#### *Epsilon Gamma: Concurrence and emergence of structure*

The following quotation refers to a sequence of events in the development of Gamma and in the environment when local actions became stabilized into new structure:

*A: I just mentioned [name of power plant] as a case of development of own condition monitoring system. But I have to go backwards a little ... even more important was ... that in the year 1986 we got an order from [name of firm and plant]. The order quite guided our development efforts to fulfill customer's needs. It was a clear customer project that had to be implemented and realized within a schedule (Q: Yeah) and as a remark the particular system is still alive.*

Conventionally, no unambiguous objectives were set to develop new products and services within Gamma. However, a unique opportunity opened up during the development of Epsilon Gamma when a customer ordered a condition monitoring system. This, together with the internal product development, resulted in a new situation and a potentiality for action.

The delivery of condition monitoring system created a temporary structure for the development: it stimulated, accelerated, and set the pace for the local actions and interactions and the outcome was a commercial solution for the customer. During the project, the participants were changing, demonstrating fluid participation and an



emergent configuration of relationships. The development of Epsilon Gamma and of the external customer concurred – creating the potential for the realization of the system delivery. The outcome was a long-lasting change to the structural conditions of Epsilon Gamma.

The emerging situation and related actions and interactions show the capacity of actors to shift their focus from creating future alternatives to making practical evaluations of possible actions in response to emerging demands and problems. It is evident that the prudence related to the pursuit of operational efficiency and ensuring did not have an impact on local actions and interactions. Altogether, the actions and interactions demonstrate the creative and transformational mode of praxis in response to the emerging situation.

#### *Epsilon Gamma: Contradiction and collapse*

Within the realm of Epsilon Gamma, the first distinct attempt to penetrate the market was the establishment of a spin-off that, before long, floundered and the business was terminated. The following quotation is an introduction to the sequence of events within Gamma when an innovation was commercialized and started a business.

*A: With regard of my career, a firm was established in 1989 or by the end of 1988 [name of firm] that operated three years. The mission of that firm was to commercialize condition monitoring expertise. And ... I was ... the development manager and I could say that it was a continuation to the management of product development that I did before in [name of firm].*

The idea was to commercialize acquired and developed technical vibration measurement know-how by combining the delivery of hardware, systems and services. The commercialization contributed to product development projects. The following quotations illustrate the contradiction between Epsilon Gamma and its environment.

*A: ... [Name of firm] started its operations and we saw that there was potential for our products. But perhaps the products were not simple enough and completed and the market just did not exist for this kind of services. The second problem was that marketing and sales process took too many years...*

*A: ... There were rather promising prospects in the report of [name of firm]. As a matter of fact there was no market for our products at all. Consequently the role of the firm was to be a trailblazer in a way and it was fairly painful ... you have to create market that does not yet exist. Or the market was very ... embryonic.*

The establishment of a spin-off was based on promising prospects for new markets. The establishment of a spin-off created the structural conditions and potentiality for further operations. A closer analysis of the text revealed that the problem was not only marketing, but also the development of the environment. The actions and interactions to sell services did not result in sufficient service and hardware deliveries to establish a viable business that ensured the continuation of the new productive practices.

The dissolution of Epsilon Gamma as an organizational entity was associated not only with the difficulties of marketing but with the development of enabling technologies as well.

*A: The computer and IT technology was developing fast and the old systems and even software became dispensable. We had made quite a miscalculation in our product development. We developed wrong things for wrong markets. The large markets were somewhere else than in nuclear power plants.*

*A: We made both electronics and software for it (Q: Yeah) and then we recognized that the software became surely the best one in the world. It was versatile and suitable for nuclear power plants.*

Together, they created a new situation whereby ongoing activities and structures were no longer viable. The idea collapsed and the emerging situation developed quickly and could not be responded to fast enough. Furthermore, reference to nuclear power plants manifested the ways of thinking in the organization: a focus on the technical core, ongoing operations, and the pursuit of technical excellence. Problem solving within the technical core ushered in development activities, but the basic idea could not be converted within Epsilon Gamma to adapt to changes of technological development.

*A: ... it was in the beginning of the 90s when [name of firm] was run down and people were transferred back to [Gamma].*

*A: ... and when ... the condition monitoring ... the centralized big system collapsed ... the staff had again excess capacity so I got more resources for my own development projects.*

The spin-off was largely terminated and the remnants were amalgamated with Gamma. The staff who had been part of Epsilon Gamma returned to Gamma, and as a

consequence resources became available for other development projects: new potentiality for further actions.

#### **5.4.2 Emergences of new practices and local configurations**

After the incorporation of functions, the functional businesses were based on existing productive practices that searched for growth. In the following, I elaborate on a particular outcome in relation to the development of Alpha: the emergence of product development and the subsequent segregation of emerging activities, and related to Epsilon Gamma I elaborate on the emergence of remote support.

##### *Epsilon Alpha: Emergence of product development*

The following quotes illustrate the emergence of product development during the development of Epsilon Alpha. This resulted in the transformation of local organizational configurations through the actions and interactions of individuals.

*A: In that context, we started product development projects to improve electrical condition monitoring of electrical machines. No one else as a matter of fact did that kind of development. We converted as a matter of fact measurement methods of generators to high voltage motors.*

*A: And ... in this phase ... comes a significant issue ... that ... to us ... a partner was involved [name of firm] that is ...a leading company of large electrical machines.*

*A: We introduced new methods that were applied for generators and electrical motors. There was a partial discharge method. The measurement equipment is manufactured by [name of firm] in [name of country] and the firm has been separated from the [name of power company] that is a very large energy producing company.*

*A: ... that the information I had from the method and the idea was born. We had a meeting here in [name of city] ... it was in 1996 I guess ... in summer ... and then ... we were three persons. And I was invited there ... when I had been in contact with the firm [name of firm]...*

*A: During that day in the meeting we went through the questions with [name of firm] and it ... continued in such a way that the industrial maintenance continued with the idea. But as a matter of fact [Gamma] was not at all interested in the idea because...*

Within Epsilon Alpha, a business opportunity concerning the condition monitoring of process equipment was an unanticipated outcome of the struggle for survival during the pursuit of growth. An idea emerged to apply an existing technical method in a new area. At the same time a cooperating external partner emerged, apparently as if by chance. Elsewhere in the organization, namely within Gamma, a decision was made to purchase

a certain type of measurement equipment used for the condition monitoring of electrical machines.

The manager of Epsilon Alpha was invited to a meeting to present and discuss technical details and future plans. This was not a coincidence because the product manager had previously had a contact with the equipment manufacturer. Nevertheless, the developments within the organization and environment created a new situation with which to cope. An opportunity opened up for Epsilon Alpha because within Gamma, the main focus was on power plants, and experts at Gamma ignored the opportunity in the environment that was identified by Epsilon Alpha's experts. The outcome of this sequence of events was a new situation and potentiality for further actions. Altogether, progress was achieved through the actions and interactions of individuals based on the outcome of several encounters. Eventually, these actions and interactions were the foundation for the idea of product development within Alpha.

The following quotes describe the major event in the development of Epsilon Alpha: the first product development project.

*A: For the first time we started a product development project that was such an exercise for us ... this project plan ... was done in autumn 1996. The name of the project was the commercial product of partial discharge measurement equipment.*

*A: ... we were at a crossroads, either you try to continue besides your own job ... then the development activity dries up. On the other hand ... we saw together with [name of executive] when thinking these issues ... that there is so much potential in this opportunity ... to introduce new services that it could be such an important factor for growth ... such is the coincidence. It was not as entirely a coincidence if thought about it.*

The launch of product development in Epsilon Alpha was somewhat situational and improvised. The first idea took shape so that even the name of the project embodied the commercial product. After the first project got off the ground, development continued coherently. I interpret the first development project as a new organizational configuration, including investment in equipment and training employees.

As a matter of fact, the objective and action converged towards diagnostics, the interpretation of measurements and led to a profound understanding of the phenomena

that embodied the pursuit of technical excellence. The observation that development would suffocate if it would not be separated from daily operations was an impetus for the creation of a new organizational configuration.

With regard to the organizational character - prudence - actions and interactions demonstrate the capacity of actors to make practical judgments in response to emerging situations. Furthermore, the capacity of actors to imagine novel trajectories for future action was manifested in a product development project and in a new activity within pre-existing structures.

*Epsilon Alpha: Segregation of product development*

The following quotes tell the story of how a new activity – product development – contradicted the established operations, and became segregated for a period of time.

*A: You could say that ... about 1997-98 ... the product development plan ... was not at all mentioned in Alpha in general. It wasn't at all with the product development plan. Not a single word was mentioned that on that side some product development in general could be done.*

*A: ... a problem that has been ... in this regard is that it is separated and begin to be artificially separated for instance some management group is established and product development is excluded ...*

*A: And in practice it leads ... that the whole burden is on the shoulder of an individual. The technology center was as a matter of fact a place for discussion. There were plenty of persons educated in universities of technology and they understood technical details.*

Within Alpha and Epsilon Alpha the beginning of product development was not a normal matter of course. Operations in Alpha were perceived to be low-tech services within which no product development had been ever considered.

The idea of developing new expertise and technologies became segregated within the context of Alpha. I interpret this as a dismissal due to middle management's focus on daily operations and their pursuit of operational efficiency. Consequently, any new issue could be laid aside. The emergence of product development was, in essence, an outcome of actions and interactions that originated from individual initiative. The origin of the individual action was dissatisfaction or internal motivation to alter the state of affairs.

However, the proponent of product development within Alpha found sympathy within Gamma, whose identity was closer to product development. Altogether product development within Alpha first became compartmentalized due to ongoing operations, but was temporarily affiliated with Gamma through actions and interactions between individuals. This can be interpreted as follows: productive practices as pre-existing structures constrained the action of an individual but a different context and potentiality existed – Gamma – which spurred the progress of the development idea.

The course of events and the related actions and interactions embodied the talents, skills, and attitudes of human agents and individuals as capacities for action to produce new organizational configurations. But, on the other hand, other actors may dampen the enthusiasm of proponents for new ideas resulting in a contradiction. This can be understood when an action disposition is the pursuit of operational efficiency and not, for instance, the pursuit of growth based on new innovations and services. The pursuit of operational efficiency is a stabilizing element and moderates changes and any deviations from ongoing operations. The actions and interaction described above demonstrate the capacity of actors to generate future trajectories of action, even when pre-existing structures constrain new possibilities.

#### *Epsilon Gamma: Emergence of remote support*

The following quotes illustrate the concordance between research and development within Epsilon Gamma, and the expansion of Zeta abroad.

*A: The most important big cases were when we started to develop the remote support concept for [name of country] and the year was already 1996 when we started to develop and 1997 to implement.*

*A: So I think that only at domestic plants of [name of firm] business would it not have started. The development sprang up in the commercial environment in [name of country]. The needs of business pushed forward the emergence of service culture more than our bustle of internal politics*

*A: I understood that the market situation in that very island was that several new combined cycle plants were constructed and for those new projects people went very fast from [Gamma]. But from that point of view it was necessary to ensure that we are not without reserves if several persons would leave the plant.*

The expansion and pursuit of the new business of Zeta abroad enabled development projects that were related to the development of Epsilon Gamma. A motive for the development of remote support was originally to ensure ongoing operations by identifying technical problems and by detecting the deterioration in technical performance in advance. An enabling factor had been the responsiveness of key individuals – based on previous experience – within the context of Zeta. It created a potential for further actions and interactions. The commercial side of Epsilon Gamma took shape in a business context based on a close relationship with Zeta, and not within an internal research and development context. The emergence of a remote support concept and a related transformation of local structure was the outcome of the evolving action and interaction over a long period of time.

#### **5.4.3 Context in state of flux: multiple progressions and contradictions**

Throughout the reorientations and restructurings of the whole organization various development efforts continued. They were hampered by the ongoing pressure to improve operational efficiency. The development of Epsilon Alpha is an example of synchronism and multiple progression, proliferation, and convergence. In the next section I elaborate on the organizational contradiction in the development of Gamma that resulted in segregation and stagnation. The disintegration of Beta also provides an opportunity to analyze the actions and interactions that occur in a temporary unit at a time when the overall structure was in a state of flux.

##### *Epsilon Alpha: Synchronism and multiple progressions*

The following quotes illustrate the complex sequence of events that occurred in relation to Epsilon Alpha. They demonstrate action enabled by a pre-existing structure and the construction of new configurations.

*A: We started to use the equipment and began to get deliveries to the industry. Then of course within the industry ... a question also arose among customers of if we know the high voltage motors ... do we know low voltage motors as well. First we thought that high voltage motors are good for us and it is enough for us.*

*A: It was about 1998 ... it took maybe about a year.... it emerged as two issues. First ... we had made a decision about that we would introduce these low voltage motor issues.*

An idea emerged within Epsilon Alpha to extend the condition monitoring of large electrical machines to also encompass the condition monitoring of low voltage electric motors: the transformation of an old idea. The idea emerged due to interactions with customers. The gestation of the idea took about a year until the decision was made to offer condition monitoring services for low voltage electric motors. These actions and interactions demonstrate the capacity of actors to creatively combine practices and know how for future use, and their ability to judge alternatives in response to problems in the present situation.

Two people, namely the product manager and the area manager, were involved in decision making in terms of mutual understanding. The product manager expresses it thus.

*A: There was in the background a very important person of course who ... someone is always needed [name of area manager] who believes in these things that because alone you can never get these things. He had faith in this that ... these will become really something and he was always pushing these issues forward.*

The quotation above is a manifestation of the ever-existing tension between individual initiative and creativity and of the generally prevailing conception about how to act. The area manager was like a “patron” to the product manager and progress was achieved through the actions and interactions of these two individuals.

The following quote is an introduction to an instance whereby a series of events that included a contradiction and consequent actions and interactions leading to a new organizational configuration.

*A: This happened sometime in May 1998 ... I was phoned from [name of site] and was asked that could we offer something because were being pushed out from there and then we stated that could we get in and ... by the end of the year we committed ourselves to give plans and offer a new concept. Then they stated that it suits them and then ... we built the concept for the maintenance of electrical machines ... during the autumn.*

The decision was made within Alpha to start product development but the development in the environment had an impact on product development within Epsilon Alpha. A contradiction was emerging between Alpha, its competitor and customer thereby creating a new situation at a certain site. New types of services were needed to ensure



the reliable operation of industrial plants. The emerging conflict was resolved by developing a new service in cooperation with the customer. Novel structural arrangements were established and progress achieved through the local actions and interactions of individuals.

The following quotes demonstrate the multiple progressions during the development of Epsilon Alpha.

*A: Then this project of [name of customer] ... started based on my personal relationships ... and it was a coincidence ... that he moved there as development manager and simultaneously I was moved on our side to become development manager and then we continued the cooperation and he ... proposed this option that we could be involved.*

*A: ... with them a common program on which we built then ... a project plan with a three years schedule when each issue will be done and at the same time we developed ... for [name of site]... the concept for a pulp mill. These two cases occurred simultaneously.*

*A: ...it has been ... always clear that we haven't ... proceeded in such a way that we would introduce a new idea to new territory. So for such an issue we haven't blundered, rather we have introduced a new idea to old territory.*

A distinct sequence of events occurred almost at the same time as the contradiction previously described. A manager from another firm approached the manager of Epsilon Alpha. The relationship between these managers was established during the preceding struggle for survival, and Epsilon Alpha's pursuit of growth. The manager of Epsilon Alpha and a customer representative planned a development program that would extend for three years. These actions and interactions occurred in a local context and the cooperation between parties was based on established relationships between human agents within the organization.

Concurrence and previously established interpersonal relations had created an informal structural arrangement between organizations, which had a positive effect on the outcome. However, structural arrangements that are based on interpersonal relationships that create potential are contextual and situational and may unravel at any moment.

To summarize, the development of Epsilon Alpha proceeded on a temporary basis in two distinct local branches along with different sub-units. In one branch a conflict arose that was present in the sequence of events. At the second branch, no contradictions

occurred, only joint cooperation with a customer. Common in the development of both branches was a sequence of events that emerged through purposeful action among individuals and between organizational sub-units. In both branches the outcome was the establishment of novel configurations, but these arrangements were, however, temporary.

With regard to the transformative dimension of the mediating entity, this consists of the capacity of actors to generate creative trajectories of action during conflicts in response to problems that emerge in the present situation.

#### *Epsilon Alpha: proliferation and convergence*

The following quotes illustrate events that depict the attempts to expand

*A: And ... the next phase ... started as a matter of fact about 1999 ... the use of regional organization ... And the issue has been started from as long ... we had started 1998 ... the development of regional condition monitoring service.*

*A: And ... this started ... first ... the development of technologies measurement methods but at the same time ... it was arranged, I guess it was 1999, ... trainings for a big gang of about 50 persons I guess ... from regions were here in the training. But the idea of networking has not worked.*

*A: Then we created ... the idea that we would have two competence centers [names of sites] already at that time although these [Gamma] were separate so in spite of it already three four years ago we have connected those as contact persons of an expert network ... people of [Gamma] most of them are now in this [Epsilon Alpha]*

*A: We concluded because electrical motors drive process equipments we would extend our service chain even to process equipments when in any case we had to measure the electrical motors.*

*A: ... a natural reason ... to go there was that a decision had been made in [name of firm] that ... portable.... Condition monitoring measurements will be done using certain equipment. There is such an opportunity that the data can be entered into the network and an expert can catch the data somewhere else in the network and make an analysis.*

A logical extension of the condition monitoring was to offer services for process equipment driven by electrical motors. The development of technology created new possibilities and enabled the extension of scope for remote condition monitoring. Managers at Epsilon Alpha pursued expansion through regional organization after the establishment of Epsilon Alpha's position and status. This means that action and interaction were made possible by pre-existing existing structures and technology –

potentiality – but the development was not necessary. Originally the idea of a regional organization was introduced by one of Gamma's experts, and was elaborated in cooperation with the manager of Epsilon Alpha. The implementation of the idea got off the ground by training experts in different geographical regions.

The attempt to create a nexus of experts – a novel structure of relationships – did not lead to a permanent outcome, but the idea faded. Contingent to development was also a result of the transfer of a manager within Gamma to another organizational sub-unit. It had significant impact on the progress of the idea. Eventually, the idea of a nexus of experts was transformed into the idea of having two expert centers. The first center was within Gamma and the second within Epsilon Alpha, and both had remote geographical locations. The idea to establish a nexus of experts was in contradiction with productive practices and local transformation was instead achieved through the actions and interactions of individuals: two expert centers meaning a novel structure within pre – existing structures.

*Gamma: Organizational contradiction*

The following quotes are an introduction to the development of Gamma during the period of expansion and pursuit of growth: affiliation fails and no new structures became established.

*A: Well ... the research and development started to get ... some negative image. When you talk about research and development ... some of the people closed their ears and went away that it has nothing to do with some business ... Then by the mid 90s we began to speak about ... technology. About the development of technology ... we made a separation of the research and development...*

*A: .... That this [Gamma] was however ... it has been research center research institute and staff has been hired to do that style of job as a title of research engineer.*

Introduction of the concept technology, initiated a shift towards practical applications and away from research and development. Nevertheless, organizations like Gamma identified themselves as research institutes, and the titles of the employees reflected their identity within the organizational context.

*A: ... if you reflect then [name of corporate] that we didn't have corporate synergetic ... product areas. It was very difficult to form because everybody started to have their ... own interests... Those were difficult to form and they didn't become ... good when they didn't fulfill any more needs of anybody.*

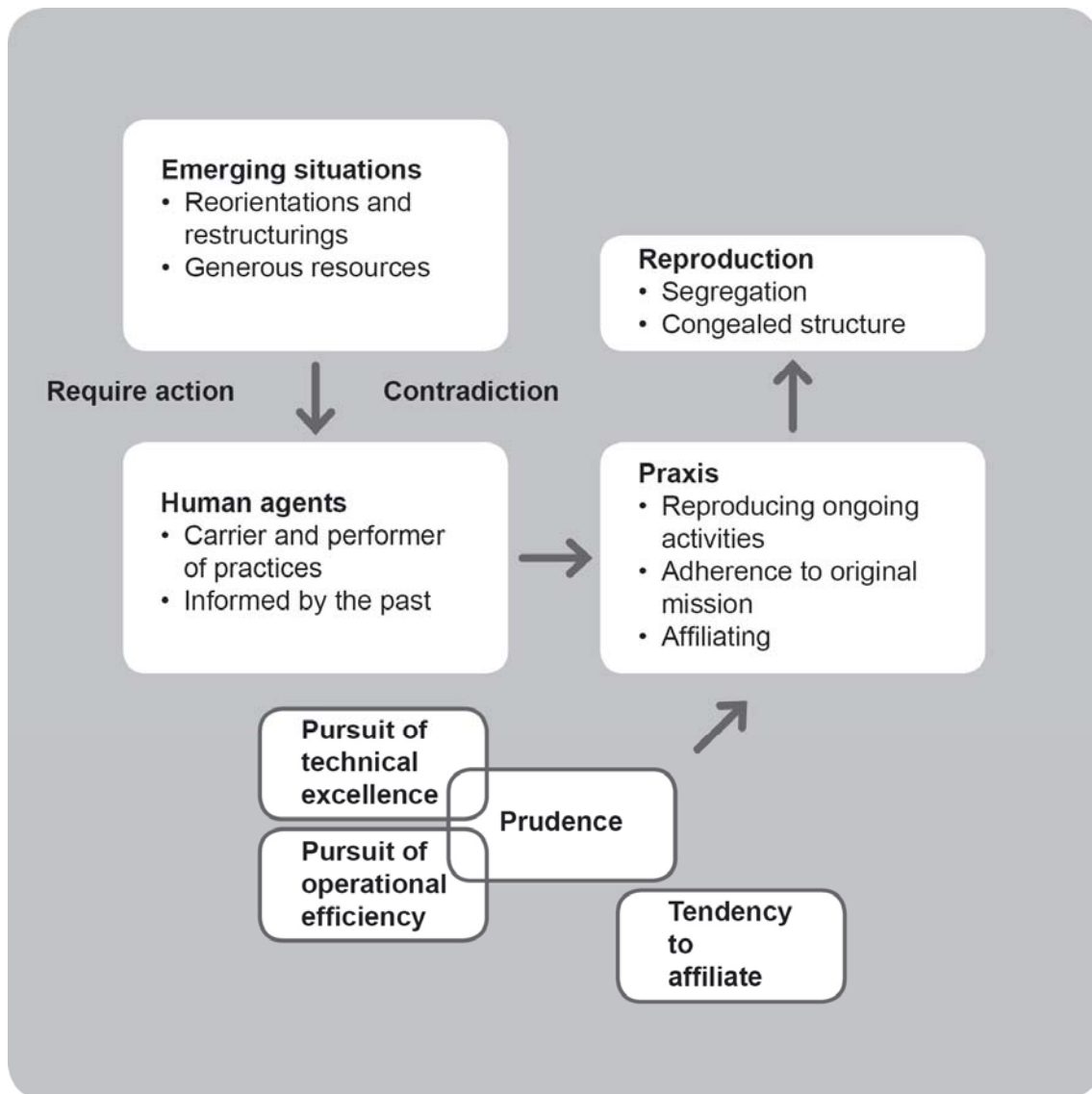
*A: ... that we could have been able to make our services and products concrete enough and then to link them with these businesses so that businesses could have been used them more efficient. We did not succeed in that.*

*A: ... sure it comes from the very management of the business. But ... it was not necessary to think about persons to blame ... but one reason that ... was in the background obviously was ... the time of business responsible was not sufficient absolutely for product development.*

*A: There we attempted in various ways as if to demonstrate the benefit. These are difficult issues you know when they are not ...measurable in terms of money but that if we had done ... in the foreign business ... something noteworthy such as we could have solved some problems.*

*A: Then the second indicator was like success of research and development... In the evaluation the schedule and costs were emphasized and the technical innovativeness. The benefit to businesses was too small to be of importance*

With regard to Gamma, the most significant outcome of the increasing fragmentizing was that it became increasingly alienated from other sub-units. The development of functional businesses resulted in a focus on the pursuit of operational efficiency and on a more fragmented environment. However, the course of events was not inevitable but the contradiction between Gamma and other organizational sub-units had its effect on the development. Gamma could not establish its position within the organization despite recurrent efforts to affiliate with other units.



**Figure 17 Organizational contradiction**

The management of various sub-units was so engaged with daily operations and it was difficult to allocate time for development issues. Accordingly, the pursuit of operational efficiency had a major impact on ongoing operations. The development of Gamma became increasingly segregated from other sub-units as an unanticipated outcome.

*A: ... you are quite right this situation concerning the electricity market ... changed and deregulated ... According to my opinion we stuck to occupy ourselves to promote the use of electricity ... and when in the mid 90s ... was oil versus electricity and we made ... [sum of*

*money] ... big programs that were put together in a day and ... then the whole office of [name of executive] worked for those projects and the link with business was not as good as between [name of sub-unit] and operations and engineering ...*

*A: ... some time ... about 1996-97 ... then ... the pressures were set on the role of [Gamma]. And my understanding is that the management of [Gamma] headed by [name of executive] did not ... smell those. It did not smell that we won't manage with the style of 80s and that of the beginning of 90s.*

*A: just concerning [name of executive] I would say that he wanted that we do not take that role status ... rather [Gamma] lives the life of its own and with the know-how and with these projects it attempts to establish its status.*

During the course of events, the management of Gamma was given a set of new expectations by the top management but little or no action was taken. The management tended to adhere to the original mission, namely research and development projects reproducing ongoing activities. The management did not even respond to the evolving situation within the organizational context and beyond. This phenomenon can be discerned at individual and sub-group levels.

*A: So Gamma was an internal sub-supplier and it already began to appear somehow at the action level a few years ago before termination that you could see that the idea was not sound. There was no clear direction...*

*A: The fundamental problem was that those persons who were doing customer projects and did those small things so ... that was quite all right but the management was not quite conscious enough of real customers and their needs.*

*A: Yes there were surely persons who recognized those weaknesses. But the wholeness was so terribly strong that it was rather difficult to do real changes. ...*

Some individuals were aware that there was no longer any direction within Gamma and its conception. There was not a sound foundation for the entire organization either. The connections between Gamma and other sub-units were mainly within the company and this was attributed to the fall into decline of Gamma. At the individual level, a requirement for action was perceived but they also believed that Gamma as an entity was so immutable that no one was determined to follow through the change. Altogether contradictions within Gamma originated at various organizational levels.

To summarize, sub-units within the organization were compartmentalized and fragmented. The pursuit of operational efficiency and generous resources for development projects embodied ambiguous conditions that made it possible for Gamma

to adhere to its original mission. Eventually, Gamma became segregated, its internal formal administrative structure congealed and the potential for further action decreased. At the sub-unit level, the capacity for further operations was lost, but at the individual level capacities for action remained.

*Beta: Pull oneself together and disintegration*

The following quote is an introduction to the sequence of events within Beta during restructurings and reorientations of the company.

*A: Yeah then in the autumn we stated that the new business unit world is organized. We stated that in 2000 we have really to invest in the development of the concept Beta. We concluded that the heads of performance units have a focal position when implementing the outcome of development for practical business. And we stated that all the performance units have to be involved in the development work.*

The project manager of Beta anticipated that there were changes to come that would mean a struggle for survival. The project manager devoted his efforts to the success of the unit as a response to the emerging situation. His response is a situation where an individual facing conflict concentrates all of his or her energy on one point. Then it is ready to be used at any moment in the required direction (Simmel 1955: 87): pulls oneself together.

*A: And by the end of 1999 we specified the role and responsibilities of managing group. The work of the management group was on the shoulders of two or three persons. And we noticed in that phase that some members of the group could have been prepared themselves better for those issues.*

*A: ... From the beginning of 2000 we started to work and from March onward a concept group and marketing group were established. The marketing group had to examine the market more accurate.*

The project management team was indifferent, but actions and interactions within Beta seemed to result in local reorganization anyhow. The project manager in Beta organized three subgroups: the pilot group, the market group, and the concept group. The organizing was also the embodiment of individual initiative and the outcome was a temporary configuration of relations. The project manager set a pace for action that anyway led to the disintegration of Beta as an unintended outcome.

The following quotes outline the disintegration and indeterminacy of Beta.

*A: Because an essential issue was that people changed both in the steering group and in the working groups and people were about to exit.*

*A: In that phase I noticed that the interactions between steering group members and between people from sub-units were not as strong as they could have been.*

*A: But they were not ... willing to take responsibility for such a total offering. Rather they would like to take tidbits for their own functional offering. But for such a total development there was no aspiration and no willingness to contribute.*

Eventually, the actions and interactions within Beta descended into a state of indeterminacy. In anticipation of reorganization of the whole company several individuals took action and, for example, left the company. This had an effect on the actions and interactions within Beta as well. Beta came into the state of dissolution due to divergent interests among individuals. They focused on the pursuit of operational efficiency rather than on concerted action for long-term development. This was associated with the increasing fragmentizing.

*A: Well by the end of the year we stated ... that the [name of project] concept development was unfinished. By the end of 2000 no new steering group members and working group members were nominated. In a way the project was about to be terminated.*

*A: I would remind that results were presented what we have so far reached and then it became apparent that [name of unit] changed its organization. The responsibilities of the persons were changed and consequently [name of unit] notified about the change of manager of the pilot target.*

Regardless of the temporary organizing and the hectic trials, the year 2000 seemed to go down to drain. Continuous changes occurred and by the end of 2000 Beta was threatened with termination. The actions and interactions of the manager led to disintegration and to indeterminacy. The outcome of efforts was unpredictable and no novel organizational arrangements could be established when the organization was in a state of flux.

#### *Beta: Passing*

The following quotes describe the final dissolution of Beta.

*A: The year 2001 came and [name of business unit] decided and defined their new organization and who is the subsequent manager. In some phase [name of person] came and then as far as I remember by the end 2000 or so [name of manager] said that the manager in this project will be [names of two persons]*



*A: We had discussed with [name of business unit] in December 2000. We talked about the cooperation concerning the year 2001 and according to [name of business unit and person] their resources have been reduced.*

As a consequence of the restructurings and reorientations members of the project were changing embodying fluid participation. By the end of 2000 a sub-unit involved in the development of Beta acquired new leaders. That event later had a major impact on the progress of Beta. Funding for Beta became scarcer and the sub-units that were involved no longer wanted to make commitments. One sub-unit ceased to participate in the development of Beta and another would commit for only a short period of time. All of these actions were manifestations of increasing uncertainty among individuals. Functional sub-units were more focused on their current businesses and on the pursuit of operational efficiency. As a consequence, sub-units resiled from the explorative developments including Beta. Furthermore, representatives of the functional businesses were no longer interested in the actions of Beta and the idea of aggregate services became foreign.

The following quotes describe the termination of Beta and once again the emergence of a temporary coalition.

*A: The project was not terminated; it was put into cold storage in June 2001. We were living as far as I remember many months in a state of uncertainty and it touched everybody. Even middle management had rough times; they could not make any decisions when no prerequisites existed*

*A: Even the small amount of information which we have we should share much faster. Does any other forum exist than group of [name of business] that in a way drags oneself up by the bootstraps by some active individuals?*

Underlying preparations for the restructurings of the whole company were underway. At the same time, a sense of uncertainty had an effect on the progress of Beta, which was “put in the cold storage” in order to wait for the results of reorganization. Middle management had no prerequisite for taking actions concerning the development of Beta.

The termination of Beta was typical in the context of my study. The project was neither ended nor completed it just died out. Seemingly, the development of Beta produced no

results in terms of new productive practices. However, the understanding of markets and customer needs increased. Sometime after Beta ceased, a coalition of congenial managers still continued with the exchange of information concerning customer projects. This kind of exchange of information is a manifestation of the affiliation between organizational sub-units that autonomously co-ordinates the operations of fragmentized sub-units: *temporary configuration of relations*.

With regard to Beta as an organizational entity, there were two immanent phenomena. The affiliation of Beta to whatever other sub-unit was an outcome of individual initiative. From an outside perspective, Beta was segregated from productive practices at all times. Altogether, development of Beta contained recurrent cycles of interplay between affiliation and fragmentizing, and the development was related to the creativity and initiative of the project manager and the individuals involved. The development of Beta was characterized by the ambiguity of the idea, trials, reorientations, fluid participation, and lack of commitment and lack of power on the behalf of the manager, and the continuous changes within the organization.

Originally, the idea of Beta was to develop services to support the sale of electricity, but the idea was transformed during the two years of development. This kind of transformation was quite unpredictable and transformation was an outcome of actions and interactions between Beta and other sub - units within the organization. With regard to the mediating entity, the project manager together with some other individuals maintained the consistency and continuity of action based on their personal relationships until the structures in the context were dissolved.

## **5.5 Creative reconstruction of organizational arrangements**

To sum up, I will elaborate on the second and the third sub-question:

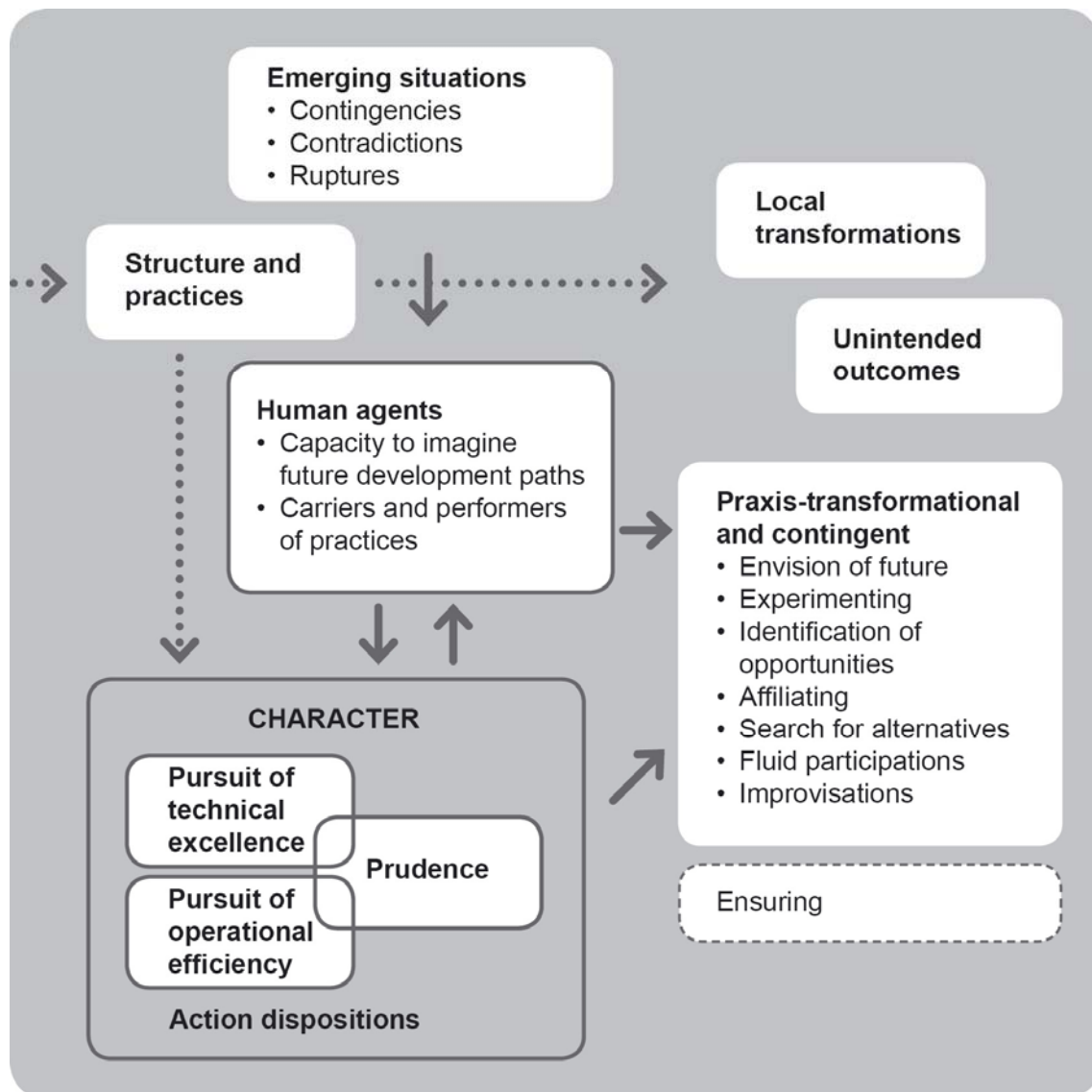
*What kinds of properties of mediating entity – organizational character – maintain the continuity of an organization?*

*What kind of transformative and creative elements are related to the mediating entity?*

Based on the analysis of the events and on the local actions and interactions the following patterns recurred as a response to emerging and evolving situations. Figure 18 depicts organizational praxis – the whole of action including the free and creative reconstruction of local organizational configurations in the context of my study. It describes what actors are doing in response to emerging and evolving situations, and creatively generating trajectories for the future.

The pivotal elements of the transformational mode of organizational praxis, as presented in Figure 18, are difficult to capture in a single concept. The embodiments of creative actions are; envisioning the future, affiliations, experimentation, multiple progressions, and the redirection of ongoing actions and productive practices. Learning, creativity, identifying opportunities, and introducing new ideas, are examples of individual and group initiatives that precipitated the development and provided the impetus to action and interaction

Affiliation, as a creative and transformational response in this context means a search for partners, cooperation with customers, and a search for understanding and sympathy in other organizations. New structures were the outcomes of actions and interactions (Figure 18) such as symbiotic and dyadic relations between organizational sub-units, new relationships between parties, new activities such as product development, and contractual arrangements between parties and new coalitions of individuals. Systematic internal development and investments in research and development also created the potential for action at the individual and at group levels.



**Figure 18 Creative reconstructions of organizational arrangements**

Various contradictions, contingencies, and ruptures were extreme types of emerging situations. They had an effect on actions and interactions (Figure 18) and consequently on the outcomes that cannot be anticipated. The development of the environment, including the development of technology and order from customer were emerging situations as well. As depicted in Figure 18, the deceleration of activity, collapse of venture, segregation of new activity, and adherence to the original mission resulted in unintended outcomes of the transformational mode of praxis. It was typical during the

course of events that new practices and structures did not become permanent, but that the creative action of human agents pushed the events forward.

Contradictions that had an effect on praxis were the discrepancies between ideas and intentions, asymmetry of power of actors and different identities among others. With regard to actions and interactions, there were also diverse concerns in the organization. Such diverse concerns resulted in fluid participations (Figure 18) that disintegrated the actions and interactions. The discrepancy between anticipated and actual development resulted in contradictions that had an effect on actions and interactions. Contradictions were also subject to unanticipated events that endangered the existence and viability of the organizational sub-unit. Concerning the development in the environment, changes in technology and the actions of competitors also resulted in contradictions that have had an effect on the outcomes of praxis. This mode of praxis can be called a contingent mode, including local improvisations.

Based on the observations of my study, I conclude that the transformative mode of praxis – the free and creative reconstruction of organizational configurations – and judgments to cope with current problems are affected by the organizational character. The dimensions of organizational character are the pursuit of operational efficiency, the pursuit of technical excellence, and prudence. Furthermore, organizational character as the mediating entity operates as a structural property (Figure 18) of the organization. In the context of this study the organizational character overshadows creative and transformative capacities of human agents, but does not prevent local changes in organization.

## 6 Discussion

### 6.1 A recursive model of local change

The purpose of my study and of this dissertation is to increase understanding of organizational change in terms of underlying mechanisms and tendencies that are attributable to genuine properties of an organization, without developing hard-line statements for the prediction of outcomes. My research question and the related sub-questions based on the literature review of social dynamics were:

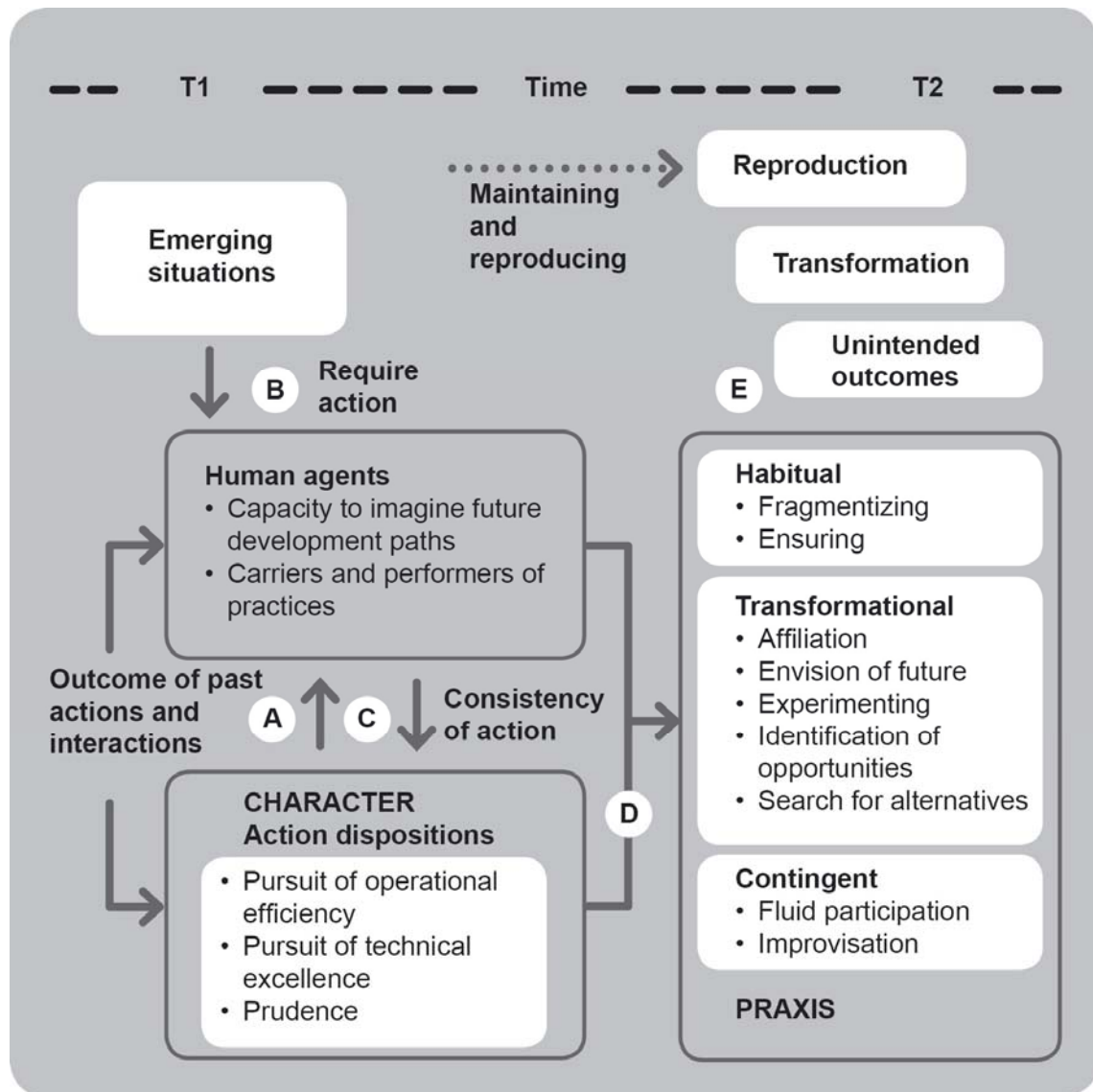
1. How is change constructed within local actions and interactions of an organization?

1.1 What kind of strategies for actions and interactions are related to emerging situations in context?

1.2 What kinds of properties of the mediating entity – organizational character – maintain the continuity of an organization?

1.3 What kind of transformative and creative elements are related to the mediating entity?

In this study a number of events within a large energy company were analyzed during the development of a service business. The contributions are elaborated in the following sections. In this study, I have assumed that organizations are social systems consisting of human beings who are purposeful and reflexive and also carriers and performers of social practices. I have postulated that a mediating entity provides a link between structure, agency, and action in order to explain how structure actually impinges upon human agents when they engage in action. The creative and transformative potentials inherent in human agency have an effect on events and also on processes.



**Figure 19 A recursive model of local change**

Figure 19 depicts the integration of the relationships that were identified in the empirical part of this study. The salient features of the model in presented in Figure 19 are; emerging and evolving situations that require action, the whole of actions and interactions – praxis – that is constrained and enabled by organizational character and affected by the creative and transformative capacities of human agents resulting in various organizational outcomes, reproduction, transformation, or unintended outcomes.

The model is by no means a conceptualization of continuous change in organizations as a whole. Rather, I highlight some generative mechanisms in a particular context that both tend to maintain consistency of action and to transform organizational configurations in emerging situations.

*Time is incorporated in the model.*

In Figure 19 time proceeds following the flow of events and actions from left to right. At a particular moment – T1 – organization locally consists of structures and practices that tend to be repeated and reproduced at a later moment – T2. Local change in organization occurs as follows. Emerging and evolving situations – arrow B in Figure 19 – require that organizational actors, human agents, must make judgments concerning the situation and engage in action, Arrow D. Action as a whole is praxis - situated socially, accomplished flows of activity and creative reconstruction of organizational configurations. Finally, at the time T2, local transformation occurs or the outcome of actions and interactions is unintentional or indeterminate. I interpret the characterization of organizational reality as depicted in the Figure 19 as a process of organizational becoming that is an incessant interaction between recurrent practices – continuity – and a creative reconstruction of local organizational configurations – change.

*Emerging and evolving situations require action; B in Figure 19.* The temporal durations and the scope of the emerging situation in this study vary from slow changes in an environment, to local contingencies and ruptures that require immediate action. Three modes of praxis were identified in my study (Figure 19). The first mode is the habitual that maintains the viability of operations and which result in organizational reproduction. The second mode is transformational and is related to the creativity of human agents and their capacity to consciously create future development paths. The third mode is contingent and is related to human judgments of how to best cope with current problems and emerging situations.



### *Organizational character as a mediating entity*

In general, pre-existing structures enable and constrain action. In the context of my study organizational character as action dispositions, and as a genuine property of an organization, consists of the pursuit of operational efficiency and technical excellence and the content of organizational character is prudence – cautious in practical affairs. The pursuit of technical excellence as an element of organizational character contains traces of an organization's past from the construction era. In the context of this study I conclude that organizational character is a trans-individual entity that has an effect on actions and interactions. Organizational character tends to maintain the consistency of action without external intervention or the intent of human agents.

### *Modes of praxis*

Three modes of praxis were identified in context to cope with emerging situations. The habitual mode of praxis is mediated by prudence and on action level is embodied as fragmentizing and ensuring – this has an effect on local actions and interactions that tend to result in organizational reproduction. The outcomes of the habitual mode of praxis are, for example, compliance with prevailing circumstances, the limitation of freedom of action, and changes in the decision making system. A salient and recurring embodiment of the habitual mode is fragmentizing – to break the organization into separate parts that function independently from each other. In the pursuit of operational efficiency, fragmentizing as a managerial response aims to ensure the continuation of operations resulting in organizational reproduction.

The transformational mode of praxis is local and situated. The embodiments of the transformational mode include affiliating, envisioning of future, experimentation, the identification of new opportunities, and the purposeful search for new alternatives. On the level of human agents their creativity and capacity to imagine future development paths affect the transformational mode of praxis. All of these embody the creativity of human agents who are oriented toward the future. The outcomes of the transformational mode of praxis are novel structures and organizational configurations, such as contractual arrangements with other parties, the establishment of relationships between

individuals, and organizational units and the establishment of new organizational sub-units.

A specific embodiment of the transformational mode of praxis is the affiliating that refers to building, or to attempts at building, associations and connections between organizational sub-units in terms of personal relationships, and these relationships extended across organizational boundaries and are included organizations in the external context. Affiliation is a demonstration of individual initiative in response to the demands of emerging situations and increasing fragmentizing.

A recurring phenomenon in the context of my study was the interaction between fragmentizing and affiliating. Fragmentizing is a response to the pursuit of operational efficiency and to ensure the continuation of operations. Affiliation aims to ensure the survival of sub-units in emerging situations.

#### *Contingent mode of praxis*

The contingent mode of praxis is a sub-category of the transformational mode. With regard to the actions and interactions, there were diverse concerns resulting in fluid participation and improvisation that disintegrated the actions and interactions. The contingent mode of praxis was related to unanticipated events and current emerging problems and dilemmas that endangered the viability of the organizational unit or a group of individuals. Organizational outcomes were unintended or unpredictable but the outcomes were anyhow departures from the existing states of affairs.

#### *Concluding remark: consistency of action*

Change in organization is related to actions and interactions and change emanates from the action of individuals. The individual perception of the situation and how to engage in action are affected by the pursuit of operational efficiency, the pursuit of technical excellence, and by prudence. They all maintained the consistency of actions and interactions in the transformational and also in contingent modes of praxis. The organizational character as an outcome of past actions and interactions in organization

overshadows, in many emerging situations, the creative and transformative capacities of individuals, but does not prevent local transformations.

All the same, there is interplay between how the organizational character maintained consistency and the capacity of actors to imagine future development paths. Concerning the temporal orientation of praxis, the habitual mode is oriented toward the organization's past and mediated by the organizational character. The transformational mode is oriented toward the future and the contingent mode is oriented towards immanent and emerging problems, conflicts, and opportunities. Organizational character as a trans-individual entity contains traces of the organization's history.

## **6.2 Conclusions and contributions**

Accepting that the core purpose of an organization is to maintain the continuity of operations by reproducing itself and accepting that change is immanent in organizations the points of departure for my research were the two broad questions:

*“How do organizations change and renew themselves continuously?”*

*“What properties of organizations maintain the consistency of actions and interactions in emerging situations?”*

In the search for an answer to my original question, and working on the assumption that in order to understand an organization the focus should be on the actions, interactions and what really was going on in organizations. An attempt to examine the organizational actions and interactions and social relationships means the introduction of the following themes in particular: the dialectical view of organizations (Benson 1977), organizational becoming (Benson 1977, Chia 1995, Tsoukas and Chia 2002), contextual analysis (Pettigrew 1987), practice centered approaches (Jarzabkowski 2004), ideas that are inspired by critical realism (Archer 1995, Reed 2003, Fleetwood 2005, Fairclough 2005), and the theory of social becoming (Sztompka 1991). From this literature emerge questions of the interplay between structure, agency, and action, and how they are related. I have made the following conclusions based on the ideas of

critical realism as a means to analyze the change in the organization over time and space. Both structures and agency are causal mechanisms that operate in particular contexts when human agents engage in action during emerging and evolving situations.

Finally, I have concluded that local organizational change is a practical and social performance, and I have approached general questions from this angle. The empirical findings of my study contribute to some of the issues that are discussed in the literature on social dynamics: models of change, mediating entities between structure and action, and the dichotomy between transformation and reproduction.

### *Model of change*

This study contributes to organizational change theory and to the social dynamics perspective (Demers 2007) in particular, by developing a recursive model of local change in organizations (Figure 19) that is based on the analysis of events and local actions and interactions. The model is inspired by the theory of social becoming (Sztompka 1991), a critical realist approach, and a morphogenetic cycle (Archer 1995, Fleetwood 2005) in which the structure pre-dates the action leading to its reproduction or transformation (Archer 1995).

With regard to the properties of the organization of this study, the history of the organization is embedded in its character – action dispositions – that maintain consistency of action. Individuals and groups of individuals are change agents in local contexts, but they are constrained by the organizational character. A pursuit of operational efficiency, pursuit of technical excellence, and prudence, were relatively enduring during the period that this study covers.

Contradictions and conflicts are driving forces to events and processes according to the dialectical and critical view of organizations. A model of institutional change (Seo and Creed 2002) is based on the dialectical view (Benson 1977). The model consists of institutional contradiction, praxis, institutional change, and institutionalization. Common features of the model of institutional change and the model presented in this

study are that both are recursive and that the outcomes of praxis are not always predictable. In my study, any emerging situation requires action but there is no need to postulate a contradiction in order to trigger praxis, and consequently a change in the organization. Furthermore, in my study praxis is not directed to a fundamental departure from existing principles of organization (Seo and Creed 2003). Most changes are incremental, but local transformations can often be fundamental departures from previous local organizational configurations.

*Organizational character as a mediating entity and author of action*

In the morphogenetic model of change (Archer 1995) questions are how does pre-existing structure really impinge on agents, and how do they react in order to reproduce or transform structure. The existence of a mediating entity (Fairclough 2005: 922) is assumed and is related to practice and habitus (Chia and Holt 2006, Chia and McKay 2007, Bourdieu 1977). Organizational character as action dispositions (see Figure 19) does not determine how agents behave or act in particular situations. Based on dimensions of organizational character – the pursuit of operational efficiency and technical excellence and prudence – it can be anticipated how agents tend to act in emerging situations.

Concerning a practice centered approach to organizations (Chia and McKay 2007) an extended question can be posed. Is organizational change the outcomes of individual free will or do trans-individual practices determine what is actually done in organizations? Organizational character and its content in my study have produced an impact on the actions and interactions at all levels. Even attempts at strategic change are affected by historically shaped tendencies. The relationships identified between organizational character, human agents, and praxis (see Figure 19), suggest that internalized practices are real authors of everyday coping actions (Chia and McKay 2007) and of responses to emerging situations. Furthermore, I conclude that organizational character is a socially real entity because it is dependent on human activity for its existence (Fleetwood 2005).

There is still a need for a critical comment and question. In fact I have implicitly postulated that some true and deep characteristics of an organization would be revealed when encountering new, emerging, and uncommon situations. It is evident that the organizational character is pertinent in everyday actions and interactions, and not only when encountering unanticipated situations.

#### *Modes of praxis and a dichotomy*

The morphogenetic approach (Archer 1995), temporal orientations of agency (Emirbayer and Mische 1998, Reed 2003), and the critical realist perspective (Archer 1995, Bhaskar 1998, Fleetwood 2005), explicitly assume that social entities are either reproduced or transformed as outcomes of social production. However, based on the findings of my analysis, praxis consists of several modes: habitual, transformational, and contingent, and these modes are not mutually exclusive. I have identified the relationship between habitual and transformational modes of praxis, and that relationship expresses itself as fragmentizing and affiliating. Furthermore, the morphogenetic approach and critical realism (Archer et al 1998) and the theory of social becoming (Sztompka 1991) emphasize pre-existing structures that predate actions and social interactions. Emerging and evolving situations cannot be considered pre-existing structures, but they have an effect on the actions and interactions that result in situated and local change. In this respect, my findings adhere with the situated change perspective (Orlikowski 1996).

### **6.3 Evaluation of the study**

According critical realism, the explanation of phenomenon is good if the postulated mechanism is capable of explaining the phenomenon, we have good reason to believe in its existence, and we cannot think of equally good alternative explanations (Outhwaite 1998). Also, attention should be given to the evaluation of how reliable a guide the results of my study are to foresee what happens in an organization and its efficacy resides in the identification of generative mechanisms in context (Ackroyd 2005). These points of view concern the criteria of a qualitative research strategy: credibility, understanding, verification, and trustworthiness (Creswell 1998).

A limitation of my study is that it considers a single organizational context. The number of interviewees was limited and therefore the account of events is not as complete as I would have liked, and there are areas that I have not considered at all. A limitation was related to the very common problem that I did not observe the actual actions and interactions as they occurred (Silverman 2000). They are mediated by the experiences of social actors and interpreted by the researcher.

The primary data – the accounts of participants – of the organizational events and event clusters was created through interviews with people who had experienced the organizational change and development over a long period of time. Consequently, the Text is a result of a dialogue between me, as researcher, and the interviewees. There were a limited number of interviewees and the interviews were dependant on time and other resources that were available for the studies. I have tried to compensate for this limitation by using supplementary material that consists of annual reports, internal newsletters, internal memos and personal notes and documents made by interviewees. Furthermore, during the analysis of the original Text, and while writing several discussion papers, I have been involved in my daily work with several conversations with many colleagues. Many themes that emerged in the interviews recurred often in these informal discussions.

The issues of credibility, verification, and trustworthiness pertain to the entire process of data collection, analysis, and reporting (Creswell 1998: 194). It is possible to make several interpretations from the accounts of participants, but the successful interpretation makes it clear that the original meaning was presented in a way that was confusing, fragmented, and cloudy (Taylor 1999: 17). A basic question is: how can one be sure that my interpretation is justified? Considering the method and research techniques, I ended up with a process that is a combination of a theory-driven and a data driven approach (Langley 1999, Ackroyd 2004).

There are many quotations in my report from the original interviewees, and throughout the interpretation I have contemplated and compared my interpretation with the literature. Furthermore, a great amount of time that was taken in my interpretation. The descriptions of events are detailed and comprehensive as far as it was enabled by the Text and other sources of data. The recursive model of local change and the related concepts are grounded on the Text, on other sources of data, and on the literature.

With regard to the transferability of results, the first question is related to the characteristics of the organization that I studied. Central concepts that emerged during the study are organizational character, compartmentalization and affiliation. If an organizational context becomes smaller and less complex then the sub-units become smaller until there are only few individuals in each coalition. Then the concept of an affiliation and of affiliating pertains to the shaping and dissolution of coalitions between individuals. A tentative idea is that the two concepts – compartmentalization and affiliation – can be found in any complex organization that delineates the process of change. Furthermore, they could also be identified in networks of firms and their changes.

The contextuality of this study means that dimensions of organizational character are related only to the organization that I have studied. In any other context, the content of the organizational character is most likely to be different. On the other hand, this motivates further studies because there are only a few studies concerning organizational character (Selznick 1953, 1957, Birnholtz et al 2007).

The second question concerning transferability is related to time and place. I studied the organization during a period when the whole industry was moving away from a regulated environment towards increasing competition, but the changes were incremental and extended over a long period of time. All of the events are now history and they never will be repeated. However, drawing on the ideas of critical realism (Archer et al 1998, Sztompka 1991), the model of change and the relationships between its elements as depicted in Figure 19 can be elaborated to other contexts.



Based on the considerations above, the local transformations can be explained using the concept organizational character that generates consistency of action in emerging situations. Furthermore, there are good reasons to believe in the existence of organizational character as a trans-individual entity. However, there are alternative models of explanation that can be related to organizational identity and culture. I have also concluded that organizational identity and culture are entities in which organization – human agents and their consciousness about context, situation, and how to act, – are intertwined (Smircich 1983, Schein 1992, Corley and Gioia 2004, Nag et al 2007). Both organizational culture and identity contain traces of an organization's past. A study of alternative mechanisms would be a subject for further research.

## **6.4 Practical implications**

Some practical implications can be delineated based on the results of my study. I would like to explore two conventions. The first is related to the change management but very seldom such managerial skills are specified. The second convention concerns (Outhwaite 1998) organizational character and how it is related to immutability or to the resistance to change in organizations.

With regards to the first convention – change management – everyone frequently encounters new situations, and very often it is not clear what actions are needed or what is the appropriate response to that particular situation. Nevertheless, everyone has to manage emerging and evolving situations somehow and an individual's response to change may be strategic, routine, or improvisational. The idea of action dispositions and my observations suggest that individuals follow internalized practices when coping with emerging and evolving situations.

Human agents and actors must habituate in order to survive in ambiguous situations. They consistently face a variety of paradoxes, alternatives, contradictions and contingencies, opportunities, and possibilities. Structures are sometimes unrecognizable or difficult to comprehend because they have no substantive existence, but they have an

affect on actions and interactions in any case. But action and change are often based on creativity and on individual and collective initiative, and through these initiatives new patterns of action unfold when new practices are repeated and shared. It is possible to achieve progress through the actions and interactions of creative individuals. Issues often progress along several parallel development paths. Sometimes they lead to a stalemate, or to unintended outcomes. Even unintended outcomes do affect further development and may create new avenues for development. The description above is, in any organizational context, an embodiment of organizational becoming wherein priority is given to the actions and interactions in everyday life but pre-existing structures constrain and enable them.

When people refer to the second convention – “*resistance to change*” – they refer to an opposition to change. Consequently, resistance to change has to be resolved, for example bargaining with conflicting parties. This mental model is widely accepted and drives organizational behavior (Dent and Goldberg 1999). Unfortunately, in the management literature resistance to change is treated as a psychological concept and resistance or support to change is seen to be within the individual (Dent and Goldberg 1999). With regard to the resistance to change or immutability immanent logics of practice arise in organizations through the process of socialization (Bhaskar 1998) that involves practice and repetition when coping with emerging situations. The concept of organizational character captures the idea that consistency of actions and interactions may even be strategic without managerial intervention. In many cases, this consistency maintains the continuity of operations and ensures the survival of the organization.

Organizational character and habitus develop as mediating entities between structure, agency, and action over a long period of time, and as a consequence they change slowly. Therefore organizational character as a genuine property of an organization also tends to resist change. But, in fact, this is only one side of the coin. It is important to understand that this kind of resistance to change is immanent in the organization; it is not necessarily an opposition to any plan or intention.

Organizational character is a slowly changing genuine property of an organization that requires a different approach from each individual in all echelons of an organization. There is no longer any question about bargaining or negotiations, rather everybody has to understand why we act and interact in certain ways while we simultaneously accomplish productive practices and encounter new situations. Organizational character, identity, and culture, are stabilizing elements in any organizational context, and it is necessary to understand them when considering action, interaction, and organizational change. The question is not only about individuals and their personal traits, or psychology, but social practices as well.

## **6.5 Suggestions for further research**

Organizational character can be considered to be related to the concept of organizational culture. Indeed, there is a rich literature on organizational culture (e.g. Smircich 1983, Schein 1992) that was not addressed in my research. My conclusion is that the distinction between organizational culture and character needs to be clarified and would be a topic for further study.

The topic of organizational character aims to answer the question: What is the habitual way of action when coping with emerging situations? In that sense, the notion of organizational character is a focal concept when aiming to understand organizational change. Because organizational character is a historical, integrated, functional, and dynamic product (Selznick 1953, 1957), exploring it in a particular setting is a challenging task requiring longitudinal studies. There have already been many studies concerning organizational identity, culture, and discursive approaches that could be reviewed from a different point of view; for example, considering the development of organizational character.

I suggest that the concept of organizational character, at an organizational level, and habitus as internalized practices engendering action could be revitalized in organization studies. They can explain the consistency of actions and interactions in various contexts. On the other hand, they can also be sources of local changes. An even more important

question that has to be investigated is: “*Through which processes does organizational character appear, change, and develop?*” Organizational character is likely to be constructed through discursive processes of social actors, but this statement is hypothetical.

The model of local transformations of organization mainly includes the actions and interactions that are a response to emerging situations and are constrained and enabled by pre-existing structures. There are two issues that may require more attention. First, there are many change initiatives that are intentionally undertaken by managers but that are not sustained. Secondly, and of most importance, the elaboration of organizational conflicts, and accordingly the model of organizational change, would be complemented with a dialectical mode of change that includes the subtle interactions between modes of praxis. As a consequence, any further study of organizational conflicts and contradictions would contribute to the recursive model of local change regardless of their effects on the development of a particular organization or group within it.

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## **Appendices**

**Appendix A:** Description of the project

**Appendix B:** The beginning and the conclusion of an interview

**Appendix C:** A visual map for illustration

## Appendix A

### Description of the project

#### Proceedings of interview

#### Purpose

In broad terms organizations are operating in a changing and ambiguous environment. An organization today is never the same as it was yesterday. Accordingly, the future organization will be different from that compared today. In order to survive an organization has to adapt to its environment and change is prerequisite to adaptation.

The study of organizational change is focused on the question:

*How does organizational change emerge, develop, mature or terminate in the course of time?*

In this study the purpose is empirically investigate the changing of the organization. The research questions guiding the study are:

*What are the major sources of organizational change?*

*What are the major processes through which change occurs?*

My objective is to develop theory that explains change and theory that is grounded on the data obtained from the subject of study. Primary data are interviews and transcripts.

#### Interview

Interviews will be started by discussing the background of the interviewee. After that we move to discuss change, development, and adaptation processes from four angles:

*What changes have occurred in the environment to which the organization has adapted, and how such adaptation has taken place?*

*How has organizational change, new ideas, innovation, or strategic initiatives emerged and developed in the course of time?*

*How have various subgroups, individuals, and organizational levels been involved in the development?*

*How are the changes in the action visible?*

It should be, especially emphasized how the interviewee has pieced together these issues.

## Questions

What changes have occurred in the environment to which the organization has adapted, and how has this adaptation taken place?

Time scale:

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
------	------	------	------	------	------	------	------	------	------	------	------	------	------

How have organizational change, new ideas, innovation or strategic initiatives emerged and developed in the course of time?

- Please think about particular ideas, initiatives or innovations that have emerged from the beginning of 1990 until today
- Origin and emergence (date, people, events)

Time scale:

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
------	------	------	------	------	------	------	------	------	------	------	------	------	------

How have various groups and individuals and various organizational levels been involved and have had impact on the development?

What are the outcomes of changes?

What does the future look like?

Who else should I interview?

## Secondary sources of data

Obtain material from other sources

- Organizational charts
- Bulletins, annual reports, brochures, memos

**Thank you for your contribution! All material shall be treated as confidential and the identity of an interviewee will not be disclosed**



## Appendix B

The beginning of an interview is as follows (excerpt from the tape number 12):

*Q: Today is 15th October 2002 it is sharp 9.15 am and place is [address] and [name of person] is the interviewee. An this time the object is to focus on the contract based industrial maintenance and on the progression of the idea during years and in the same connection of course the purpose is to consider other processes of change and ideas and innovations that have emerged during course of events. But before entering these specific questions I would like to ask you to tell about your organizational position, career, most important jobs and educational background.*

*A: Thanks, I am at the moment chief executive officer at [name of firm] and if I begin from my studies I was graduated at [name of city] year 81 as mechanical engineer and after these studies during my journey to south I stopped as a design engineer at [name of firm and city] less than one year and then the next step was on the coast in [name of city].*

*And there was such a firm [name of firm] and there I was as a job purchaser less than a year. In then my journey continued to direction of [name of city] or to [name of power plant] where I was years 83 84 and I was planning works for major overhauls and supervision and equipment design. And in the beginning 85 I went to office of the [name of Power Company] and from the year 85 until 92 I was involved with various kinds of project tasks primarily on the administrative side.*

*And year 92 I went to [name of site] and there was about thirty forty people and I was manager until 94. And from the beginning of 95 I went to managing director of [name of firm] and in that position I was until summer 98 and then this [name of firm] became merged and I had not any more job. Then I was one year in [name of city] leading the local sub-unit former [name of firm] and then I moved to the current position during autumn 99 as a managing director..*

*Q: Good thanks. Next we shall move to discuss these changes and purpose is to discuss organizational changes development processes and adaptation processes from four angles. First it is my purpose to discuss changes in task environment ... second how organizational change, new idea, innovation or strategic initiative has emerged and developed along time ... third how various groups and individuals and organizational levels have been involved ... fourth how changes can be visible in operations and I would like to emphasize that here the question is that how the interviewee or now you has understood these issues. And can we now proceed to more detailed questions?*

The conclusion of the interview:

*Q: Good lot if interesting issues have been discussed and the proceeding of the interview never goes as I have planned in advance. But it is the purpose that some lead may arise that we follow. The last question who else should I interview related with the development of [Subject Alpha]?*

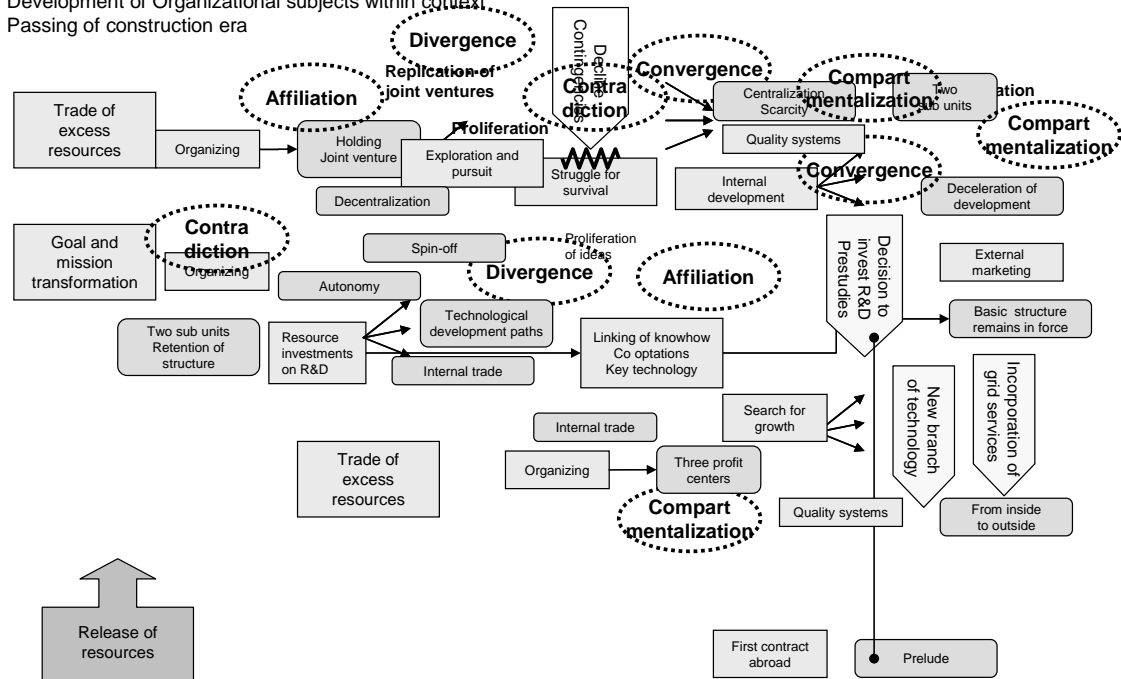
*A: If you begin from the beginning of 90s then [names of persons]. These come to mind.*

*Q: Good thank you this is enough from concerning subject it is now 11.13 at [name of site]. Thank you for the interview and I'll handle all material as confidential and if I present excerpts I'll do it in that way that neither the interviewee nor the place cannot be reasoned. And now the interview is closed thank you.*

## Appendix C

### A visual map for illustration

Development of Organizational subjects within context  
Passing of construction era





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