

# Innoversity



A Study of the dynamics inherent in the relationship between  
innovation and diversity

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**Master thesis in Intercultural Management**

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“Den aandelige Fuldkommenhed kan ligesom den physiske Væxt kun fremmes derved, at Individet jævnlig smelter sammen med, hvad der er fremmed for det, og tilsynsladende opoffrer sig selv for at vende beriget hjem igjen til sig selv”

Poul Martin Møller, 1837

"Spiritual maturity, just as physical growth, can only be nurtured by the individual frequently embracing what is foreign, and in appearance, sacrificing his own self, in order to return enriched to his own individuality."

Poul Martin Møller, 1837

## **EXECUTIVE SUMMARY**

Innovation and the ability to create new knowledge constitutes an important competitive edge for organisations in the 21<sup>st</sup> century, and diversity within organisations offers interesting new perspectives for innovation and may increase the ability to create new knowledge. Understanding the dynamics of the relationship between innovation and diversity, and thereby how innovative practice may benefit from diversity, thus becomes important to organisations wanting to increase their competitive edge; especially in a decade where changing demographics are affecting, or about to affect, most all organisations.

However, existing theory indicates that diversity is more likely to impair innovative practice, and provides very little support to findings from practice indicating that innovative practice may instead benefit from the potential of diversity. But by making use of a Community of Practice Framework, this thesis provides a theoretical explanation to the findings from practice, - thereby addressing the theoretical void arising from such inconsistency between theory and practice.

The theoretical explanation provided in this thesis to address this theoretical void centres on two new theoretical findings. Firstly, how diversity may potentially ignite five innovers' drivers seen to enhance different aspects of innovative practice, such as: absorptive capacity, requisite variety, network access, creative destruction and problem solving. However, these drivers are difficult to ignite due to diversity also giving rise to intergroup anxiety, miscommunication and goal incongruence – thereby impairing coherence, which is important for innovation to occur.

The second part of the theoretical explanation therefore focuses on understanding the context within which it is possible for the innovers' drivers to ignite. This understanding is obtained by viewing diversity and innovation as embedded in communities of practice, as opposed to traditional teams and workgroups. This Community of Practice Framework establishes how the necessary coherence is obtained – not necessarily from perceived similarity – but instead from the mutual engagement in a shared practice field.

This thesis has therefore substantiated the potentials of diversity for innovative practice, and demonstrated that the existing theory predicting vicious outcomes from innovation in a diverse setting does actually have a virtuous counterpart: innovers' – both in practice and in theory.

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## **1. Introduction**

With innovation being an important challenge to most organisations in the decades to come, and diversity being a natural consequence of changing demographics in most labour markets (Workforce 2000), the relationship between innovation and diversity seems to be a highly relevant issue for most organisations. However, even though most of us would be able to imagine that a multitude of perspectives and skills would provide important means for innovation, this aspect of diversity seems rather unaccounted for.

This thesis aims to establish diversity as an important resource for innovation, and seeks to develop a theoretical understanding of the synergetic potential inherent in diversity – by understanding the processes generating innovation in a diversified setting. It is therefore a central assumption in this thesis – based on my personal assumption - that diversity is a positive and beneficial characteristic of an organisation, which should be regarded as an important factor with regard to innovation in an organisational setting.

Diversity in this regard is described and defined as differences in cognition and skills (techne), which may or may not be a consequence of differences in age, ethnicity, gender, tenure, occupation, professional background etc. However, diversity is primarily about how we judge and perceive other individuals as either similar or dissimilar from ourselves. Hence diversity – in the context of this thesis - is a prescription used for dealing with a collective of individuals who describe and perceive each other as dissimilar or different.

### **1.1 Wondering why....**

The issues being dealt with in this thesis were decided upon as a result of my fascination with and wondering about a range of different issues, which are outlined below to provide the reader with an understanding of the departure point of the thesis.

First of all, I was curious as to why the general discussion of diversity in Denmark seems so focused on the problems of diversity, rather than the benefits. The general resistance within Danish industry towards employing dissimilar individuals and the public debate about diversity issues, left the potential of diversity relatively untouched. For instance, the (rather few) arguments advocating

the inclusion of 'Newly Danes' seems to be centred more around diversity for the sake of social responsibility, and for the sake of increasing the workforce, than on diversity as a potential to be exploited for enhancing performance.

Secondly, I was rather disappointed with the way diversity was being perceived within my own theoretical field, i.e. intercultural management. The issues being dealt with in most textbooks and courses seem to be more focused on how to deal with the problems arising from diversity, rather than focusing on the benefits, and how to make use of them in practice. Similarly, there seems to be a tendency to focus on the consequences of diversity, rather than an interest in understanding what it is within an organisation that creates the notion of 'perceived dissimilarity' and actually generates problems.

Thirdly, and most importantly, I was convinced that diversity actually did provide important benefits, which seemed to enhance innovative practice. From my own participation in different settings characterised by diversity, and from discussions with different practitioners, I was convinced of the potential of diversity. However, most theory seemed to contradict these findings!

Nevertheless, by momentarily directing my studies away from intercultural management/diversity theory and towards knowledge management, I saw that here at least – among knowledge management theorists diversity was perceived as potentially beneficial for innovation! Here, however, I was confronted with a new challenge: within knowledge management only very few theorists did more than mention the potentials of diversity, without elaborating further on the issue.

## **1.2 Setting the stage...**

Within knowledge management theory one of the important aspects in the creation of new knowledge is cohesiveness and social capital, i.e. interaction and personal relations (Nahapiet & Ghoshal, 1998; Prusak & Lesser, 1999; Kogut & Zander, 1992; Nonaka & Takeuchi, 1995).

Nahapiet & Ghoshal (1998) describe social capital as a necessary condition for innovation. Even though their description is highly complex, involving all of the different dimensions of social capital, it may – in a rather simplistic form – be illustrated in the following way:

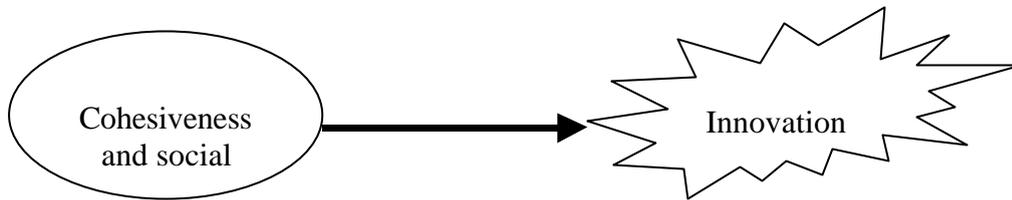


Figure 1.1: Innovation and cohesiveness, slj, Inspired by Nahapiet & Ghoshal, 1998

As illustrated in figure 1.1, Nahapiet & Ghoshal (1998) describe cohesiveness as a condition for combination and exchange to lead to innovation (see chapter 4). Their theory is used to describe the organisation as conducive to the existence of social capital, and social capital as an important condition for innovation (Nahapiet & Ghoshal, 1998).

I would, however, like to add another dimension to the creation of knowledge: the dimension of diversity as a potential to be utilised in the creation of knowledge. Diversity in organisations seems highly attractive because the variety in perspectives can stimulate non-obvious alternatives (Nemeth, 1986), just as diversity has been shown to promote creativity and innovation (Cox, 1993). However, adding diversity to the innovation scenario makes it somewhat more complex and possibly contradictory. The addition of diversity forces a paradox, in that diversity and cohesiveness seem to be mutually contradictory elements, creating what I have chosen to define as the ‘Innoversity Paradox’:

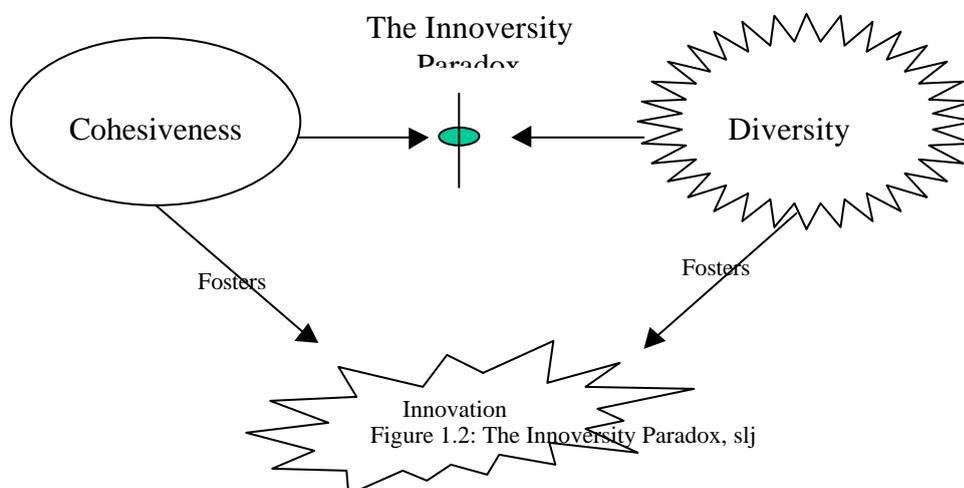


Figure 1.2: The Innoversity Paradox, slj

This new picture illustrates how both diversity and cohesiveness foster innovation within organisations, but at the same time seem to oppose each other, or rather, diversity seems to discourage cohesiveness (Sessa, Jackson & Rapini, 1995). The most important reason for this discouragement is that people are attracted to others perceived to be similar to themselves, and seem to generate a bias and an ‘us-them’ categorisation, which discourages personal relations and identification, i.e. cohesiveness (Cox, 1993; Brewer, 1991; Tajfel, 1987; Basu, 1999; Armstrong & Cole, 1995; Northcraft et al., 1995; Schneider, 1987).

Consequently, in order to explain how it is possible to make use of diversity for innovative purposes, I needed to find a way around this Innoversity Paradox. I needed to be able to explain how it was possible (as I was convinced that it was) to exploit the potentials of diversity, in spite of the problems it seemed to pose with regard to cohesiveness

This is where communities of practice enter the stage! Communities of practice (CoPs) are “emergent social collectivities where individuals working on similar problems self-organize to help each other and share perspectives about their practice. These communities develop through the mutual engagement of individuals as they participate in work practices, and this participation supports the exchange of ideas between people, resulting in learning and innovation within the community” (Brown & Duguid, 1991; Wenger, 1998 *in* Faraj & Wasko, 1999:3).

This definition holds a lot of promise: it seems that in a CoP perspective, diversity and cohesiveness are allowed to co-exist, indicating that participants in the practice fields of CoPs are able to sustain and develop cohesiveness by the way they engage and interact. Furthermore, could it be that CoPs could also ‘explain’ diversity, due to the members participating on a voluntary basis to exchange ideas with people working on similar problems, having similar interests? People join in order to learn, and if they discover that they can learn and gain new perspectives from people who are very different from themselves, maybe they will embrace diversity rather than avoid it!

Communities of practice emerge as interpersonal relationships in organisations, knitted around different practice fields: in most settings they already exist, we are all members of communities of practice (Wenger, 1998a; Brown & Duguid, 1991). However, due to most organisations being structured around teams, departments, function groups, task forces etc., the interpersonal

relationships naturally emerging in organisations around different practice fields (CoPs) are often overlooked. This informal part of the organisation is usually perceived as ‘disconnected’ from practice and innovation, but maybe, just maybe, if organisations wanting to enhance their innovative practice focused on these self-emergent communities, organisational members would embrace, rather than avoid, the different perspectives inherent in a diversity setting.

I needed to find out whether this position would hold! I had an idea and was now ready to embark on my investigative journey, to see whether it would hold theoretically. I was ready to formulate my research question!

### **1.3 Research question and hypothesis**

The overall objective of this thesis has already been established as seeking to understand the relationship between diversity and innovation within organisations, thereby seeking to understand and explain theoretically how and under what conditions innovative practice may benefit from diversity. This objective guides the formulation of the following research question:

**Research question: Is it possible, by applying a CoP Framework to (1) reach an understanding and a theoretical explanation of the dynamics inherent in the relationship between innovation and diversity and thereby (2) explain how these dynamics may be seen to advance innovative practice?**

The question seems rather simple, but soon becomes very complex due to it involving the above-mentioned theoretical discussions regarding diversity, innovation, cohesiveness and communities of practice. The ‘object of analysis’ thereby becomes innovative practice, with the purpose of providing an understanding of how innovative practice may be enhanced by diversity. This firstly requires an understanding and a theoretical explanation of what innovative practice is, where and how it takes place, before we are able to understand how it is influenced by diversity. This complexity makes it highly difficult to pursue a linear thread of discussion, which is why I have chosen to frame the discussion around two hypotheses and an assumption, which will direct the line of argumentation.

As described in the paragraph 1.2, where the stage was set for the thesis, I have made certain assumptions about how diversity could be exploited for the purpose of innovation. However, these assumptions need to be ‘tried’ theoretically, which is why I choose to pose them as hypotheses to be discussed in the remainder of the thesis.

**Hypothesis 1:** Diversity impedes innovation in organisations, by posing a threat to cohesiveness, i.e. the quality of interpersonal relations, which is a prerequisite for innovation.

Hypothesis 1 refers to the problems usually ascribed to diversity; these problems need to be properly understood, which will be pursued in chapter 6.

**Hypothesis 2:** Diversity advances innovative practice in organisations.

This hypothesis is a central aspect in the thesis, due to it pursuing a value-in-diversity perspective (Cox, 1993) which is not about pursuing diversity for the sake of diversity, but because diversity is a resource to be used and exploited in order to advance innovative practice. This hypothesis is to be elaborated on in chapter 7.

Hypothesis 1 and 2 describe the Innoiversity Paradox, i.e. the fact that diversity is seen to both advance and impede innovative practice, as was illustrated in figure 1.2. This Innoiversity Paradox is analysed and accounted for by applying the Communities of Practice Framework (see chapter 2) as a means of finding a way around this paradox. The use of communities of practice in this regard is based on my assumption described below:

**Assumption:** Applying a Community of practice perspective on innovative practice may explain how it is possible for diversity and cohesiveness to co-exist, thereby allowing for innovative practice to benefit from diversity.

The assumption is based on our – as human beings - natural motivation to learn, which comes into play when employees are provided with the possibility of engaging actively in their field of interest.

When individuals are provided with a ‘room and context for reflection, discussions and learning’, they may come to appreciate and embrace the existence of diversity, due to diversity providing important means for them to learn new insights about their practice field, and thereby make room for learning and innovation. This natural interest and motivation for enhancing ones knowledge and skills will make employees more open towards the perspectives and insights offered by dissimilar others, and is closely related to notions of identity. The structure of the thesis, and the way in which the research question, the hypothesis and the assumption are framing the content of the thesis is illustrated graphically in figure 1.3 (see p. 8).

#### **1.4 Delimitation**

With the purpose of this thesis being to provide a theoretical explanation for the relationship between innovation and diversity, the primary delimitation centres on the lack of empirical ‘evidence’ to support the findings. Some use of practical examples is made, but not in order to ‘prove a point’; rather in order to provide a theoretical explanation as to what is illustrated in the thesis. More importantly, an important aspect of innovative practice is tacit knowledge, which may be accounted for in theory, but is rather difficult to explicate in practice. The use of examples in the last part of the thesis is therefore – unfortunately – more centred on the part of innovative practice which can be explained, described and accounted for, than on the dimensions of knowledge which cannot: such as what occurs in the combination and exchange of tacit knowledge. I am aware of this ‘lack’ in the discussions of examples – but the difficulty in capturing such processes requires for delimitation in this regard. Furthermore, this thesis does not describe different degrees of diversity, – but focuses on diversity as perceived dissimilarity, and thereby delimitates from discussions of how diverse individuals may be in order for collaboration to be possible. Finally, this thesis does not attempt to provide a thorough account of innovation, but focuses primarily on the practice and the creative processes leading to invention and eventually innovation. The thesis therefore delimits itself from other aspects of innovation, such as prototyping, diffusion and marketing.

#### **1.5 Outlining the structure of the thesis**

The thesis has been structured around the research questions, the two hypotheses and the assumption presented above, as depicted in the graphical illustration below:

## INTRODUCTION AND METHODOLOGY

Chapter 1: Introduction  
Chapter 2: Methodology

*This part provides the theoretical foundation for answering the research question*



## PART I: INTRODUCING CoPs, INNOVATION AND DIVERSITY

Chapter 3: Introducing communities of practice  
Chapter 4: Introducing innovation  
Chapter 5: Introducing diversity

*Part I provides the theoretical foundation for the research question, hypothesis and assumption*



## PART II: THE RELATIONSHIP BETWEEN INNOVATION AND DIVERSITY

Chapter 6: Vicious circles of diversity seen to impair innovative practice  
Chapter 7: Virtuous circles of diversity seen to enhance innovative practice

*Part II elaborates on hypothesis 1 and 2, and thereby on the first part of the research question*



## PART III: INNOVATION AND DIVERSITY IN CoPs

Chapter 8: Diversity and cohesiveness in communities of practice  
Chapter 9: Innovation and diversity in communities of practice

*Part III elaborates on the assumption and thereby the second part of the research question*



### 1.5 Outlining the structure of the thesis

## CONCLUSION

Chapter 10: Conclusion

*The conclusion answers the research question and reflects on the validity of the two hypotheses and the assumption*

Fig. 1.3: A graphical illustration of the structure of the thesis

As illustrated graphically in figure 1.3 on the previous page, the thesis has been divided into three parts, treating different aspects of the research question, the hypotheses, and the assumption, upon which the thesis is grounded. The following is a more detailed description of each of the chapters:

Chapter 1 provided an introduction to the focal issues being presented in this thesis, and described the research question, the hypotheses and the assumption illustrating the approach for answering the research question.

Chapter 2 presents the frame of reference upon which this thesis has been grounded, by discussing ontological and epistemological assumptions, my approach to studying diversity and innovation in organisations, and provides a description of the Communities of Practice Framework, which is applied as a lens through which innovation and diversity is analysed. Finally, this chapter provides a process description of how I conducted the research, and briefly introduces the use of interviews and models in the thesis.

Chapter 3 introduces communities of practice as this concept is used in this thesis, and describes how learning may be described as legitimate peripheral participation in communities of practice. Building on this perspective of learning, communities of practice and how they are seen to emerge is illustrated. Finally, the organisation is described as a constellation of communities of practice.

Chapter 4 introduces the concept of innovation and innovative practice, by discussing what knowledge is and how it is created in processes of combination and exchange. The innovative practice is then discussed from the point of view of the individual, in the context of communities of practices, and finally at the organisational level.

Chapter 5 introduces diversity and how it is constructed in organisations. Diversity is described by looking at how individuals cognise and categorise according to whether they are perceived to be similar or dissimilar. It also explains how diversity may be described as diversity in cognition and techne, just as it is described how diversity may institute intergroup anxiety, which may pose a threat to personal relationships in a diversity setting.

Chapter 6 focuses on the liabilities of diversity, still in an innovation perspective, where different diversity mechanisms may drive innovative practice into either vicious or virtuous circles. These mechanisms are described as intergroup anxiety, miscommunication and goal incongruence.

Chapter 7 looks at diversity from an innovation perspective, where it is sought to understand how diversity may drive innovative practice, by potentially igniting five innoversity drivers enhancing innovative practice: e.g. absorptive capacity, requisite variety, knowledge networks, creative destruction and problem solving.

Chapter 8 returns to the Innoversity Paradox, by summing up on the innoversity drivers and the diversity mechanisms, and explores how the Communities of Practice Framework may enhance our understanding of this paradox. By analysing the relationship between diversity and cohesiveness through the four perspectives of the CoP Framework, i.e. practice, community, meaning and identity, this chapter introduces a theoretical 'explanation' as to how cohesiveness and diversity may actually co-exist.

Chapter 9 is focused on practice, where different aspects of diversity and innovation are situated in communities of practice and where the possibilities of the CoP framework are outlined, in regards to instituting innoversity in communities of practice. This is accounted for by providing a few examples from a consulting company and an innovative project (Skibet). Finally, this chapter broadens the perspective on innovative practice, from CoPs to the organisation, where the brokering of knowledge and the innovative practice at the organisational level is described by looking at the organisational knowledge regime.

Finally, the conclusion in chapter 10, illustrates how the thesis has answered the research question, and evaluates the findings and the implications of these findings.

## **2. Methodology**

“Methodology is about what methods should be applied in order to produce new knowledge” (Andersen, 1994: 10), hence the discussion of methodology in this chapter serves to outline the choice of research design, as well as how this design is carried out. Part of this will be done in the discussions of epistemological standings and the different perspectives within the framework of organisation theory. When the theoretical context has been discussed, the actual design of the study, as well as the reasons for choosing the design will be explained. The discussion of method will therefore take its departure point in the very abstract, and then slowly move from the abstract to the concrete, from an epistemological discussion to an exploration of the techniques and instruments used for researching the thesis.

The first part of the methodology therefore introduces the different assumptions, on which my different perspectives and approaches rest, i.e. my approach to social science in terms of ontology, epistemology, and methodology. This is done because “all theories of organisation are based upon a philosophy of science and a theory of society” (Burrell & Morgan, 1979:1).

### **2.1 Ontological assumptions**

The discussion of ontology implies a discussion of the objectivism - subjectivism dimension, which is concerned with whether ‘reality’ is to be perceived as objective or subjective (or both) to the individual who is living and experiencing the social world.

Within objectivistic ontology the world exists objectively, and independently of the individuals perception and appreciation of it. ‘Reality’ thereby is studied as being objective and given ‘out there’ in the real world. The world ‘out there’ is perceived to have certain structures, which exist whether we are aware of it or not, and we are born into a social world which would have the same structure whether we are here to appreciate it or not (Burrell & Morgan, 1979). Objectivism thereby becomes an understanding of the attributes characterising an object, independently of the subjective perception of those attributes (Andersen, 1994). In other words, according to an objectivist position it will, in due time, be possible to reach a still more complete and true explanation of the world and the structures within it.

Within subjectivism however, the focus is changed from the external world to the internal world, whereby interpretation becomes paramount. Subjectivism was mainly developed as a reaction against objectivism. The subjectivist ontology perceives ‘reality’ and the social world to be a product of individual consciousness and cognition. “The social world external to individual cognition is made up of nothing more than names, concepts and labels which are used to structure reality” (Burrell & Morgan, 1979:4). These labels are used by the individual to understand, communicate, describe and negotiate the social world. Subjectivism thereby allows for a higher degree of complexity than the traditional objectivist approaches, as illustrated in figure 2.1 by what I call the ‘Model Funnel’.

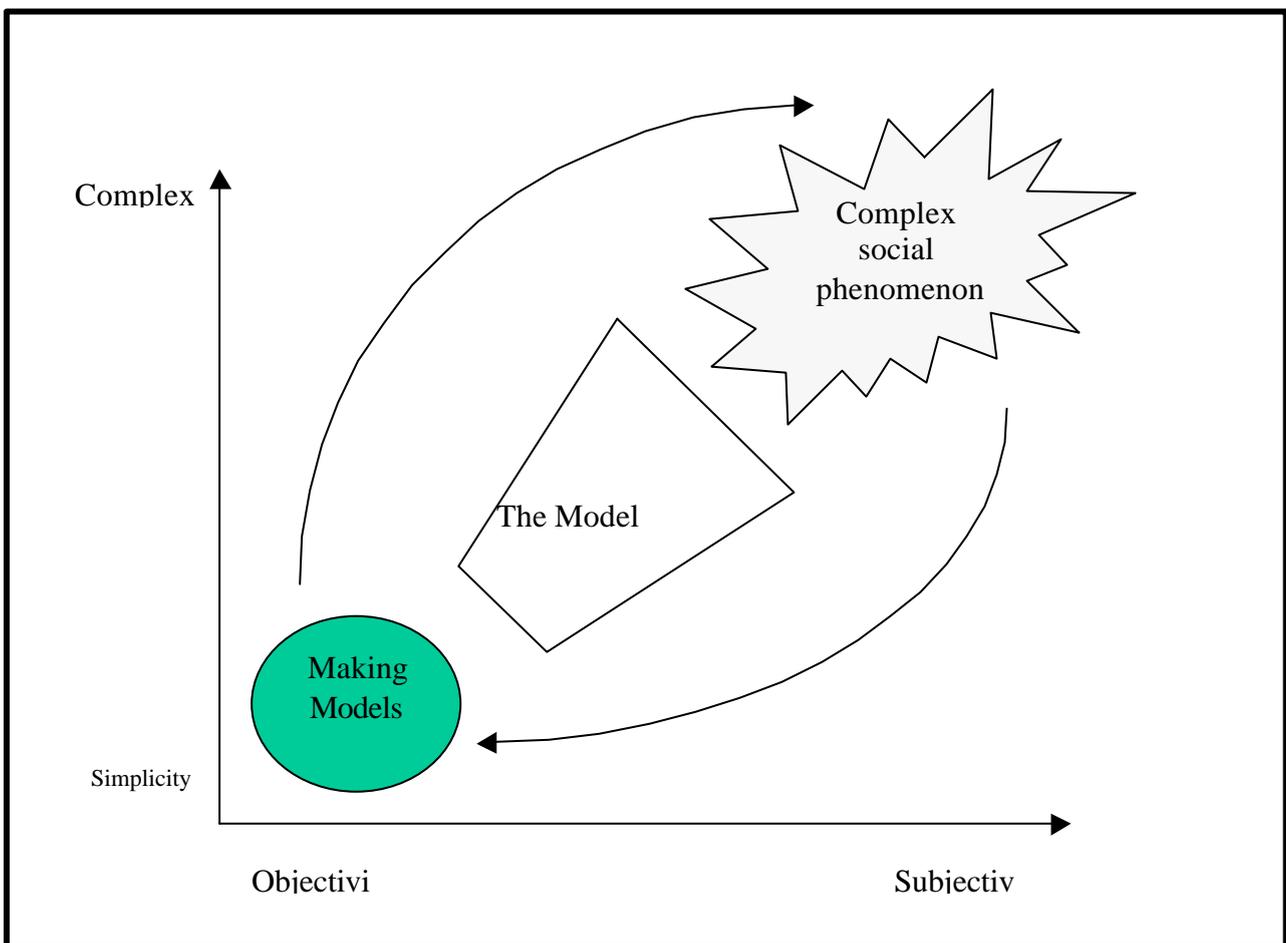


Figure 2.1: The Model Funnel, slj – inspired by Boisot (1995)

Figure 2.1 illustrates how, when I want to explain a complex social phenomenon such as innovative practice and depict it in a model, complexity somehow needs to be filtered or strained through the Model Funnel, where only the most pivotal issues will survive the filtering. My approach to complexity and subjectivity thereby becomes a circular approach, where I will be pulling

complexity towards simplicity in order to generate more general findings, but at the same time I will be pushing simplicity towards complexity – in order to avoid being trapped in either too much subjectivity/complexity, or too much objectivity/simplicity.

The ontological assumption grounding this thesis primarily adheres to the subjectivist ontology, due to the ‘unit of analysis’ being human beings engaged in interaction. By making use of the above mentioned circular approach illustrated by the Model Funnel in fig. 2.1, I could argue that the dichotomy of objectivism-subjectivism should instead be seen as a continuum allowing for inter-subjectivity (Andersen, 1994) to be found between the two poles. Andersen (1994) describes such inter-subjectivity as a way to ‘seek’ objectivity by being open and critical towards one’s own assumptions and findings, and allowing for the reader to beware of these assumptions. This thesis aims to live up to this description, and thereby situates the ontological assumption grounding this thesis somewhere between subjectivity and inter-subjectivity.

## **2.2 Epistemological assumptions**

Epistemology concerns the assumptions about the grounds of knowledge, about how one might begin to understand the world and communicate this as knowledge to fellow human beings. These assumptions entail ideas about what forms of knowledge can be obtained and how one can sort out what is regarded as ‘true’ from what is regarded as ‘false’. This discussion of epistemological assumptions will introduce the classical vs. the pragmatic epistemology, positivism vs. post-positivism – elaborating on social constructivism as an important contribution to the post-positivistic epistemology, and then end up with a brief discussion of the epistemological consequences for studying knowledge within organisations.

Within the classical epistemology, knowledge is defined by the concept of *justified true beliefs* (*JTB*), which perceives knowledge as static, universal, eternal and objective. According to the classical traditions there is an objective truth ‘out there’, in a parallel world, and new knowledge is obtained when we are able to detect and gain new insights into that objective truth. Knowledge in this perspective is something you either have or do not have; it is not something you create (Audi, 1998; Christensen, 1999).

The pragmatic epistemology on the other hand, perceives knowledge as something you create, as a dynamic interaction between belief, action and knowledge – and not something you can have. Belief may in this view, through the use of productive inquiry, become knowledge. The pragmatism is founded in Charles Pierce's 'Logic of Inquiry' which states that knowledge is created in the following way: when a problem has been established, a productive inquiry is initiated, which results in an idea or a 'plan of actions'. Subsequent to this follows an action, which may be either an observation or an experimentation. The result of this process, if successful, will be new knowledge (Christensen, 1999; Dewey, 1916).

The pragmatic epistemology was developed as a critique of the classical epistemology, due to the latter not separating the learning subject from the object being learned. This thesis argues against such a separation and thereby situates the thesis within the pragmatic epistemology.

A discussion of epistemology furthermore requires a discussion of positivism and post-positivism. According to Polkinghorne this distinction may be described as follows:

**“The positivist conception of science has its roots in a definition of knowledge which holds that only things of which we are absolutely certain can be counted as knowledge. If a knowledge claim fails the test of certain truth, then it cannot be included within the body of scientifically approved statements” (Polkinghorne, 1983:1).**

Burrell & Morgan characterise positivism as an epistemology, which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between the constituent elements. Positivist epistemology is in essence based upon the traditional approaches that dominate the natural sciences, and they state that the growth of knowledge is essentially a cumulative process in which new insights are added to the existing stock of knowledge (Burrell & Morgan, 1979).

**“Unlike positivism, post-positivist science does not propose a unified view of science (...) and holds that we do not have access to indubitable truths. Knowledge is understood to be the best understanding that we have been able to produce thus far, not a statement of what is ultimately real” (Polkinghorne, 1983:2).**

Within post-positivism, knowledge is relative and shaped by the cognition of the subject, and by social and cultural conditions, symbols and interpretations – which makes 'objectivity' difficult due

to our knowledge being filtered through such processes in our consciousness. We all live in the same world yet we perceive different worlds. This discussion is also illustrated by Nørretranders (Andersen, 1994) which states that that we only perceive about 0,1 per cent of the information entering our minds, the rest – 99,9 per cent - may be regarded as exformation, and is sustained only by our subconscious mind. How we ‘choose’ between what is filtered as information and what as exformation will be highly individual and thereby subjective.

This epistemology of post-positivism may take various forms but is firmly set against the search for laws or underlying regularities in the world of social affairs. For the post-positivist, the social world is essentially relativistic and can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied. Anti-positivists reject the standpoint of the observer and maintain that one can only ‘understand’ by occupying the frame of reference of the participant in action. One has to understand from the inside rather than the outside. Post-positivists tend to reject the notion that science can generate objective knowledge of any kind.

Social constructivism is regarded as an important contribution within post-positivism. Berger & Luckmann’s treatise on the sociology of knowledge has generated a resurgence of interest in phenomenology and the questionable status of the ontological and epistemological assumptions of traditional positivist approaches to knowledge. “In their book *The Social Construction of Reality* they argued that human social order is produced through interpersonal negotiations and implicit understandings that are build up via shared history and shared experience, which makes the social order a consensus about perceptions and meanings. Through interpretation, one makes patterns of meaning about the world and assume these patterns to exist apart from the interpretation that produced them” (Hatch, 1997:42).

Both pragmatic epistemology and social constructivism may be perceived as important contributions to the theories of learning and knowledge. Especially to Wenger’s Social Theory of Learning, which defines knowledge as arising out of the combination of a regime of competence and an experience of meaning. In such a regime of competence, every practice is in some sense a form of knowledge, and knowing is participating in that practice (Wenger, 1998). When knowledge therefore is perceived to be a social construction founded in practice, then the collective within which that knowledge is created (the community of practice) becomes highly important to the

understanding of knowledge. The epistemological foundation of this thesis thereby perceives Wenger's theory of learning (1998a; Lave & Wenger, 1991) to be central in the discussion of how knowledge is created within organisations.

### **2.3 Methodology**

According to Berger & Luckmann, the method best suited to clarify knowledge is "a detailed phenomenological analysis which would uncover the various layers of experience, and the different structures of meaning involved" (Berger & Luckmann, 1991:35). Their description is usually applied to the study of empirical data, however, in the context of this thesis it is applied on the studying of a social phenomenon, but in a theoretical elaboration.

Such an approach is based on subjectivist ontology and a post-positivistic epistemology and claims that one can only understand the social world by obtaining firsthand knowledge of the subject under investigation. A social constructivist methodology emphasises the analysis of the subjective accounts which one generates by getting inside the situation, and by making a detailed analysis of the insights generated by encounters with one's subjects. This approach is illustrated in my own experiences of the relationship between diversity and innovative practice, as described in the process description (see 2. 7.1).

A methodology grounded in positivism, on the other hand, stresses the importance of basing research upon systematic protocol and technique. It is epitomised in the approach and methods employed in the natural sciences which focus on the process of testing hypotheses in order to be able to predict outcomes, and understand the relationship between cause and effect.

This first part of the methodology has been dealing with the assumptions one has to consider when conducting studies within the social sciences. The next part of the methodology will be discussing the theoretical context relevant when studying organisations and processes within them. As such, organisation theory must be the centre of attention, and is the theoretical foundation of this thesis. The next paragraph therefore introduces three different perspectives within organisation theory, and explains how I apply these perspectives in my research.

## 2.4 Studying organisations

There are many different perspectives on how to study organisations, but the most important perspectives are modernism, symbolic-interpretivism and postmodernism. However it is important to stress, that this thesis is grounded within the symbolic-interpretive perspective, while using modernism and postmodernism for discussing and criticising this perspective.

The **modernist perspective** on organisations was introduced in the 1950s and was traditionally a management perspective on organisations. A classical proponent of this perspective is Minzberg, who focused on the ‘objective’ perception of the organisation, and attempted to use methods from natural sciences through means of measurement, statistics and comparative studies. Rationality, functionalism and bounded rationality are all central elements within this perspective, which views the organisation as having a rather static structure (Hatch, 1997).

The **symbolic-interpretative perspective** was introduced in the 1980s along with the appearance of social constructivism. This perspective perceives language as central in understanding organisations, due to them being perceived as a product of beliefs held by the members of the organisation. The methods used are ethnographic studies, interviews and observations producing narratives and case studies. Berger and Luckmann (1991) are perceived as highly central to this perspective, together with Clifford Geertz who coined the following analogy defining social constructivism: “man is an animal trapped in webs of significance he himself has spun” (Geertz, 1973:5). The organisation is perceived as organising and as a culture, rather than structure. Reality is socially constructed and interpreted by man, and interpretation is usually made by focusing on critical incidents. Weick’s Enactment theory is also perceived as central to this perspective (Hatch, 1997).

The **postmodern perspective** was introduced in the 1990s and is a radicalisation of the symbolic-interpretative perspective focusing on organisation theory and the relationship between theory and practice. The methods used are mainly deconstructions and a critique of symbolic-interpretative and modern theory and practice. This perspective rejects truth-claims and focuses on power relations in organisations, and attempts to give voice to silence. The theory in this perspective is very fragmented, very quotation-based, and was inspired by French post-structuralism from the late

1960s (Polkinghorne, 1983). Post-modernists will argue against human common sense, and they reject the *grand narratives* created by modernism.

By applying **symbolic-interpretivism**, I view the organisation as a process situated in practice, as organising rather than structure, and to be understood by interpreting critical incidents. This perspective requires looking at critical incidents and interpreting them as social constructions influenced by my conceptions and interpretations. The **modernist perspective** is not really applied in the thesis, only as a matter of inspiration – especially in chapter 5, where a description of requisite variety views the organisation as a closed system. The final perspective employed in the research is **postmodernism** which I primarily use to deconstruct and criticise theory and empirical evidence, and ask the essential questions taken for granted within the two opposing perspectives. Hence, these perspectives are not seen as mutually exclusive, but as being complementary in nature.

My approach to researching the problem is a highly theoretical approach, which requires a substantial use of theory and theoretical discussions, leaving less room for empirical evidence. An alternative way of pursuing the outlined research objectives could have been a strictly modernist approach. A modernist approach offers the possibility of gathering a large amount of quantitative data to analyse from, and requires less theoretical discussions. It would have allowed me to issue questionnaires to employees working with innovation in diverse environments and then analyse these questionnaires and generate statistics about the correlation between innovation and diversity. If my purpose had been to create an argument, which would be convincing only to the industrial world and not the academic, then this would probably have been the better methodology. Having empirical evidence from several organisations would have strengthened my argument, and I would have statistics to prove my point. Such an approach would probably give me some valuable empirical evidence, but the purpose of this thesis is not to prove a point, but rather to understand a theoretical problem.

## **2.5 Studying innovative practice in organisations**

Within these three perspectives, innovation and innovative practice is understood differently. Within the **modernist** perspective there is an objective truth ‘out there’, in a parallel world, and new knowledge is obtained when we are able to detect and gain new insights into that objective truth. The modernist perspective views innovation as manageable and controllable, and knowledge as

static, universal, linear and objective. When looking at innovation from a **symbolic-interpretative** perspective, innovation is the “process of turning opportunity into new ideas and of putting these ideas into widely used practice” (Tidd et al, 1997). Within this perspective knowledge is socially constructed (and not something you obtain). The **postmodernist** perspective on innovation is more a discussion of whether it is possible at all to create new knowledge and to question the existing theory on innovation. This perspective also embraces the idea of innovation as creative destruction, and as something, which cannot be managed, but simply understood by giving voice to silence.

When studying innovative practice within organisation, it is therefore done firstly based on the assumption of knowledge as being socially constructed (social constructivism) and a process within organisations (symbolic-interpretive) situated in communities of practice (see chapter 3). Innovative practice is thereby seen to be a result of the tension between the experience of the individual and the competence regime of the community. But in order to do so, it is necessary to apply a Community of Practice Framework, as outlined below.

## **2.6 The Community of Practice Framework applied for analysing innovative practice**

When studying innovative practice, the aspects of learning, practice and innovation should be seen as mutually interdependent ‘elements’ (Brown & Duguid, 1991). The Community of Practice Framework used for understanding and interpreting the relationship between innovation and diversity, is based on Wenger’s social theory of learning (Wenger, 1998) and Lave & Wenger’s (1991) legitimate peripheral participation (see chapter 3). These theories build on learning as social and taking place within communities of practice (CoPs), which may be defined as “emergent social collectives where individuals working on similar problems self-organise to help each other and share perspectives about their practice. These communities develop through the mutual engagement of individuals as they participate in work practices, and this participation supports the exchange of ideas between people, resulting in learning and innovation within the community” (Faraj & Wasko, 1999:3).

The Community of Practice framework<sup>1</sup> implies looking at the following elements: **Community** (how is cohesiveness and a sense of community achieved), **Practice** (what do they actually do),

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<sup>1</sup> Inspired by Wenger (1998a)

**Identity** (how do participants define their identity within the group), and **Meaning** (how do they, as a collective, bridge their differences and make meaning of them – and new knowledge).

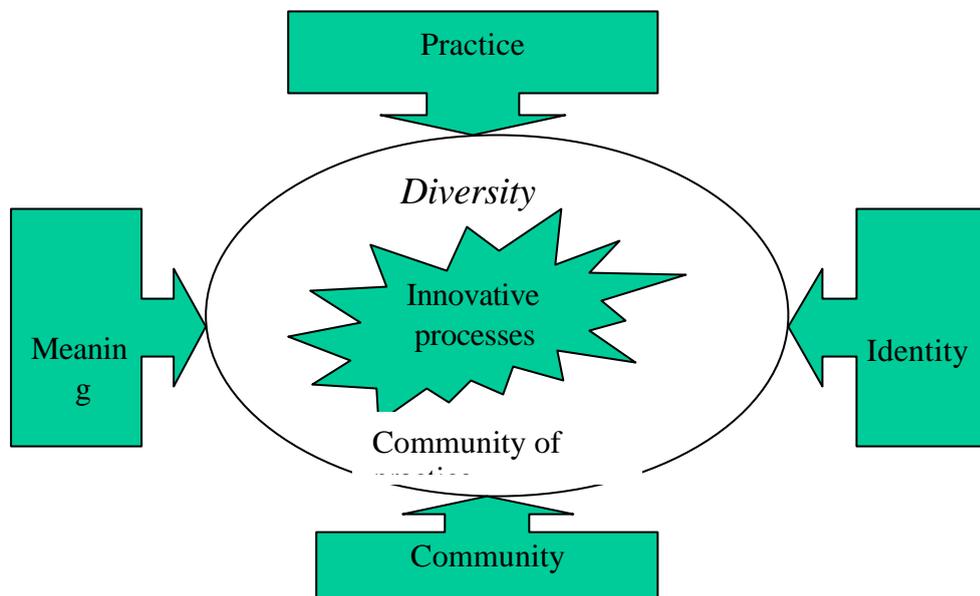


Fig 2.2: The Community of Practice Framework, slj, inspired by Wenger (1998a)

Using this framework (Primarily in chapter 8) will allow me to study innovative practice situated in a community of practice characterised by diversity, to see how diversity affects the community, their practice, their negotiation of meaning, and most importantly – their creation and negotiation of identity. These four aspects are, according to Wenger (1998a) seen as mutually interdependent processes, which are central for learning and knowledge creation.

In applying this framework in my analysis I will be studying innovative practice by looking at the organisation as a whole, but viewed as a constellation of different Communities of Practice (see chapter 3). This will enable me to develop an understanding of how diversity affects the individual (within the community), the community itself, and the organisation (as a constellation of communities) in order to understand how diversity is seen to influence innovative practice at these levels. However, the main focus is on innovative practice within the individual community.

## 2.7 Conducting my Research

The problem directing the research in this thesis is primarily theoretical, with the purpose of solving a rather theoretical problem arising from the relationship between innovation and diversity, due to it being ‘situated’ in the void between two separated academic fields, i.e. diversity and intercultural theory, and innovation/knowledge management. Diversity scholars mention creativity and innovation as the potential benefits to be derived from diversity, however only rarely elaborate on the issue. The same seems to be the case within knowledge management/innovation theory, where diversity is mentioned as an important condition for the creation of knowledge, but scholars in this field only rarely seem to elaborate on why this is so. Conducting this research therefore implied seeking to understand the dynamics inherent in innovation situated in a diversity context, it required me to ‘leap into the void’, with reference to Yves Klein<sup>2</sup>. “And let’s be honest – to paint the void, I have to put myself right into it, into the void itself” (Yves Klein, 1957 – quoted in Weitemeier, 1995). I therefore leaped myself into this void, and doing so made it possible not to restrict my ‘search for understanding’ to these two academic fields. Leaping into the void allowed me to expand the search and thereby include other theoretical fields such as social psychology, natural sciences, sociology and learning. The leap was primarily theoretical, but also encompassed empirical findings, which will be described in the following.

### 2.7.1 A process description

As described in the introduction, the research was initiated due to my dismay with the way diversity was being treated both within my own theoretical field, but also within the Danish labour market. This frustration compelled me to leap into the void between innovation and diversity. One of the first things I discovered was the inherent paradox in the relationship – and I needed to find a way around this paradox. When browsing the Internet for material for a synopsis in a knowledge management course last year, I came across literature on communities of practice – which immediately caught my interest, and I decided to make a literature study of the communities of practice field, together with Annemette Kjærgaard (Oticon) who was also interested in the field.

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<sup>2</sup> As illustrated at the front cover of this thesis, Klein actually leaped into to the void in 1960. His leap was photographed by Harry Shunk, and titled: ‘Leap into the Void’ – Man in Space! The Painter of Space Throws Himself into the Void.

Then in February I attended the Innospace conference entitled 'Innovation in the New Economy'. This conference was an eye-opener to me, here I saw and experienced a highly diversified group of people enthusiastically engage in discussions of their practice fields. The fact that people were so different (from all over the world, working within arts, business, music, teaching, architecture etc) did not induce problems or barriers to the conversations taking place, on the contrary, the diversity made the discussions and the learnings richer and enormously constructive. In those three days I truly realised the enormous potentials inherent in diversity when applied for learning and knowledge creation. When reflecting on my experiences from Innospace, I started wondering what it was in that experience that allowed for us to connect in spite of our differences, and allowed us to connect in such an energetic way without encountering the problems usually associated with diversity. Could it be that what I experienced in those days was my own legitimate peripheral participation in a community of practice? I decided to investigate it further, and with this new experience in mind, I decided to find out whether CoPs could be the possible framework within which the paradox could be contained.

I was already participating in a newsgroup on diversity, and now I signed up for a newsgroup dedicated to the issue of communities of practice, but was soon to discover that the latter was actually more of a community of practice itself, with 'lurkers' (as myself) at the periphery of discussions, and core members such as John Smith and Richard McDermott being highly active. Discussions and interesting conversations were frequent. After a few weeks as a member of this group, I learned that a conference was to be held in San Diego a month later where many of the cop-members would participate, and I decided to go as well.

My interest in communities of practice was furthered by my participation in the *Communities of Practice 2000 Conference* held in San Diego, California in the beginning of April. The learning experienced was partly inspired by practitioners who presented their experiences from working with communities of practice, but also by the theoreticians (Wenger, McDermott, Snyder) who contributed with several interesting theoretical issues. However, I gained the most from the discussions I had with the other participants: during the sessions of the conference, over dinner, and in the email-discussions following the conference, primarily those about innovation and diversity in communities.

After the conference the more theoretical part of the research began. I studied diversity theory, innovation theory and communities of practice, and made literature studies of each of the areas. I also spent a period of time at Danske Data, where I studied collaboration and interpersonal relationships in a diverse risk-management team, hoping that I could learn about innovation and diversity from observing and interviewing the seven members of the team. However, after a while I realised that they were not very diverse (very little perceived dissimilarity), not very innovative (very little reflection on routines, answers to problems very already given), and certainly not a community of practice (working more individually than collectively). Furthermore, I discovered how difficult it was to make use of the complexity of theory in practice, just as practice only seemed to provide me with very 'primitive' examples of innovative practice. So the idea of building the discussion around empirical evidence was dropped – I returned to theory.

Nevertheless, my interest in communities of practice *in practice* continued. I was still participating in the cop-newsgroup, I got more and more involved in different networks in Copenhagen: IKI (Institute for Creativity and Innovation), Dansk Selskab for Kreativitet og Innovation (Danish Society for Creativity and innovation), Webgrrls (a network for women interested in IT and the web) and KUBUS (Human Resource Network), where I experienced learning as legitimate peripheral participation, how I would initially be lurking in the periphery and sometimes moving more towards core participation. My hope was that I would be able to experience some of the learning I had seen happen at InnoSpace. This did happen and still does. When it happens the same thing occurs, people engage in the discussions wholeheartedly, and we learn – especially from the ones perceived to be highly dissimilar, all of which made me believe that communities, when they are allowed to flourish, can 'make room' for both diversity and innovation, without necessarily impairing cohesiveness. I saw it work in practice, but where was the theoretical explanation, which 'allowed' for this to take place? I wanted to understand what it was, I wanted to be able to 'capture' the essence of what it was that made it possible to benefit from diversity. But how could I do that?

When the three literature studies were completed, I discovered that something was still lacking: the issue of identity and meaning (which I knew to be important from my own participation in diversity settings), and these issues were not covered by theory so far. There was so much theory, and yet I had no idea as to how the areas could be weaved together without the issues of identity and meaning being related to diversity. So I had to continue my investigative journey. I came across social

psychology and organisational psychology and suddenly it seemed possible to knit the three previously separated theoretical fields together. I got closer to an understanding of the void, but was still rather hesitant in dealing with this complexity, but Mette kindly ‘pushed me over the edge’ and into the void, by asking me to weave it all together – and gave me six days (!) to do so. A painful but also very constructive process, because in this way the three previously separated theoretical fields were weaved together, and the structure of the thesis ‘emerged’ in this process. With this done, I could embark on the writing of each of the chapters – building on the structure I had made in my six-days-writing.

Every time a new chapter had been completed, it was published on [www.innoversity.dk](http://www.innoversity.dk). This proved to be extremely beneficial for my writing process, especially because I was writing on my own, and was very keen on discussing the complexity with others. It proved especially beneficial for my interaction with the previously mentioned newsgroups on the Internet; many of the participants actually read some of my chapters, which resulted in a wide variety of comments and insights, and provided me with the opportunity of engaging in discussion with others interested in the relationship between innovation and diversity.

### **2.7.2 Interviews**

Even though the thesis was to be highly theoretical, it was important to me also to engage in conversations with others about my ideas. This was particularly due to the fact that these ideas seemed to be contradicted by theory, and I needed to find out whether others could agree with my paradox. The interviews were therefore more about learning to look at innovation and diversity from different perspectives, than they were about collecting information. The interviews have therefore not been analysed as would normally be the case, but are used as commentaries, used to ‘flavour’ the discussions rather than to be part of the discussions themselves. In characterising these interviews I therefore make use of Kvale’s very good analogy used for describing my interviews. He describes the interview itself as a travel, and the knowledge derived from the interview as his learning about the country within which he is travelling. This analogy is compared and contrasted to the analogy of the mine-digger who digs into the mind of the interviewee, in order to obtain the knowledge within this person (Kvale, 1997).

Each of the interviewees represents different angles to the relationship between innovation and diversity; they each represent different ‘tribes’ within the country (or the void) being described, each being citizens in the country, representing and describing different aspects of, and perspectives on, the country to be explored.

The interview with Etienne Wenger (Appendix C) is the theoretical description of the issue, when situated within communities of practice – where he focuses on the tension between experience and competence, seen to be driven by diversity, and in itself driving innovative practice and the creation of knowledge.

The interview with Bob Carman from Boeing Rocketdyne (Appendix D) is very focused on how to make highly different people work together in a high-performance team, and how not to demotivate people, as opposed to how to motivate them.

The interview with Elisabeth Plum (Appendix E) who works professionally with diversity management, focuses primarily on the different aspects of diversity, provides examples of how diversity management may be pursued, and discusses different theoretical aspects of diversity.

The interview with Thomas Mathiasen (Appendix F), innovation manager at Foss Electrics provides the practical approach to communities of practice, and he explains how Foss has taken the initiative to try to support communities and allow them to flourish, in order to enhance innovation.

The last interview, with Birgitte Mølgård Hansen (Appendix G), member of project Skibet, is the outside-in perspective on innovation and diversity. Her departure point for working with innovation is herself being perceived as the dissimilar one, providing the diversity. Project Skibet is based upon diversity, and she presents her view on what it means to be different, and how this diversity may be used for innovative practice.

The interviews were very fruitful in providing different perspectives of the issue at hand, I learned a lot during these conversations. They were all taped, I brought a tape which lasted for an hour – and the interesting thing was, that the interviews usually carried on for an hour or so after the tape-recording had ended, and it was usually this part of the conversation that proved most valuable. This

is why the interviews have been written down using a journalistic style, in order to avoid a change of style in the middle of the ‘transcription’, thereby allowing for my notes and memory to be included in the interviews. They have all been documented and can be found in the appendix.

### **2.7.3 Models**

As explained in part 2.1 in the description of the subjectivist – objectivist ontology, the models constructed and used in this thesis are a way of describing highly complex phenomena by pulling them through the ‘positivist funnel’ (see figure 2.1). These models have been orchestrated in order to illustrate visually (thereby pleasing Bob Carman – see interview 2) what may be difficult to explain in words. Reducing complex issues into models has been a rather painful experience. When I tried to make them myself, they became so complex that they did not clarify, but rather the opposite. Eventually I realised, that in order for me to be able to create models, I had to explain what it was that I wanted to illustrate, to an ‘outsider’. – In the process of explaining what it was I was trying to illustrate, the models were created. One of the most important lessons, which came out of this process, was that in order for me to be able to create a model; to pull a model through the Model Funnel (see fig. 2.1), I needed the storytelling, the collaboration and the social constructivism<sup>3</sup>.

### **2.7.4 Use of examples**

As previously described this thesis is highly theoretical. However, in chapters 8 and 9 where all the different argumentative threads are gathered to illustrate and explain the relationship between diversity and innovative practice, examples are used in the argumentation. There are three aspects of this use of examples in the text, which require explanation.

First of all, the use of examples in the last two chapters seems to indicate a sudden shift in style, due to the previous six chapters all being very theoretical. This shift is intentional, and seemed to be the most suitable way to explain the relationship between innovation and diversity. These chapters move on thin ice, only very little theory allowed for sensemaking – and the only way to achieve an

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<sup>3</sup> The processes used to describe how learning and innovation is seen to take place in communities of practice

understanding was to pose examples which gave meaning, and then analyse and explain these examples by use of theory.

Secondly, the use of examples has been rather complicated, or rather, the finding of examples has been rather complicated. The reason for this is that the complexity of theory would ideally require for the same complexity to be demonstrated in the examples. But when examples were found they tended to be rather 'primitive', and tended to illustrate only a degree of the complexity which had been accounted for in theory. When innovative practice 'in practice' had been filtered through the 'language' funnel (an analogue to the Model Funnel illustrated in fig. 2.1), only simplicity remained. The reason for this is firstly due to the difficulty in capturing tacit knowledge and knowing in practice and putting it into words (Cook & Brown, 1999), especially because these aspects of the innovative practice are considered to be focal in innovative practice. Secondly, because it is highly difficult to get close enough to such innovative practice, exactly in the moment where it occurs. The examples can therefore only illustrate fragments of the practice – and are not providing 'coverage' for the theoretical findings, but rather become means of illustrating parts of the complexity, when relating them to theory.

Thirdly, some of the examples have been based on anonymous accounts and conversations with a consultant working for a large multi-national consulting company (in the examples 1A, 1B etc. the company is named Consulting), – who was one of the participants in the Change Management conference in Oslo (see chapter 8). The examples from Skibet (2a, 2b etc.) have been constructed from my knowledge about the 'experiment', partly achieved from a presentation in IKI, and partly from the interview with Birgitte Mølgård Hansen.

Both 'sets' of examples have been applied in order to illustrate the theoretical complexity and a theoretical 'void', to explain theory and not to explain how theory would work in practice, without being able to demonstrate the complexity of theory.

## **2.8 Summing up on methodology**

The methodology in this thesis has described different ontological and epistemological assumptions, and established the positioning of this thesis within them. The research is grounded on subjectivist ontology, and a pragmatic, post-positivistic epistemology bearing on social constructivism.

The theoretical context of the thesis was introduced by presenting three different perspectives within organisation theory: i.e. modernism, symbolic-interpretivism and postmodernism. However, only the symbolic-interpretive perspective is applied, due to the focus on processes and practice.

Before moving on to the more empirical part of the methodology, the Community of Practice Framework was introduced. This framework is used for analysing and interpreting the relationship between innovation and diversity, and consists of the following elements of study: community, meaning, practice, and identity in the remainder of the thesis. Within this framework, the community of practice as phenomenon becomes highly important, and a community was described as “a group of professionals informally bound to one another through exposure to a common class of problems, common pursuit of solutions, and thereby themselves embodying a store of knowledge” (Hildreth & Kimble, 2000:3). Following this description was a brief introduction to learning as legitimate peripheral participation in communities of practice.

Having described the framework within which the research is embedded, and the perspective used to explain and explore the next issue being described was the research in itself and how it was conducted. This description included the analogy of my ‘leap into the void’ between different academic fields, and how I pursued an understanding of this void: by studying different theoretical fields, by participating in communities of practice myself, by participating in different conferences on matters of relevance, and not in the least – by engaging in conversations with different experts in the field, each providing interesting perspectives on innovation and diversity.

Having described the methodology we may begin the investigative journey into the void, beginning with part I, which includes an introduction into the fields of communities of practice (chapter 3), innovation (chapter 4) and diversity (chapter 5).

# Part I

## **Introducing communities of practice, innovation and diversity**

This part of the thesis provides the foundation for the analysis of the relationship between innovation and diversity, by introducing the focal issues of relevance to this analysis.

Chapter 3 elaborates on the issue of communities of practice, to explain how it is derived from situational learning theory, and how it is based on the assumption of learning as legitimate peripheral participation in communities of practice. Just as this chapter briefly outlines how communities of practice are seen to emerge, and how organisations may be described as constellations of communities of practice

Chapter 4 introduces innovation, and how innovation is the outcome of innovative practice, described to be embedded in communities of practice. Furthermore this chapter provides a discussion of the concept of knowledge, and how knowledge is created as a result of interpersonal interaction and combination and exchange between individuals and groupings.

Chapter 5 introduces the concept of diversity, and how diversity seems to be a phenomenon, which is both individually and socially constructed. Diversity is described as arising from individuals categorising themselves and others into ingroups and outgroups, and how the interaction with perceived outgroup members may institute feelings of intergroup anxiety. This chapter furthermore describes diversity as being about diversity in cognition and techne.

### **3. Introducing Communities of Practice**

As explained in the methodology, a CoP Framework is applied in this thesis for studying the relationship between innovation and diversity. This framework perceived knowledge creation and innovative practice to be situated in communities of practice. One of the central aspects in applying the CoP Framework for studying innovative practice and diversity thereby becomes the community, hence it seems appropriate to define what a community of practice actually is, and what it means to be part of a community.

#### **3.1 Communities of practice**

A community of practice may be characterised as “a group of professionals informally bound to one another through exposure to a common class of problems, common pursuit of solutions, and thereby themselves embodying a store of knowledge” (Hildreth & Kimble, 2000:3). Communities may therefore be seen as a complementary organisational structure, made out of the personal networks created and used to solve common problems arising from common practice. They are groups of people informally bound by their shared competence and mutual interest in a given practice, which makes it natural for them to share their individual experiences and knowledge in an informal and creative way, through which they are able to foster new perspectives and new ways of tending to arising problems (Wenger & Snyder, 2000). “At the simplest level, they are a small group of people (...) who’ve worked together over a period of time. Not a team, not a task force, not necessarily an authorised or identified group (...). They are peers in the execution of ‘real work’. What holds them together is a common sense of purposes and a real need to know what each other knows” (Brown & Gray, 1995:4).

Members may just experience how their collaboration develops over time through a common understanding of what they do, how they do it, and how their action relates to other communities within the constellation – without them realising what their community actually is (Brown & Duguid, 1998). According to Wenger (1998a) communities of practice define themselves along three dimensions: their joint enterprise (what their practice or knowledge domain is about), their mutual engagement (how it works and what it is that binds them together), and by their shared repertoire (their competence regime, e.g. routines, skills, artefacts, vocabulary, styles etc.). Whereas, the creation of knowledge and learning within communities of practice, according to Brown & Duguid (1991), will be characterised by three elements:

- ❑ Narratives, used for diagnosing problems and as repositories of existing knowledge.
- ❑ Collaboration, due to members engaging in, and sharing a common practice.
- ❑ Social constructivism, members develop a common understanding of their practice and a common understanding of how to solve problems.

When members in a community engage in a common practice characterised by narratives, collaboration and social constructivism, they enable their community of practice to act “as a locally negotiated regime of competence. Within such a regime, knowledge is no longer undefined. It can be defined as what would be recognised as competent participation in the practice” (Wenger, 1998a:137).

Much of the literature on communities of practice, especially the studies made by Orr (1996), illustrates how organisations actually depend on the complex relationships between groups: relationships that do not formally exist, but which are actually responsible for getting the work of organising done. It is through these relationships that knowing is validated, shared and evolved, by individuals engaging in the negotiation of meaning, by negotiating and sharing insights, narratives and social constructions both within and among communities.

Within the CoP-community<sup>4</sup> there is an ongoing dispute about communities of practice in organisations; between those focusing on self-organising CoPs, and those who focus on sponsored CoPs (i.e. CoPs initiated, chartered, and supported by management). The debate evolves around whether it is ‘acceptable’ to sponsor communities or whether the work of facilitators should concentrate on only sustaining self-organising cops. The focus on communities of practice in this thesis is restricted to self-organising CoPs, i.e. communities of practice which have emerged naturally.

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<sup>4</sup> This proposition is made based on my own participation in this CoP-community, which was initiated with my participation in the conference in San Diego, and partly from my participation in two virtual CoP-communities (one is more general with both theoreticians and practitioners and app. 150 members, whereas the other is for researchers and theoreticians, with app. 10 members)

### **3.2 Organisations as constellations of communities of practice**

Due to my perception of knowledge being embedded in the relationships between individuals and in communities of practice, I prefer viewing the organisation as a hybrid or a constellation of self-organising CoPs. According to Wenger (1998a: 127) “The term constellation refers to a grouping of stellar objects that are seen as a configuration even though they may not be particularly close to one another, of the same kind, or of the same size. A constellation is a particular way of seeing them as related, one that depends on the perspective one adopts”.

Viewing organisations as constellations of communities of practice therefore implies a certain linking of these communities, in order to maintain organisational coherence. This means, that even though knowledge is created within communities, knowledge should not be seen merely as a community property. The communities are part of a larger system, i.e. the organisation, which may then be depicted as a constellation of communities, as a hybrid of overlapping and interdependent communities (Brown & Duguid, 1998).

### **3.3 Legitimate peripheral participation**

The principle of learning as legitimate peripheral participation (LPP) was introduced by Lave & Wenger (1991) and is an indication of how learning is seen to take place. Understanding the basic principles of legitimate peripheral participation therefore seems fundamental to the understanding of communities of practice, and the learning and innovation seen to take place within them.

In their widely recognised book on learning, Lave & Wenger (1991) argue against a transmission view of learning and instead propose a theoretical framework for understanding learning as an integral part of social practice. Their view of learning as legitimate peripheral participation in communities of practice is based on the notion that individuals, their practices, and the world are mutually constitutive. Learning is viewed as an "evolving form of membership" in communities of practice.

Legitimate peripheral participation means that individuals learn by participating in communities. “Newcomers learn from old-timers by being allowed to participate in certain tasks relating to the practice of the community. Over time newcomers move from peripheral to full participation in the

community” (Hildreth & Kimble, 2000:2). Where peripherality and participation define the historicity and level of belonging, legitimisation describes how individuals move from periphery to core by obtaining higher levels of legitimacy through participation (Lave & Wenger, 1991). LPP thereby describes how individuals learn and create knowledge by allowing the competences of the community to ‘pull’ the experience of the individual into the competence regime.

Wenger (1998b) describes the peripherality of participation in communities of practice as a means for illustrating different levels of participation in communities. New participants will initially only participate in community activities peripherally – like the apprentice who initially is only observing what the ‘master’ is doing, and then gradually is enabled to perform the same tasks himself – and then eventually move towards core participation.

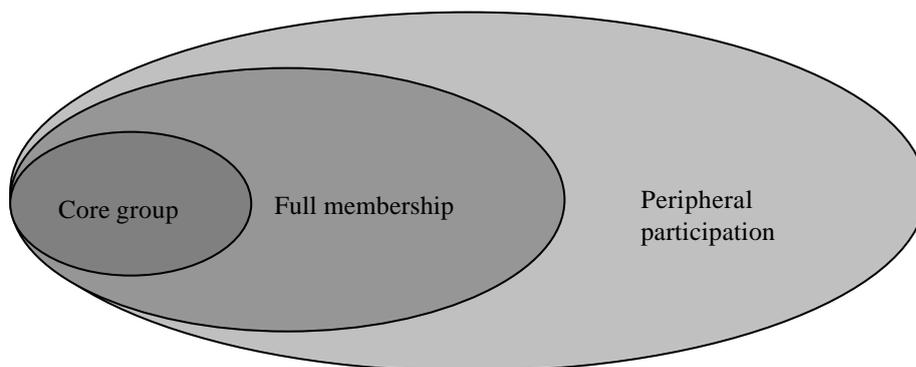


Figure 4.1: Legitimate peripheral participation in CoPs, adapted from Wenger (1999:13)

When an individual, such as for instance the apprentice obtains legitimacy within the group, he is provided with the opportunity to move from peripheral to full, or to core, participation.

These principles of learning as LPP not only account for the learning of members, they are also valid for communities, which may also be situated along the core-periphery dimension within the organisation as a whole. Just as “members can be in marginal or peripheral positions with respect to a community of practice, the community of practice itself can be in a peripheral or marginal position with respect to broader constellations and institutional arrangements” (Wenger, 1998a: 252).

## **4. Introducing innovation....**

Innovation is “a process of turning opportunity into new ideas and of putting these into widely used practice” (Tidd, Bessant & Pavitt, 1997:24). However, innovation is also “an effort of one or more individuals to create economic profit through a qualitative change” (Sundbo, 1998:13). In other words, innovation is about the creation of new knowledge, which – when implemented into a product or a practice – will lead to changes. The focus of this thesis therefore, is to analyse the role of diversity in creating such changes. But in order to understand how this may be done, we firstly need to understand what innovation is, and how it takes place in organisations. Hence, the purpose of this chapter is to acquire an understanding of knowledge, innovation and innovative practice within organisations.

To understand the complex phenomenon of innovation, we need to understand what knowledge is and how it is created, we need to define the concept of knowledge. When knowledge is defined, we may pursue an understanding of how this knowledge is created in terms of innovative practice, and how this practice leads to the creation of knowledge at different levels, e.g. individual, group/community, and organisational level.

### **4.1 Knowledge**

Defining knowledge and all the different knowledge modes is an exercise that has been practiced by philosophers for more than 2000 years. It is not the intent here, to dig into an all-encompassing discussion of the concept of knowledge, only to focus on three dimensions of knowledge, which I have found to be the most relevant in the context of this thesis. This does, however, not imply that other dimensions of knowledge are irrelevant. It only means that by discussing and clarifying each of these dimensions, i.e. tacit-explicit, individual-social and process-object, it should be possible to establish an appropriate definition of knowledge.

#### **4.1.1 Tacit and explicit knowledge/ knowing and knowledge**

Explicit knowledge is the knowledge we know to have and a knowledge that we can readily transfer to others by codification. Explicit knowledge can be or has been codified, whereas there is general dispute among theoreticians as to whether tacit knowledge can be codified (e.g. Nonaka &

Takeuchi, 1995; Stewart, 1998; Bertels & Savage 1998), or not (Cook & Brown, 1999), even if they all seem to build on Polanyi's concept of tacit knowledge.

According to Polanyi (1967), tacit knowledge can be possessed by itself, whereas explicit knowledge must rely on being tacitly understood and applied. If the explicit knowledge is not tacitly understood, it is not knowledge, but information. This means that all knowledge is either tacit or rooted in tacit knowledge. A wholly explicit knowledge is unthinkable.

Tacit knowledge is personal and context-specific, it is about knowing in terms of *techne* (Greek for skills and abilities), and it is about our cognitive perception of the world, which cannot be transcribed into language. To illustrate this view, Polanyi (1967) argues the impossibility of learning how to keep our balance on a bicycle by being told, that in order to 'compensate for a given angle of imbalance, we must take a curve on the side of the imbalance, of which the radius should be proportionate to the square of the velocity over the imbalance'. Such knowledge is ineffectual unless known tacitly. In other words, the codified form is meaningless in terms of explaining how to ride a bicycle.

Polanyi's example illustrates that when describing knowledge, it very often is more useful to think of knowing, rather than knowledge. Knowing reflects the active nature of what people actually do when they understand situations, and communicate and collaborate with others in solving problems and making decisions. Cook and Brown (1999), for instance state that craft is a kind of knowledge where knowing is embedded in practices that workers develop and learn through participation (as was described as legitimate peripheral participation, see chapter 3). Cook & Brown (1999) explain the relationship between knowledge and knowing as mutually enabling, where a generative dance between knowledge and knowing is described as a powerful source of innovation.

According to Cook & Brown (1999) knowledge (explicit) and knowing (tacit) should therefore be seen as mutually interdependent aspects of knowledge – and consequently should not be 'separated', due to knowledge being a tool of knowing, and the focus should rather be on the interplay between them rather than on how they are different from each other. Cook & Brown (1999) make the same 'non-distinction' between knowledge as social and knowledge as individual – as we shall see in the following.

### **4.1.2 Knowledge as individual and social**

There are different views upon whether knowledge should be perceived as individual or social, i.e. whether knowledge is embodied in the individual or embedded in the relations between individuals. Knowledge in the individual may be defined in terms of *cognition* and *techne*. These arguments will be elaborated further in part 4.4 on innovative practice, and again in chapter 5 to describe diversity.

According to Spender (1996:52), “only individuals cognize and generate knowledge”, but “individuals must always be considered in context”. Durkheim (1964) also supported this notion of knowledge as both individual and social, in that he stated that every person is, at one and the same time, both an independent, psychological decision-making entity, and a purely social being.

Weick & Roberts also support this perception by stating that: “only individuals can contribute to a collective mind, but a collective mind is distinct from an individual because it inheres in the pattern of interrelated activities among many people” (Weick & Roberts, 1993:360).

Brown & Duguid (1998:91) make another distinction when stating that: “While knowledge is often thought to be the property of individuals, a great deal of knowledge is both produced and held collectively. Such knowledge is generated when people work together in the tightly knit groups known as communities of practice. As such work and such communities are a common feature of organisations, organizational knowledge is inevitably heavily social in character”. Cook & Brown (1999), furthermore criticise the way knowledge is normally described according to an ‘epistemology of possession’, since knowledge is often described as something people possess, rather than something found in individual and social practice.

### **4.1.3 Process and ‘objectified’**

It is a common phenomenon within the field of knowledge management that knowledge is perceived as highly objectified and static, and viewed as a stock to be held and shared by the members of an organisation. However, Spender (1996) criticises this view of knowledge, due to it leading to the neglect of other types of knowledge, such as social and tacit knowledge. Instead Spender (1996) argues that knowledge is embedded in the dynamic problem solving practice used within an organisation. This notion is supported by Teece, who defines the organisation as “a

repository for knowledge – the knowledge being embedded in business routines and processes...the firm's knowledge base (objectified knowledge) includes its technological competencies as well as its knowledge of customer needs and supplier capabilities” (Teece, 1998:75).

Knowledge is a process of engagement in sensemaking and a negotiation of meaning, where the process is about construing a meaning out of experiences and observations (Wenger, 1998a; Bouwen & Steyaert, 1999). It “implies the creation of new meanings about products/services, organizational arrangements, and interaction processes” (Steyaert et al, 1995).

Knowledge seen in a process perspective is also discussed by Wenger (1998a), who defines knowledge as the result of an interaction between the experience of the individual and the ‘regime of competence’ of the community in which he or she takes part. When defining these ‘regimes of competence’, he states that a regime of competence is “neither merely individual nor abstractly communal. It is not something that we can claim as individuals because it implies a negotiated definition of what the community is about. But neither is it something that is just the property of a community in the abstract, that can be awarded through some decision, because this competence is experienced and manifested by members through their own engagement in practice”. (Wenger, 1998a:136).

#### **4.1.4 Defining knowledge**

As indicated in the discussions of knowledge as tacit-explicit, social-individual, and process-object, knowledge is not a neither-nor, but rather a both-and. This may be illustrated as in figure 4.1, where knowledge may be depicted in the hexagon according to the attributes that define it. When knowledge is illustrated this way, it is shown not to necessarily be either process or object, either individual or social, or either tacit of explicit – it can be both/all, which is what the hexagon depicts.

We need nevertheless to be aware, that this model only illustrates the six characteristics or modes of knowledge and knowing, and not how they are created. What the hexagonal model does, however, is to illustrate the multi-dimensionality of the knowledge concept.

The dots and lines in the Knowledge Hexagon may be seen to describe a certain kind of knowledge – when the dot is very close to the centre of the hexagon, as is the case with ‘knowledge as object’ – this indicates that the knowledge being illustrated in the hexagon is only partly objectified / reified.

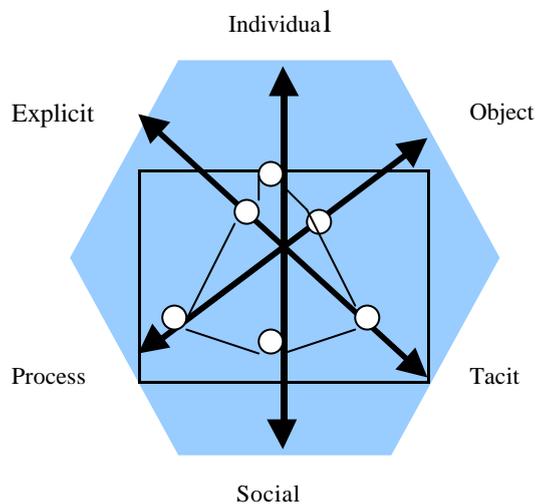


Figure 4.1: The Knowledge Hexagon, slj

The knowledge being illustrated in the model could be a description of my knowledge in the initial phase of working on this thesis. I had my experience and intuition regarding the relationship between diversity and innovation, but found it rather difficult to articulate the essence of what it was I was trying to do. Most of my knowledge was tacit; I had no language in which my knowing could be articulated. Just as I was not aware of what it actually was at, for example, Innospace that I had known (see chapter 2). Part of it could be articulated and written down, but most of it remained tacit and still in the process of production (object). However, what seemed to be the most interesting was that it was highly social – and embedded in the social practice processes of the different collectives in which the experience was contextualised.

Bearing the Knowledge Hexagon in mind, knowledge in this thesis may be defined as follows:

Knowledge may exist as both a process imbedded in practice, i.e. Communities of Practice, and as a materialised, codified object. Knowledge as a practice exists at both the individual and the social level, where knowledge at the individual level is defined in terms of cognition and techne, and at the social level in terms of practice being embedded in social relations and regimes of competence. This knowledge is primarily tacit and knowing and inherent in practice, but when explicit it may eventually be codified and objectified, i.e. turned into an object. Knowledge should therefore be seen to being embedded in the competence regimes of Communities of Practice (slj).

Having defined knowledge and all of its components, we may now look at how such knowledge is created in organisations.

## **4.2 The creation of knowledge**

Within the classical epistemology, knowledge is defined by using the concept of *justified true beliefs (JTB)*, which perceives knowledge as static, universal, eternal and objective. According to the classical traditions within natural sciences there is an objective truth ‘out there’, in a parallel world, and new knowledge is obtained when we are able to detect and gain new insights into that objective truth. Knowledge in this perspective is something you have, it is not something you create (Audi, 1998; Christensen, 1999). The classical epistemology is interesting for the purpose of establishing whether something may be characterised as knowledge, or just an idea. But when it comes to the creation of knowledge, the classical epistemology becomes less interesting.

The pragmatic epistemology on the other hand, perceives knowledge as something you create, as a dynamic interaction between belief, action and knowledge – and not something you can have. Belief may in this view, through the use of productive inquiry, become knowledge. It is only through the (successful) action that something becomes knowledge, and that something is not knowledge, but hypothesis or ideas (Christensen, 1999; Dewey, 1916). The pragmatic epistemology was developed as a critique of the classical epistemology, due to this latter not separating the learning subject from the object being learned, and due to its separation of theory from practice. This thesis argues against such separation of theory from practice, and may be said to adhere to the pragmatic epistemology.

Innovation and the creation of knowledge is about “finding new ways of doing business: reaching customers, listening to the market, distributing products, managing people, managing uncertainty, and connecting to the ecologies surrounding our businesses (Brown, 1997:14). Innovation is also the “transformation of the impossible into the commonplace by transcending the existing boundaries of knowledge” (Miller & Morris, 1999:104). However, the creation of new knowledge is not innovation *per se*, it only becomes *innovation* when the people it has been targeted for, accept it as an innovation, as something new and usable (Brown, 1997).

To understand innovation, we need to look at the process leading to the creation of new knowledge and the diffusion of this knowledge, rather than the outcome. This makes it an obvious choice to focus on the practice leading to innovation, e.g. innovative practice – which encompasses both the creation and the diffusion of knowledge.

### **4.3 Innovative practice**

When we consider innovative practice, we usually ascribe it to the R&D department, but innovative practice should be seen at all levels in an organisation – wherever employees confront problems and deal with unforeseen contingencies. Innovative practice should be stressed as an important value for the organisation as a whole.

It is important to emphasise the use of the word practice in this context, as opposed to the word process – which is the more widely used terminology for describing what leads to innovation. My use of the word practice is partly derived from the Community of Practice Framework (described in chapter 2), but is primarily to stress the fact that practice connotes doing and knowing in practice, and thereby provides an action-oriented perspective as opposed to a prescriptive design perspective. This is in line with the distinction made by Brown & Duguid (1991), in their discussion of canonical and non-canonical practice, the former being the process description and directions provided by others as a result of design, and the latter being the way work is actually carried out in practice. The interest here being not how to design innovative processes, but rather to be able to describe what actually takes place when individuals engage in innovative practice.

Leonard (1998) defines a sequence of four innovative different kinds of practice: 1) Integrated problem solving across different cognitive barriers, 2) Implementing new knowledge in methodologies and tools, 3) Experimentation, and 4) Importing knowledge from external networks. She argues that all of these four kinds of practice or key activities create flows of knowledge and direct them into the organisational core capabilities (competence regimes). The practice she describes is iterative, in that the shared problem solving is seen to lead to implementation of knowledge, which leads to experimentation, which finally brings external knowledge into the organisation. This picture of innovative practice is highly dynamic, and illustrates the complexity of knowledge creation in organisations.

Nonaka & Takeuchi (1995) also describe four different types of innovative practice in their Knowledge Spiral, in which they define innovative practice according to whether the knowledge is tacit or explicit. They define these four kinds of practice as follows: socialisation (from tacit to tacit), externalisation (tacit to explicit), combination (from explicit to explicit) and internalisation (from explicit to tacit). The problem with Nonaka & Takeuchi's Knowledge Spiral, in my view, is the way in which they distinguish between tacit and explicit knowledge, seeing it as unilateral processes rather than dynamic interaction of different kinds of knowledge, embedded in practice, as described by Cook & Brown (1999).

Wenger (1998a) argues that innovative practice is inherent in the interaction between the experience of the individual and the regime of competence within a community. Such innovative practice occurs either 1) when experience transforms competence (for instance when members have gained experience that falls outside the negotiated regime of competence), or 2) when competence transforms experience (for instance when new members align their experience to the competence of the community). But such transformations only occur if there is a certain degree of tension between experience and practice.

Schumpeter (1934), Moran & Ghoshal (1996) and Nahapiet & Ghoshal (1998), agree that "all knowledge processes have a tacit dimension and that, fundamentally, the same generic processes underlie all forms of knowledge conversion" (Nahapiet & Ghoshal, 1998:248). They argue that knowledge should be seen as created through the two generic processes of combination and exchange, which are the basis of all forms of innovative practice.

By agreeing with this point of view, each of the four kinds of innovative practice described by Leonard (1998) could be said to include both combination and exchange. The productive inquiry proposed by Dewey (1916) – if situated in social practice – may also be ascribed to include processes of both combination and exchange. The four types of practice described by Nonaka & Takeuchi (1995) are more questionable in this context – with their different approach to knowledge, but the practice they describe, would also include the generic processes described by Nahapiet & Ghoshal (1998). And finally, the transformation of competence and experience as described by Wenger, also involves the generic processes of combination and exchange.

#### **4.3.1 Combination and exchange of knowledge**

Combination is “a process of systematizing concepts into a knowledge system. This mode of knowledge conversion involves combining different bodies of explicit knowledge” (Nonaka & Takeuchi, 1995:67). But combination, as used in this thesis, does not only include explicit knowledge, it comprehends the combination of tacit knowledge as well. The combination of two or more different knowledge fields which were previously unconnected, is thus seen to result in either incremental change or in radical new knowledge (innovation). Combination occurs by combining the knowledge and experience of different parties. Leonard’s (1998) description of shared problem solving in organisations may also be defined as combination, in that she defines it to involve the combination of different cognitive and functional perspectives in the problem solving practice. It may also be noted that her description of implementation and experimentation are other forms of combination processes.

Exchange is the process in which knowledge, both tacit and explicit, is exchanged with, or transferred into, a social context or collectivity, i.e. by means of interaction and collaboration in communities of practice. Exchange of tacit knowledge will usually involve a mutual engagement in innovative practice by the parties engaged in the exchange, i.e. the members of the community, whereas the exchange of explicit knowledge may take place in conversations.

“Combination and exchange are complex social processes and much valuable knowledge is fundamentally socially embedded – in particular situations, in coactivity, and in relationships”

(Nahapiet & Ghoshal, 1998:250). We therefore need to understand the context for innovative practice, and how it influences the processes of combination and exchange. In order to achieve such an understanding, we need to look at combination and exchange from the perspective of the individual, the community, and the organisation.

#### **4.4 Innovative practice in the organisational context**

Innovative practice is what drives the creation of knowledge, but innovative practice is influenced by the social context in which it is situated. By looking at this context, we gain an insight into how innovative practice takes place at different levels of the organisation. Usually such a description would entail only the individual and the organisational level, but due to this thesis being based on an assumption of knowledge as embedded and created within communities of practice, we need to include this picture as well. We therefore now pursue a description of how innovative practice evolves in organisations at the individual level, at a community of practice level, and at the organisational level.

##### **4.4.1 Innovative practice at the individual level**

Dealing with innovative practice from the point of view of the individual, forces an immediate clarification of the individual, in that it seems highly problematic to separate the individual from the context in which he/she takes part. But when discussing innovative practice, we need to keep in mind that individuals act both as individuals – because they as individuals contribute to the social process – and as a group of individuals – a collective mind, characterised as inherent in the pattern of interrelated activities (Christensen 1999, Weick & Roberts 1993). This section is about how individuals act and what it is that shapes their actions when they engage in innovative practice in communities.

As already described in part 4.1 (knowledge), the knowledge of the individual may exist as both *techné* and *cognition*. The *techné* of the individual is about skills and abilities, which will affect the way people approach innovative practice. This is where knowledge is highly situated in practice, and where combination and exchange very often will occur as ‘showing how to do something’ rather than as telling. *Techné* is also about absorptive capacity, which is defined as the ability to

“recognize the value of new knowledge and information, but also to assimilate and use it” (Nahapiet & Ghoshal, 1998:250), which depends upon the existence of prior, related knowledge.

The cognition of the individual is shaped by his/her *habitus*, which means that “every time we act, we do so by means of the habits of thinking we acquired through our past socialisation” (Tsoukas, 1996:18). Cognition therefore is also about our mental models and our impression of reality, i.e. “the result of complex selection, sorting, manipulation and conversion processes that are shaped by our existing knowledge, interests, and intentions” (Spender, 1998:13). But cognition is also about the sensemaking of the individual, and the way he/she perceives the world outside of the individual. The cognition of the individual acts as *filters* when he/she engages in combination and exchange, filters shaped by habitus, mental models, sensemaking and our socialisation with other individuals. As Leonard (1998:61) puts it: “In problem solving, search patterns of even the most intelligent people fall into habits of thought precluding innovative problem solving with amazing ease and speed – even for the most minor of task”.

The action and interaction of the individual is shaped by his/her *techne* and cognition, by the immediate social context (which will be described in the following), and by the historicity of contexts lived by the individual. All of these variables shape the way people engage in, and learn from, combination and exchange, and none the least how they interact with other people, who will be judged and ‘categorised according to existing patterns in the mind of the individual (see chapter 5.)

#### **4.4.2 Innovative practice in communities**

“Communities of practice develop because the demand of practice exceeds the codified knowledge available to individuals. Situated action requires improvisation, and is highly contextual. Thus it becomes necessary to engage in a collective orientation towards practice: joint sensemaking, learning from others’ experience, and accessing distributed know-how. Knowledge needs to be conceptualised as developing from the interaction between individuals, and not simply existing exclusively in people’s minds” (Faraj & Wasko, 1999:5). This quote indicates how innovative practice will usually take place among the members of a community, by combining and exchanging learning and knowledge. By combining and exchanging knowledge the community gradually

develops a “shared understanding of what it does, of how to do it, and how it relates to other communities and their practices” (Brown & Duguid, 1998:96).

This development of practice, e.g. this innovative practice within communities, will usually take place in processes of narration / storytelling, collaboration and social constructivism, which provides the necessary context for combination and exchange to take place.

The exchange of narratives between members of a community reflects the “complex web within which work takes place and the relationship of the narrative, narrator, and audience to the specific events of practice. The stories have a flexible generality that makes them both adaptable and particular” (Brown & Duguid, 1991:7). What they do is to interpret each new situation in the light of accumulated knowledge and to use this knowledge to deal with unforeseen contingencies under changing circumstances. The use of storytelling helps diagnosing problems, by drawing on similar experience from previous situations. However, narratives also act as repositories of accumulated knowledge, which, when ‘stored’ as narratives, reflects important tacit dimensions of this accumulated knowledge. Insights are used as ‘fragments’ of narratives, which are constructed by the mutual engagement of more parties in a problem solving process. By combining the insights of different members of the community, it becomes possible to socially construct a new narrative, made out of the social knowledge embedded in the relations among the relevant parties.

Collaboration represents the very essence of combination and exchange – individuals work together, collaborate in the solving of problems. This collaborative practice involves social constructivism, by the participants creating shared understandings out of what else might be seen as conflicting and confusing information. These social constructions help members build useful models of the problems and issues at hand, models which will be highly contextual and probably only comprehensible to the people actually making use of them. By allowing for these social constructions, members will take part in the construction and continual development of his/her own identity, and also to the construction and development of the community in which he/she takes part (Brown & Duguid, 1991). This sense of identity is a highly important issue when dealing with patterns of interaction in social groupings, and will be further elaborated in chapter 4 about diversity.

Finally it needs mentioning, that in order for this combination and exchange to spur innovative practice, there has to be a certain degree of tension between the experience of the individual and the competence of the community – which requires diversity in terms of *techne* and/or *cognition*. This argument will be further elaborated on in chapter 9.

#### **4.4.3 Innovative practice at the organisational level**

Dealing with the organisation as a whole, and how this system influences combination and exchange, requires the mentioning of Argyris & Schön (1978), who developed an evolutionary theory that perceives the organisation as a seeking/learning system. The organisation in this view is more than just a number of individuals; it is a sensemaking system in itself. If something does not work, the organisation may change behaviour by means of changing the routines – which is what Argyris and Schön call single-loop learning. However, organisations may also learn to learn in what they call double-loop learning, where the innovative organisation changes the actual learning elements.

With knowledge and knowing being embedded in communities of practice, organisations are viewed as a constellation or a hybrid of overlapping and interdependent communities – where the synergetic potential inherent in the diversity among different communities allows for yet another level of tension between experience and regimes of competence. “Inter-communal relationships allow the organization to develop collective, coherent, synergistic organizational knowledge out of the potentially separate, independent contributions of the individual communities” (Brown & Duguid, 1998:97). In this way we may speak of combination, exchange and innovative practice taking place at two different levels: among members within communities, but also among communities within organisations.

Daft & Weick (1984) also see the community and the organisation as the central unit of analysis in understanding innovative practice – and combination and exchange within organisations. Their definition of the Enacting Organisation describes the organisation as both proactive and highly interpretive; it not only responds to the environment, but also creates many of the conditions to which it must respond. “These organisations construct their own environments. They gather

information by trying new behaviours and seeing what happens. They experiment, test, and stimulate, and they ignore precedent, rules, and traditional expectations” (Daft & Weick, 1984:288).

#### **4.5 Summing up on innovative practice**

In this chapter we learned that innovation in organisations is about the creation of knowledge and innovative practices. When knowledge was defined as being both tacit and explicit, objectified and embedded within regimes of competence, we learned that such knowledge is created through the innovative practice inherent in combination and exchange. This innovative practice is shaped by the *cognition* and *techne* of the individual, it is shaped and formed in communities of practice, where people engage in combination and exchange in their collaborative practice, by engaging in collaboration, narration and social constructivism. We learned that organisations may be seen as seeking/learning systems, made out of a hybrid of overlapping communities. Both among members within communities and among communities within organisations, a certain degree of tension should exist for innovative practice to take place. Such tension is created by the existence of diversity, both within and among communities – which is why we should now pursue an understanding of the concept of diversity.

## 5. Introducing diversity

Diversity is a social construction used for describing and working with organisations where members are characterised as being different from each other, on cognitive and technical (techne) dimensions. The diversity concept is characterised as rather complex due to the dilemma inherent in the very nature of the concept: being considered both an asset and a liability, and as both beneficial and detrimental to organisational cohesiveness (Sessa, Jackson & Rapini, 1995; Sessa & Jackson, 1995). This diversity dilemma is essentially what the Innoiversity Paradox (IP) - described in the introduction – is based upon. In order to find a way around this Innoiversity Paradox, we need to understand the diversity dilemma inherent in the Innoiversity Paradox, which is what this chapter sets out to do. Dealing with diversity necessitates dealing with the diversity dilemma.

*The purpose of this chapter is an introduction to the diversity phenomenon, which later in the thesis will allow us to explore the impact of diversity on innovative practice in communities of practice and in organisations. The chapter is therefore not a discussion of whether diversity should be pursued or not; or whether diversity should be perceived as beneficial or detrimental to an organisation interested in facilitating innovative processes. It is a chapter, which seeks to highlight and illustrate the most important aspects of diversity.*

This chapter therefore provides the foundation for studying how diversity may advance innovative practice in organisations by first discussing the different variables and dimensions of diversity, and then by establishing a definition of the diversity concept as it is used in this thesis. When diversity is defined, the two aspects of diversity, i.e. techne and cognition, and their impact on organisational practice will be elaborated on.

Having established the basic aspects of diversity, this chapter focuses on the individual in organisations, to see how he/she firstly constructs his/her own identity, and then constructs diversity by categorising others as either similar or dissimilar. Having explored how diversity is constructed, we may look at how it manifests itself in terms of diversity in cognition and techne, and how these aspects of diversity may influence intergroup relations. And finally we explore how organisations – when viewed as hybrids of communities of practice – may seek to counteract employee turnover and the creation of ingroups and outgroups. But first we take a brief look at diversity theory – in order to describe the theoretical context within which the diversity concept has been constructed.

### 5.1 Diversity theory

Diversity theory has received considerable attention from researchers in the last decade, but work in the area actually goes back to the 1950s. Since 1987 however, the pace of research on diversity has notably increased, especially in the US, as a consequence of the Hudson report (Johnston & Packer, 1987), which illustrated the need to address diversity issues in organisations because of the changing demographics of the workforce.

Traditionally within intercultural theory, cultural diversity has been dealt with by situating different cultures along descriptive dimensions and by training the cultural awareness of practitioners. According to these traditions, culture “virtually automatically creates cross-cultural misunderstandings and clashes; the solution is always more knowledge about culture (...) this fixation with culture as the source of the problems, and cultural awareness and intercultural competence as the presumed source of the solutions, ensures that writing on international cross-cultural management is very repetitive” (Holden, 1999:4).

Notwithstanding this traditional perspective on cultural diversity, a new approach towards diversity is emerging, arguing for the pursuit of cultural synergy – the so-called value-in-diversity approach (e.g. Cox, 1993; Harris & Moran, 1996; Nemeth, 1986; Thomas & Ely, 1996). Harris & Moran argue that: “The promotion of cultural synergy by global professionals, will help us to capitalize upon the differences in people, while ensuring collaborative action” (Harris & Moran, 1996:15) and “we must learn to move beyond the mere coping with cultural differences to creating more synergy and embracing the wellspring of diversity” (Harris & Moran, 1996:4). This new approach has also been labelled the ‘learning-and-effectiveness paradigm’ due to it directly connecting diversity to organisational performance (Thomas & Ely, 1996).

According to this ‘value-in-diversity’ perspective, which is the centre of attention in this thesis, diversity is viewed as an innovative resource. However, before elaborating further on why this is so (in chapter 7), we need to understand what diversity actually is, and the variables and dimensions used to describe the notion of diversity.

### **5.1.1 The variables and dimensions of diversity**

Jackson & Ruderman (1995) define diversity to include demographic diversity (gender, ethnicity, age), psychological diversity (values, beliefs, knowledge) and organisational diversity (tenure, occupation, hierarchical level). McGrath, Berdahl & Arrow (1995) agree with this distinction, but they operate with five dimensions instead of three, by eliminating Jackson & Ruderman's psychological dimension and replacing it with a value dimension, a capability dimension and a personality dimension. Other theorists go even further by stating that variables such as sexuality, organisational culture, physical health, family structures etc. should also be considered as part of the diversity domain (e.g. Kossek & Lobel, 1996; Schor, 1993; Jackson and Associates, 1992).

All of these different variables undoubtedly influence the way we think about the world, the way we perceive the people around us, the way we act and interact etc. However, what seems to be lacking is a distinction between the diversity characteristics per se, the organisational consequences of this diversity, and how these differences are constructed. We need to distinguish between static diversity (how people differ from each other) and the impact of diversity (how people act, interact, perceive and trust people whom they see as different from themselves). In the dimensions described above there is no real distinction between these two aspects, which make them interesting for the purpose of dissecting the concept of diversity into attributes and characteristics – but un-interesting for the purpose of understanding what it is that actually affects organisational life.

Raghuram & Garud (1996) provide such a process view on diversity, by focusing on the impact (behaviour, affect and perception) of diversity, rather than the demographics seen to create the diversity. They conceptualise diversity along two dimensions: technical and institutional, and describe how the mechanisms inherent in these dimensions may lead to the creation of either vicious or virtuous circles of interaction in organisations.

### 5.1.2 Defining diversity

By making use of the process view provided by Raghuram & Garud (1996), and use their dimensions – although here labelled as *techne* and *cognition* – diversity may be defined as follows:

*Diversity* is created by the individual who, on the basis of his/her different social identities, categorises others as similar (pertaining to ingroups) or dissimilar (pertaining to outgroups). The differences established this way, in the relationships between individuals, manifest themselves in diversity in **techne** and/or **cognition**. For this reason *diversity* should not only be determined in terms of different static demographic differences, but as a social construction created by the members of a given collective, seen to direct the way members of the organisation act (*techne*) and interact (*slj*).

By claiming this definition I propose that being woman, black and homosexual in an otherwise male and heterosexual organisation, does not in itself affect how an individual acts and interacts. It only affects organisational action and interaction if being woman, black and homosexual influences the way she is categorised by others (i.e. as similar or dissimilar to themselves), her technical skills and abilities (i.e. *techne*), and/or on her values and perceptions (i.e. *cognition*) of the world around her. Organisational diversity should therefore not only be defined in terms of diversity characteristics, but also in terms of how this diversity is constructed and on what these differences bring to the organisation in terms of *techne* and *cognition*.

This thesis thereby focuses on two aspects of diversity, 1) diversity in *techne* and *cognition* and how this diversity is constructed, as these are closely related to organisational performance (Sessa, Jackson & Rabani, 1995), and 2) the way cognitive diversity is seen to influence interpersonal relations and cohesiveness.

*Techne* and *cognition* were also used in chapter 4 for discussing knowledge at the individual level. Using the same dimensions for describing diversity and knowledge underpins the mutuality of the two concepts: being both social constructions created by individuals embedded in a social context. This social constructivism pinpoints how individuals internalise knowledge and create ‘maps of reality’ about the world and the social context in which they are embedded, thereby influencing the way people establish personal relations. Knowledge and diversity are both ‘constructs’ shaped and

constructed by the cognition and techne of the individual embedded in the social context of the collective.

## **5.2 Diversity and identity**

Diversity is a phenomenon constructed by individuals cognitively identifying themselves and others within different social categories, which makes the discussion of identity highly fundamental to the discussion of diversity. Before we can embark on the discussion of how people perceive others to be similar to, or different from themselves, we need to understand how individuals define themselves, and their identity.

Diversity, just as knowledge, is a construction, made by both the individual and the collective in which he/she takes part; it is a process created and being created in the techne and cognition of the individual. And just as when knowledge was defined along the individual-collective dimension, we need to emphasise that the individual should be perceived as a social identity, embedded in a social context, when we set out to explore how diversity in techne and cognition may be seen to influence organisational performance.

According to self-categorisation theory (Turner, 1987) individuals derive their identity from the social categories to which they belong. This means that the social formation of the individual and their identity is shaped and “formed through complex relations of mutual constitution between individuals and groups” (Wenger, 1998a:13), where these groups within the field of social psychology and self-categorisation theory, are defined as social categories or social identities. This implies that the individual shapes and forms his/her identity from the participation in different social identity groups – the identity of the individual should therefore be seen as a multitude or a nexus of different memberships in different categories.

Cox (1993) visualised this individual identification with different social categories, with his Culture Identity Structures, where the group affiliations of the individual define his/her identity. His examples are depicted below:

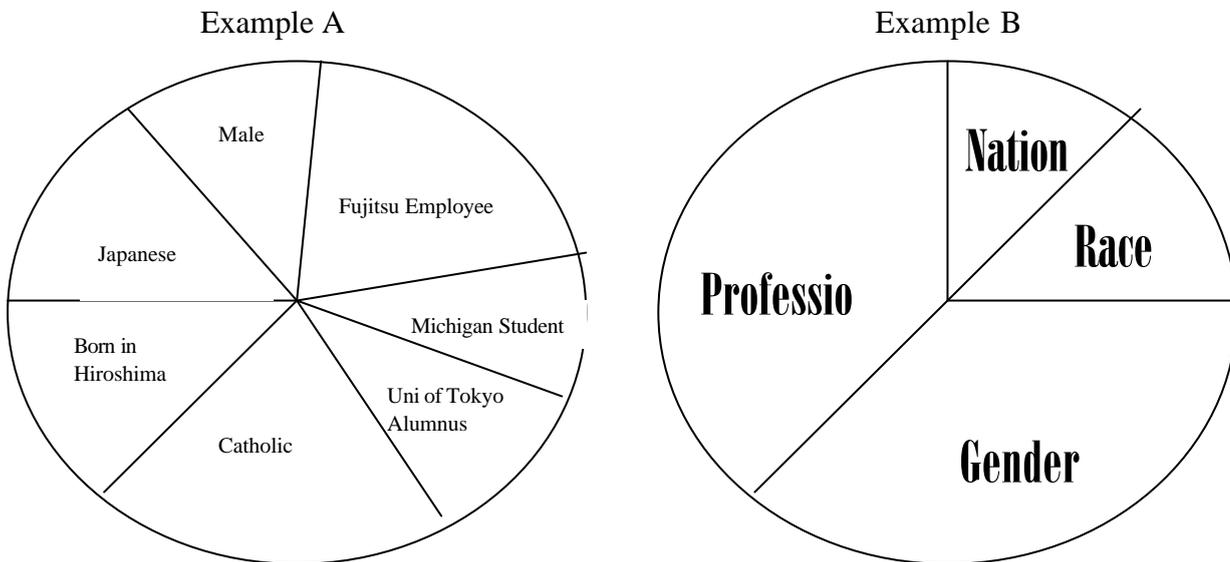


Figure 5.1: Examples of how individuals perceive their identity to pertain to different social categories, and will be basing their categorisation of ingroups and outgroups on the basis of these affiliations. The examples are adapted from Cox (1993, figure 5.1).

As these examples illustrate, the formation of identity takes place as a continual negotiation of meaning between the different social categories to which an individual pertains and identifies with. It is through this identification, first with our parents and family, and later with classmates, fellow students and colleagues; but also with our gender, with our friends, and with individuals sharing our interests and world-views, that we continually engage in a negotiation of meaning between these different identities, and thereby continually constitute and negotiate our identity.

Our identity is constructed from our association and dissociation with different groupings/social categories. This means, that implicit in the concept of diversity is the presence of different social category identities. This categorising manifests itself both in the identity of the individual (what groups the individual construes his identity from) and in the relationship between the individual and others (those belonging to the same groups and those not belonging to the same groups).

As we shall see in the following, it is in the relationships among individuals, perceiving to be either similar to the self (by pertaining to the same social identity groups) or different from the self (by pertaining to different social identity groups), that diversity is constructed.

### 5.3 Diversity and interpersonal relationships

According to categorisation theory (Turner, 1985; Tajfel & Turner, 1986), the social categories to which a given individual belongs – and from which he/she derives his/her identity - are designated as that person's ingroups, while people outside those social categories are part of outgroups. Such categorisation of others is not new. It was already presented in the 1940's by sociologists such as Parsons (1942), although in a broader and less elaborated form, which proposed that members of social systems use different categorisations to classify individuals into categories.

To illustrate this, we refer to the categorisation made by individual A and B in figure 5.1, which may illustrate how their categorisation of the self will dictate how they perceive each other. If they were to meet, they would probably experience a certain degree of anxiety, dependent upon the context in which they meet. If they were to meet in an academic interaction, the anxiety is due to be rather low, because they belong to very similar categories. However, if they were to meet in a context highly influenced by national characteristics (for instance a sport championship between Japan and the US), they would be likely to experience a higher degree of intergroup anxiety. This example therefore illustrates, both the importance of categorisation (of self-concept and others), and the importance of context. We will be discussing the context of intergroup relations in more depth in chapter 7 and 8.

By studying how individuals behave in social relationships, social psychologists have described the behaviour of ingroups to be categorised under a broad heading of ingroup favouritism. Ingroup favouritism is found in three forms: *ingroup bias*, which occurs when individuals highly rate their ingroups and maintain neutrality to outgroups (Allport, 1954). To develop further on the example from above, this would mean that individual A thinks higher of Japanese people and remains neutral to other nationalities. *Intergroup differentiation* is another form of ingroup favouritism, exhibited by individuals who rate their ingroups highly and are slightly derogatory to outgroups. This would mean that Individual A prefers being with other Japanese people and will be slightly disparaging to individual B, because of her being American. And finally, *outgroup derogation*, which is characterised by individuals remaining neutral to their ingroup while acting in highly derogatory manner to outgroups. This would mean that individual A does not necessarily think higher of Japanese people or males because of them being Japanese and male, but that he does act highly derogatory towards individual B, simply because she is a woman and American (Basu, 1999).

Tajfel (1982) & Turner (1985, 1987; Tajfel & Turner, 1986) have introduced different theories to explain this ingroup favouritism. They proposed social identity theory and categorisation theory, which explain how ingroup favouritism results from a person's need to have a positive self-concept, and that an individual's desire for a positive self-concept can motivate him/her to seek out some kind of distinctiveness from outgroups by promoting their ingroup, as illustrated in the examples above. Another important aspect of ingroup favouritism is the need for distinctiveness from outgroups, based on the need of the individual to experience a certain degree of inclusion, or the desire to assimilate the self into collectives (Brewer, 1991; Basu, 1999).

This identification with different social identities and categories is a mutual process, both shaping and shaped by our mental models. As briefly described in chapter 4, mental models help us make sense of the world around us, by constructing 'small-scale models' of reality that we use to anticipate events. Mental models allow for 'leaps of abstraction', which means that "our minds work so fast that we immediately 'leap' to generalisations so quickly that we never think to test them (...), what used to be an assumption suddenly becomes a fact" (Senge, 1991:191-193). This 'programming' of our mental models leads us to make assumptions about other people, based on what we perceive as facts.

But this identification with social categories also means, that when a context is characterised by diversity, individuals will engage in 'leaps of abstractions' about others who are perceived as different, i.e. pertaining to other social categories. According to social identity and categorisation theory, individuals engage in processes of categorisation, by which people are classified in categories based on similarities and differences with the self. Through social categorisation, others are perceived either as members of the same category as the self (ingroups) or as members of a different category (outgroups). The differences between categories are usually exaggerated while individual differences within categories are minimised (Tajfel & Wilkes, 1963), due to 'leaps of abstraction'. Groups that contain the self (ingroups) are likely to be perceived as special and regarded positively – based on a feeling of we-ness, whereas people pertaining to other groups (outgroups) are perceived less positively.

## ***5.4 Diversity in organisations***

We have now explored how the identity of the individual is shaped by his/her participation in different social categories, and we have learned how diversity may impair the creation of interpersonal relationships between dissimilar individuals. We have studied the construction of diversity – but now we shall look at the implications of diversity, by looking at how diversity manifests itself in larger settings, such as groups and organisations. This is done by discussing the two dimensions of diversity described in the beginning of the chapter, i.e. diversity in *techne* and cognition. Diversity in *techne* is about diversity in concrete know-how, abilities, and skills, i.e. the more tacit dimensions of knowledge embedded in practice. Diversity in cognition, on the other hand, manifests itself as diversity in values, perceptions, i.e. what Johnson-Laird (1983) calls “mental models”, which help human beings create ‘maps of reality’ and the people within it, the construction of which was described in the previous paragraphs.

### **5.4.1 Diversity in *techne***

Diversity in *techne* is usually regarded as beneficial in organisations and groupings, due to the obvious benefits that derive from complementary skills. Most people will agree with the notion that the more diverse *techne* possessed by organisations, the better the repository of knowledge. In production contexts, diversity in *techne* allows for the specialisation of tasks, thereby enhancing productivity. In problem-solving teams, people with diverse skills can enhance creativity and provide novel solutions and approach problems from new angles, thereby creating non-routine products (Raghuram & Garud, 1996). Sessa, Jackson & Rapini (1995) furthermore argue that in problem-solving processes, the presence of individuals who view the problem differently may stimulate others to discover novel solutions that they would otherwise not have considered. Other benefits in the *techne* arena stem from the flexibility that skill diversity allows for, and what Nonaka & Takeuchi call ‘requisite variety’, which is perceived as an important condition for the creation of knowledge (to be elaborated in chapter 7).

According to Drucker (1993:24) “the only way to learn a *techne* is through apprenticeship and experience”, because much *techne* will usually be tacitly possessed. This non-codifiable character of *techne* thereby often represents difficulties, when the ‘owner’ seeks to articulate the principles behind that *techne*. In order to realize the potential in *techne* diversity, a certain degree of similarity

of values is therefore required. “A group is more likely to be cohesive and productive to the extent that group members have diverse task-related skills and similar work-related values” (Raghuram & Garud, 1996:161). The problem – or dilemma - is that diversity in techne almost automatically brings about cognitive diversity (Raghuram & Garud, 1996; Sessa & Jackson, 1995).

#### **5.4.2 Cognitive diversity**

Cognition is about beliefs, perceptions, ideals, values and emotions, and it is about perspectives and values, which may lead organisational members to “approach problems and decisions drawing on different information, from different angles, and with different attitudes” (Sessa, Jackson & Rabani, 1995). All of these issues taken together constitute our mental models. According to Senge, “mental models are deeply ingrained assumptions, generalisations, or even pictures or images that influence how we understand the world and how we take action. Very often, we are not consciously aware of our mental models or the effects they have on our behaviour” (Senge, 1991:8).

As explained earlier in this chapter, cognitive diversity, social identification and categorisation is likely to create intergroup anxiety and distrust of outgroups, thereby impairing organisational cohesiveness. This threat to cohesiveness is primarily caused by cognitive diversity, which may potentially bring about both value/goal incongruence and low job satisfaction (Armstrong & Cole, 1995; Northcraft et al, 1995).

#### **5.5 Cohesiveness vs. diversity**

Similarity-attraction theory explains how individuals are more comfortable with others perceived to be similar to the self (Lazarsfeld & Merton, 1964; Berscheid, 1985; Northcraft et al, 1995; Byrne, 1971). Individuals are attracted by similarity of values, beliefs, and interests. The rationale offered for this observation is that similarity: a) is reassuring in that it reaffirms our beliefs, b) serves as a signal that future interaction will be free of conflict, and c) engenders a sense of unity, all of which are interpersonally rewarding (Byrne, 1971).

Schneider’s (1987) model of Attraction-Selection-Attrition (ASA) is based on similarity-attraction theory (Byrne, 1971) and illustrates the dynamics of homophily. The ASA-cycle of organisational

membership (Schneider, 1987) provides a strong indication of how the social categorising in organisations can affect organisational cohesiveness. According to Schneider's model, we are attracted to similar others and, therefore, are likely to select similar others to join our organisations. Those similar others are most likely to be comfortable and will therefore remain over time, whereas dissimilar others will experience intergroup anxiety and the discomfort and alienation of being different and eventually leave the groups. Over time, the diversity in cognitive resources will therefore become more homogeneous (Schneider, 1987). Northcraft et al (1995) agree with the ASA cycle when stating that the amount of turnover experienced in a collective is a function of the heterogeneity of the collective, and that the probability that an individual will leave the collective is a function of the difference between that individual and the rest of the team.

The notion of similarity-attraction is also illustrated by the fact that when individuals confronted with work-related values perceived to be different and in conflict with one another, misunderstandings and conflicts inevitably arise as a result of dissimilar expectations (Raghuram & Garud, 1996; Sessa & Jackson, 1995; Sessa, Jackson & Rapini, 1995). According to Sessa, Jackson & Rapini (1995), individuals experiencing diversity in values are therefore more likely to report a lower commitment, less intention of staying, and more absences than individuals in more homogeneous contexts, which is also in accordance with the ASA-cycle described by Schneider (1987).

Similarity-attraction theory and the ASA cycle thereby illustrate how the pressure for cohesiveness may pose a threat to diversity, just as intergroup anxiety and ingroup favouritism may pose a threat to cohesiveness.

## **5.6 Diversity in communities of practice**

According to what has been described so far in this chapter, diversity is not very likely to be seen in communities of practice, due to communities being "emergent social collectives" (Brown & Duguid, 1991). Such informal creation of interpersonal ties seems – according to what has been described so far in this chapter - rather unlikely to emerge among dissimilar individuals, as described by similarity-attraction, categorisation, social identity theory, intergroup anxiety and ingroup favouritism. This is due to the focus so far being on the relationship between diversity and

cohesiveness – but the CoP Framework is not abandoned yet, the relationship between cohesiveness and diversity will be further elaborated in chapter 8. For now we just have to accept that according to what has been described thus far, cohesiveness and diversity seem to be rather unlikely to co-exist in a community of practice. The existing theory concerning diversity has made this rather evident.

## **5.7 Summing up on diversity**

In this chapter we have learned, that diversity is grounded in the individual and his/her construction of identity, which is formed and shaped by his/her participation in different social categories, thereby pertaining to different social identities. But this construction of identity also brings about the construction of diversity, by individuals categorising others according to whether they are perceived to be similar others (pertaining to the ingroups) or dissimilar others (pertaining to outgroups). These processes of identification and categorisation illustrate the construction of diversity.

Diversity is then manifested in the organisation in terms of diversity in techne (skills and abilities) and cognition (values and perceptions, i.e. mental models). Diversity in techne is usually perceived as beneficial, due to it bringing to bear complementarity of skills to be employed for furthering problem solving, absorptive capacity and innovative practice. Cognitive diversity, on the other hand, may have detrimental effects on organisational cohesiveness, by potentially leading to lack of communication, intergroup rivalries, and eventually employee turnover.

Furthermore we saw the diversity dilemma represented by the relationship between cohesiveness and diversity. Diversity was seen to inhibit cohesiveness and the institution of personal relationships due to the intergroup anxiety and ingroup favouritism stemming from categorisation; just as cohesiveness was seen to pose a threat to diversity due to similarity-attraction theory, potentially causing dissimilar individuals to leave the organisation.

As a final point, the issue of diversity in communities of practice was discussed, and brought to bear the unlikelihood of diversity to exist in CoPs, due to the findings made in this chapter.

## **Part II**

### **The relationship between diversity and innovation**

In the previous chapters we have been introduced to the theoretical fields of CoPs, innovation and diversity – where each of these fields was ‘dissected’ in order to understand the complexity we are seeking to describe. From these chapters it was described how innovative practice is situated in communities of practice, whereas it seemed highly difficult (theoretically) to be able to situate diversity in communities of practice.

However, in this part of the thesis, the community of practice framework is set aside for a moment, and instead the attention is directed toward the relationship between innovation and diversity.

Chapter 6 therefore explores the destructive drivers of diversity, which are seen to pose a threat to cohesiveness and innovative practice. These drivers are: intergroup anxiety, goal incongruence and miscommunication. This chapter is therefore framed around hypothesis #1.

Chapter 7 take the opposite approach, and seeks to elaborate on the potentials of diversity for enhancing innovative practice. From a range of different theoretical fields, the following drivers will be described as being the most important ones: absorptive capacity, requisite variety, network variety, creative destruction and problem solving skills.

## **6. Vicious circles of diversity seen to impair innovative practice**

In chapter 5 we described the dilemma inherent in the relationship between diversity and cohesiveness – with diversity being potentially eroded by a ‘pressure’ for cohesiveness, and cohesiveness being eroded by the very existence of diversity, all of which made it difficult for diversity to exist in communities of practice – due to communities of practice being held together by cohesiveness and similarity-attraction.

Now we change our focus to instead look at the relationship between innovation and diversity. This relationship – described as the innoversity paradox – consists of a series of drivers (constructive and destructive) seen to stimulate either vicious (this chapter) or virtuous (chapter 6) circles of diversity, seen to either impair or enhance innovative practice. This chapter focuses on the vicious circles of diversity, which are potentially driven by intergroup anxiety, miscommunication/conflict and goal incongruence. This chapter therefore evolves around hypothesis 1.

The first (destructive) driver stimulating vicious circles of diversity is intergroup anxiety, which may prevent collaboration and combination/exchange between different identity groups. The next destructive driver is miscommunication/conflict, which may complicate the combination and exchange of narratives and social constructions. The last destructive driver of vicious circles of diversity is goal incongruence, which may make it difficult to collaborate and to negotiate a joint enterprise.

### **6.1 Destructive driver #1: Intergroup anxiety**

In a context characterised by diversity, the different psychological mechanisms described by categorisation theory (Tajfel, 1982), social identity theory (Turner, 1985, 1987) and ingroup favouritism (Allport, 1954) are all seen to drive different aspects of intergroup anxiety (Stephan & Stephan, 1985); with intergroup anxiety being described as “the discomfort individuals experience when interacting with members of a different social category” (Northcraft et al, 1995:80).

Intergroup anxiety is a concept from social psychology about the feelings and discomfort individuals may experience when they interact with other social categories and groups, and an

individuals experience when meeting (or anticipate meeting) an outgroup member, which is seen to be a central variable within intergroup contact (Stephan & Stephan, 1985).

This intergroup anxiety is awakened when an individual finds him/ herself being detached from his/her natural social groupings, and 'misplaced' among people pertaining to different categories than him/herself – as is what is often perceived to be the case in a diversity context. This illustrates how diversity can make it difficult for an individual to identify with a group where other members belong to different categories than him/herself; and according to social identity theory this is highly important for the individual's sense of identity. Homophily or "interpersonal similarity is one of the most important determinants of interpersonal attraction" (Sessa & Jackson, 1995:140-141).

Once ingroup and outgroup distinctions become salient in a diversity context, stereotyping, distrust and competition occur and interfere with group functioning (Nkomo, 1995). Individuals validate their social identity by showing favouritism for their own social category (ingroup) at the expense of outgroups. Having established such shared social identities increases perceived differences between social categories and increases intergroup anxiety; leading individuals to assume that there will be irreconcilable conflicts of interest between social categories, even when such conflicts do not exist (Schneider & Northcraft, 1999).

Intergroup anxiety is a multifaceted response characterised as an unpleasant emotional state, marked by subjective feelings of tension, apprehension, and worry regarding a potentially negative outcome. Anxiety is a state of heightened self-awareness, perceived helplessness and expectation of negative outcomes, which may manifest itself as feelings of discomfort, distress and fear. The behaviour of the anxious individual tends to become hesitant, inhibited, and sometimes even disrupted (Neuliep & McCroskey, 1997).

A very simplistic example of such intergroup anxiety could be illustrated in a situation between the academic world (for example R&D) and the business world (for example Marketing). The practitioner may experience anxiety and insecurity when interacting with academics, due to not knowing the norms dictating behaviour within that world, which makes it difficult also to communicate in the same language. He may also experience anxiety due to incongruence of the values directing the interaction – maybe he is interested in creating a cash cow, whereas the

researcher wants to create new features – and these objectives driving their interaction may or may not be mutually exclusive. Finally the practitioner may experience anxiety due to his expectancy of the behaviour of the academic, as a result of his beliefs shaped by stereotypes.

When individuals interact with each other they do so on the basis of expectation and trust, due to an anticipation of something to be derived from their interaction. This expectation will be shaped by the preconceptions individuals have about the other party, stemming from stereotyping and leaps of abstraction about outgroups/social categories, and the behaviour associated with these groupings.

If diversity of social categories is allowed to ignite intergroup anxiety, members will find it difficult to negotiate an identity from their engagement in multiple categories. If the different categories become ‘infected’ by the presence of intergroup anxiety, it becomes highly problematic for an individual to ‘invest’ his identity in more than one category membership. This is also supported by Kossek & Lobel (1996), who argue that individuals situated in a hostile environment will feel more threatened and more likely to ‘cling’ more tenaciously to the identity of their perceived ingroups, and thereby make it more difficult to establish social identities with their co-workers.

If an employee finds it difficult to negotiate an identity encompassing multiple group identities - due to intergroup anxiety he will not ‘invest’ himself in a multitude of identity groups, because being able to identify with your work and your collective is a critical source of motivation (Wenger, 1998a; Thomas & Ely, 1996). The consequences of this to innovative practice is that when individuals do not engage in multiple group identities, they have limited access to combination and exchange, and without motivation they will not ‘go out of their way’ to gain the necessary access.

From all of this we may conclude, that diversity is constructed in the process of: a) individuals constructing their own identity from their membership in different social categories, b) diversity is constructed when others are perceived to belong to the outgroup, i.e. other social categories than the self, and c) due to intergroup anxiety, individuals may find it difficult to establish personal relationships with dissimilar others, i.e. individuals pertaining to outgroups. In a setting characterised by diversity, it may therefore be difficult to find interpersonal relationships spanning different social identity groups.

## **6.2 Destructive driver #2: miscommunication**

Diversity mechanism #2 establishes the problems faced when different kinds of language barriers prevent communication and information from flowing freely. Without a common language it is difficult to engage in combination and exchange (Nahapiet & Ghoshal, 1998). Language and communication is furthermore considered to be highly important for the creation of trust in interpersonal relationships. If individuals engage in negative stereotyping of outgroups thereby creating un-justified perceptions of others, it may prevent them from trusting and engaging with perceived dissimilar others, and may therefore threaten communication patterns within organisations. With interpersonal relationships and communication patterns providing the foundation for combination and exchange, diversity may this way – if not accounted for – impair innovative practice.

Miscommunication is seen to arise when there is a lack of common context and language. Language in this context of communication should not be understood as national languages, but rather as social languages, as described in the words of Ruthellen Josselson (1992:180): “In a large sense, our language expresses our embeddedness in one nation or another, our accent within that language identifies our social class or place of origin, and our choice of vocabulary links us to certain subgroups. We ‘speak’ from our place within society”. This interpretation of the notion of language thereby implies that identity, culture, language and communication become inseparable, which makes communication one of the most important aspects to deal with in a diversity context.

The story of the ‘Tower of Babel’ from Genesis may be used as an important analogue for the difficulties to be encountered when social categories are unable to communicate, due to the lack of a common language. Ever since the construction of the Tower of Babel ended in confusion, language diversity has been seen as problematic and, without the ability to communicate in the same language, individuals are doomed to live with linguistic confusion and misunderstanding (Bouwen & Steyaert, 1999; Eco, 1995). If the individual does not understand the language of the social category with which he interacts, he is likely to experience a high degree of intergroup anxiety, and the larger the distance between the involved social categories, the higher the degree of anxiety.

One of the basic hypothesis of intercultural communication indicates that when the sender of a message pertains to a different social category than the receiver of the message, the chances of accurately transmitting and interpreting the messages as it was originally intended will be lower than if the sender and the receiver shared the same social category (Gelfand et al, 1996).

Furthermore, the language in a given social category allows for individuals to learn the norms and rules of interaction through the language socialisation process, when and only when he/she understands the language. Diversity may therefore prevent such learning – if the language is not translated in any way – and may lead to misunderstandings and miscommunication, thereby increasing intergroup anxiety (Henderson, 1994).

In a context of diversity, communication is an important means of understanding differences and finding commonalities, but if individuals are unable to decipher the messages sent, due to misunderstandings and incongruence between different social categories; bridges are never built, differences never understood, and commonalities never found, and the intergroup anxiety becomes higher and higher. If this vicious circle is not brought to a halt, conflicts and clashes are likely to emerge, preventing combination and exchange from taking place.

Organisations characterised by diversity are also reported to show lower amounts of communication among co-workers, suggesting that diversity decreases overall communication in organisations (Lincoln & Miller, 1979; Sessa, Jackson & Rapini, 1995). According to Hoffman (1959) informal meetings are fewer in groupings characterised by diversity, and according to Brass (1984), informal networks are segregated along demographic lines. Such lack of communication may allow differences in values to create different perceptions of phenomena, and provide negative views about outgroups and conflict between group members (Raghuram & Garud, 1996). Members of a diverse organisation are also likely to have different ways of talking about the same things as well as differences in what they are interested in talking about – which may eventually lead to misunderstandings and miscommunication. (Northcraft et al, 1995).

Multiple perspectives that are valuable in innovative practice may thereby not emerge because of people's reluctance to interact with others who are dissimilar, just as individuals may experience difficulties in communicating different perspectives even if interaction does take place. However, if people do interact with each other, in spite of perceived dissimilarity, innovative practice is

determined by the 'quality' of this interaction, which may be impaired by miscommunication because they are likely to have fewer shared experiences, less in common, and more differences than similar employees (Chatman, 1998).

Although diversity typically enhances organisational inputs (innoversity drivers #1-3), organisations will not truly benefit from a diverse membership unless sufficient communication, trust and openness enable dissimilar individuals to feel comfortable expressing their unique opinions and perspectives (Eigel & Kuhnert, 1996; Thomas & Ely, 1996). Individuals engage in combination, exchange and creative problem solving only when they have already established a language in which they can combine and exchange their existing knowledge, and when they trust the others. If they are not able to trust and communicate with individuals pertaining to different social categories than themselves, they will not be able to engage in what Leonard (1998) calls 'shared problem solving', perceived to be one of the most important aspects of innovative practice. Lack of communication among different identity groups may also inhibit social constructivism, and combination and exchange of narratives regarding a common practice field, thereby preventing the creation of knowledge and development of competences.

### **6.3 Destructive driver #3: Goal incongruence**

According to social identity and categorisation theory, the categorisation into distinctive ingroups and outgroups has detrimental effects on collective goals and objectives. In a diverse setting, the values and perceptions of different social categories may be incongruent or even mutually exclusive; which is likely to bring about incongruence in goals. Such incongruence in goals may be destructive to trust and communication, both fundamental to the creation of interpersonal relationships and trust. Moreover, goal incongruence may also prevent individuals from combining and exchanging knowledge all together, if they are not able to negotiate common goals for pursuing such combination/exchange.

Pettigrew (1973) elaborated on such goal incongruence in work teams, where she observed that team members' commitment to own individual (non-team) goals, have a strong tendency to interfere with coordination of the team's co-action activities (Northcraft et al, 1995), and thereby also to innovative practice. When interaction centres on imagined or real mutually exclusive goals,

it may very well bring about an interaction where one party will win by defeating or reducing the power of the other, in order to achieve the desired goals (Henderson, 1994). Such win-lose experiences of goal incongruence may actually allow for knowledge to be exchanged, but not combined – due to problems being solved according to the values of the ‘winner’ rather than through a combination of different values and perspectives – thereby depriving innovative practice of the benefits of diversity, and actually produce learning (by the loser) and no new knowledge.

These two aspects of goal incongruence (failing to establish goals at all, and the win-lose situation) emphasise the importance of congruent goals in innovative practice, just as they illustrate how diversity may inhibit the institution of congruent goals.

#### **6.4 Summing up on vicious circles of diversity impair innovative practice**

In this chapter we have seen how the destructive drivers of intergroup anxiety, miscommunication /conflict and goal incongruence may stimulate vicious circles of diversity, seen to impair innovative practice. Such vicious drivers may pose a threat to cohesiveness, which is perceived as paramount to the creation of knowledge. The reason for these ‘liabilities’ of diversity to be described as circles is to emphasise the fact that both diversity and innovative practice are processes continually constructed and negotiated in the context in which they are situated. When the above-described vicious circle of diversity is set in motion, the drivers seem to enter into a process of re-enforcing diversity, thereby enhancing the perception of dissimilarity, due to increased levels of intergroup anxiety, miscommunication and goal incongruence. Such a process will pose a serious threat to innovative practice.

In this chapter we have therefore shed light on the first hypothesis, and thereby on the first half of the innoversity paradox. In the next chapter we will explore the constructive diversity drivers seen to stimulate virtuous circles of diversity – thereby enhancing innovative practice.

## **7. Virtuous circles of diversity advancing innovative practice**

This chapter focuses on how innovative practice may potentially be enhanced by diversity, thereby elaborating on the second hypothesis, that there are benefits to derive from diversity when employed for innovative practice. For instance, Utterback (1971 – in Cohen & Levinthal, 1990:133) argues that “diversity in the work setting stimulates the generation of new ideas”, and he is supported by Amabile (1983), who argues that creativity and innovation are positively related to diversity of cognition. Other researchers have found that heterogeneous teams who bring multiple perspectives to their tasks outperform homogeneous teams in generating ideas (Hoffman, 1959; McGrath, 1984). However, as previously mentioned, the benefits are just mentioned, and only rarely elaborated. This chapter sets out to do so, but due to the fact that only very little theory has dealt explicitly with the relationship between innovation and diversity, a vast amount of different theoretical fields have had to be included in order to cover this void.

From among these different theoretical fields and scientific traditions, treating different aspects of diversity and innovative practice, I have identified what I perceive to be the five most important virtuous drivers of diversity, i.e. aspects of diversity that actively contribute to and drive innovative practice within organisations. I label these drivers ‘Innoiversity drivers’ because I perceive them as ‘dynamics seen to drive innovative practice and directly enhanced by diversity’.

The first driver, absorptive capacity, is a well-known capability described within the fields of organisational learning and innovation, and introduced by Cohen & Levinthal (1990). This driver was identified and included due to it describing both the ability to learn and develop new knowledge, and how this capability will be enhanced in a context characterised by what I label multiple-paths. The second driver, requisite variety, was found within the natural sciences – but has already been applied to knowledge creation (for instance by Nonaka & Takeuchi, 1995) due to its focus on the importance of internal variety – which in this context is described as variety in techne and cognition, and how such variety may influence problem solving and decision making.

The third driver, network variety, stems from network theory, and describes how internal diversity usually also means external network variety, due to networks typically being demographically aligned. In this way organisational diversity allows for increased access to outside knowledge, due to the access to a wider variety of network connections. The fourth driver, creative destruction, is

one of the most important – originally developed within marketing theory and is about the importance of destruction, which is often necessary before construction can take place. Diversity drives creative destruction by providing for diverging perspectives, which fosters questioning and reflection. Finally, the last driver, problem solving, was inspired by Leonard (1998), and her emphasis on the importance of shared problem solving – where diversity of perspectives is argued to enhance problem solving routines and processes.

Viewed in this perspective, diversity may be seen to work as a locomotive driving different aspects of innovative practice by potentially igniting these five mutually interdependent dynamics/drivers, seen to advance and enhance innovative practice. I thereby argue that the benefits of diversity primarily reside in these five innoversity drivers.

When each of these drivers have been elucidated, we change the focus to see how they may influence overall organisational performance. This discussion of organisational performance, however becomes rather hypothetical, because if the interaction between diversity and innovative practice is to influence organisational performance, diversity and innovative practice needs to be embedded in the same context, and according to what has been discussed so far, diversity is not very likely to be found in communities of practice at all. However, if organisations are able to ‘invite’ diversity into communities of practice - and thereby allow for diversity and innovative practice to be embedded in the same context - it should be possible to set in motion these five innoversity drivers and thereby enhance innovative practice and organisational performance. This discussion of diversity and innovation in communities of practice is however referred to chapter 8; for now let’s take a closer look at each of the proposed innoversity drivers.

### **7.1 Innoversity driver #1: Absorptive capacity**

According to Cohen & Levinthal (1990) an organisation’s absorptive capacity is critical to its innovative capability and practice. They (1990:128) define absorptive capacity as “the ability to recognize the value of new, external information, assimilate it, and apply it to commercial ends”. They furthermore argue that “the organization needs prior related knowledge to assimilate and use new knowledge” (1990:129), which is based on the assumption that prior knowledge increases both the ability to absorb new knowledge into memory, and the ability to recall and use it. Cohen &

Levinthal (1990:130) furthermore argue that this “prior possession of relevant knowledge and skill is what gives rise to creativity, permitting the sorts of associations and linkages that may have never been considered before”. According to these arguments, absorptive capacity becomes a highly critical ability for organisations pursuing innovative practice. Absorptive capacity is also about path dependency – in that new knowledge is based on existing knowledge within the same field.

Diversity is seen to drive organisational absorptive capacity by it increasing “the prospect that incoming information will relate to what is already known,” and Cohen & Levinthal (1990:131) continue: “In addition to strengthening assimilative powers, knowledge diversity also facilitates the innovative powers by enabling the individual to make novel associations and linkages”.

Copenhagen Institute for Future Studies also supports this notion, when they argue that companies with a diverse workforce seem to sustain a larger repository of experience and *techne* (1999:4).

Having a greater diversity in *techne* makes it more likely that any required aspect of a problem can be attended by an expert, and that any required aspect of a problem can be attended to by someone interested in that aspect (Northcraft & Neale, 1993; Schneider & Northcraft, 1999). This aspect thereby allows for a multiplicity of knowledge paths – which makes any path dependency more flexible. Absorptive capacity, however, not only benefits from this complementarity of skills, but also builds up and enables the necessary organisational ability of reacting to changes in the environment, i.e. requisite variety, which is Innoversity driver #2.

## **7.2 Innoversity driver #2: Requisite variety**

Ashby’s (1956) law of requisite variety from the natural sciences is described as “the larger the variety of actions available to a control system, the larger the variety of perturbations it is able to compensate” (Principia Cybernetica Web). The essence of this law is basically that a system (such as an organisation) can control something (such as discontinuities in the environment) to the extent that it has sufficient internal variety represented within the organisation. Requisite variety therefore concerns the availability of resources within an organisation suitable for dealing with whatever may happen in the environment, and react on it immediately – without having to pull in external resources. Having all of the necessary resources available allows for effective combination and exchange internally, and thereby for the creation of knowledge required for being able to adapt to the external environment. Nonaka & Takeuchi (1995) also make use of this principle in their description of the necessary conditions for the creation of knowledge

Diversity may be seen to drive requisite variety, by the internal availability of diversity in techne and cognition, which provides an organisation with diversity in problem solving skills. Such diversity equals flexibility in achieving goals. Diversity therefore drives requisite variety by sustaining a wide variety of different skills and methods to be used for dealing with unforeseen contingencies in the environment. Diversity also drives the existence of multiple interpretations of particular events, by events being interpreted from a range of different perspectives, while simultaneously allowing for immediate action (due to the immediate availability of resources and the enhanced absorptive capacity). A unilateral, homogeneous interpretation of knowledge works against the generation of multiple and contradictory viewpoints perceived to be necessary for dealing with unpredictable environments. Multiple and diverse interpretations are necessary for in-depth inquiry to be pursued, which then again may lessen oversimplification or premature decision making (Yogesh, 1997).

Ideally, an organisation sustaining the *perfect* requisite variety, may be depicted as a digital nervous system (Gates, 1999) or as a 'bio-function-type' organisation (Kao, in Nonaka & Takeuchi, 1995), where new events in the environment foster not only immediate and distinctive action, but also the most suitable response to a given event. The notion behind requisite variety may also be seen as somewhat aligned with the basic principles of contingency theory (Burns & Stalker, 1961).

However, if an organisation wants to do more than 'merely' react to discontinuities in the environment; if it wants to pursue a proactive knowledge creation and interpretation of events, it will not be satisfied by only adapting and responding to the environment. Such an organisation, i.e. the enacting organisation (Daft & Weick, 1984), may create many of the conditions itself proactively, through continual learning and interaction with the environment (through an extensive use of network relations). Where requisite variety is about adapting and reacting to the environment, enacting and actively engaging with external networks, is a step further. Such networks are seen as highly important to the creation of knowledge – and diversity is seen as an important driver in the creation and use of networks – which will be demonstrated in the following, when exploring innoversity driver #3.

### **7.3 Innoversity driver #3: Network variety**

External networks are seen as highly important conditions for the creation of knowledge. The ability to develop knowledge about new opportunities “requires participation in them, thus a wide variety of inter-organisational linkages is critical to knowledge diffusion” (Powell, 1998), thereby also with regard to requisite variety and absorptive capacity. According to Rothwell (1992) and his description of different generations of the innovation process<sup>5</sup>, the present ‘fifth-generation innovation’ is characterised by extensive networking. Other researchers support the notion of personal relationships and networks providing important opportunities for innovation, e.g. Galaskiewicz (1996), Arujo & Easton (1996), and Powell (1998).

The network perspective on innovative practice moves beyond the previously described organisational response of predicting and reacting, based on requisite variety. Instead, it demands more anticipatory responses from the members of the organisation, who need to carry out a faster cycle of knowledge-creation and action based on the new knowledge (Nadler & Shaw 1995), in order for them to interact with the environment.

A study on networks conducted by Ibarra (1992) has suggested a certain degree of network homophily, in accordance with social identity theory, categorisation theory and the similarity-attraction model. Network homophily means that individuals tend to ‘construct’ their networks with similar others and primarily connect in what Ibarra (1992) calls ‘homophilous ties’, spanning multiple networks. These findings suggest that being a diverse organisation results in equally diverse networks ‘spun’ around the organisation. This means that if people are connected internally across and spanning traditional social categories - for instance in communities of practice – the diversity in networks means enhanced access to a wider variety of external connections.

Work units composed of diverse members can thereby tap into broad networks of contacts, making it likely that useful new information will be incorporated into decisions, which can enhance responsiveness to rapidly changing organisational environments (Donnellon, 1993).

Diversity may, in this way, contribute to an organisation’s monitoring of environmental turbulence, just as interaction with the environment is enhanced, which makes it more likely that any useful new information will be discovered and brought to the organisation (Lipnack & Stamps, 1993).

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<sup>5</sup> First and second generation of innovation was characterised by simple linear models (1960s), third generation recognised interaction and feedback loops, fourth generation innovation emphasises linkages and alliances but only among key partners (Rothwell, 1992)

These connections with a more varied external network allows for group members to use outside contacts to gain access to information (Granovetter, 1976; Lipnack & Stamps, 1993). Furthermore, it should be mentioned that in a study of teams in high-technology organisations, diverse teams were more likely to communicate with others outside of the team, which was seen to lead to greater innovativeness (Ancona & Caldwell, 1992; Schneider & Northcraft, 1999).

An important example of the potential to be derived from personal networks is Silicon Valley. One of the many secrets, even in its earlier days, was its receptivity to outsiders, as explained by Charles Leadbeater (1997):

Most of the high-tech companies have at least one foreign-born founder. One example is Andy Grove, the President of Intel, who was born in Hungary. There are so many Indian computer programmers in Silicon Valley that cricket is now one of the fastest growing sports in the region. This encouragement of immigrant entrepreneurs is not confined to high tech companies. The resurgence of the apparel industry is partly based on networks of small family-owned Chinese and Asian companies.

Organisational diversity – and the inherent external network diversity – thereby allows for competing social constructions of the environment. But in order for these social constructions to be continually negotiated, and for them not to rely too much on generally agreed-upon assumptions, there is a need for continual evaluation and questioning of these assumptions: in order to remain enacting. This need for continuous challenging of predominant social constructions brings about the next important innoversity driver: creative destruction.

#### **7.4 Innoversity driver #4: Creative destruction**

Levitt (1962:128) describes creative destruction, when he argues that “being willing to destroy the old is the heart of innovation and the means to enormous profits”, and he continues “creative destruction is a useful motto not simply because of its purposeful and ringing sound but because it creates an organizational disposition towards entrepreneurial audacity. Its constant quest is to create progress through obsolescence” (Levitt, 1962:129).

The collective sharing of agreed upon assumptions can be effective in maintaining the status quo and minimising conflict, but does not *per se* facilitate innovative practice or flexibility – thus, it

does not encourage assumption testing, just as it is not readily adaptive to the changing world. According to Thomas & Ely (1996:80) diversity can “help companies grow and improve by challenging basic assumptions about an organization’s functions, strategies, operations, practices and procedures”. Furthermore they add that diversity may “enhance work by rethinking primary tasks and redefining markets, products, strategies, missions, business practices, and even cultures” (1996:85).

Diversity may therefore be seen as an important driver of creative destruction, due to diversity’s potential of offering dissimilar “what is” assertions, allowing for conversation to become more dynamic and enabling a creative destruction and questioning of status quo, and the testing of previously held assumptions (Baker & Kolb, 1993).

By allowing for diversity to drive the inclusion of diverse constructions, more opportunities can be created for emancipation and enlightenment. Such inclusion of the dissimilar within an organisation can favour a more dynamic and recursive innovative practice, and bring about enhanced creative destruction within organisations (Baker & Kolb, 1993).

Questioning and creative destruction are essential activities to foster a ‘habit’ of continuous improvement. Without a continuous questioning of present practices, there can be no search for new, innovative ideas that can lead to substantial improvement. Unfortunately, employees are continually reminded not to question and are very often rewarded for conformity. Bob Carman from Boeing Rocketdyne (interview II) agrees with this problem of conformity, when he argues “the motivation in traditional settings is to get all the right answers – of somebody else (e.g. parent, teacher, management). The difference in a creative team is that in such a team, you are not trying to be creative for somebody else, you are creative”. Diversity may be seen as the fuel of the questioning process. Each person’s view represents a facet of reality; a new construct which, when encouraged in innovative practice, the realities of different employees may challenge one another and raise questions. The more diverse the workplace, the more questions can be expected (Heil, 1993).

But in order for creative destruction to work properly, it needs to be espoused in a setting where generally agree-upon assumptions tend to flourish, e.g. in the problem solving practices in

organisations. Such problem solving may be dramatically enhanced by creative destruction, which is driven by diversity. But diversity in it self may also be seen as an important driver of shared problem solving within organisations, which brings us to innoversity driver #5 – problem solving.

## **7.5 Innoversity driver #5: Problem solving**

Problem solving skills can be perceived as a set of routines employed to respond to changes or threats, or as knowledge about how new knowledge is created, i.e. as a practice shaping the knowledge in the organisation (Valentin, 1986; Bruun Andersen, 2000).

Diversity may be seen to drive problem solving and the development of organisational problem solving skills, due to diversity offering the encouragement to investigate other options and points of view – which is highly important for problem solving, through the establishing of synergy (Leonard, 1998). According to Thomas & Ely (1996:85), “employees frequently make decisions and choices at work that draw upon their cultural background – choices made because of their identity-group affiliations”. However, it needs mentioning that it is not the variety among individuals’ social category memberships that produces synergy; it is the variety in techne and cognition that we associate with diversity which allows for innovative idea cross-fertilisation (Northcraft et al, 1995).

Cox (1993) advocates that diversity may be seen to drive creativity and problem solving by generating a multiplicity of points of view to confront problems. Supporting this idea is the notion that a variety of perspectives can stimulate non-obvious alternatives (Nemeth, 1986). McLeod, Lobel, and Cox (1993) have found that increased diversity leads to higher levels of creativity and innovation as a result of problem solving (in Cox, 1993). Creative solutions to problems are more likely to emerge when a diversity of theoretical perspectives can be brought to bear on a problem. This position is supported by findings maintaining that top management heterogeneity predicts innovativeness in banks (Jackson, 1992 in Schneider & Northcraft, 1999).

As an example of how diversity drives problem solving, Seidenberg from Bell Atlantic states that “diverse groups make better decisions. With telecom going through mammoth changes in technology and competition, Seidenberg figures that what Bell Atlantic needs most is “more diversity of thinking. If everybody in the room is the same, you’ll have a lot fewer arguments and a lot worse answers” (Fortune, 19.07.99: The 50 Best Companies for Asians, Blacks, & Hispanics)

A Danish example of diversity driving problem solving stems from MouseHouse, where they are very alert to their diversity, recognizing the value of friction. And according to Thor Angelo at MouseHouse: “Diversity is friction, and friction lays the foundation for innovation, which is highly important in our line of business”, and he continues: ”the friction emerges when we are gathered around a problem, and it contributes to chaos, but a conscious chaos” (Angelo & Bundgaard, 2000) Kambskard (2000) agrees with Angelo & Bundgaard, when she argues that “diversity in work teams provides the opportunity to create a range of different perspectives and ‘points of attack’, which provides the foundation for increased innovation”. Finally, diversity is seen to drive renewal of stagnant firms through the provision of new perspectives and innovative approaches to problems solving (Jackson, 1992).

Problem solving is essential for the creation of new knowledge, and diversity is essential for driving problem solving, which results in the creation of new knowledge. This new knowledge manifests itself as competence regimes in communities of practice, which are continually negotiated in the relationship between the individual and the collective. But a problem solving skill negotiated and accepted as part of the competence regime at one point in time, may at another point in time be negotiated and rejected – because competence regimes develop as new knowledge is created and established within them, due to the previously described innoversity drivers. Such change is driven by the tension between the experience of the individual and the regime of competence of the collective; a tension which is driven by diversity (to be further elaborated in chapter 9).

## **7.6 Innoversity drivers and overall organisational performance**

As we have seen in the description of these innoversity drivers, the benefits deriving from diversity in techne and cognition within organisations may be directly linked with organisational performance. Moreover, to the extent that organisations are able to set these drivers in motion, they will gain competitive advantage in overall creativity, problem solving and flexible adaptation to change in the environment (Cox, 1993; Amabile, 1983; Leonard, 1998; Morrison et al, 1993).

First of all, the organisational absorptive capacity may benefit immensely from diversity, by offering higher complementarity of skills and knowledge. Creative destruction is another prominent feature to derive from diversity – which allows for the questioning of fixed assumptions and best

practices, which may eventually lead to the destruction of fixed mindsets. Creative problem solving is another potential inherent in organisational diversity, by allowing for the friction within the organisation to lead to new dimensions. Another advantage offered by diversity is requisite variety, which is the requirement to be able to react to whatever discontinuities might happen in the environment, and then be able to deal with them; such variety is enhanced by organisational diversity. Furthermore, innovative practice will also benefit from diversity in the networks knitted around a diversified organisation, which grants access to a larger knowledge network all in all. Last but not least, diversity enhances the tension necessary between competence and experience in and between communities of practice, and it is exactly this tension which drives the creation of new knowledge.

## Part III

### Innovation and diversity in Communities of practice

Part I introduced the focal issues in this thesis, i.e. CoPs, innovation and diversity, and described how innovative practice is situated in communities of practice, whereas diversity was shown to be rather unlikely to exist at all in communities of practice. This finding did not really make sense – I had experienced diversity in CoP settings myself, and could not accept this finding, but for the moment the issue of diversity would have to be abandoned.

Part II ‘refused the premises’ being outlined in part I, i.e. that diversity seemed unlikely to exist in CoPs, and went on to exploring the relationship between innovation and diversity, which showed that this relationship may bring about either vicious or virtuous circles of diversity, seen to either impair or enhance diversity. But how is it possible for innovative practice to benefit from diversity, if diversity does not exist in communities of practice? In order for the innovers’ drivers (seen to enhance innovative practice) to be realized, diversity needs to be situated in communities of practice.

In the following, Part III will therefore take up the challenge of finding a proper theoretical explanation as to how diversity may enter and exist in communities of practice. In order to explain how this is possible, a different measure has to be applied. **Chapter 8** seeks to explain how it is – in spite of the previous theoretical findings – possible for diversity to exist in communities of practice, which is done by applying the CoP Framework. But before embarking on this discussion, chapter 8 provides a brief outline of the basic elements of the Innovers’ Paradox, as it has been described so far.

The final chapter in Part III, e.g. **chapter 9**, focuses on innovative practice, to see how, diversity and innovative practice, as ‘a construct’ embedded in communities of practice, may provide an interesting new understanding and perspective on diversity and innovation.

## **8. Diversity and cohesiveness in communities of practice**

We have already seen that innovative practice is situated in communities of practice (chapter 3), we have seen that innovative practice may benefit immensely from diversity (chapter 7), but in order for innovative practice to be able to benefit from diversity, diversity needs to be situated (theoretically) in communities of practice as well. The purpose of this chapter, therefore, is to find an explanation as to how it is possible for diversity to enter and exist in communities of practice, before we in chapter 9 can proceed to explore what it is about diversity that allows for the innoversity drivers to ignite in communities of practice.

This discussion is rather complex due to it involving:

- The innoversity paradox (diversity, cohesiveness and innovative practice).
- The dilemma between cohesiveness and diversity.
- Three destructive drivers (intergroup anxiety, miscommunication and goal incongruence).
- Communities of practice (joint enterprise, mutual engagement, shared repertoire).

We therefore need the CoP Framework to deal with this complexity, which allows us to frame the complexity by focusing on diversity and cohesiveness from the four perspectives outlined in the framework, i.e. practice, community, meaning and identity. This chapter therefore primarily focuses on the ‘organising’ of communities of practice, i.e. how their existence may emerge and be maintained; whereas chapter 9 focuses on the innovative practice in diverse communities of practice. However, before proceeding to the CoP Framework, we should briefly summarise the innoversity paradox, as it has been described so far in this thesis.

### **8. 1 The Innoversity Paradox**

In the previous chapters we have seen how diversity may ignite both constructive and destructive drivers, thereby both advancing and impeding innovative practice, which describes the inherent paradox in the relationship between innovation and diversity, i.e. the Innoversity paradox (to be illustrated in figure 8.1).

The difficult issue in facilitating innovative processes in organisational settings is the previously mentioned dilemma inherent in wanting to sustain cohesiveness and diversity at the same time. Diversity and intercultural theory does not seem to offer any viable solutions as to how cohesiveness and diversity may exist simultaneously, but by applying the CoP Framework, this chapter explores whether there is a way around this theoretical dilemma, which may allow innovative practice to benefit from diversity.

Regarding the paradox between diversity and innovative practice, knowledge management does not seem to offer any guidance as to how it may be approached, but by moving into the theoretic field of social and situational theory of learning (Wenger, 1998a), the Communities of Practice Framework seems to be able to accommodate this complex setting. This chapter sets out to test this assumption.

Different theoreticians refer to the diversity dilemma in different ways. Raghuram & Garud (1996) describe how diversity can provoke two different outcomes, where the virtuous outcome is when diversity enhances a group's ability to be cohesive and productive, and the vicious outcome is when diversity detracts from a group's ability to create something that is greater than the sum of its parts. Triandis, Hall & Even (1965) describe how dissimilarity of attitudes may result in higher creativity, whereas dissimilarity of abilities may result in lower creativity.

Sessa, Jackson & Rapini (1995) discuss diversity as both an asset and a liability, where the asset-part is seen to lead to better performance, whereas the liabilities of diversity may bring about lower job satisfaction, communication problems, and employee turnover. Ruderman et al. (1996) agree with the double sided sword of diversity, when arguing that diversity in teams is associated with innovation and problem solving stemming from the multiplicity of perspectives available; while at the same time being associated with low levels of group integration and higher turnover stemming in part from in-group biases, stereotyping, and clashing perspectives. Jacobs, Lützen & Plum (in print) explains diversity as a potential gold mine, which can also destroy the organisation, if conflicts, clustering, lack of cooperation, and retaining of knowledge is allowed to flourish.

Finally, Cox (1993) has shown that diversity can either enhance or hinder organisational performance, and emphasises that the core puzzle of diversity research remains to discover under

what conditions one may capitalise on the potential benefits of diversity, while minimising the potential for diversity-related phenomena to adversely affect performance.

This is also the purpose of this thesis, i.e. to find a framework, which may explain and contain the complexity of the Innoversity Paradox, by finding a way to capitalise on the innoversity drivers, while minimising the effect of the destructive diversity mechanisms. However, before such a path can be sought, we need to fully understand the essence of the paradox as it has been described thus far, which may be illustrated as below:

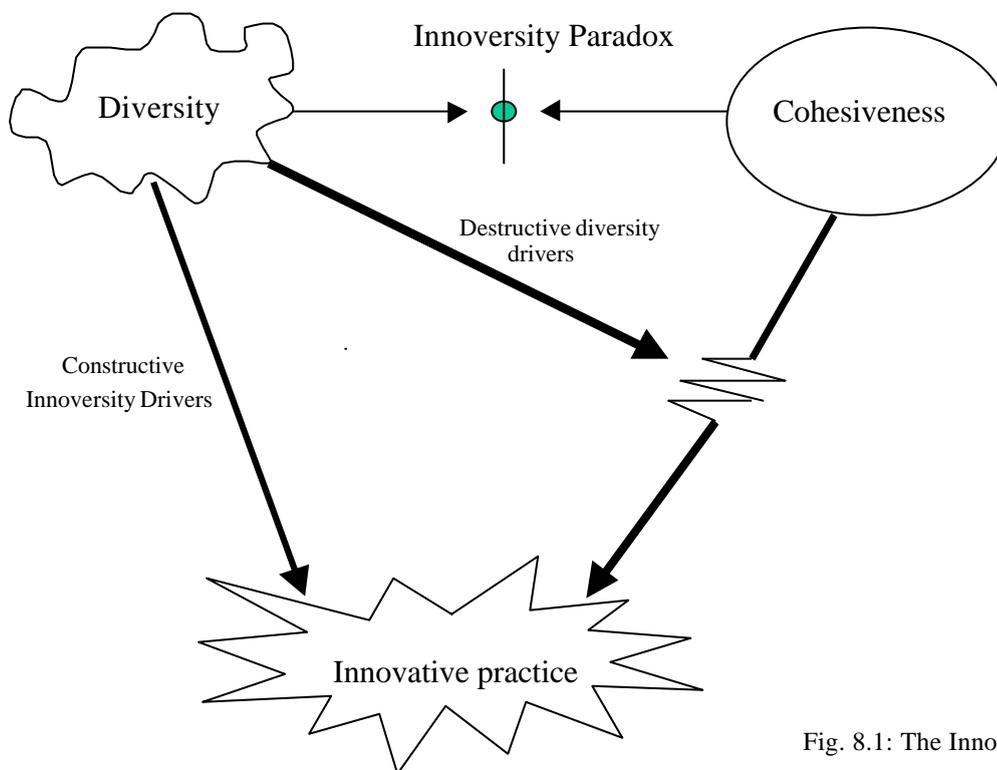


Fig. 8.1: The Innoversity Paradox II, slj

Figure 8.1 illustrates the complexity in the relationship between innovation, diversity and cohesiveness. The arrows indicating the dilemma between cohesiveness and diversity are rather symbolic, inherent in the contradictive relationship between diversity and cohesiveness. This relationship becomes less abstract with the first arrow, which reflects how diversity may impair cohesiveness as described by the destructive diversity drivers (chapter 6). The last arrow indicates how diversity may ignite the five innoversity drivers (chapter 7).

As illustrated in figure 8.2 below, we need to be aware of the destructive diversity drivers, which may bring about vicious circles, and thereby erode the potential brought about with the five innoversity drivers.

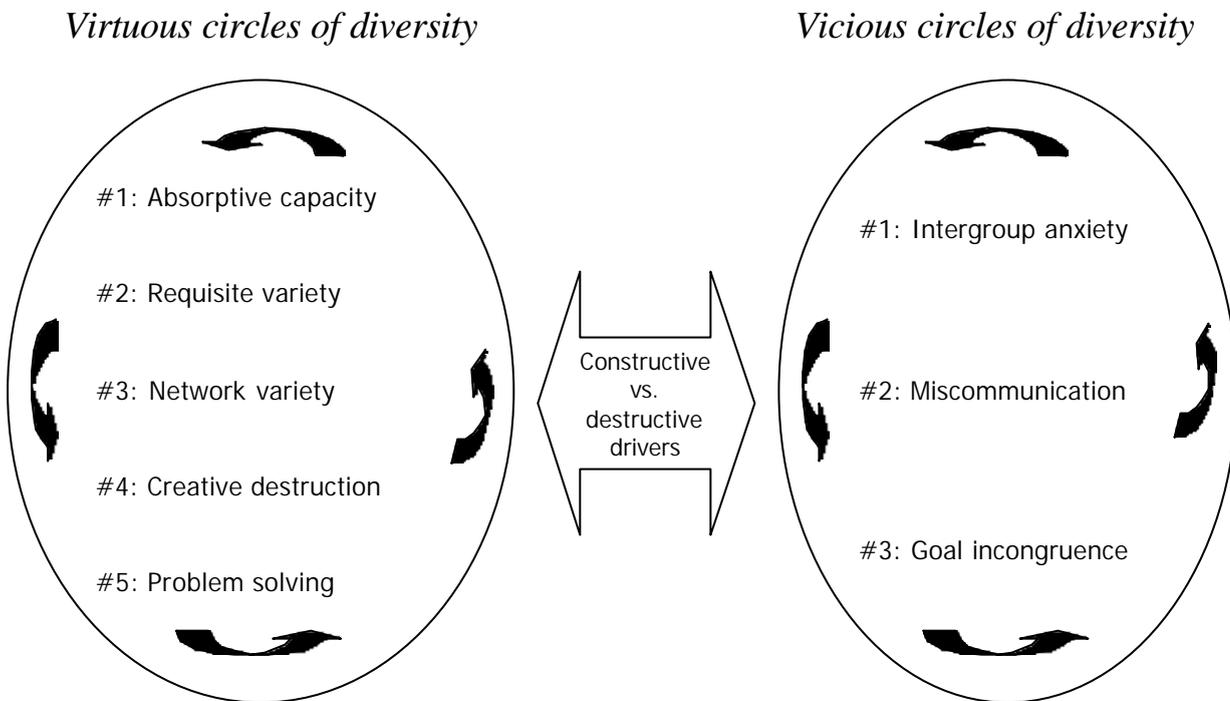


Fig. 8.2: Vicious and virtuous circles of diversity, slj

The Innoversity Paradox in the context of this thesis has been described by the different drivers being 'ignited' by diversity, leading to either vicious or virtuous circles of diversity, seen to either enhance or impair innovative practice in organisations

## 8.2 The Community of Practice Framework

Having summed up on the elements of the Innoversity Paradox, the CoP Framework will be applied to provide a theoretical explanation as to how diversity may exist in communities of practice. This is done by discussing practice, community, identity and meaning – to see whether these four perspectives on diversity and cohesiveness may enhance our understanding of their mutual relationship, and thereby situate diversity in communities of practice.

### 8.3 Practice

Practice is about doing. It is about how we carry out our work. As explained in the distinction between practice and process (chapter 4), where practice was described as participation and a way of describing what it means to participate; whereas process was more institutionalised and more about implied prescriptions for actions, than participation in action (Wenger, 1998a).

Practice is about the production and reproduction of specific ways of engaging with the world, concerning everyday activity and real-life settings. Practice reflects both the pursuit of joint enterprises and the personal relations involved in this pursuit.

Practice is what defines a community – and not the other way around, which is one of the most interesting aspects brought to bear by applying the CoP Framework on the relationship between cohesiveness and diversity. Usually within knowledge management theory, social capital and cohesiveness have been described as fundamental pre-requisites for innovation to occur (e.g. Nahapiet & Ghoshal, 1998; Sessa, Jackson & Rapini, 1995). But by applying the Community of Practice Framework for studying innovative practice, we get to see that maybe, just maybe – this is not so, maybe sometimes it operates the other way around! Let me explain:

The discussions of diversity in chapter 5 described how intergroup anxiety, similarity-attraction and ingroup favouritism would prevent dissimilar individuals from establishing interpersonal relations (cohesiveness). With cohesiveness being described as an important condition for individuals to engage in innovative practice, these findings made it rather difficult for innovation to exist in a diversity context.

However, within the CoP Framework and community of practice theory (Wenger, 1998a) cohesiveness is not necessarily a condition for (innovative) practice, according to Wenger it works the other way around: practice is what directs cohesion. Personal relationships seem to evolve around practice, thereby enabling cohesiveness (as will also be explored in 8.2), when people engage in a shared practice. This may seem as a hen-egg discussion of what ‘came first’, but seems important for our understanding of the relationship between diversity, cohesiveness and innovation! By applying the CoP Framework, we suddenly get to see that cohesiveness is not necessarily a pre-

condition for innovative practice; it may actually be (innovative) practice that provides the foundation for the creation of cohesiveness. This can be illustrated with the following example.

Three consultants from a large multi-national consulting company affiliated with the Copenhagen office, met at a Change Management conference in Oslo. They did not know each other before the conference, due to them working in different departments, i.e. consulting, accounting and taxes. They all found the topic of Change Management very interesting, and started discussing the possibility of developing a change management product, which could be ‘packaged’ and sold together with SAP-implementations. They were all very enthusiastic about the idea, and after they came back from Oslo every so often they met and developed their idea. Eventually they managed to develop the idea enough for them to present it to management, which encouraged them to proceed, thereby allowing them to meet more often.

*Example 1A*

This is not necessarily a very good example of diversity, but still it brings to the fore the issue that these people would probably never have established interpersonal relations and cohesiveness among themselves, had it not been for their mutual engagement in a common practice field. The example illustrates how cohesiveness need not necessarily be a pre-requisite for individuals to engage in a common practice field, and that it may actually also work the other way around, with cohesiveness and personal relationships being ‘born’ out of a shared practice!

*Continued from above....*

However, they needed more expertise for them to move on with the idea, so they began discussing it with others, such as OD-people and SAP consultants – and convinced them to participate in the meetings. They also made a search in KWorld (Consulting’s international knowledge-base), and found others from a range of different countries, who had previously worked with change management – and involved some of them as well (primarily through phone calls and emails).

After a few months, the practice field had brought together people from a range of different departments and countries, with very different backgrounds, but what they had in common and what brought them together, was a keen interest in their joint enterprise: change management and how their knowledge of CM could be converted into a product, which they themselves would then be able to sell, and eventually implement.

*Example 1B*

From this example we see that although their individual personal networks were involved when they came back and wanted to seek out others with experience in the field (a search among similar others), their use of KWorld granted them access to others, whom their personal networks would probably not have aided them in finding. The internal requisite variety at Consulting allowed for a practice field to be developed, which was made possible initially when the three participants in Oslo first met, and consequently with their use of KWorld. But the requisite variety only came into play due to the participants being brought together by their joint enterprise and their mutual engagement in a common practice field. Their engagements in a joint enterprise made them pursue diversity in techne and cognition, rather than avoid it.

This finding is supported by Wenger (1998a: 72), when he argues that participation in practice is the prime source of cohesiveness, due to the joint enterprise, mutual engagement and shared repertoire being described as “the three dimensions of the relation by which practice is the source of coherence of a community”, argued to informally bind the members. Wenger even advocates the importance of diversity when saying that “what makes engagement in practice possible and productive is as much a matter of diversity as it is a matter of homogeneity” (1998a: 75).

The propensity that individuals may actually be forming interpersonal relationships with dissimilar others due to their sharing of a common practice field, seems to work against what we have learned from social psychology, e.g. similarity-attraction theory (Byrne, 1971; Schneider, 1987) and ingroup favouritism (Pettigrew, 1998). How is that possible? In order to be able to explain this we must once again look into social psychology to see if the field offers any explanations regarding this ‘dissimilar-attraction’.

Within a ‘hidden corner’ of social psychology, the ‘attraction’ to dissimilar individuals is explained by the ‘complementarity-of-needs hypothesis’, which advocates that while greater attraction is generally expressed toward similar rather than dissimilar individuals, there are circumstances under which people are more attracted to dissimilar others. The complementarity-of-needs hypothesis proposes that people are attracted to others who possess characteristics that fulfil or complement their needs (Thornton, Ruckman & Gold, 1981).

But is the complementarity-of-needs hypothesis and the engaging in common practice enough for people to avoid experiencing intergroup anxiety? Probably not, individuals may very well feel discomfort and anxiety when engaging with dissimilar individuals, due to a previously conceived prejudice and leaps of abstractions used to categorise others. But as described in chapter 5, individuals engage in practice on the basis of expectation and trust, due to an anticipation of something to be derived from their engaging. Furthermore, it was stated that this expectation would be shaped by the preconditions individuals had about others. From what has been described above, it seems that this expectation may be primarily directed towards the action / practice, and only secondarily towards interaction, thereby indicating that individuals may for a moment be able to 'set aside' intergroup anxiety, in order for them to engage in practice.

This brief discussion of intergroup anxiety was primarily concerned with intergroup anxiety in the 'organising' and building of a community of practice, but it still remains unaccounted for whether a collective of dissimilar individuals engaged in this way will be able to sustain cohesiveness without experiencing intergroup anxiety (destructive driver #1), miscommunication (destructive driver #2), and goal incongruence (destructive driver #3). This all depends upon whether they may be characterised as a community (community = cohesiveness), and whether they are able to negotiate a common ingroup identity – which will be briefly discussed in the following, and further elaborated in part 8.6 (identity).

However, as of now we have established that, in spite of similarity-attraction and intergroup anxiety, dissimilar individuals may actually be informally bound and establish interpersonal relationships, due to their engagement in a common practice, and then gradually build cohesiveness. With community being defined as a collective of informally bound individuals, where practice is the source of coherence of that community, we move on to the next issue in the CoP Framework: Community.

## **8.4 Community**

Community is about cohesion and cohesiveness, it is about participation in practice and the personal relationships surrounding this practice, and making the mutual engagement dense enough to be able to determine the participants as members of a community. As described above, the practice may be described as an important source of cohesion along the dimensions of mutual engagement, joint

enterprise and shared repertoire (Wenger, 1998a). Due to communities of practice being described as self-organising, community in this context must connote cohesiveness. If cohesiveness is lacking the community will no longer be a community, and it dissolves.

In the Consulting example described above, the joint enterprise was Change Management (CM) and the development of a CM-product. Their mutual engagement emerged from the way they did things together and collaborated in building a new product, and the shared repertoire is what they built up between them in the process of their engagement, i.e. the competences they have built together about change management, which is continually negotiated between them. In the following we shall elaborate on each of these three dimensions of community cohesiveness.

#### **8.4.1 Joint enterprise**

The joint enterprise characterising a community of practice is about what the participants in the activities and practice of the CoP are there to do, and is continually negotiated among the participants. It is the joint enterprise that drives the individual to participate in the community in the first place – it is what defines the practice field, and may be described as the primary reason for individuals to establish relationships with other participants. Negotiating a joint practice is about negotiating a shared goal and purpose, which directs what they do and the activities they pursue. But a joint enterprise may also be described as more than merely a goal (Wenger, 1998a) due to very often being unarticulated and difficult for the participants to define. The joint enterprise is being “defined by the participants in the very process of pursuing it” (Wenger, 1998a: 77). We could also make use of Allport’s (1954:264) definition of cooperation for describing the essence of joint enterprise, e.g. by defining a joint enterprise to involve “sharing the labor and the fruit of labor” – which I perceive to be a very good description. However, is it likely that the sharing of a joint enterprise may institute a sense of community, which is ‘dense’ enough to reduce intergroup anxiety and goal incongruence (diversity drivers #2-3) in a diverse setting?

Not quite – but again social psychology may provide further explanation as to how it is possible – as I keep insisting that it is. This was also illustrated in the Consulting example, where the joint enterprise brought them together as a community, in spite of their differences, and later in the process, even because of their diversity (in techne). The explanation of this may be found within

Realistic Group Conflict Theory (Sherif, 1966; Gaertner et al, 1993; Gaertner & Dovidio, 2000), where the institution of superordinate goals is described as one way to reduce ingroup favouritism and intergroup anxiety, by allowing a group of perceived dissimilar individuals to cooperate on a superordinate goal; which is perceived to alleviate intergroup tension better than other techniques. The basic principle is that the institution of superordinate goals may be able to shift group boundaries so that previously separate groups come to view themselves as one, which is done by working toward a superordinate goal, thereby decreasing the tendency for individuals to cling too tenaciously to their previously conceived ingroup and outgroup categorisations.

According to Sherif & Sherif (1966) superordinate goals, exemplified by the common opportunities for gain, effectively weaken prior group boundaries, increase interdependence and foster positive attitudes and a new perception of former 'adversaries'. These propositions are also supported by cooperation theory (Tjosvold, 1984), which suggests that groups work best together (cooperate) if they share congruent objectives (Chatman, 1998).

An important parallel may be drawn between the superordinate goals described by Realistic Group Conflict Theory (Sherif & Sherif, 1966) and the joint enterprise of a community of practice. Applying these explanations from social psychology allows us to understand how it is possible to reduce bias and increase cohesiveness in a community of practice characterised by diversity. If the joint enterprise is perceived as a superordinate goal, it suddenly becomes an incentive for individuals to collaborate and assist each other in pursuing a joint enterprise, even if this collaboration previously seemed impossible due to intergroup anxiety and ingroup favouritism.

This issue is closely related to the issue of communities of practice as social categories, Explaining this process in more detail requires an elaboration on the issue of identity (common ingroup identity), and is therefore described in part 8.6 (Identity).

#### **8.4.2 Mutual engagement**

Mutual engagement refers to the interpersonal relations established around what the members are there to do; it is about talking and interacting around a common practice field. "Being included in

what matters is a requirement for being engaged in a community's practice, just as engagement is what defines belonging" (Wenger, 1998a: 74).

Mutual engagement is therefore seen as describing the engagement and participation sustained by the interpersonal relationships giving rise to the development of a community. "Practice does not exist in the abstract. It exists because people are engaged in actions whose meanings they negotiate with one another (Wenger, 1998a:73). A community arises when it sustains dense relations of mutual engagement organised around what the participants of the CoP are there to do.

As described in part 8.2 (Practice), dissimilar individuals engage because their need for complementarity exceeded their need for similarity. In the Consulting example, there was a need for complementarity/diversity in techne, a need stemming from their practice field, which instituted the mutual engagement of dissimilar individuals. But once such dissimilar individuals become mutually engaged in a common practice, how is cohesiveness maintained?

One of the fundamental issues in maintaining cohesiveness in a diversity context, is to get individuals to recategorise dissimilar individuals as ingroup members in order to increase mutual trust (Chatman, 1998). A common prescription for circumventing the barriers between ingroups and outgroups is to break down the group boundaries that result from categorisation (Nkomo, 1995). This aspect of mutual engagement is closely related to identity, and is therefore also referred to part 8.6 (Identity).

### **8.4.3 Shared repertoire**

The third characteristic of practice as a source of community cohesiveness is the development of a shared repertoire. "The repertoire of a community of practice includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions or concepts that the community has produced or adopted in the course of its existence, and what have become parts of its practice" (Wenger, 1998a: 83). This means that a community of practice is in a continuous process of negotiating new routines, words, symbols etc. According to Wenger (1998a), a repertoire reflects a history of mutual engagement in practice, and is a resource for the negotiation of meaning.

The previously described CoP at Consulting provides an interesting example of how such shared repertoire is used for creating and sustaining a sense of community, just as it illustrates the importance of a history of mutual engagement as a source of coherence in a CoP:

One day they all met over lunch, because the Japanese consultant they had 'located' via K-World, and with whom they had already had a series of enthusiastic discussions via email and on the phone was in Copenhagen for other reasons, but they had arranged to meet up for lunch, now that he was in town. The two SAP consultants from the IT-department were also present, just as was one of the HR-group. So in a few months time, their initial ideas developed in Oslo, had now grown to involve 7 people.

They sat around the table talking and discussing a range of different issues regarding the need for empowerment, and what management can do. At a certain point the Japanese consultant had to pause the discussion for a minute, he had noticed that the others referred to 'the pink cafeteria' a few times, but did not understand what they meant. They all smiled and the accountant explained how the wordings had been phrased at the conference in Oslo, referring to the President of an American corporation who had asked for volunteers to shine up the cafeteria, and they could do it any way they wanted to (they had just embarked on an empowerment initiative, and he was showing his good intentions). They painted the cafeteria pink – and when different employees complained about the pink cafeteria, the president would say that he had left the decisions in the hands of his employees, and when he did that he also agreed to what ever choice they would make. So the pink cafeteria became a symbol of 'living with and accepting the consequences of empowerment'.

This story had been told at the conference in Oslo, and the three participants in that conference has used it several times in their previous meetings, so by now they all know what it meant. The story had been passed on to the rest of the participants, and 'the pink cafeteria' was now a commonly understood wording among them.

*Example 1C*

This example is again rather primitive, but it illustrates how a repertoire of knowledge is created and negotiated in a community of practice. In the episode depicted here it is not unlikely that the Japanese consultant then remembers a different example of 'living with the consequences', which then makes him share this story with the group, and if his story is 'accepted' as yet another discourse for talking about consequences, the narrative may become part of their shared repertoire, and their competence regime.

The creation of such a shared repertoire in a community characterised by diversity, however, requires for individuals to be able to communicate and understand each other. In chapter 6 we learned that diversity may bring about miscommunication, due to messages not being interpreted as intended, and due to the lack of a common language, which can ease the socialisation process

(destructive diversity driver #2). However, the sharing of narratives, as seen in the Consulting example, may actually function as a vehicle driving the formulation of a common language, thereby furthering the socialisation process, but not necessarily prevent miscommunication from happening. This process may describe how they are able to make use of and exploit their diversity in techne, while at the same time allowing them to construct a common context and language in which they can bridge their cognitive diversity.

The shared repertoire of a community of practice includes “the discourse by which members create meaningful statements about the world, as well as the styles by which they express their forms of membership and their identity as members” (Wenger, 1998a: 83), and is therefore closely related to aspects of meaning, which will be discussed in the following section.

## **8.5 Meaning**

“We produce meanings that extend, redirect, dismiss, reinterpret, modify or confirm – in a word, negotiate anew – the histories of meanings of which they are part. In this sense, living is a constant process of *negotiation of meaning*” (Wenger, 1998a:52-53).

The negotiation of meaning is thereby an important aspect in the negotiation of competence regimes, and an important aspect of innovative practice. According to Steyaert, Bouwen & Van Looy (1996:69) innovation is about “how the actors experience the innovation context, how they make meaning out of the diverse and often conflicting alternatives for innovation, and how they negotiate a viable alternative that allows joint future actions without necessarily demanding unanimity, but with enough involvement to engage the actors”. Meaning and practice is therefore closely related.

New knowledge does not arise out of nothing, just as problems to be solved do not present themselves as a givens. Problems, which are usually what directs our engagement in a practice field in the first place, are constructed from problematic situations. “ In order to convert a problematic situation to a problem, a practitioner must do a certain kind of work. He must make sense of an uncertain situation that initially makes no sense” (Weick, 1995). This sensemaking involves negotiation of meaning, first of all with the self / identity, to understand whether our cognition has

any recollection of previous actions similar to the one encountered; and secondly with the community of practice of which we are part.

When we engage in practice we do so because our engagement is meaningful, we participate in activities that we care about or that pose challenges to us. An interesting example of such meaningful engagement is the ‘experiment’ described by Birgitte Mølgård Hansen (Appendix G), a shared practice, which they named ‘Skibet’, and in which their primary reason for participation was that their engagement was meaningful to them (see also example 2A below). Meaning may therefore generate cohesiveness, due to participants experiencing their engagement in practice as meaningful.

According to Wenger, “the social production of meaning is the relevant level for talking about practice” (Wenger, 1998a:49), which means that innovative practice is sustained in the process of negotiation between members of the organisation. And according to Bouwen, “organizing for innovation can be considered from a social constructionist perspective as a meaning creation process (Bouwen, 1992). Meaning is in this perspective constructed by building meaning constructing relationships around topics of relevance for the parties involved, such as what may be described to happen around a practice field in a CoP.

However, if the different parties lack a common language, have difficulty in trusting each other due to extensive stereotyping and cannot agree on goals and values, it becomes highly problematic to engage in negotiations of meaning. This means that the social construction of new knowledge, i.e. the innovative practice inherent in combination and exchange, is highly dependent upon the organisational ability to engage in discursive practice (Steyaert et al, 1996). This indicates the need for individuals to be able to engage in what gives meaning, and such discursive practice may be defined and shaped in the creation and use of the competence regime of a CoP.

Organisational innovation is a socially constructed event where new meanings are constructed through conversations and interactions, and such conversations and interactions are difficult to cater for in an environment characterised by a high degree of intergroup anxiety. The ability to engage in negotiation of meaning therefore depends on the experience of the self as pertaining to the group with which the negotiation takes place, which emphasises – once again – the importance of identity.

## 8.6 Identity

According to the CoP Framework, we, as individuals, negotiate our identity through our participation in different communities of practice, where we negotiate our ways of being a person, of being an identity in context (Wenger, 1998a). Identity is a matter of negotiated experience; used to define who we are by the ways we experience our selves through our participation in different social categories, whereby community membership becomes a matter of category membership. Communities of practice are thereby described as new social categories and identity groups, just as our identity is described as a nexus of multi-membership in different communities of practice; by the ways we negotiate our various forms of membership into one identity (Wenger, 1998a). “Identity in practice is defined socially not merely because it is reified in a social discourse of the self and of social categories, but also because it is produced as a lived experience of participation in specific communities” (Wenger, 1998a: 151).

This notion of identity as being construed through our engagement in collaborative interactions is also sustained by Turner (1985:34) when he argues that, “there is a strong implication that the general process underlying mutually cooperative intentions and expectations is the extent to which players come to see themselves as a collective or a joint unit, to feel a sense of ‘we-ness’, of being together in the same situation facing the same problems”. This is exactly what seems to happen when individuals engage in the practice of a community, where they – as Wenger described above – also may be seen to engage in the construction and negotiation of identity through processes of identification, where a community of practice, in this context, may be defined as a new social category/ingroup/social identity grouping.

This aspect of the CoP Framework, i.e. identity, is highly important when seeking to explain how diversity may be possible in communities of practice. As was described in chapter 5, identity is one of the central issues of diversity, and was initially what seemed to institute most barriers to cohesiveness and the existence of diversity in communities of practice. From what we learned in chapters 5 and 6, identity is what makes individuals categorise, first the self and then others, thereby instituting ingroups and outgroups, argued to give rise to ingroup favouritism and intergroup anxiety. However, from the findings made thus far it seems to be possible to sustain a certain degree of cohesiveness in communities of practice.

In part 8.2 we learned that individuals may be attracted to dissimilar others due to the complementarity-of-need hypothesis and the common engagement in a shared practice which was

described to provide for cohesion. As explained then, these factors may allow for a community of practice to emerge, even among dissimilar individuals. However, it still remains unaccounted for, whether a collective of dissimilar individuals engaged in this way will be able to sustain cohesiveness without experiencing intergroup anxiety (destructive driver #1), miscommunication (destructive driver #2), and goal incongruence (destructive driver #3). Moreover, can cohesiveness/the community be maintained and sustained? The following example from Skibet suggests that it can:

'Skibet' (the ship) may be described as a community of practice, where the three participants have been brought together by mutual engagement in a common practice field: creativity. The members all have a keen interest in learning and developing their creativity. The three participants may be described as highly dissimilar and representing very different social identity groupings.

What is primarily interesting about Skibet is how their participation in 'Skibet' (where they aim to develop a creativity product) seems to allow them to play with identity roles; they put their normal identity on hold for a moment, and investigate the creativity possibilities offered when doing so. This freedom from former ingroup identities seems to be sustained by the feeling of identification with the practice field, with the other participants and with the community as a whole.

And yes, it does bring about a certain degree of uncertainty, Birgitte explains, but such uncertainty is necessary when wanting to explore the practice field together, and paradoxically – this seems to be exactly what holds them together. However, cohesiveness does not come about easily, there is a price, and they 'accept' this uncertainty and the liabilities of diversity, just as they accept the miscommunications, quarrels, discussions etc, because engaging in this way with each other is a very important means for them in pursuing what they perceive to be important.

*Example 2A, see Appendix G for the interview with Birgitte Mølgård Hansen, participant in Skibet*

From this example (2A) two important issues may be learned. Firstly, identity and identification with the practice field as well as with the community, may be seen as important sources of cohesiveness. The discussion of practice as a source of coherence was already made in part 8.2, and will not be elaborated on further here. In this part we will however elaborate on the issue of identification and identity, and how it seems possible for dissimilar individuals to be able to negotiate a common identity, which allows them to reduce intergroup anxiety, goal incongruence,

and miscommunication. Secondly, we saw that practice brought about cohesiveness. However, from this example it seemed that the ability to create new knowledge, when practice was characterised as innovative, was seen to generate cohesiveness as well. Be that as it may, this discussion of innovative practice sustaining cohesiveness will not be elaborated here, but is deferred to chapter 9.

Looking once again into social psychology to seek to explain what was seen in example 2A, that individuals may actually be able to (not only build but also) maintain a sense of community - in spite of diversity – we come across the Common Identity Group Model (Gaertner & Dovidio, 2000), which may be able to provide a theoretical explanation of how it is possible.

Gaertner & Dovidio (2000:XIII) argue that it is possible to reduce the vicious circles of diversity when they advocate that “changing the nature of categorization from ingroups and outgroups to one more common inclusive identity can harness the cognitive and motivational forces of ingroup favouritism and redirect them to reduce bias”. What they propose in the Common Ingroup Identity Model (CII Model) is essentially that establishing a new common ingroup identity in a diversity context will allow for individuals to recategorise former adversaries (outgroup members) into the ingroup, and thereby make use of the dynamics of ingroup favouritism to reduce intergroup anxiety, goal incongruence and miscommunication. They base this model on findings, showing that evaluations of former outgroup members significantly improved when these were identified with the superordinate identity of a common ingroup (Gaertner & Dovidio, 2000). One of their studies was conducted in a multicultural high school, and showed that the more students reported cooperative interaction with students from other groups, the weaker the ‘us vs. them’ boundaries they experienced (Gaertner & Dovidio, 2000).

They thereby propose to make individuals perceive dissimilar others as pertaining to the same ingroup, and thereby direct the positive associations normally granted to ingroup members to previous outgroup members, which reduces the degree of intergroup anxiety – due to the previously dissimilar individuals now experiencing instead perceived similarity. Or as Gaertner & Dovidio (2000:9) put it: “By facilitating a recategorisation of original outgroup members as now members of the ingroup, the forces of ingroup favouritism will now apply to these representatives”.

The Common Ingroup Identity Model is thus an important framework, which may explain what happens in a community of practice when a new common ingroup identity emerges, as was seen in the example from Skibet. However, a problem surfaces when applying the Common Ingroup Identification Model (CII Model), proposed by Gaertner & Dovidio (2000), to explain how intergroup anxiety, goal incongruence and miscommunication may be reduced by the emergence of a common ingroup identity. Their descriptions of how a common ingroup identity is created, usually involves outside intervention and facilitation. This makes it difficult to apply their framework directly to communities of practice, due to CoPs being self-organised, which means that the common ingroup identity emerges among the participants themselves, without outside interference or facilitation. Wenger (1998a) however proposes that this is what is seen to happen when CoPs self-organise, due to the fact that CoPs develop norms and procedures whereby members' group-related values, beliefs, and attitudes are likely to enhance their sense of group identity and increase group cohesiveness (Wenger, 1998a).

However, and in spite of the interventionist approach, Gaertner & Dovidio's (2000) CII Model remains relevant to describe how it is possible for dissimilar individuals to sustain a certain degree of cohesiveness in a community of practice. Their model provides interesting perspectives explaining how the destructive consequences of intergroup anxiety, goal incongruence and miscommunication may be reduced when diversity (perceived dissimilarity) is replaced by perceived similarity and a common ingroup identity in a community of practice. The reason that their contribution is important is that this is exactly where Wenger (1998a) seems to fall short. In his description of communities of practice as social categories and sources of identity 'creation', Wenger (1998a) does not explain how this would apply to dissimilar others. Recategorisation theory and Gaertner & Dovidio's CII model does. Wenger (1998a) describes the self-organising of individuals based on their common pursuit of a shared practice – whereas the CII model fails to address this issue of self-recategorisation. Ultimately it seems important to emphasise that both parties however subscribe to identities as social phenomena, and that the individual negotiates his identity from participation and pertaining to a multitude of different identity groupings, i.e. an identity, which Weick (1995:18) describes as "parliament of selves". Thus there seems to be a range of indications towards perceiving communities of practice and social categories as different perspectives on the very same issue: that people tend to categorise themselves and others into groupings, from which they also derive their own identity through identification. Wenger describes

these groupings as communities of practice, and social psychology describe them as social categories.

The two frameworks taken together thereby provide a preliminary explanation as to how it is possible for individuals to maintain cohesiveness in a community of practice characterised by diversity. When continuously insisting on the assumption that communities of practice may possibly be able to contain both cohesiveness and diversity, the combination of the CII Model and the CoP Framework provides an explanation as to how this is possible, i.e. that communities of practice may emerge and exist among dissimilar individuals.

## **8.7 Summing up on cohesiveness and diversity in a community of practice**

The chapter was rather complex, due to it including all of the different theoretical findings regarding the relationship between diversity, cohesiveness and communities of practice. Applying the CoP Framework framed the discussion of cohesiveness and diversity in Cops from four different angles or perspectives: practice, community, meaning and identity, thereby establishing four rather different but complementary incision points to explain the relationship.

The practice perspective provided an explanation as to how it is possible to situate diversity in a CoP, by building on Wenger's (1998a) description of practice as the prime source of coherence in a CoP and the complementarity-of-need hypothesis from social psychology. The community perspective elaborated on what it is that brings individuals together, and what it is that describes mutual relations as a community. The dimensions used to describe this were joint enterprise, mutual engagement and shared repertoire. The sense of community was illustrated by applying examples on community and practice building. The meaning perspective emphasised the importance of meaning and negotiation of meaning, and how this negotiation of meaning becomes an important means for cohesiveness and community building, due to individuals engaging in what gives meaning to them as individuals.

The identity perspective was one of the most important perspectives offered by the CoP Framework, in that it provided an understanding as to how a common ingroup identity may emerge in a CoP, thereby reducing intergroup anxiety when individuals recategorise former adversaries as

ingroup members. This process of recategorisation, which is not described by Wenger (1998a), was described by making use of the Common Ingroup Identity Model from social psychology. From this it was described how CoPs may actually be seen as social categories.

One of the most important issues presented in this chapter, however, was the finding that cohesiveness need not necessarily precede practice, i.e. that cohesiveness can actually be sustained by mutual engagement in a common practice and a common ingroup identity, and need not be a prerequisite for individuals to engage in innovative practice.

Having now provided a theoretical explanation as to how it is possible for diversity and innovation to co-exists in communities of practice, we can move on to the focal issue of this thesis: how innovative practice may benefit from diversity in communities of practice. That is exactly what the next and final chapter seeks to do – by ‘igniting’ the innoversity drivers in communities of practice to see what happens...

## **9. Diversity and innovation in communities of practice**

We have now learned that diversity may be found in communities of practice, thereby making it possible for innovative practice (situated in CoPs) to benefit from diversity. We have also learned that individuals are ‘attracted’ to communities, not necessarily because of the personal relations within them, but due to the possibility of engaging themselves in a specific practice field. A finding that indicates that cohesiveness and personal relationships do not necessarily precede innovative practice, it may actually be innovative practice which proceeds cohesiveness and personal relationships.

However, it needs emphasising that even though cohesiveness and a common ingroup identity may exist in a community of practice, this does not negate the liabilities of diversity. They may be reduced to the extent that individuals do not avoid contact, or that they are able to collaborate and engage in combination and exchange – but the same groups are very likely to experience the consequences of intergroup anxiety (however less intense due to the sharing of ingroup identity), miscommunication and goal incongruence. What we have seen however, is that these consequences do not necessarily impede cohesiveness and the sense of community, but as we shall see in this chapter, some of these ‘liabilities’ may actually prove beneficial to creative destruction and innovative practice.

What then remains is to see and understand what happens to the previously described innovers drivers when they are embedded in communities of practice characterised by diversity. This is pursued by initially describing how diversity in general may be seen to drive innovative practice, by creating and maintaining a tension between the experience of the individual and the competence regime of the community. When this tension has been described, we may explore how this tension may drive the innovative practice in a community – by possibly igniting the innovers drivers. We will not pursue a detailed description of the innovers drivers once again (see chapter 7), but will be illustrating the dynamics of the most important drivers, and see how they ‘interact’ with the destructive drivers of diversity.

At the end of the chapter the perspective is broadened to look at innovative practice at the organisational level, when the organisation is viewed as a constellation of different communities; to

see how and when the tension between the competence regimes of CoPs and organisational knowledge may enhance overall organisational knowledge.

### **9.1 Diversity ‘pulling’ innovative practice in CoPs**

In Wenger’s description of how learning is seen to take place in CoPs, he describes a process of legitimate peripheral participation (see chapter 3), where “the competence of the community is pulling the experience of the person until there is enough overlap for the person to become a full member” (Wenger interview, see Appendix C). This is what happens when individuals “align themselves with a regime of competence” (Wenger, 1998a: 138), as when newcomers enter a community they, in order to achieve the competence defined by a community, learn and transform their experience until it fits within the regime. This perspective on the relationship between competence and experience, where competence is seen to drive experience, is however more about learning, than it is about creating new knowledge. However, it is important as this learning may enhance absorptive capacity in a CoP.

The focus here, however is on experience pulling competence, i.e. when the experience of the individual challenges and extends the competence of the community, thereby creating new knowledge. In order for such experience to drive competence, there needs to be a certain tension between the two, which may be instituted by cognitive and techne diversity in a community of practice.

In my interview with Wenger (Appendix C), he illustrated how individual experience may be seen to pull the competence of a community, by referring to my own experience as participant at the conference in San Diego: “Sometimes you are a member of a community and you go out and have an experience like you are doing right now, you’ve come to San Diego and you meet all these people and hear them talk, which changes the way you see things. Then you go back to your community and you kind of pull your community along into your experience, saying hey – wow, this is great. In that case you have the experience pulling the competence”.

Diversity may be seen as an important means to drive this tension between the experience of the individual and the competence regime of the community, when the experience of individuals

pertaining to different social categories, pulls the competence of the community into their own experience (Wenger, 1998a). Wenger (Interview) puts it this way: “Ethnic membership is a form of experience that is outside of the community in which people participate, and one of the ways that you can create tension is through multi-membership, i.e. that people belong to several communities (or social categories) at the same time, and because they have an identity, they create bridges between the different forms of competencies” (Appendix C). These bridges are created in the successful negotiation of meaning within the community, which then expands the regime of competence, allowing for the creation of new knowledge.

This tension driven by diversity may also be illustrated as in figure 9.1: as the tension between the experience of the individual (continually altered through his participation in different social categories) and the competence of the community (continually altered through the participation of members pertaining to different social categories). The model is a hypothetical example, illustrating a theoretical example of diversity in a community of practice, and how this diversity may be seen to drive the tension between experience and competence.

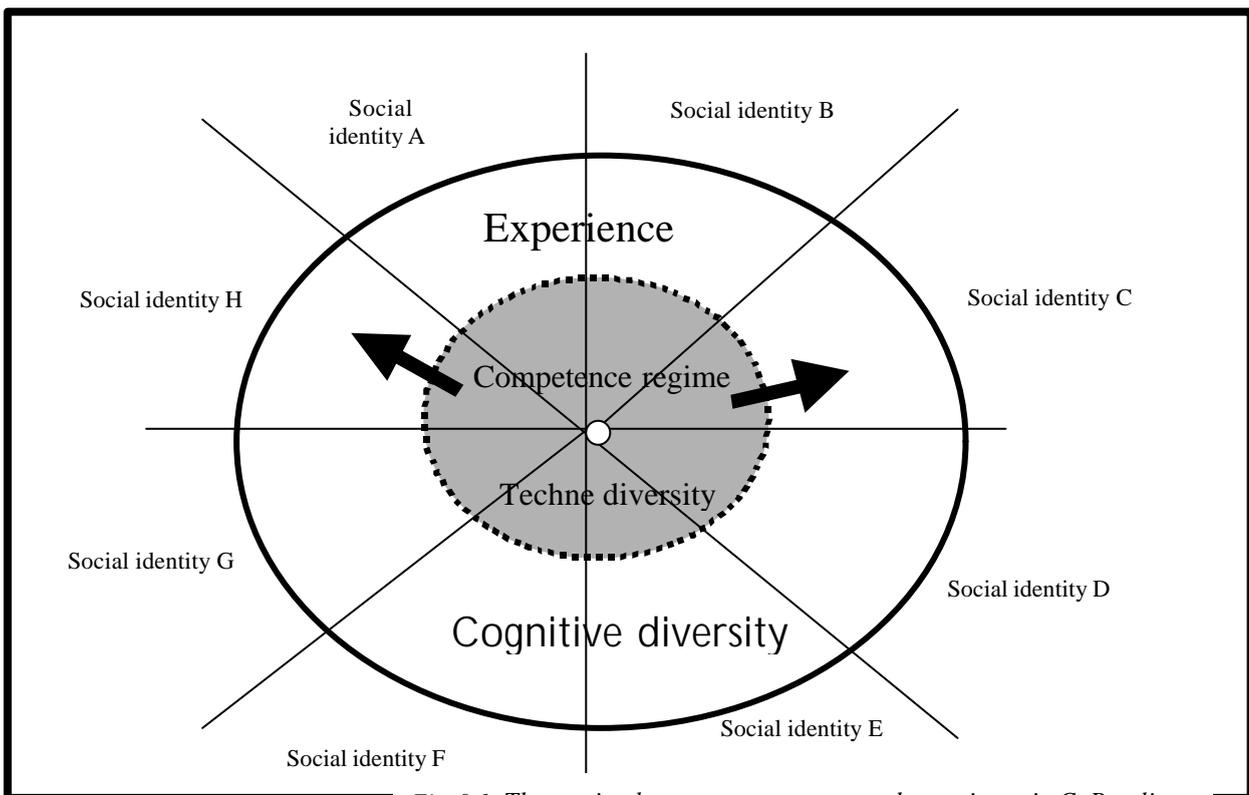


Fig. 9.1: The tension between competence and experience in CoPs, slj

The outer circle illustrates the boundary of a community of practice, and each of the 'slices' marked with different social identities represents a participant who pertains to a specific social identity group. The example here, therefore, depicts a CoP characterised by diversity in both techne and cognition, due to the eight members pertaining to perceived different social categories.

As we described in chapter 8, participants are seen to negotiate a common ingroup identity when they participate in a community of practice, due to practice connoting doing, and doing connoting identity. But that is not the interesting part here – here we are not interested in what makes them similar (or perceived similar), here we are interested in what makes them different!

The grey field in the centre of figure 9.1 depicts two different aspects in a CoP: firstly, it describes the competence regime of the community, which is the shared repertoire of the community negotiated among the participants. Secondly, it describes the techne diversity represented by diversity, which is an important aspect of the requisite variety of the community (to be elaborated later in this chapter). The grey is thus what determines the community as a community, just as it is from this mutually defined 'area' that the common ingroup identity may emerge.

The next circle surrounding the competence regime represents two other aspects of a CoP: firstly, it represents the experience of the individual, which is seen to be closely interlinked with his/her social identity grouping and habitus. Secondly, it represents the cognitive diversity represented in the community as a whole.

The dotted line between the experience of the individual and the competence regime of the community illustrates the tension, and is the central issue in the model, where the arrows demonstrate what happens when this diversity creates a tension, eventually leading to a re-negotiation of the existing competence and thereby the creation of new knowledge.

The example of my participation in San Diego could be developed further, if I define my salient social identity as pertaining to the theoretical world, thereby representing an aspect of diversity in a community of practice, say at KUBUS<sup>6</sup>. This social identity was then what drove my participation in the conference. When I came back from San Diego with new experience about communities of

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<sup>6</sup> The network-group I pertain to at Kubus, is one where we discuss innovation and creativity in organisations! The other participants in this CoP are all professionals and practitioners, whereby my association with the theoretical worlds provides a certain degree of diversity in techne and cognition in our collective.

practice, I would then be able to pull the competence of my CoP into my experience by sharing my learning and enter into a negotiation of how this learning could benefit our practice in the community. If our CoP then made use of the knowledge of communities of practice, and applied it in our words and actions, it would be part of our shared repertoire, our defined best practice, and if converted into action and practice – new knowledge would be created.

As social identities ‘meet’ in the contexts of communities of practice, they negotiate a nexus for contact between different social categories and communities. The individual member representing a different category within the community thereby becomes a *broker* between different communities. It could be said that I was brokering between the CoP-community (San Diego + egroup) and KUBUS, when I brought home new experiences from my participation in the CoP-community. This brokering enables a negotiation of meaning not only within the community itself, but also between the different communities within the organisation, i.e. between the competence of the community and the organisational knowledge regime. This brokering between communities will be further developed in part 9.4.

One could, however, imagine that after a while, when all the different ‘experiences’ have been shared, negotiated and reified into the competence of the community, that the tension would diminish and no new knowledge would be created. However, due to members continually engaging with their respective social categories, their experiences are altered (and driven by the other innoversity drivers) which will then require new negotiations of competence within the community. Furthermore, communities of practice are likely to have ‘open’ boundaries, which make it rather easy for new members to join. Diversity in techne and cognition thereby provides the potential for maintaining the tension, as long as individuals maintain their personal ties with their respective social categories. “By keeping this tension between experience and competence alive, communities of practice create a dynamic form of continuity that preserves knowledge while keeping it current. They can take up problems before they are recognized institutionally” (Wenger, 1998a:252). In the next part of this chapter we discuss how each of the innoversity drivers presented in chapter 7 may keep this tension alive.

## 9.2 Diversity drivers and innovative practice

The discussion above about the tension between the experience of the individual and the competence regime of the community was rather theoretical and abstract; so in order to add ‘some flesh and blood’ to the description above, it will now be described how the innovers and diversity drivers are seen to keep this tension alive.

When members of CoPs characterised by diversity engage in combination and exchange, they do so because of their mutual engagement in a common practice field, and their diversity may provide the necessary tension between experience and competence, which will allow for them to develop their competence regime. This may be illustrated by making use of the following example:

The people from Consulting kept meeting, primarily over lunch, where vivid discussions seemed to emerge; and sometimes these discussions could become rather aggressive. However, the group was used to these clashes – especially between the SAP-consultants and the newly joined HR-consultant.

Before the HR-consultant joined the discussions (without ever discussing the issue), the group had just assumed that the CM product was to be applied during and after the SAP implementation, thereby focusing on how users would benefit the most from the system. The HR-consultant, however, wanted the CM to come in before the implementation of the system, thereby allowing for the system to be adjusted to the more human aspects of the organisation, and not only be directed and designed according to IT-concerns.

The HR-consultant did everything in her power to ‘convince’ the others of the importance of the human aspect; and when she did not succeed it brought about these almost aggressive discussions and clashes. These conflicts arose partly due to – she felt – their resistance towards adapting or at least trying to understand her point of view. Furthermore, the SAP people would feel that her insisting was more a critique of them and their approach to IT, than it was about ‘finding a better way’.

The HR consultant never managed to convince them into ‘packaging’ CM before the SAP implementation, and she had finally agreed to do the CM during the SAP-implementation. However, the discussions were not totally in vain –the human aspect had gained momentum in their common practice, and most of them had altered their understanding of the human aspects of organising. Especially the SAP consultants experienced how their increased knowledge of these human aspects enhanced their competences as SAP consultants in the process of estimating what kind of ERP the customer would need.

*Example 1D*

Many of the destructive and constructive innovers diversity drivers are involved in the situation depicted in example 1D and even though it is rather simple, it may provide an understanding of the relationship between diversity and innovative practice. So instead of presenting a thorough discussion of each of the drivers (which was done in chapter 7), to see how they maintain the tension and enhance innovative practice, the example above allows us to elaborate on the drivers in a less theoretical fashion.

What we see in the example above is creative destruction as probably the most important means of testing the existing competence against new experiences (the experience of the HR consultant), thereby either confirming and validating the existing regime, or conversely throw it into question, forcing the CoP to seek a more coherent explanation of this experience. Before the HR consultant came to the group, they had – without being aware of it – established that CM would best be applied after the implementation of SAP. When she entered the CoP, she began testing and questioning this assumption and the existing competence regime, thereby (possibly) providing for creative destruction of the existing regime, while at the same time providing for its alteration. However, in order to do so conflicts and discussions will arise, the negotiation of meaning will be ‘disturbed’ by the goal and value incongruence between the two fields of HR and IT. Their different mental models make it difficult to communicate and reach accordance, but in order for new knowledge to be constructed, very often ‘old’ knowledge needs to be destroyed. Even though this process of creative destruction may be rather painful (as described in the example), it illustrates the critical role of the ‘vicious’ diversity drivers in providing for creative destruction to take place. This creative destruction and requisite variety may also be described as: “Vivid words draw attention to new possibilities, suggesting that organizations with access to more varied images will engage in sensemaking that is more adaptive than will organizations with more limited vocabularies” (Weick, 1995:4).

The consultants’ competence regime is negotiated and developed in the practice of sharing ideas, issues, lessons learned, problems and their solutions, research findings and other relevant aspects of their mutual interest. In the example above they interact with each other, sharing information, insights, narratives and experiences, participate in discussions and raise issues and concerns regarding CM (Miller & Morris, 1999). Even though diversity in their midst may very well make it more difficult to reach agreement, the requisite variety obtained from their diversity in techne and

cognition is likely to enhance and alter their competence regime, and thereby their innovative practice.

Their competence regime thereby defines what is appropriate and inappropriate – and is continually re-negotiated (Miller & Morris, 1999). Before the HR consultant ‘entered’ the community, they had established a tacit agreement as to when and how CM would be appropriate to implement. Her view was not accepted immediately, the community had to engage in a series of discussions and conflicts before some of her experiences gave meaning to the others, and was accepted as appropriate, thereby becoming part of the negotiated competence regime.

When the competence regime is altered in this way, so is the absorptive capacity of the group as a whole. What may sometimes act as a barrier to innovation is path dependency (as illustrated by both IT and HR, who were very dependent on their past experience in their approach to new problems). One could say that diversity in a community of practice makes a multitude of different paths available (requisite variety), but at the same time provides for the institution of creative destruction, when each ‘path’ questions and tests the assumptions and experience of the others (in order to defend his/her own path). By continually being required to validate, question and negotiate the competence regime, creative destruction and mutual paths dependencies may drive the altering of the competence regime and thereby a continuous creation of knowledge. This is also supported by Thomas Mathiasen – Foss (Interview) who explained, “it is new to people that diversity may be an advantage. Previously, people did not realise that diversity could be applied, used, and worked with as we now see in CoPs at Foss” (Appendix F).

With the requisite variety provided from diversity in techne and cognition, and with creative destruction allowing for the destruction of ‘old’ knowledge and replacing it with new knowledge, the ability of the group to be able to recognise and value new information is altered. In the example above the overall absorptive capacity of the group regarding the human aspects of SAP has been altered, but most importantly it is the complementarity, the requisite variety, and the diversity (especially in techne), which increases their overall absorptive capacity.

From what has been described above, practice may provide for cohesiveness, but innovative practice may actually provide an important incentive for individuals to embrace diversity:

*Continued from example 2A*

The way the participants in Skibet play with identity roles makes them experience creativity (their practice field) in practice: what it means to be creative, and how the 'stepping out of existing identity groups' allows for creativity to flourish. This way their engagement in creativity not only becomes a matter of creating a creativity product, but also a matter of learning from their own engagement in creativity activities.

For instance, when Peter (film-maker) 'allows' the other two participants to do the filming in a movie they are making about creativity, they have found creativity to be enhanced in two ways: first of all because Birgitte & John are not restricted by the do's and don'ts of the film-world, because they are not part of it themselves; and secondly, Peter learns from their creative destruction of his 'way of doing things'.

This example brings to the fore two important issues: how they develop their competences within the field of creativity, and how this innovative practice in itself makes them embrace diversity as an important means for them to be able to engage in creativity the way they do. Each of these issues will be elaborated below.

The knowledge and knowing about creativity in their CoP can be illustrated by making use of the Knowledge Hexagon introduced in chapter 4 (Fig. 4.1), which in the case of creativity as a competence regime in Skibet may be depicted in the following way:

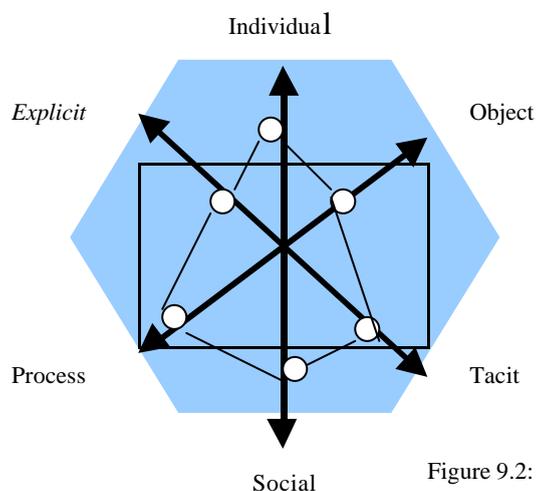


Figure 9.2: Skibet depicted in the Knowledge Hexagon, slj

As illustrated in figure 9.2, the competence regime in Skibet may be described as both very social and very individual. This is due to the fact that what they experience (see interview in Appendix G) from their engagement is building a shared competence regime, but also that they have very different perceptions of what it actually is that takes place. It is difficult for them to discuss their learning, due to it being more about knowing (tacit) and learning, than about knowledge. Finally, the fact that their learning has gradually been embedded in a product means that what used to be a process of participation, became a reified object of their practice. Due to it being a product and a model for creativity, it has been filtered for complexity; it has been ‘pushed’ through the Model Funnel (see figure 2.1) and thereby stripped of complexity, which explains why it is more a process than an object.

Furthermore, the example illustrated creative destruction, demonstrated in both this example (2B) and in example 1D, where members of a CoP characterised by diversity may appreciate the diversity because of the learning provided by creative destruction. All of this means that practice in itself may stimulate the creation of a community among dissimilar individuals, whereas innovative practice may make the participants embrace diversity due to experiencing the synergetic potential of diversity themselves.

### 9.3 From the Innoversity Paradox to Innoversity

Since the Innoversity Paradox was first depicted in the introduction, and then again in the beginning of chapter 8, it has changed and developed drastically, it was previously depicted as below:

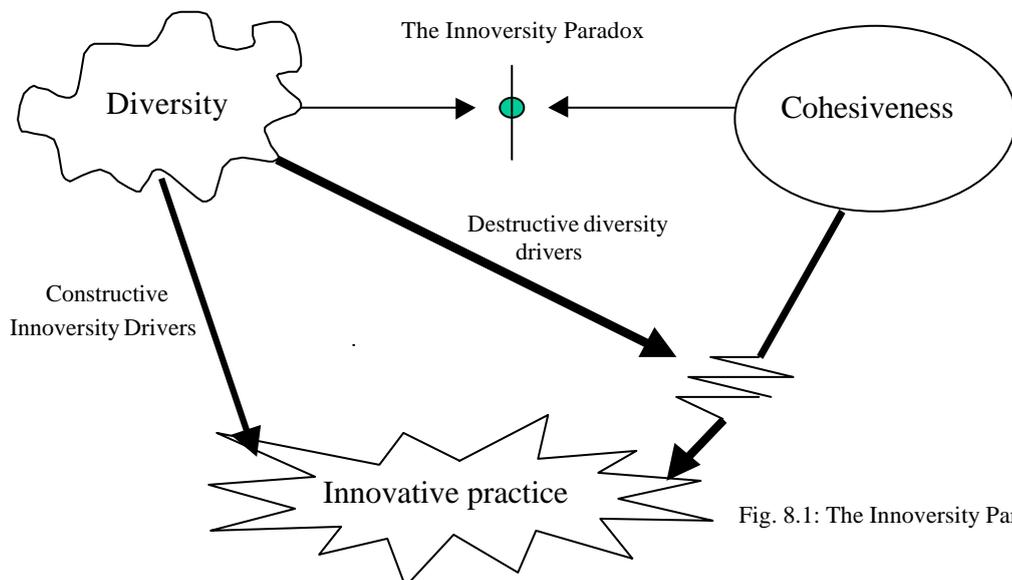


Fig. 8.1: The Innoversity Paradox II, slj

Figure 8.1 describes how cohesiveness was perceived as an important condition for innovative practice, as was initially described by Nahapiet & Ghoshal (1998). With cohesiveness being impaired by diversity, the paradox illustrated how it seemed impossible for innovative practice and diversity to co-exist. However, from the analysis provided in the previous chapters, it seems that it may actually be possible for innovative practice and diversity to co-exist, which indicates that the theoretical paradox need not necessarily be a paradox– as illustrated below in figure 9.3:

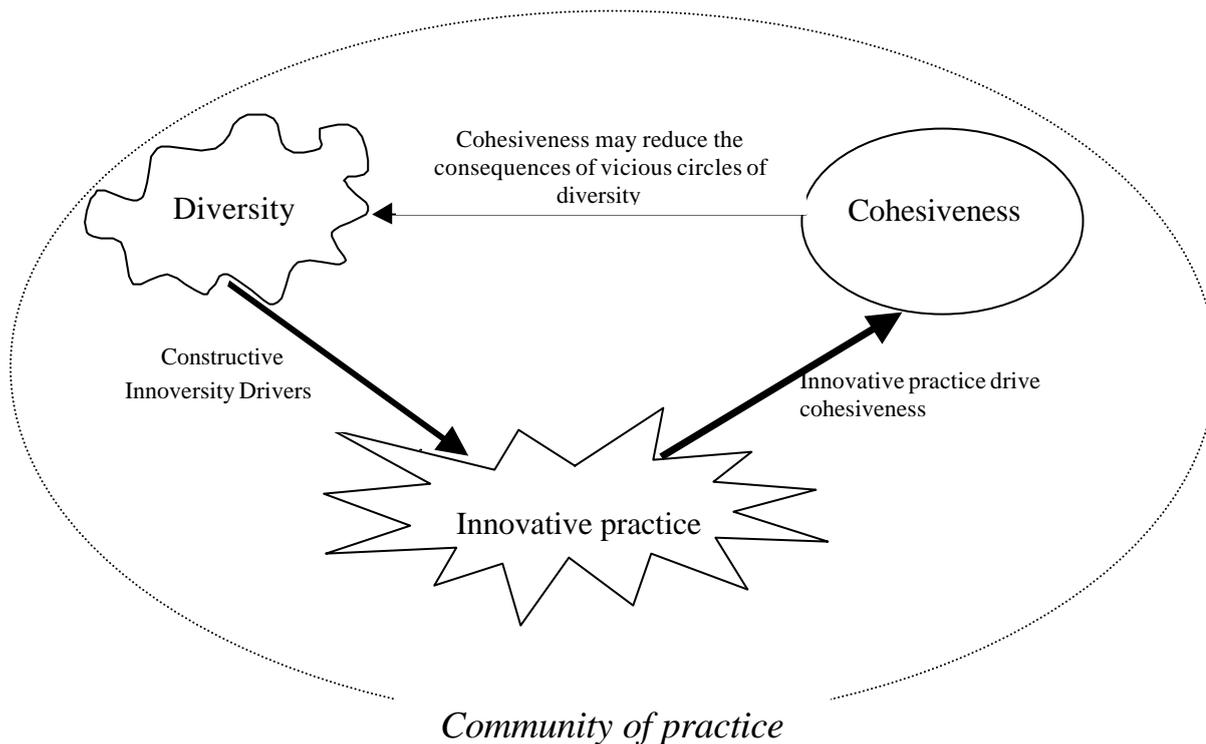


Fig. 9.3: Innoversity in CoPs, slj

As figure 9.3 illustrates, diversity and innovative practice may actually co-exist in communities of practice. When they do, practice and innovative practice may function as a condition for cohesiveness, thereby allowing for the constructive innoversity drivers to be ignited.

However, figure 9.3 is an illustration of a Weberian ideal-type and indicates a new perspective on the relationship between cohesiveness, diversity and innovative practice. It is a theoretical model seen to provide a plausible explanation of what seems to be possible in practice, i.e. that innovative practice may benefit from diversity, just as diversity may benefit from innovative practice. This model illustrates what I experienced could happen in practice, and yet could not be adequately described by the existing theory found within neither diversity theory nor knowledge management.

However, the fact that a theoretical explanation as to how it may be possible for innovative practice to benefit from diversity, does not necessarily mean that this is what will happen in a diversity context – it only explains that there are two possible outcomes of the relationship between innovation and diversity: the vicious outcome illustrated in fig. 8.1 where diversity impairs innovative practice AND the virtuous outcome, illustrated in fig. 9.3, where diversity enhances innovative practice. Previously we seemed to have only one outcome.

What remains now is to see how all of this may influence organisational performance, and how this description of what takes place in communities of practice may be described in an organisational perspective.

#### **9.4 The organisational knowledge regime**

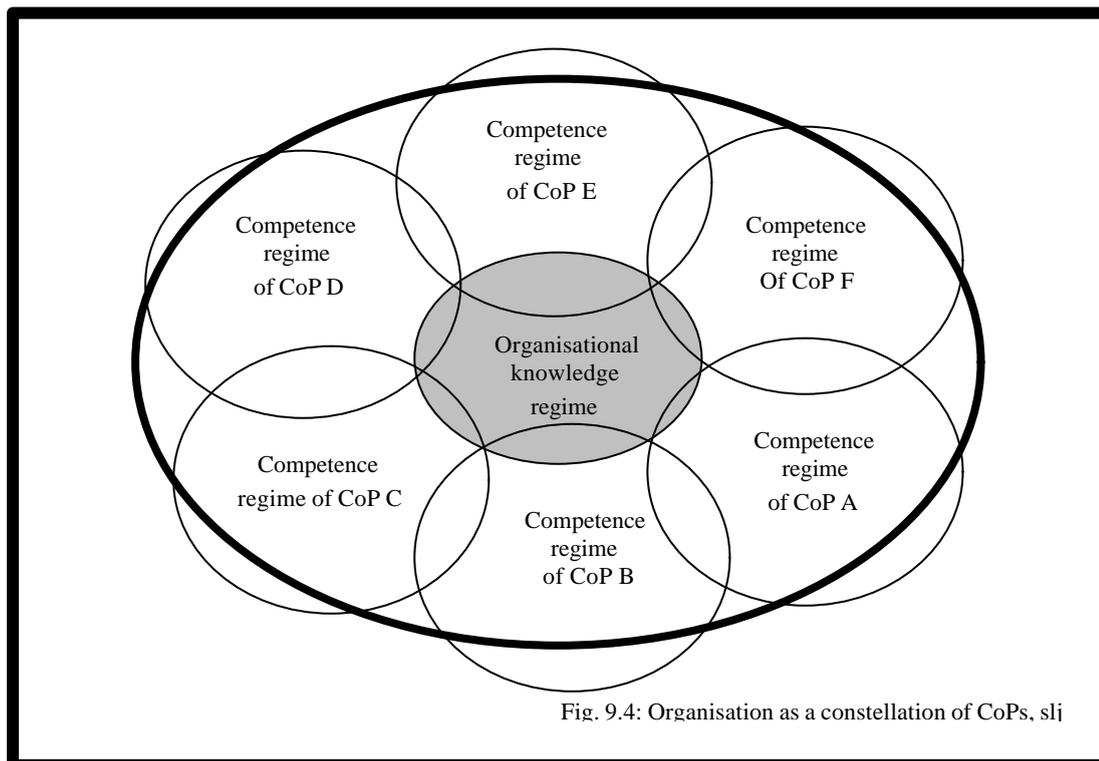
As introduced above, communities of practice may be viewed as self-organising subsystems in the larger system of the organisation. Organisational performance therefore requires a certain integration of the different communities of practice, in order to provide the most fertile ground for the multidisciplinary nature of innovation (Miller & Morris, 1999).

This shift of focus from the community to the organisation as a constellation of overlapping communities of practice (see chapter 3) allows us to look at innovative practice from an organisational perspective. We have learned that innovative practice is embedded in the practice of CoPs, so when innovative practice is discussed at the organisational level, the perspective is altered and becomes a matter of how knowledge is brokered between CoPs. The focus has moved from diversity internally in communities to diversity between communities. Instead of concentrating on how knowledge is created and shared within CoPs, this focus implies looking at how knowledge is transferred from one community to another.

The sharing of knowledge between communities can primarily be described in terms of ‘brokering’, which becomes highly important, due to the fact that most communities within an organisation are likely to overlap in one way or another (Brown & Duguid, 1998). Brokering is therefore one of the important means of: 1) establishing organisational cohesiveness, 2) moving knowledge among the different communities, and 3) keeping the tension between communities alive – thereby allowing

for innovative practice at the organisational level. If one of the SAP consultants participated in say, a CoP in the SAP practice-field, he could act as a broker, thereby transferring the knowledge and the experience he had from working with the HR consultant in the CM CoP to his SAP community.

Brokering makes it possible to establish connections across communities of practice, enable coordination, and open new possibilities for negotiation of meaning between communities. However, brokering between communities is not an easy task (again we can make a referral to the Consulting example), it involves processes of negotiation and coordination (Brown & Duguid, 1998). This means, that even though much knowledge is seen to be created within communities, knowledge should not be seen merely as a community property. The communities are part of a larger system, i.e. the organisation, which may then – theoretically - be depicted as a constellation of communities, as a hybrid of overlapping and interdependent communities (Brown & Duguid, 1998). This is illustrated in figure 9.3 below:



If an organisation this way is illustrated as a hybrid of overlapping communities, contact and brokering between communities opens up a new tension, where ideally “inter-communal relationships allow the organization to develop collective, coherent, synergistic organizational

knowledge out of the potentially separate, independent contributions of the individual communities” (Brown & Duguid, 1998:97). This is what is illustrated in figure 9.4, where organisational knowledge is seen to be created in the ‘balancing act’ between tension and coherence.

We may use the same analogue as when describing tension between experience and competence *within* communities, and now apply it to the tension between the competence regimes of the individual communities and the organisational knowledge regime. Organisational knowledge may in this context be defined as the knowledge available to the organisation and the knowledge which has been negotiated among the different CoPs which has been accepted as part of the organisational knowledge regime.

Diversity among the different competence regimes may pull the organisational knowledge regime and thereby create new organisational knowledge, but just as within communities of practice, this requires a certain degree of cohesiveness. If a community is isolated from the rest of the organisation, when no brokering is likely to take place with other communities, the competence regime of that community will not be part of the organisational knowledge regime. This is due to their knowledge not being available to the organisation, just as it has not been negotiated and accepted as part of the organisational knowledge regime. If organisations, in this way, become “so loosely connected that there is no synthesis or synergy of what is produced in their various communities – when, as Teece and colleagues argue, there is no ‘coherence’ – then a firm has indeed lost its edge over the market. The firm then needs either to work towards synergy or divest until it achieves coherence” (Brown & Duguid, 1998:101).

According to Granovetter (1976) overlaps are hard to develop in communities with very strong internal ties, because these tend to preclude external ties. Thus Granovetter argued for the strength of weak ties, suggesting that it was often people loosely linked to several communities who facilitated the flow of knowledge among them (Granovetter, 1976). This also demonstrates the potential of diversity in and between communities, through the reduced likelihood of strong internal ties, and the multitude of ties they will then each establish with different social categories and communities. Organisational knowledge may, therefore, also be seen to be enhanced by network variety (innoversity driver #3), due to such variety providing for increased access to a wide variety of external knowledge, because of the structural holes provided by working in a context of relatively weak ties (Granovetter, 1976; Burt, 1995). This network variety is illustrated by how the

communities are seen to overlap with organisational boundaries, thereby allowing for access to external knowledge sources, provided by the networks of the organisational members.

This relationship between communities forces the degree of creative destruction important for the continual questioning of existing knowledge. Between communities this creative destruction may take place when problem solving, combination and exchange span different communities – as we saw in the Consulting example. According to Brown & Duguid (1998:97), this interaction “is important because it helps to overcome some of the problems communities of practice create for themselves. For instance, as Dorothy Leonard-Barton points out, isolated communities can get stuck in ruts, turning core competencies into core rigidities. When they do so, they need external stimuli to propel them forward”. This external stimuli is likely to stem from the brokering among communities.

The tension between the experience of the different communities and the organisational knowledge regime, therefore, becomes just as important as the tension within communities. Diversity in techne and cognition both within a community of practice and among different communities may therefore be argued to drive and maintain the tension between experience and competence, and thereby provide one of the basic conditions for the creation of new knowledge.

## **9.5 What are the implications of the findings in this thesis?**

From the findings made in this thesis we have learned that it is actually possible to find an explanation as to how innovative practice may benefit from diversity; an explanation which was made possible by applying the Community of Practice Framework for analysing the relationship between innovation, diversity and cohesiveness. However, what are the implications of these findings to organisations?

The findings in this thesis indicate the potential value to be derived from viewing organisations as constellations of communities of practice, especially when wanting to understand the complexity involved in the creation, transfer and diffusion of knowledge in an organisation characterised by diversity. “Our organizations are contexts within which the communities that develop (these) practices may prosper. We will have to value the work of community building and make sure that

participants have access to the resources necessary to learn what they need to learn in order to take actions and make decisions that fully engage their own knowledgeability” (Wenger, 1998a: 10). Such a perspective on organisations makes the pursuit of knowledge management strategies somewhat more complex, but it provides a deeper understanding of the relationship between innovation and cohesiveness, and not in the least – it allows for communities of practice to benefit from the ‘wellsprings of diversity’.

I will therefore give the final words in this chapter to Wenger, who formulates what has been stated above in the following way: “An organisation’s ability to deepen and renew its learning thus depends on fostering – or at the very least not impeding – the formation, development, and transformation of communities of practice” (Wenger, 1998a:253).

## **9.6 Summing up on innovation and diversity in communities of practice**

This final chapter of the thesis was based on the findings from chapter 8, which ‘made it possible’ for diversity to exist in communities of practice. This finding allowed for a discussion of how diversity in communities of practice is seen to stimulate the innovative practice in CoPs, by creating and maintaining tension between the experience of the individual and the competence regime of the community.

The next part of the chapter developed on this tension by describing how the innovers diversity drivers described in chapter 7 would maintain this tension and foster the creation of new knowledge, just as we saw how the destructive diversity drivers could be described as important means for creative destruction. An example was used to describe and develop the potential of these drivers in communities of practice.

The establishment of these ‘new’ aspects of the relationship between innovation, diversity and cohesiveness required a revision of the Innovers Paradox, which by applying the CoP Framework was no longer necessarily a paradox, but could be described as a new perspective on the relationship between the three factors. The Innovers Paradox was revised to possibly exist as Innovers: diversity may advance innovative practice, innovative practice may enhance cohesiveness, and cohesiveness may reduce the consequences of vicious circles of diversity.

This chapter furthermore described innovative practice from the point of view of the organisation, where the tension between communities' competences and the organisational knowledge regime may provide for the creation of new organisational knowledge. For this to occur the diversity among communities, just as is the case in communities of practice, cannot be too salient. If there is no brokering and no overlaps between the CoPs of an organisation, coherence is threatened, and the competences created and maintained in the different communities will not be available to organisations.

Finally, the implications of the findings in this thesis we briefly outlined, and indicated the value to be derived from viewing organisations as constellations of communities of practice, thereby nurturing the 'free spaces' of knowledge creation, which may allow for individuals to discover and embrace the wellspring of diversity!

## 10. Conclusions

In a decade where diversity is affecting most organisations, while innovation becomes increasingly important for maintaining a competitive edge, organisations need to be able to capitalize on the potential of diversity in enhancing their overall innovative practice. Existing theory however, does not provide much guidance in this regard; but by applying a community of practice (CoP) perspective on innovative practice, this thesis provides a new theoretical explanation, which furthers our understanding of how such capitalization is possible.

A theoretical void was addressed by identifying how diversity may potentially enhance innovative practice by enhancing absorptive capacity, requisite variety, network access, creative destruction and problem solving – thereby confirming hypothesis 2, which posed that diversity potentially advances innovative practice. Furthermore, this thesis advocates that our understanding of the relationship between innovation and diversity is enriched, when we shift away our focus from traditional workgroups and teams to naturally emerging communities of practice. The proposed Community of Practice Framework enables a new understanding of diversity and innovation, and explains that it is possible for innovative practice to benefit from the five innoversity drivers without necessarily being confronted with the liabilities of diversity. These liabilities concern the way diversity may potentially act as a barrier to cohesiveness, primarily due to the vicious circles of diversity (e.g. intergroup anxiety, miscommunication and goal incongruence), as it was argued in hypothesis 1. However, by applying the proposed CoP Framework it is shown how innovative practice may generate a sense of cohesiveness and community among dissimilar individuals when they are granted the possibility of mutual engagement in a shared practice. This finding is thereby in line with both the assumption and hypothesis 2 presented in the beginning of this thesis.

This study has therefore substantiated the potential of diversity for innovative practice, and has demonstrated that the existing theory, predicting vicious outcomes from innovation in a diverse setting (the Innoversity Paradox figure 8.1), does actually have a virtuous counterpart (Innoversity in communities of practice – figure 9.4) both in theory and in practice.

**Theoretically**, this thesis has provided an alternative (Innoversity in CoPs) to the Innoversity Paradox (innovation and cohesiveness  $\Leftrightarrow$  diversity). This new theoretical alternative ‘allows’ for the ignition of the innoversity drivers, but also allows for cohesiveness to emerge from innovative

practice by applying a Community of Practice Framework. From this it may be argued that diversity may enhance innovative practice, when situated in communities of practice (Innoversity), just as diversity may impair cohesiveness and thereby innovation, when diversity exists in a group, which cannot be characterised as a community of practice (Innoversity Paradox). Theoretically, this finding provides for an increased understanding of the relationship between innovation and diversity in organisations, but even though we know it to happen in practice, we still lack the methodology for making it happen (processes). Communities of practice, as they have been described here, are self-emerging, and even though CoPs may be aided and facilitated by management, they are created from within and not from the outside. To develop a methodology, or a process, which allows us to sustain the ‘building’ of a community of practice among dissimilar individuals is, however, beyond the scope of this thesis, but this thesis does provide a vocabulary and a theoretical framework from which future research may attempt to develop such methodology.

**Empirically**, this thesis has not brought a wide range of empirical evidence to bear, to support the findings, which does not however prevent me from drawing empirical conclusions based on future expectations. My limited use of empirical ‘evidence’ should therefore not be perceived as an indication of a lack of interest in empirical aspects of innoversity. On the contrary, this study provides the theoretical foundation from which it will be possible to convert at least some of the outlined theory into practice and develop a methodology, by my own engagement in practice. This engagement in practice is expected to materialise in two ways: firstly, by gaining experience from my working with Innoversity (as I am to do at Foss, and hopefully elsewhere), and secondly, by combining and exchanging experiences and insights with the members of the Innoversity Network at [www.innoversity.dk](http://www.innoversity.dk), thereby enabling us to negotiate a shared competence regime around the practice of Innoversity. Hence, this empirical conclusion is not about the empirical data collected in this thesis, but a conclusion about the data I hope to be able to collect about diversity and innovative practice in Denmark in the years to come!

**The general applicability of the study** can be extended to most organisations characterised by diversity, who are interested in capitalizing upon this diversity in order to further their innovative practice. However, the study also applies to Danish industry in general, as an argument for why organisations should embrace diversity rather than avoiding it. It is my – rather ambitious - hope that this thesis, and Innoversity in general, may be able to aid Danish companies in fast-forwarding

into the emerging diversity paradigm described by Thomas & Ely (1996), and appreciate the synergetic potential of diversity within the Danish labour market! This hope is not only directed by diversity as a means in itself, but also directed by how such inclusion of diversity may eventually facilitate the drive towards enhancing innovative practice and organisational performance. The general applicability of the thesis should also extend to the theoretical fields of intercultural and diversity theory, where the absence of research to explain virtuous, rather than vicious, circles of diversity gives rise to a general criticism. The fact that most of the theory applied in this thesis stems from knowledge management and social psychology, and not from diversity theory, indicates a tendency for closure within the field.

**Summing up**, it is evidenced that as the pressure for innovation becomes stronger and as organisations become more and more diverse, it becomes imperative that organisations learn to capitalize on the benefits to be derived from diversity in innovative practice. This thesis may be described as a first step towards enabling such capitalization, by providing the theoretical foundation for understanding the relationship between innovation and diversity. Building on this, the main contributions provided by this thesis may be summarised as follows:

- An identification of a paradox within existing theory – the Innoversity Paradox
- A new theoretical alternative to this Innoversity Paradox – Innoversity in CoPs
- An increased, and theoretically grounded, understanding of the synergetic potential of diversity in enhancing innovative practice (addressing a theoretical void)
- A vocabulary and a theoretical framework, which may be used as arguments in the public debate in Denmark against the apparent Danish resistance towards diversity in organisations.
- The institution of the Community of Practice Framework as a valuable framework for analysing different aspects of innovative practice in organisations.

## Appendix A. Definitions and terminology

<i>Communities of Practice</i>	Naturally emerging groupings of people engaged in a common practice field, and bound together by a mutual engagement in joint practice – thereby sustaining a shared repertoire of knowledge.
<i>Knowledge</i>	Knowledge may be both a process and an object, it may be tacit (knowing) and explicit (codifiable knowledge), and as individual and social. In the context of this thesis it is perceived to be embedded in the competence regime of a community of practice
<i>Innovative practice</i>	Is the combination and exchange taking place in communities of practice, by individuals engaging in collaboration, storytelling and social constructivism
<i>Diversity</i>	Diversity in collectives is defined in terms of <i>techne</i> (skills and abilities) and <i>cognition</i> (values and mental models). At the individual level, diversity may be described as a construct arising from categorisation of others into <i>ingroups</i> (similar others) or <i>outgroups</i> (dissimilar others)
<i>Social categories</i>	A concept derived from social psychology, and very much in line with the concepts of social identities and social grouping. It is based on social identity theory and categorisation theory, indicating that we as individuals identify with different categories, which then shape our identity and our perception of others according to pertinence to different categories
<i>Intergroup anxiety</i>	When individuals are confronted with dissimilar others pertaining to outgroups, a certain degree of anxiety is due to arise – due to insecurity, prejudice and certain expectations about others
<i>Innoversity</i>	Derived from innovation and diversity, and indicates the potential to be arrived from diversity in furthering innovative practice

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## Appendix C: Interview with Etienne Wenger

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*I met Etienne Wenger at the Community of Practice 2000 Conference in San Diego in April. By then I had already read most of his books and articles, and was hoping to be able to talk to him about his view on innovation and diversity in communities of practice. He consented to do the interview after the conference had ended. The weather was great but we had been indoor for four days, so the interview was conducted walking along the San Diego Bay...*

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Many theorists like Seely Brown use arguments of diversity for furthering innovation, but they hardly ever move beyond that and into Intercultural theory...why do you think this is so?

Well, if you move into ethnic studies, I think you will find arguments like that, the problem is that I don't know the literature very well...I did look at it a little, when I did some cultural studies...You will have to find someone who knows this literature. But I know that there is some literature who looks at ethnic diversity as a source of creativity....

*But have you worked with diversity within Communities of Practice?*

I have not, no – but I would like to. I have some ideas – but they are just speculations, so.... they are not really ideas, they are more like thoughts...about learning, which I have also discussed in my book, i.e. that learning is the tension between the socially defined competence and experience. If you think of apprenticeship, apprenticeship is a social distance in the dimensions between the experience of the person, and the competence of the community, and the competence of the community is pulling the experience of the person until there is enough overlap for the person to become a full member. But sometimes it goes the other way around, sometimes you are a member of the community and you go out and you have an experience like you are doing right now, you've come to San Diego and you meet all these people and hear them talk, it changes the way you see things and then you go back to your community and then you kind of pull your community along into your experience, saying hey – wow, this is great, so in that case you have the experience pulling the competence. And so what you want is those two to be close enough for them to interact but far enough that they are not completely overlapping. But if you have a community where the competencies are different but the experiences of the members always overlap completely, you don't have any learning. You need the experience of life to be a little different from the definition of competence of the community....so, if you think of ethnic membership as a form of competence

that is outside of the community in which people participate, because one of the ways that you create that kind of tension is through multi-membership, i.e. that people belong to several communities at the same time, and because they have an identity they create bridges between the different forms of competencies. So if you have a model of social learning that has these elements then anything that creates a tension through multi-membership, between competence and experience, is something that is going to add to that tension, but you don't want it to be too far either, because if competencies and experiences are too far they cannot interact.

*But wouldn't it be possible for them to interact if they had this strong common sense of purpose of enterprise?*

Yes, and that is why the potential of the community is very strong in creating a context for learning, because it creates a context in which multiple perspectives can interact, but if these multiple perspectives become one perspective then again, you lose learning. If they are so separate that they cannot talk to each other you will also lose learning. But if there is enough of a set of shared repertoire and a shared sense of an enterprise or domain then you have both ingredients. So, for your thesis these are thoughts that you could explore more clearly. You could also have this in a team, if the team has a purpose that is strong enough...

But wouldn't it be so much more likely for members of a team to clash if they are highly different, because the team has been set up by the hierarchy – not by the members own free will, and is not driven by a passion or a common enterprise like a community of practice, which may be able to create strong bonds – in spite of their differences?

A community of practice is less tightly knit, it does not have to deliver – there is more room for conflict, in a team you have to solve conflicts, because in the end you need to deliver, you don't have a choice, you have to solve conflicts. In a community you don't have to solve all the conflicts, because it is not so tightly knit around the deliverable.

*And in the team you will probably not be so interested in listening to opinions from someone very different from yourself, whereas – as I see it - in a community of practice people will be more willing to open up and listen and learn, because they are there to learn and not to deliver...*

I would like that to be true.....but communities can be pretty closed....and in a team where you have a goal to be accomplished, you will also have that willingness ... because of the need to

deliver on your goal, and very often, delivering on your goal depends on your listening...so this may actually cause the willingness to listen to be stronger than in a community of practice, where there is no pressure to resolve the differences

But if the community is about you and your personal learning, whereas in the team it will be more about working on a specific task...

It works both ways, because if it is about you and your personal learning, then you could be very closed, you have to open your identity in order to include the other person. But the community is very good for this purpose, because there is a sense of time, a sense of history and a shared repertoire which helps you to communicate, but because you don't have the pressure around a specific task there is also sometimes not the incentive to be open and be satisfied with your community just the way it is. But I think it works both ways, but I would love for the community to work better, but the truth is that it can work both ways. Teams however are very good boundary objects between communities, because they force people to broaden their perspective around a task, and it is pretty clear whether the goals are accomplished or not, whether the team is working or not. So, it is interesting from the point of view of the task of an organisation – if you have cross-functional teams, but from the point of view of communities such teams act as boundary objects with the perspectives of multiple communities, they have to work together because they have something to do – with the tasks of the teams serving as boundary objects and the team itself serving as a boundary spanner.

*So the way you see it is that the cross-functional team will sometimes work as a community of practice and at other times that same team will work as a team around a task?*

In that situation the time-dimension will become highly crucial, because a team working on a specific project will only rarely have enough time to develop into a community, but if you work as a functional team which allows for a longer period of time then it will also probably become a community of practice...and then have different modes of interaction between people, depending on whether they are acting as team-members or whether they are acting as a community of practice, and probably also have different boundaries. The team may have tighter boundaries whereas the community will have looser boundaries around it.

So what about innovation, do you see it mainly as happening on the fringes or on the boundaries of communities or within and at the core of communities of practice because of multiple membership? Theoretically that is what you would predict (*innovation at the fringes*), but I think in practice I am not sure that it is true, because if you are a core member sometimes you have more freedom to explore than if you are more peripheral, because when you are a core member you don't need to prove that you belong anymore, the legitimacy is already there, which will allow you to explore, so I think again it works both ways. Theoretically it works at the fringes, which is also so much more romantic, but might also be very true. I mean, many innovations really happen at the boundaries between practices, but in practice it is often the case that the people who can afford to explore the boundaries have already established themselves.

*So that would be core-members entering out into the periphery?*

Yes, but we don't have enough information about this to make very big claims, and remember that these are only my thoughts on the topic. But sometimes you come into a practice where you have to hang on to the existing practice in order to establish yourself, so it works both ways....I would say that the thing that is constant is the tension between competencies and experience, and so – at the boundary, definitely there will be some kind of dislocation between competence and experience, and the dislocation of competencies and experiences can lead to creativity or it can lead to a hanging on to the competence which is the only thing that is solid and if you are at the core it can also work both ways, you can be so much at the core that it strengthens your ..... (tape ended)...it is like a clique of kids, which was observed by a colleague of mine, in which she had observed that if you are at the core of the clique you cannot bring in new styles of clothing because you stand as a symbol for the clique so you can not alter your position, because you become a symbol of the community itself, you maintain the status quo, which make it very difficult for you to introduce new styles, but if you are at the fringe you are more free to try because nobody is kind of looking at you so much. So there are all sorts of dynamics that allow you to .... it kind of refers back to what I was saying before...but inside of a science community for instance, often people who are very well established in their field have more freedom to go out and explore, because people at the periphery will have to fight to build up a reputation, and so it would be to dangerous for them to go out and try around with things that may or may not produce results. But again it works both ways.

But I think it is interesting conceptually to understand the notion of social learning as a tension between experience and competence because it explains the dynamics between those two processes, but it is different in different circumstances, but in all cases, it is when there is just the right amount of tension between the two, not too far and not too close – that you get learning. So I think there might be a good conceptual framework for you to start thinking in terms of what does diversity do, in terms of the relationship between experiences and competencies.

So in what case does ethnic diversity prevent that creative tension? Either by creating too much separation that it does not allow for voices to be heard, or by creating sub-communities where there is so much overlap between the two of them and then again it doesn't create possibility.....

So what kind of empirical work are you planning to do? *Well, there are different options, one is to do some interviews with different practitioners in the field to get different angles on the theory, and my other option is to look at a Danish software company where the development department is highly culturally diversified. The manager of this department has offered me the possibility of studying their work, to see how they work and see whether there are groupings and communities of practice in the department ....* by doing that you will also be able to see what the effect of diversity will be on the way that they work and interact. You see, I kind of think that many people have the belief that diversity is a constructive thing in fostering creativity, and I do too. I was wondering whether you have gone into detail on how it works in practice, because that I think would be a great contribution, that would give you a very strong argument...*yes, that would give me the argument for why companies should actually pursue diversity...* yes, because in our hearts we actually tend to believe that. But I think it would be worth while if you could see how it really works, to see what are the actual processes, how does it actually work. But if you are doing a lot of reading now, as I understand that is what you are doing, you should really go into some of the ethnic studies, because I know that there are people who have been looking at the link between diversity and creativity within ethnic studies...

What I have seen so far is that in the US many companies have started to pursue diversity, but they mainly do so in order for them to mirror the market, and not because they see it as a way of encouraging creativity....

Well, then it becomes more of a side-effect, but then it would be interesting to see, whether those people, as for instance at Hallmark, whether such groups of ethnic minorities remain islands within the organisation or whether they do interact with the rest of the organisation to create something completely new – that would be very interesting to see. Even though the motivation at first when such companies bring in minority groups is just to mirror the market, these people are going to interact, and what is the effect of that? Then you could make a good argument, that moves beyond just mirroring the market, that it is about creating a new kind of energy..... It really is a big issue, it can easily take ten years to clarify this issue, also because you will need a lot of empirical evidence – and ethnographic studies.... *Well, there is enough material here for me to write a Ph.D. on the subject....*but I thought it was a Ph.D. you were doing .....*no, no – it's my master thesis.....* ooh, then maybe I am giving you wrong advice, then you really have to be careful, because this is definitely Ph.D. – it requires a lot of material...so maybe for your master you should narrow your question down a little bit...you could narrow it down to what is the effect of diversity on the creation of a community of practice, I think that is something for which you could just do the one case-study, then you would not have to make a general claim, you would then limit it to a particular context, for instance in the software company you mentioned to see what does people do – whether they create just one community or do they create different sub-communities around ethnic commonalties, also to see what the critical mass is.

By studying just one community of practice where people are highly diverse, and ask them – then maybe you will find that people are so engaged in being practitioners that they do not think of themselves as diverse....that would be a good thing to be able to say to further your point on ethnic diversity and innovation.....

## Appendix D:

### Interview with Bob Carman, Program Manager at Boeing-Rocketdyne

*Bob was manager of a distributed project team, or a virtual team, which outperformed everything seen before. This team was to re-invent the engine combustion chambers. They usually consisted of 1400 parts, this team reduced the number of parts to 6. They were supposed to finish the project in three years, but finished well ahead of time. Bob did a presentation at the conference – and we had a range of interesting discussions about the relationship between innovation and diversity during the conference... and I persuaded him to participate in an interview*

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*(I briefly introduce my thesis and what I would be interested in knowing from him)*

Bob Carman:

We have all kinds of diversity at Boeing, we have national background, gender, ethnic, professional diversity, and then there is the intellectual diversity, by that i mean people who are very creative, very high Iqs, and those who are very diligent, and maybe wouldn't score very well on an IQ test. What I found is, the more diversity you have on a team – when the size is appropriate – the better. I specialise in creativity and entrepreneurship, that is the kind of teams I put together.

*How do you make them work – when they are highly diverse? How do you make them not dwelve into discussions and battles, how do you make them productive?*

Making them work is another interesting issue. Making them work could be that they each contribute equal parties or equal contacts, or at least at an equal level of contacts – not quantity. In face-to-face teams this is almost impossible, the very highly diverse teams happens to be the extroverts who dominate, and generally they are not the people who contribute the most, they just make the most noise ☺. The person who is intellectually more challenged will feel embarrassed, will feel inferior, and this is one of the things I like about the virtual team, everyone – one of the things we came up with was a methodology that allowed everyone to contribute, so that an equal contact level. There were about 20 team members and a matrix was assembled which represented all of the 20 key aspects that they brought to the team, and any concept had to be checked off, red, yellow or green – in everyone of those areas. So when you looked at this matrix you knew immidiately who hadn't contributed, and you could go talk to them: why haven't you contributed,

and there was peer-pressure: why didn't we finish this idea before we moved on to this one? It was kind of a gimmick, but in a way what it was trying to do was to force the diversity to be estranged, because most of the time it isn't, and that leads us to my other comment. When you get the most creativity and innovation in a team you have forced everyone to contribute at an equal contact level, but it is a management problem, which is why it usually doesn't happen. If I would characterise a lazy part of the organisation it would be management, it is like empowerment, people who manages within power-teams by giving them incomplete statements of what is the definition of the team, will not be successful – they become very critical when they don't get it. Like the pink cafeteria – as a manager you need to be able you can work with the description you have provided the team with, no matter where it goes and you need to be able to reward the team if they achieve that, independently of whether you like it or not, if you don't like it it is your fault, not the teams fault.

I work in a very mature management organisation, and this is not the way we normally do work, the problem is always quoted down to the lowest level, and that is where all the blame is placed – and we are very blame-oriented. It is not that we are growing together – you're a fault.....

Another part of entrepreneurship is, for example creating a design which has a 100 times less parts, to me is very innovative. But how do you get someone to work on it? There is a lot of responsibility in the leadership, you have to find people who really have a passion for that subject, so just because you happen to be ideal Chinese employee doesn't make you qualified for it....or just because there are ten women and you are the only one who isn't busy, doesn't make you a good person to put on the team. You have to have a high potential for contribution, and in that sense it should not matter whether you are different from everyone else, what kind of a person you are, what your background is and so forth – or whether you are bringing in a certain perspective. From a management point of view – what are all the perspectives you require on the team? So you are really setting up diversity, by making the specifications of who is to be part of the team. When you do that, you get spectacular results. So I would maintain that the two are not only misunderstood, but they are absolutely essential – for revolutionary solutions.

*But the main issue – as I see it – is how to make people work together, listen to each other and learn from each other when they are very different from each other. Most people are not very good at working with and learning from people who are very different – we have a tendency of 'shutting*

*people out' if they are too different, we often do not think that they can contribute because they are so different from ourselves. How do you deal with that?*

I don't really think we (as management) motivate people – we de-motivate people. How were you motivated to walk? Did somebody give you a handbook who told you the right and best solutions – and then you executed it? No – it's trial and error! I think motivation is intrinsic in human beings. The problem is: you go to school. The teacher talks and talks for 5 hours and then hands you a test, and what is the standard? The teachers rating system. So, when do you talk and when do you ask questions? You basically do that to get the teachers answers. That is the way you succeed – all you need is to get the teachers answers! Then you go to work – is it any different? You work for a boss, and now he is the one to tell you where success is. He tells you what you are doing right, what you are doing wrong and how you can improve, and what do you do? So generally – the motivation is to get all the right answer – of somebody else. The difference in a creative team – in this new environment, is that now you are not trying to be creative for somebody else – you are creative, and this is where the conflict comes. Giving rewards and linking people financially, as we tend to do now a days, are really methods of de-motivating people – and it is also encouraging very bad behaviour. The army has made some very interesting survival studies: you can take a survival expert and put him out in a really bad situation, but his probability of survival is much lower than a team of 20 amateurs who've never been in a survival situation. Now what does that tell you? Why do you want 'all stars'? 'All Stars' are not the right answer! So why do we always encourage all stars, why do we have such a passion for creating experts and stars – and want everybody being the best? What you want is the team to be the best! But how do you encourage people to not just being the expert in their area, but rather have them finding the weaknesses of the team and then filling them in – with the best person who can fill in that weakness!

*What is a win-win relationship for a highly diverse team?*

A win-win relationship is not simply one in which I am doing well, and you are OK. An example would be, lets say, you are the best person in this company, and I want you to be on my team. How do I do that – how would I convince your employer into letting you join my team. I do that by making sure to offer him something that will leave his company better off than it was before, for example by transferring knowledge, competences or technology. And I get – lets say – 10 per cent of his time for a 5 year period. I get that from their best man. But what is in it for him? He increases his value and employability.

So the importance in motivation seems to be somewhere else that we traditionally thought it was. We need to start thinking in terms of ‘what is valuable for the individual?’ We need to start thinking in values... if you manage to do that – you get spectacular results!

*But how do you control or manage the innovative process?*

There is no control – it is chaos – but not true chaos, you might call it ‘controlled chaos’. There is a scaring potential in corrective signals that can be put in every once in a while. When so much is happening between the corrective signals, the team is truly in power. But you have to set the ground rules correctly, you have to really understand where success is – and that is where all the hard work is.

*But do you always know where success is before you ignite or set off the process?*

You have to do enough work to where you have an idea, but I don’t think you can put a metrix on it

*But what is the role of diversity in creating spectacular results?*

The main issue with diversity is to make sure to each and everyone on the team to contribute on an equal level - of content – not necessarily of time. The person who is doing the analysis, is every bit as responsible for the configuration that came out as the person who made the CAD-models, or the person who was drawing the design. Now, the person who did the design didn’t know anything about analysis, but when the images came out, and the graphics were presented, it had to be in a form that everyone on the team understood. A lot of the work was done in a highly visual way. I think we really don’t know how to use computers: we fundamentally have lost the whole power of the computer, we fundamentally don’t understand what people do well! The way people got to where we are today is, that we started out being hunters and gatherers. If they walked through the forest and something moved, they could immediately tell what it was they saw and analyse it – we don’t do that today! We don’t understand the power of visualisation. If you see a scene presented electronically, you can derive a vast amount of information from that scene, but if the scene is moving, if it is a simulation you can get a tremendous amount of information out of that, you’d spend days trying to gain the same amount of information in other ways. The different types of CAD-models, differ in the way they take the initial information and convert it into a picture that people can understand. By not being very good at using visualisation in our work, we handicap

some people for certain parts of the process. Suppose you forced everyone to be visual – which is exactly what our online cooperation system did – enabled everyone to convert everything into the form of pictures, with small amounts of dialogue. In our project, the analysis was converted into a pictorial, the design was a model, facts and numbers were presented in spreadsheets. This pictorial showed exactly where the costs were, what the changes were from the previous idea. Everything was done graphically. With just a glance you could instantly pick up what was happening, where the strengths and weaknesses were. The basic idea was, that people can absorb an immense amount of information if it is graphical. The worst is dialogue.

The worst case I can think of is, we had about 12-15.000 people leaving the space station, and we did exit-interviews with each and everyone of them. They wanted to capture the knowledge of the people leaving, and about 117.000 hours were recorded on tape. That's a large knowledge base. You cannot learn from that. And even if you get someone to sit down and transcribe these tapes, and even if you were allowed to put a URL on every little thing of interest on those tape. You could have 7 people spent most of their career working on that. Suppose you could capture this knowledge and what these people were doing, graphically – in some magical way. I don't know how, though... The problem seems to be that we are becoming too text-oriented, but text is not designed for reuse, whereas pictures are ideal for reuse. I want everything to be – 15 seconds – one screen – which lets me know everything that I need to know - instantly. Now – you tell me how to do that!!!

## Appendix E:

### Interview med Elisabeth Plum d. 16 november 2000

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I met Elisabeth for the first time at the Intercultural Management Conference held by Lederne in February, where we took part in the same workshop. We started talking and she consented to give me an interview. I contacted her several months later, when she was wrapping up her work for the book: *Mangfoldighed som virksomhedsstrategi – På vej mod den inkluderende organisation*, due to be published by late December. I borrowed a draft of the book, and have also been quoting it in the thesis. She asked me whether I would be interested in learning about the book, so the interview is more of a walk-through the chapters of the book, than it is a regular interview.

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Jeg vil jo meget gerne høre nogle eksempler fra praksis omkring diversity og specielt om hvordan diversitet kan udnyttes i forbindelse med innovation.

I vores bog bruger vi 21<sup>st</sup>.dk som case. 21st.dk startede i 1998 og har allerede 60 ansatte, og på deres hjemmeside fortæller de selv om hvordan de har 258 universitetsuddannelses-år inden for 20 forskellige retninger. Virksomheden har mange forskellige medarbejdere, unge/ældre, mænd/kvinder, forskellige etniske baggrunde, det giver en enestående evne for at analysere den enkelte virksomhed på dens egne præmisser og tale deres eget sprog.

Da firmaet etablerede sig lagde de ud med at tilbyde 6 mdr. uddannelsesprogram for 20 ledige akademikere - gruppen var af blandet etnisk baggrund, køn og uddannelse, de lærte programmering og design og løste opgaver.

Ideen var at uddanne folk på højt niveau med forskellige baggrunde, få fat på ressourcer som ellers ikke (ikke IT-medarbejdere, men arbejdsløse akademikere) ville vælge IT-branchen, men man var sikker på at mangfoldighed ville frigøre energi og kreativitet i dagligdagen - mange kvinder, da disse er ansvarlige og en god arbejdskraft (ti-hi), mange forskellige uddannelser, og mange forskellige sprog, en klar fordel hvis kan noget de ikke har forvejen - en programmør lære danske.

Ca 1/3 af virksomhedens ansatte har anden etnisk baggrund, så det er ikke kun dem med sjove efternavne, 2/3 er danske. Der er seniorer såvel som kvinder, Tom Jacobsgaard er gået efter dem som har været arbejdsløse, og som af forskellige grunde ikke har kunne komme ind på

arbejdsmarkedet... De får opgaver hvor værdierne matcher kunderne – men det er du jo nok ikke så interesseret i! Deres mangfoldighed sætter dem i stand til at positionere sig i forhold til internationale opgaver pga. af sprog og internationale ressourcer, højt internationalt niveau der matcher de internationale kunder, de er mobile og udviser således social ansvarlighed. Tom Jacobsgaard taler dog ikke om innovation, han har dog en holdning til mangfoldighed

Der er vist noget med at 21st.dk vist ikke længere er så mangfoldige som de var til at starte med, ved du mon hvordan det kan være?

Det er ikke mig der har haft kontakt med 21st.dk, det var Dorthe Cohr Lützen, så det ved jeg ikke rigtig noget om, men det har jeg da lidt svært ved at kunne forestille mig, men jeg ved ikke hvor meget mangfoldighed der er hos 21st.dk idag!

Næste kapitel i bogen handler om argumenter for hvorfor det er klogt at beskæftige sig med mangfoldighed, og det nok det der handler mest om innovation, sikkert det samme som du skriver - min baggrund for at beskæftige mig med mangfoldighed er at jeg er uddannet Kultursociolog og Psykoteapeut.

Min definition af mangfoldighed er baseret på Rosewelt Thomas, hvor mangfoldighed er de forskelle og ligheder der er mellem mennesker og som gør hver enkelt menneske til en unik skabning, der har forskellige forudsætninger og dermed forskellige ting at bidrage med. Det er grænseløst alle de måder man adskiller sig fra hinanden på.

Jeg foretrækker desuden Loden og Rushners primære og sekundære dimensioner, hvor den inderste kerne er de karakteristika man er født med og som ikke kan laves om. Loden og Rushners dimensioner er gode fordi de viser at det er bredere end som så, opdelingerne kommer til at afspejle nogle forskellige politiske og historiske dimensioner i det, og dermed forenkles mangfoldighed.

Det jeg har skrevet mig frem til er, at menneskers identitet og potentiale - det er hele tiden en kombination af de utallige forskellige dimensioner, men resultatet er ikke givet på forhånd, det kan sammenlignes med, at når man hælder forskellige kemiske stoffer ned i et glas; man kender de forskellige ingredienser, men man ved ikke hvad der sker når de blandes sammen, - det er ikke det samme som at bage et franskbrød - man kan ikke forud bestemme resultatet, man er både et køn, en alder og en etnisk baggrund, hvordan det slår ud og hvordan det bliver det ved man ikke på forhånd.

En anden vigtig faktor er, at forskelle altid er kontekstafhængige, hvilken dimension der træder frem og hvad der træder i baggrunden vil altid være kontekstbestemt. Jeg kan give dig et eksempel - 2 kvinder befinder sig i en mødesituation med 38 mænd - de to kvinder vil træde frem og være synlige førend der bliver talt. Når så der opstår en situation hvor fx. markedsføringsafdelingen kommer på banen, så vil en ny forskel træde frem og blive synlig.. Det er kontekstbestemt hvilken forskel der træder frem. En af pointerne i bogen er, at vi synes, at det er meget vigtigt, at man **ikke** kun må arbejde med én forskel af gangen.

Jeg er jo gammel rødstrømpe og har arbejdet med ligestilling m.m. i DSB hvor jeg oplevede at det ret hurtigt blev et problem når der var for meget fokus på køn – ligesom der nu i dag er for meget fokus på etnisk ligestilling.

Vi kender fænomenet fra psykologien, hvor fænomenet omtales ved en projektionsskærm – det man sætter fokus på er også det der projiceres frem og bliver synligt. Derved bliver forskellene også til det man gør dem til, man skal være bevidst om det, som du selv siger - en flok af forskellige mennesker vil aflede problemer på et eller andet tidspunkt, vi siger, at hvis mangfoldighed ikke ledes, så får man kun de negative dimensioner ud af det - mangfoldighed skal øges, ledes, bruges, ellers får man ikke det potentiale frem - forskel i sig selv kan være positivt og negativt - det kan ligeledes opfattes positivt og negativt - det er forskellige dimensioner. Vi ser positivt på forskel - det er berigende, alle de kræfter man kan tappe i det, potentiale, innovation, men det skal også ledes. Det skal iscenesættes at de positive potentialer skal frem. Det kommer ikke af sig selv, nogen gange gør det.

*Men hvad er så det positive I slår på - er det kreativitet?*

Ja! - Man har historisk været meget standardiseret og ens - nedtonet forskel og fremhævet ensartethed. Vi går ikke imod standardisering, men det har været traditionen. Siden Taylor - forskel har været set som noget forstyrrende. Man fik øjnene op for, at det findes mere end en ledertype, og at vi har hver vores styrker. Der skal flere forskellige ledertyper til for at lave et godt team – hvilket også fremhæves af den udprægede brug af både Belbin og MBTI.

Fortune - mangfoldighed som konkurrencemæssig parameter. Forskellige sammensatte gruppe - bedre beslutninger og større innovationskraft.

Viden kan deles op i:

- Det man ved
- Det man ikke ved
- Det man ikke ved man ved
- Det man ikke ved man ikke ved

De sidste to giver adgang til de ting du ikke kunne huske du vidste og til skabelsen af ny viden.

Denne skabelse er afhængig af de rammer der er opstillet og hvad der bliver efterspurgt. Bedt om at koble nogle erfaringer fra privatlivet eller uddannelse - A-HA oplevelser eller skabelse af ny viden.

Det er vigtigt at udnytte synergieffekten ved mangfoldighed, at ruge udfoldelsen af den unikke kombination af kompetencer..

Jeg er desuden ret begejstret for at arbejde med – systemtankegangen, med multivers og univers, som handler om at man kan opdele 'billedet' i tre domæner:

- univers: produktion, arbejdsplads, regler, roller, løn hierarki, lederroller, spilleregler - én måde er rigtig - en synsvinkel, som dog kan ændre sig.
- univers: private eller æstetik , univers ens personlige værdier, præferencer, måde at se tingene på, moral, privat liv, dit eget
- multivers: refleksion, forandring, forlade sit univers og mødes i refleksionsdomænet, i multivers. Hierarki sættes i parentes, her reflekteres der, lyttes, kreative, sætter tingene på hovedet.

Mangfoldighedsledelse handler jo i bund og grund om psykologiske mekanismer, om kommunikation, om perception og om gruppe dynamik. Mange psykologiske mekanismer på spil, forskelle er livgivende og besværligt. Vi opfatter ting på baggrund af forskelle, ellers kan vi ikke finde ud af det. Vi opfatter i sort og hvidt. Måden vi kan kapere verden på er at kategorisere. Vi opfatter gennem forenklinger, typer m.v.

Ved at fokusere på gruppedynamik, kan man se at fx. usunde grupper holder fast i det der er ens, og begrænser sig derved, fx ved at bruge koder som så kan hægte andre af. Sunde grupper fokuserer istedet på det man har til fælles.

Paradoks består jo netop i at vi har en tendens til at overdrive ligheder og ignorere forskelle, og modsat at overdrive forskellige og ignorere ligheder. Den negative overdrivelse ses fx når vi kun ser kvindens tørklæde, og derfor ikke har øje for hvad vi evt. har til fælles. Man kan derfor tale om at Forskelle er noget der aktiveres i alt efter hvilke sammenhænge man befinder sig i.

Når vi så gør det her med at ignorere forskelle, så undgår vi også at tale forbi hinanden. Det man ikke forstår afviser man. Fx vil man tit være blind overfor forskelle indtil man træner sin opmærksomhed. Alle kinesere ligner hinanden indtil man er opmærksom på forskelle. Ifølge en undersøgelse så skulle det første man ser være om man er menneske eller dyr, herefter bemærker man køn, og slutteligt hudfarve.

Jeg er desuden ret begejstret for Thomas & Ely og tre mangfoldighedsparadigmer, hvor det første bygger på en accept af mangfoldighed (diskrimination og fairness - opfyldte lovgivning, forbyde diskrimination, den farveløse organisation), det næste handler om adgang og legitimitet, om at acceptere forskelle for at få nye kunderelationer, her handler det dog ikke om at ikke lære af mangfoldighed. Det gør det til gengæld i det sidste paradigme, der fokuserer på læring og effektivitet, hvor man værdsætter mangfoldighed og ligefrem understreger forskellene. Det er også det vi bygger på i vores Inkluderende Organisation..

Jeg arbejdede på et tidspunkt med en gruppe kun bestående af kvinder - her kunne vi fokusere på køn eller lade være. Én havde været ude for noget som hun tilskrev dét at være kvinde - en anden havde oplevet det sammen, men mente ikke at det var relateret hende køn. Køn skal ikke være forklaringsfaktor. Hvis det ikke er køn - hvad er det så der gør det? Er det løn, lederstil, anciennitet.

Kender du til apresiative metode? Det er en metode jeg kan anbefale for at få forskelle kreativt i spil. For at få stigmatiseret forskelle blandet op med andre forskelle og indtage én mere naturlig position.

Man tiltrækkes at det man undersøger. Det man forsker i bliver man dygtigere til. Eksempel: en virksomhed har problemer med stress, og en masse konsulenter bliver involveret i at hjælpe virksomheden med dette. De var der i 1½ år - der blev lavet gå-hjem-møder, aviser, interviews, kurser i stressmanagement. Efter 1½ blev der lavet en ny undersøgelse, i hvordan det gik. Folk var stadig stressede, for de fokuserede jo på det, de var blevet mere raffinerede omkring det - stress var på dagsorden og alle tænkte på det. Tænk på hvis man i stedet havde fokuseret på arbejdsglæde og effektivitet (der bliver grinet). Konklusion - når man undersøger problemer, så bliver man god til problemer, undersøger man det der virker - bedre til det der virker.

Apresiative inquiry handler om at interessere sig for det der virker i organisationen. De succeser der er, det man er gode til, det der lykkes. Fokuser på dem for at lære af dem. Stammer fra systemisk teori, og er baseret på social konstruktivismen, hvor du skaber virkeligheden når du taler om den. Vi siger: Diversity management er kun et middel, den inkluderende organisation er visionen. Mangfoldighed ledelse fører ikke nødvendigvis nogen steder hen i sig selv.

Vi anbefaler, at man skal gå fra "forskellige fra os" til "forskellig fra mig". Andet forskellighedskoncept. "Forskellige fra os" - hvordan grupper ser på hinanden, vores gruppe er sådan, jeres gruppe er sådan - det skaber afstand. Det understreger stereotyper, unge er sådan, jyder er sådan, én forskel pupper-up. Social konstruktivistisk tankegang, du skaber forskel i det du italsætter den. "Forskellig fra mig" - fra et menneske til et andet - skaber menneskelig kontakt.

F.eks. ved at interviewe en tyrkisk kvinde: interessere sig for hvad hendes glæde er, hvad hun har at byde på, hvordan hun oplever at være anderledes - såvel positivt som negativt m.v. Pludselig ryger det stempel "tyrkisk kvinde" bort, du opdager nogle ting om hende som måske ligner dig. Dét at hun er tyrkisk og kvinde er to ud af 50 faktorer. Metoderne handler om at bringe folk i kontakt med hinanden to og to. Apresiative inquiry anerkendende nysgerrighed. Hermed generaliserer man ikke.

I Danmark har vi en tendens til at oversætte forskelle til uligheder. Det er kulturelt betinget - sådan er det ikke i andre europæiske lande. Vi bruger også cases fra andre lande, hvor de er nået længere med mangfoldighed, fx Philip Morris, Royal Bank of Canada, DERA.

## **Appendix F:**

### **Interview med Thomas Mathiesen (Innovationschef Foss Electrics)**

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*Indledningsvis skal det lige fortælles, at mit bekendtskab med Foss startede i februar, hvor de havde udbudt sponsorater for studerende der gerne ville deltage i konferencen Innospace om 'Innovation in the new Economy'. Jeg var en af de heldige modtage af dette sponsorat – og vi der havde modtaget det blev en måned senere inviteret ud til Foss, hvor de havde sat en eftermiddag af til at diskutere innovation med os (vi var ca. 10). I den forbindelse fortalte jeg om mit speciale og om praksisfællesskaber, ligesom jeg fortalte Thomas at jeg en måned senere skulle til konference om praksisfællesskaber i San Diego. Han synes det lød ret spændende, og jeg sendte ham lidt materiale om emnet. Efterfølgende blev vi enige om, at han sponsorede en del af min deltagelse i konferencen, mod at jeg så kom ud og fortalte dem om det når jeg kom hjem! Jeg var så derude i juni måned, til et møde med ledelsesgruppen i R&D, hvor jeg fortalte om Praksisfællesskaber, og lidt om hvordan jeg forestillede mig at de kunne have glæde af dem hos Foss. Vi havde et særdeles spændende møde – og nogle måneder senere mødte jeg Thomas, der fortalte at nu havde de simpelthen besluttet sig for at forsøge sig med Praksisfællesskabe. Vi har mødtes et par gange siden – og dette interview blev foretaget i november, hvor jeg jo gerne ville høre lidt om deres erfaringer med PF*

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*Jeg vil gerne høre om I allerede nu kan sige noget om hvordan implementeringen af praksisfællesskaber har påvirket innovationen hos Foss?*

Det er jo lidt svært at sige noget om allerede nu – vi startede jo først officielt, dvs. Vi introducerede det d. 18 september hvor vi sagde at nu sætter vi det her igang. Vi har valgt at gøre det på den måde at vi introducerede det meget løst for dem, fordi vi har sagt at det der egentlig er af rammer for det, det er at det skal være i overensstemmelse med vores strategi, og det skal bedre vores resultater og de skal godkendes af ledergruppen! Specielt er det vigtigt at de 'købes' af projektlederen, da det jo typisk er ham der har de hårdeste deadlines, og derfor skal være indforstået!

Da vi så havde annonceret at vi nu ville forsøge os med praksisfællesskaber, lukkede vi de eksisterende faggrupper og centres of excellence med øjeblikkeligt varsel, hvilket jo var lidt svært at håndtere for mange, når vi ikke udstak retningslinjer for hvordan disse praksisfællesskaber skulle køre. Faggrupperne havde jo indtil da holdt dem opdaterede med faglig viden, hvor centres of

excellence havde været mere fokuseret på teknologien. Så folk var jo unægteligt lidt skeptiske til at starte med – og havde jo en masse spørgsmål, hvor det eneste vi kunne fortælle dem det var at det var dem selv der sad inde med svarene. Men det der så er begyndt at ske det er at folk er begyndt at finde ud af, at ved at tage udgangspunkt i praksis kan de jo lave noget af det de ikke kunne lave i de tidligere faggrupper og centres of excellence. Og nu er der så også andre afdelinger der er begyndt at give udtryk for ønsket om at oprette praksisfællesskaber. Så ideen spredes langsomt uden at vi egentlig har gjort særlig meget for det! Og jeg skal til Sverige på torsdag og fortælle om det derovre!

*Det lyder da alletiders – har i nogen fornemmelse af hvad det betyder for innovationen?*

Men hvad præcis der kommer ud af det, det ved vi jo meget lidt om endnu – men der har været en masse møder om det, hvor folk render sammen på kryds og tværs, for at diskutere hvordan kan gøre brug af og organisere sig i praksisfællesskaber.

*Men er det typisk de samme faggrupper der så finder sammen eller foregår det også på tværs af de traditionelle faggrupper?*

I starten var det jo mest i de samme faggrupper at det hele foregik, fordi det jo blev bedt om at sætte sig sammen og finde ud af hvad de kunne bruge det til. Men vi har da allerede set flere tilfælde hvor praksisfællesskaberne også bevæger sig på tværs

*Skal de enkelte fællesskaber stå til regnskab for deres arbejde, eller rapportere hvad de laver?*

Nej – de skal bare genere viden! Og hvis de ikke laver noget, jamen så er det jo meget enkelt, så bliver de jo bare lukket

*Men hvordan ved i om der sker noget?*

Ja, det er jo lige det – det finder vi jo nok ud af. Man kan jo ihvertfald se om de bruger nogen penge, og hvad de bruger dem på

*Men hvordan allokerer i så ressourcer – er det blot der udtrykkes et behov, eller har i budgetter?*

Hvis de nu fx skal bruge en ny platform eller noget teknologi, så rejser vi ud og snakker med dem, og så finder vi også ud af det! Der er ikke rigtig nogen detailstyring på det, men selvfølgelig skal der jo aflægges regnskab. Vi forsøger at lave så få rammer omkring dem som overhovedet muligt!

*Der er jo generelt en stor diskussion på cop-listen omkring hvorvidt PF eksisterer i forvejen og blot skal faciliteres, eller om de skal skabes. Hvad har din oplevelse været af det hos jer?*

Både og! Vi har eksempler på begge dele. Der er eksempler hvor de er pludseligt opstået fordi muligheden var der, og vi har eksempler på nogle grupperinger som allerede eksisterede, men som på denne vis har opnået formel anerkendelse.

*Har du nogen fornemmelse af hvor tit de mødes?*

Det er meget svært at sige noget om allerede nu – men meget tyder på at de nu her i opstartsfasen mødes et par gange om måneden, hvor det nok på sigt mere bliver en gang om måneden.

*Har du fået lidt en fornemmelse af hvad det her kommer til at betyde for innovationen hos Foss?*

Jamen jeg er ret overbevist om at det giver en bedre innovation, det er endnu svært at sige noget om hvordan, men jeg er ganske positiv. Men hvad der kommer ud af det ved vi jo ikke – det er jo et eksperiment – det ved vi jo nok lidt mere om om nogle måneder

*Har i snakket om hvor længe i vil lade det køre før det ikke længere betragtes som et eksperiment?*

Det er jo sådan set ikke noget eksperiment, for det er jo sat i værk – vi har jo besluttet os for at gøre det. Det er et eksperiment på den måde at vi ikke ved hvad det fører til, hvad vi får ud af det!

*Tror du i kommer til at også at se internationale praksisfællesskaber?*

Ja – vi har allerede set den første internationale blive sat i værk, som fungerer virtuelt

*Sætter i noget i værk for ligesom at hjælpe dem igang – fx med at opstille retningslinjer o.a..?*

Næ, egentlig ikke – jeg tager et møde med dem hvor vi snakker lidt om tingene og jeg fortæller en smule, ellers er resten op til dem selv! Og så forsøger vi at lave en IT-plattform der går på tværs som de så kan benytte sig af Men vi meldte jo allerede meget tidligt ud at vi kastede os ud i dette, havde jo ikke prøvet det før – så folk må meget gerne stille spørgsmål, men det er typisk op til dem selv at komme med svarene. Vi vil jo meget gerne undgå at opstille for mange rammer omkring det.

*Men hvordan har folk taget imod det?*

Det har de haft svært ved. Folk har store problemer ved ikke at have faste målsætninger og strategier for deres arbejde – stiller jo typisk spørgsmålet: ”jamen hvad er målet?” Men hele essensen er jo at det er det de selv skal finde ud af

*Har du iøvrigt fundet ud af om der er andre der arbejder med det i Danmark?*

Nej – det ser ikke sådan ud. Jeg har hørt at Oticon på et tidspunkt arbejdede med noget tilsvarende, jeg skal have ringet til deres personalechef. Så jeg tror det sådan set ikke...

*Men det er jo vel herligt at være de første så?*

Ja, er det ikke fedt? (Thomas spørger til hvordan det går med mit speciale og jeg forklarer)

*Hvad er din opfattelse af sammenhængen mellem diversitet og innovation?*

Det har jo klart sine fordele at være forskellige, men jeg vil tro at det kræver et ordentlig system der kan håndtere diversiteten. Tit handler det jo også bare om at få mulighed for at sætte ord på forskelligheden

*Problemet synes jo, specielt her i Danmark at være, når der så (endelig) er personer der er anderledes, så tvinges de faktisk til at tilpasse sig, hvilket gør at det bliver svært at bruge denne forskellighed konstruktivt – og da er det jo så lidt min påstand at denne forskellighed får mulighed for at udfolde sig i praksisfællesskabet*

Ja, det er den ene ting. Den anden ting er at man slet ikke har fortalt folk om anvendeligheden af forskellighed. Vi havde en konsulent ude her for ganske nyligt, som fortalte om hvordan forskellighed skal dyrkes og bruges. Og det tog folk meget til sig – det var jo noget helt nyt at det også kunne være en fordel. Folk har ligesom ikke rigtig haft erkendelsen af at disse forskelle kunne bruges, og at man skal arbejde med dem og dyrke dem for at de kan bruges, og specielt hvordan de kan udnyttes i teams. Når man fortæller folk det, så betyder det faktisk en hel del

*Noget andet der også er interessant i relation til diversitet og praksisfællesskaber, det er jo hvorvidt man – når praksisfællesskaber nu etableres på frivilligt basis – hvorvidt man så ikke bare finder sammen med dem der er lig en selv?*

Det er det gode spørgsmål – og her må jeg blive dig svar skyldig! Det kan jo meget vel være at folk vil opsøge ligheden..

*Men det var da rart at høre at der hos jer er opstået PF på tværs af de traditionelle opdelinger*  
Bestemt – du er ikke stødt ind i andre der arbejder med det her? Der er jo mange der kender begrebet, men der er ikke rigtig nogen der bruger det..

*Mit indtryk har været, at hvis der er nogen der bruger PF her i Danmark, så er det nok mere i de international organisationer, såsom HP, Lotus og Shell, hvor så er fordi det kommer fra USA, men jeg må jo indrømme at jeg ikke har taget kontakt til nogen af dem for at høre hvorvidt de også anvender det her i DK. Men måske det anvendes – blot under et andet navn, og så hører man jo ikke om det..*

Ja, det er jo meget praktisk når det får et navn, så man kan forholde sig til det, og snakke om det, at man får et sprog hvor man kan tale om praksis, det er jo i virkeligheden det der betyder noget. Netop det at man har et begreb for det, og at det begreb så er forbundet med noget positivt

*Jeg synes også ordet praksis er godt, fordi vi har en tendens til at tale om processer, som let bliver et noget abstrakt begreb. Praksis derimod er noget nemmere at forholde sig til*

Men der har været meget interesse, interessen har været stor for at tale om det, både hos os (FOSS), men også andre jeg har talt med, fx i IKI (Institut for Kreativitet og innovation – hvor Thomas Mathiesen sidder i bestyrelsen). Folk synes jo det er spændende – sådan at skabe et fri-rum hvor man kan reflektere lidt over praksis...

## Interview med Birgitte Mølgård Hansen, Skibet

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*Jeg har mødt Birgitte i forskellige sammenhænge, både på Innospace, i IKI (Institut for Kreativitet og Innovation), samt til et møde om innovation afholdt af Foss osv. Birgitte er medlem af Ericssons tænketank, har en humanistisk baggrund – og praktiserede kunst i en del år, men fandt ud af at det nok var nemmere for hende at leve af sin kreativitet, ved at bruge den indenfor business verdenen. Det skete omkring på det tidspunkt hvor IKI startede – for omkring et års tid siden*

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*Hvordan startede alt dette – din interesse for innovation etc?*

Det hele startede nok med at Carsten Ohm sad i sit lille hjørne af verden og arbejdede med ideen om at man skal lave open spaces, som var en tanke der kom fra Amerika. Det førte til at han spurgte, om jeg ikke ville være med på Innospace. Arne Stjernholm fra Ericsson samt Thomas Mathiasen fra Foss Electrics gik ind på sponsordelen. Så IT-netværket må siges at fungere :-). Og de forsøger tilsyneladende alle sammen at få unge mennesker bragt sammen med de gamle folk i brancen/VIP's :-). for at få værdi ud af de tanker der kommer. Men selv om folk synes det er interessant, og der er megen nysgerrighed, skal jeg jo også kunne leve af det, og der var ingen vilje til at sige, jeg vil gerne satse - lave denne her stilling.

Men så mødte jeg så John Bern (John Bern & Co) hos Ericsson. Vi finder ud af gerne at ville lave noget sammen, og mødes uden egentlig at have nogen ide med det. Han ser fordele i det. Han trænger til fordybelse, og jeg trænger til lethed. Jeg har nogen gange en tendens til at være så dyb, at jeg har svært ved at tjene penge på det. Han har en enmandskonsulentvirksomhed, har arbejdet med kreativitet i mange år og har en baggrund som revisor. (Der har vi det igen, det mere personlige – at man er mere end sit fag.) Vi laver en åben ansættelsesform, hvor jeg får lov til at lave hvad jeg har lyst til. Han synes det er et ekstremt skridt at tage, det er uvant for ham og han vil derfor gerne have det ind i et produkt: Forretningsmæssigt Kreativitet, som er et koncept han vil sælge hos John Bern & Co.. Det er processer for virksomheder, hvor man arbejder med at lave et kreativetsklima for at få fat i ideerne. Det handler om forskelligheder, uden at man siger det direkte. Kreativitet handler om at tage fat i det oprindelige, det ægte, og det er derigennem, at mennesker bliver forskellige.

Jeg bliver dog derefter kaldt ud i Zentropa hvor jeg arbejder på forskellige projekter. Hver gang jeg bliver kaldt ud, er det i kraft af min forskellighed. Jeg har en kompetence, som kan give et modspil til andre i de her projekter, men også fordi jeg sætter tingene sammen på en måde, som gør, at man bliver forskellig fra det, der er i forvejen. Men det er ikke det man ved, det er ikke det man snakker om, når man gør det, det er nærmest bare en ingrediens der kører, det er også derfor at det bliver så uformaliseret.

Jeg begynder så, at se at forskellighed kan udtrykke sig på meget forskellige måder, alt efter hvilken personer man er sammen med. Altså for eksempel at jeg kan virke på en måde, give udtryk for nogle ting, eller lave en vis type projekter sammen med John Bern og andre typer projekter sammen med andre, fordi der er et helt andet klima og en hel anden forstand på dybder eller på menneskers følelser og værdier, og der er en helt anden tradition, alt efter om man kommer fra filmens verden eller et konsulentmiljø. Det giver nogle interessante perspektiver på hvad der skal til, og hvordan hun virker og hvad der skal til for at hun virker optimalt. Det at bruge forskelligheder kan være betinget af ting som økonomi, altså hvem får noget ud af det.

*Oplever du omkring diversitet, at hvis der er en gruppering, hvor der er nogle enkelte som skiller sig ud, at der er et pres for, eller at de skal lukke af for en del af sig selv, af sin identitet? Hvilket kan forhindre folk i at kaste sig ud i kreativitet?*

Hvis du snakker almindelige mennesker i virksomheder, så kommer de ikke om de der ting. Det er blandt andet fordi, at i det budskab som lederen sender ud, der beder han slet ikke om det, og de reagerer ubevidst efter det, de bliver bedt om, for simpelthen at please. Derudover har det en ret høj pris, og de forhold er der ikke taget højde for i virksomhed. Derfor kan det ikke betale sig i alle sammenhænge at give udtryk for dem.

*Selv om diversiteten er der, så betyder presset for konformitet, at man ikke dyrker forskelligheden, ikke har glæde af den?*

Jeg arbejdede en gang sammen med en narkoman, i et teaterstykke. Hun var valgt ud, fordi hun var meget forskellig. Hun blev clean under stykket og købte så det tøj, som alle andre havde, fik sig en lejlighed, sagde de ting som alle andre sagde. Birgitte var meget overrasket over at hun trængte til at

være almindelig, være borgerlig, få en kæreste etc. I forhold til ens identitet, så er det ret vigtigt, at man har fat i noget almindeligt ved sig selv, samtidig med at man er forskellig, fordi ellers kan man miste et fællesskabsområde, man bliver for bange. Det er meget generelt at snakke sådan.

*Hvad er din personlige erfaring med at være sammen med nogen, som kan noget forskelligt, hvordan kan det virke positivt eller negativt?*

Ideen om forskellighed er fantastisk god og befordrende for mig, jeg trives rigtig godt med forskellighed. Men det er afgørende om man er i en gruppe, hvor man har det godt med det.

Det er vigtigt, at man har fat i sig selv og er en smule autentisk. Er du sammen med mennesker som ikke er det, så vil de opdage, at det som autentiske mennesker gør, som fx i compaq-reklamen, så begynder andre at gøre noget der ligner det, eller simulerer, og så mister du forskelligheden, og ikke mindst gaven ved forskellighed.

Hvis jeg har nogle gaver som bidrager, og der er en anden som går ind og kopierer de evner, mister de den dybde, der ligger i det. Det er et problem, at mange mennesker tror, at tingene er bare overfladen. Autencitet er bygget op af så mange lag, at du ikke bare kan tage formen eller et aspekt. Gør du det, ændrer det fuldstændig karakter. Og så kommer der så noget som magt, og interessekonflikter som resulterer i at fællesskaber opløses, interessekonflikter hvor du skal være meget stærk eller strategisk, som ikke hører med til forskellighed.

*Vi er også uvante med at beskæftige os med den del. I skolen lærer vi at vi skal præstere i forhold til hvad læreren mener er rigtigt. Det samme gør sig gældende på arbejdspladsen og i virkeligheden er kreativitet vel noget med at man præsterer noget som man selv synes er godt?.*

Det skal have et aftryk for dig selv, men problemet er når folk skal tjene penge på de her ting. Der kommer et vandmærke ind over det, og da bliver det afgørende, om folk ved, at det lige præcis er dig, der kan det her, og det er dig der løber med nogle roller i projektarbejde, - hvilket er dødsygt. Birgitte deltog i et projekt som handlede om at få kreativitet ind som værdi i virksomheden. De arbejdede i tværfaglige grupper og prøvede at få fat i de ideer og den viden, som ligger i sådan en virksomhed på tværs: fra nat til daghold, rengøring til udviklingsafdeling.

Vi arbejdede med tre forskellige grupper med forskellige mennesker i – alle med samme problemstilling. Utroligt spændende hvor forskellige ideer de havde. For eksempel arbejdede de

med nogle plastformer, hvor formlaget ændrer sig med temperaturen og det giver et stop i produktionen. Hvordan kan vi optimere produktionen?. Dag/natarbejdere sammen: en kører meget i analyse, output/input. Kan se et landkort hvor nogle har et aspekt, andre et andet. Birgitte kan se udefra ind på landskabet af ideer. Jeg kendte ikke det teoretiske bag, men hvis man laver et sparringsfællesskab, får man flere aspekter. Med mindre grupper på tværs opstår der forskellige dynamikker.

Virksomheden havde en undergrund af dynamik i forvejen, da det var en familievirksomhed. De kendte hinanden i forvejen, nogen var sågar gift med hinanden. På virksomheden var der et rigtig godt produkt-output, og der blev lavet en undersøgelse om det, men man kunne ikke indfange det med management teorier. Birgitte kunne mærke det, kunne ikke sætte ord på det.

*Praksisfællesskaber kunne måske være det – de er jo fra naturens hånd selvorganiserende. Lige nu er det så blevet hot og at man skal gå ind og understøtte dem fra ledelsens side og derved give plads til dem.*

Det lyder spændende med de praksisfællesskaber, problemet er bare at det er et helvede for mange virksomheder, at man sidder i møder hele tiden og aldrig kan fordybe sig og det hele bliver ord. Det er en fare ved det. Du får en anden gruppestatus. Man får ikke bare status i forhold det sted man sidder i produktionen, men også i forhold til denne her lille gruppe, og der er der hele magthierarkiet med dem der kan snakke etc. Det der var karakteristisk dernede det var, at de ikke var vant til, at der kom en ide fra en lærling, fx.

hvad skal der til for at man lytter til de her ideer – når de kommer fra en front hvor man ellers ikke ville lytte?

Du skal have en der kan oversætte dem. Du skal have nogle processer som gør, at du ikke hver gang, du hører en ide siger det kan vi ikke bruge. Fx var vi inde i supermarkedet, hvor der var en flaskecontainer. I plastikfabrikken skulle de lave et intelligent lager. Kunne I ikke bruge sådan en flaskecontainer i jeres virksomhed? Folk var bange for, at de ville blive afskediget, hvis der blev sat en maskine op. Birgitte var interesseret i ideen om at man har et fjernlager. Hvorimod de var optaget af, at der var en maskine involveret. Der var hele tiden en historisk baggrund. Det der typisk sker er, at folk affærdiger ideen, fordi de siger, vi vil ikke afskedige folk. Men de kan godt lide ideen om løbegange oppe fra loftet eller et eller andet.

Ideopfindsomhed var ikke opdyrket særlig meget. Som udenforstående kunne jeg samle op. e.g. lærlingen der kommer med en ide om at ændre lyset i virksomheden, men selv siger, at der skal nok en ekspert til. En anden siger, ”det kan man da ikke”. Hvis der ikke havde været en udenforstående var ideen endt der. Lærlingen affærdiger også ideen selv.

Det første indenfor vidensudvikling er, at man har en oplevelse. Hvis man kigger op og skal have et lager foroven og kigger op i skarpt lys fungerer ideen ikke, da det er et for skarpt lys. Så kunne ideen ende der. Ideen kan være ’crap’, men det at jeg tillægger den værdi gør, at de andre lytter. Det medfører så, at de siger at det kan være det dur i det hjørne nede i lagerhallen. Forskelligheden indenfor viden kan folk ikke rumme og derfor bliver den slået ihjel. Det skal der tages højde for i sådan nogle processer.

*Det at man har en fordom om, at han er kun lærling og kan derfor ikke have noget at skulle have sagt – det er styrende for om vi lytter til en ide eller ej. Det var noget andet, hvis det var direktøren. Hvorfor lytter og åbner man nogen gange op og andre gange ikke?*

Det er en menneskelig indsigt i sådan nogle ting. I Skibet sidder vi tre sammen. Den ene har fundet noget vi måske kan bruge, det er noget meget praktisk som de andre i gruppen per definition ikke tillægger særlig stor betydning. I sådan en gruppe er der klasse 1 ideer og klasse 20 ideer. Denne ide var 15 eller tyve. Så siger hendes sparringspartner, lad os kigge på den. Det som han viser der (sparringspartneren, red.), skulle egentlig først have været fremme på et senere led i konceptproduktion, men han tager alligevel fat i det og byder det velkommen, hvilket repræsenterer en utrolig vigtig kompetence, det man kalder flyvskhed, det aspekt er utrolig vigtig. Hvis ikke sparringspartneren havde set det, så var der ikke sket noget, så var ideen død dér. Sparringspartneren er psykolog og har arbejdet med kreativitetsprocesser i mange år.

*Telefonen ringer.*

*Det at være kategoriseret som forskellig kan det gøre at folk blokerer overfor hvad du siger? Kan det være et problem, for at opnå legitimitet og være kreativ?*

Vi kan jo tage eksemplet fra Foss. I marts mødtes vi jo hos Foss. Vi var meget forskellige mennesker. Foss har et sprog og vi har hvert vores. Det er et udtryk for forskellighed, en forskellighed som Foss forsøgte at lukke ind i varmen. Intentionen er god nok, mødet var

interessant – men der blev talt og talt, men jeg tror ikke at der faktisk kom særlig meget ud af det i sidste ende. På samme måde med IKI, jeg kan undre mig over at Iki har eksisteret nu i snart et år og der er ikke sket mere end der er.

*Jeg synes ellers der er sket meget*

Folk opfatter det meget forskelligt. Sidste gang kørte jeg to personer hjem som jeg ikke kendte. Der var meget drivkraft i den biltur hjem. Folk var meget forskellige og der var virkelig originale. Det var virkelig skægt. Det gjorde at man turde sige hvad man havde lyst til og at der var en masse energi. Det er at få forskelligheder frem. Det andet er mere pænt og hvor man snakker om forskelligheden.

*Min erfaring er at hvis det er et emne man virkelig brænder for, så er man mere lydhør overfor at høre nogle ting som man ellers ikke ville have hørt, fx når I arbejder med skibet eller når I kører tre hjem i bilen. så har jeg indtryk af at dynamikken kommer af, at det drejer sig om noget du brænder for, så sker der et eller andet. Det man har til fælles er den her praksis, en interesse for innovation og kreativitet. og udgangspunktet for at mødes er da også det større end hvis det bare var et tilfældigt projekt man skulle mødes om eller arbejde om, for det griber vel dybere?*

Jeg ved ikke om jeg forstår det du siger, men alle brænder jo for at komme i IKI, men der er ikke vildt meget energi på drengen. Men det er nok fordi jeg ikke er med i bestyrelsen, og ikke hører om alt det der sker. jeg tror nok der sker mere. Men organisationen kan jo være flad og man kan kaste bolde ind, men at høre/opleve de der enkelte øjeblikke, som bilturen hjem. Det kan godt være det er tilfældigt, eller folk er dygtige til at sige at nu kører vi videre eller nu rejser vi os op.

*Er det det der skal til?*

Ja, en evne til det., det er meget vigtigt.

Jeg var fx. Til en konference om iværksætteri hos Erhvervsfremmestyrelsen for nylig. Der sidder en masse mennesker i deres fine jakkesæt der skal finde ud af hvordan vi sætter iværksættere igang. På et tidspunkt, jeg ved ikke hvad der skete, men pludselig så sprang folk ud af deres uniformer, og informationen blev meningskabende, så folk kunne få nogle input de kunne bruge. Der er en utrolig vigtig viden der kommer op i sådan et øjeblik. Normalt gør folk ikke brug af denne viden når

de kommer hjem, man hører måske at Thomas Mattiasen har så lavet et lille praksisfællesskab, så på en eller anden måde kommer det ud, men den dybere mening.....

*Har det noget at gøre med at vi ikke er vant til at dyrke meningskabende adfærd?*

Problemet er at der er ikke et valg. Jeg er a-teoretisk. Jeg kan bare se hvornår det virker, og hvad det er for nogle ting der gør at det ikke virker. Jeg er sikker på at der er nogle helt andre ting som ville virke for Arne Stjernholm (arbejder med kreativitet hos Ericsson). Det har jeg en illusion om. Du kan skabe møder, der er masser af møder i organisationsverdenen, men forskellen fra et møde og et møde der gør en forskel er meget stor og et praksisfællesskab skal ikke bare være et møde, men skal give noget innovation. Der er sikkert forskel på masserne, altså vi er mange mennesker der skal kunne gøre det, og nogle grupper af mennesker der kan lave det på nogle andre måder. Det betyder ikke at alle mennesker skal gøre det på denne her måde.

*Hvad er din egen erfaring, med skibet fx? Peter Engbergs baggrund i filmverdenen, dig fra den humanistiske verden og John Bern med revisorbaggrund, og den faglige baggrund skaber jo også lidt hvem man er. Men når I mødes, hvordan påvirker forskelligheden så jeres måde at arbejde sammen på?*

Skibet er et kulturhus for os tre, et eksperiment mere end en virksomhed, og det vil sige at vi skaber det undervejs. Fuck titlerne, her er vi nogle rene mennesker og vi kan alle lave film eller økonomi. Fremtiden skal være flydende fordi at vi hver især er dødtrætte af vores faglige baggrund og vil gerne forandre os. Det kan man normalt ikke, hvis man går ind i en almindelig virksomhed, så bliver man booket til et bestemt område. Her kan man komme ud over den boks man er blevet puttet i. Men det betyder samtidig også at man bliver utryg. Hvis jeg har en bedre ide til en film end Peter (film-manden), hvad så, skal Peter så ikke have penge. Eller hvis Peter ikke skal lave film, hvad laver han så i det her projekt? Der kommer masser af konflikter op som til sidst kan være relevante pga økonomien i det. Altså hvilke navne, hvilke roller har man på navnelisten til sidst?

*Den kategorisering man ubevidst laver den bliver ophævet og det giver utryghed?*

Afhængig af hvor dygtig man er, og hvor konstruktiv en proces man er inde i, så kan det være ok, hvis du er i en svær periode kan det være meget negativt.

*Oplever du at i falder tilbage i de oprindelige roller?*

Ja, en gang imellem og det er til ulempe for fællesskabet. Eller der kommer tabere eller vindere som slet ikke skulle have været vindere fordi det er et lige fællesskab.

*Hvad er det så der gør at du/i kan udholde den utryghed?*

Det kan vi heller ikke altid. Jeg kan holde det ud fordi jeg er interesseret i det som et eksperiment og jeg ved at der er noget vigtigt i at gøre sådan noget her og at der er nogle helt konkrete kompetencer ved at kunne filme eller ved at investere i et projekt. Der er det bare det basale ved kompetencedelingen, men bruger vi dem lidt skævt så sker der et eller andet og det er den luksus del vi prøver at komme over i. Men der er bare det at det koster penge, fx at lave en film. Vi er lige nu ved at optage en film om kreative processer og det er nu skåret ned til et pilotprojekt. Jeg skal lave en samtale med Ebbe som ved noget om kreativitet og John Bern skal filme. Samtidig med at vi skal lave en større film som handler om kreativitet som vi alle tre er involveret i. Der er fordi vi prøver at dele kræfterne ud og lære fra det første projekt. Det er karakteristisk for den måde vi arbejder på: Som hun sagde, hende fra fra Ledernes hovedorganisation, da vi præsenterede Skibet i IKI: Projektstyrer I så ligesom man gør i projektstyring? Så sagde jeg nej vi lærer bare hen ad vejen. Det er ikke noget som altid er sjovt, der er en masse utryghed forbundet med det, men det er utrolig interessant og man kan lære noget af det.

Da jeg så jeres præsentation af Skibet, tænkte jeg: 'det de har her er et praksisfællesskab der giver rum til innovation og som udnytter forskellighed så den giver ekstra energi i stedet for at lægge lå på.....

Ja, Peter har jo brugt 50 år af sit liv på at nå den forskellighed som han repræsenterer. Det har vi andre måske også bare på vores sære måder. Vi klar over at der ligger en sandhed i de ting. Det er vigtigt at sige at det er et eksperiment i stedet for en virksomhed. fx 21st.dk som du nævnte, han er måske gået et skridt for langt for at finde ud af om processen kan holde. Vi kører det som en hobbyvirksomhed eller et eksperiment, og mulighed for at vi kan komme videre. Det er den grundlæggende byggesten som vi bygger på. Så bliver det ikke så vigtigt hvordan det kører. Derimod kan man på den her måde hele tiden forholde sig til processen. Derfor skal man måske kigge på det som, hvad kan det blive til, kunne blive til. Det derinde (præsentationen af Skibet i IKI) var jo et teaterstykke i tre akter, vi var jo vanvittig forskellige og var dårligt nok klar over hvad hinanden lavede. Der var også en krise, jeg tænkte at vi var så forskellige at folk ville tænke at det aldrig nogen sinde kunne gå.

*Du taler om hvordan i lavede præsentationen hos IKI?*

Ja, altså først Peter, så John og så mig. Det jeg sagde var et kup, jeg smed en mening ind om den måde vi havde arbejdet på, uden at de andre vidste det.

*Det var jo netop dét der var så interessant, jeres forskellighed mener jeg. Det kunne jeg også høre på kommentarerne bagefter, at folk var ret begejstrede for denne forskellighed, og dit indlæg som var mere reflekterende, og meget anderledes end hvad man normalt oplever med kreativitet og innovation og det synes jeg var enormt fascinerende. Hvordan i havde udnyttet jeres forskellighed til at sætte skibet i værk.*

Men det at du opfattede mit indlæg som interessant er ikke ensbetydende med at denne her viden bliver tydelig for eksempelvis John bagefter. Han er ikke klar over hvad der egentlig skete derinde, stadigvæk, og det er der min frustration ligger, og jeg kan ikke bare sige: prøv lige at åbne øjenene mand, du står på en guldmine af dine medarbejdere, det er det han går og proklamerer. Jeg skal arbejde med niveauet før tingene bliver til sprog. Hvis jeg så kan sprogliggøre det, så er jeg nået et godt stykke for mig selv og det var jo netop det jeg prøvede at gøre derinde (under præsentationen). Men det betyder ikke at John siger, 'jamen, så lad os gå igang med denne italesættelse eller meningsskabelse om du vel, eller at Foss eller Novo Nordisk gør det! Det at folk ikke fatter at de faktisk står med noget utrolig vigtigt lige i deres nærhed, og at konvertere det til en konkret virkelighed eller til nogle processer i deres virksomhed, det er der det hele bremses. Altså det vil de se beviser for før de går i gang med det.

*Jeg synes det er enormt interessant det aspekt med at italesætte tingene. Det er altså ret vigtigt. Thomas Mathiasen (Foss) fortalte også forleden at dem der arbejder med innovation de syntes det var enormt spændende, men det der i virkeligheden betød noget for dem lige nu og her, det var at de havde fået et fælles sprog for hvad det er der bringer dem sammen det lille netværk der nu kaldes et praksisfællesskab, men som tidligere egentlig havde været usynligt og folk ikke havde tænkt over eksisterede. Men det at vi kan sætte os ned og tale om hvad det er vi gør, det betyder meget. Et skridt er at nå til at tale om det, men man skal jo også kunne handle på det.*

*Er det der at man skal hen, at man skal kunne udholde det, eller er der andre måder?*

Det vigtigste er at der er en økonomi under det. Vi prøver jo at skrabe penge ind til livets ophold og det gør at vi står anderledes end en virksomhed der bare kan lave praksisfællesskaber ..... og så er

det som sagt en sproglig proces, du skal kunne have den evne i gruppen til at kunne oversætte de ting der bliver sagt, så det ikke bliver slået ned før det opstår. Vigtigt er også det den farer der er ved at udlevere nogle ideer som andre så kan tage æren for. Den nye økonomi handler meget om at dele og åbenhed. Misser derved det aspekt af identiteten som vi kender fra det lille barn der siger: 'se mig, mor' eller 'se hvad jeg har lavet'. Jeg kan blive aggressiv når jeg fx hører bestyrelsen i IKI sige: 'kom bare med ideerne på papir og smid dem i postkassen'. Det er den lyserød periode i den nye økonomi. e.g. jubii, lagkager til alle, senere kommer så den blå periode, hvor man opdager at der er nogen der huger nogle af de her ideer ved at sige at det var deres ide, hvorved vi misser det aspekt at forskellighed bygger på, at vi har hver vores scenarium eller hver vores personlighed. Hvis du ikke ærer personligheden tilbage – for det der ydes – så vil sjælen ikke give noget igen. Måske er jeg ikke voksen nok?

*For mig lyder det som, jeg bliver ved med at vende tilbage til betydningen af identitet og forskelligheder, at vi forhandler vores identitet med dem vi interagerer med, og det koster! Det betyder meget for os at være en del af et fællesskab – at finde de ting man har til fælles, men det betyder lige så meget at have sin egen personlighed, at have noget af en selv der er unikt. Hvis man giver alt det væk til et fællesskab, så forsvinder man jo selv.*

Ja, det er utrolig vigtigt. Mennesker giver jo ikke noget. Når folk siger at de giver noget til fællesskabet, så bliver jeg sur og irriteret. For folk giver ikke noget til noget. De bygger relationer op, de bygger en mening op. Det gør man kun imellem mennesker. Vi er jo ikke tilbage i 60'erne hvor ånden gjorde at alle delte....

Forskellighed fungerer utrolig smukt og det befordrer innovation, men det kan fungere lige så dårligt hvis man hugger hinandens identitet og ideer. På nettet markerer virksomheder sig med deres medarbejdere, hvor man får deres navne og historie (forskellighed) og så har du virksomheder som fx Novo, hvor de siger 'Novo er' eller 'Novo tror på'. Det er sikkert godt nok, men bare to forskellige strategier, hvor man hurtigt kommer til at glemme at give medarbejderne feedback eller ære for det de har ydet. Man skal forstå hvad respekt er, respekt er at give tilbage og give hinanden hånden og siger tak enten konkret eller i overført betydning.

*Der skal være noget både for den enkelte medarbejder og for virksomheden/organisationen. Organisationer må gerne påtage sig et ansvar overfor den enkelte identitet, man skal bare ikke gå ind og være for styrende. Hvis man kan koble de to ting kan det give en hvis dynamik. Jeg hørte Esther Dyson på First Tuesday for noget tid siden, hvor en iværksætter spurgte hvordan hun havde det med hemmeligholdelse og kontrakter overfor investorer for at beskytte ideen og sådan noget. Hun sagde 'fortæl så mange som muligt om ideen, så er der ingen der tør stjæle den – og der er*

*vel også mere i den end hvad du sådan lige umiddelbart kan fortælle – hvilket jo også gør det svært at stjæle’. Og det er jeg egentlig ret enig med hende i!*

Det er lige sket for mig at jeg lavede noget som jeg lavede fordi jeg troede på ideen. Jeg laver det så, og lige efter går den person der skal på efter mig ind og laver det samme, samme teknik og indhold som mig. Jeg fik et chok. Der er selvfølgelig mere bag tingene end det der blev sagt, eller det der findes på skrift, andre vil ikke have den indsigt som du, men den der kopierer vil stadig have produktet. Det er irriterende. Hvis du står med et punkt der er interessant i kraft af sin forskellighed, og andre opdager det og kopierer det, så er den forskellighed jo væk. Forskellighed er noget man kan tjene penge på eller bruge til idegenerering, og man skal også gå i den retning.

*Det gør man vel kun hvis forskellighed er en værdi i sig selv, og bruges forskelligheden derimod ikke er en værdi i sig selv, men giver værdi til kreativitet og innovation så vil folk vel ikke kopiere....?*

Det gør de jo. De låner jo også det oplæg jeg lavede om skibet i IKI. Peter sagde til mig: 'lad være med at give det ud' – men det havde jeg gjort, og i et Reklamebureau har jeg set at de har brugt det i en tekst om trends. Det irriterer mig at folk synes forskellighed eller anderledeshed er interessant – og så kopierer det, for så forsvinder det interessante jo...