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MAKING SENSE OF KNOWLEDGE WORK

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Abstract

According to a dominant discourse in contemporary writings and research, we are living in a Knowledge Economy where knowledge is seen as the pre-eminent resource and the key to success for individuals as well as organizations and nations. Consequently, much effort in management research has been dedicated to devising new concepts and theories such as the knowledge-based theory of the firm and the intellectual capital perspective, all premised on the assumption that knowledge work is somehow different from other forms of work. But what, actually, is knowledge work? And what is it that makes it so different?

This dissertation represents an attempt to make some sense of this discourse. Research themes investigate the role of tangible and intangible dimensions of knowledge work and organizations. Particular attention is paid to organizational identity and the physical work environment. The notion of identity is central to the Knowledge Economy Rhetoric, while the physical setting is a neglected, but potentially important, aspect of knowledge work and identity construction. Various theoretical and methodological perspectives were applied throughout the research process to illuminate these themes. The thesis covers two empirical case studies; one of a small high-tech firm in the telecommunications sector as it developed a knowledge based strategy. The other study explored the relationship between the design of the office and identity construction in a large IT/management consulting firm. In addition, a study of the literature on the organizational category of knowledge-intensive firms was conducted to explore the dominant constructions of knowledge work within the research community. The results from these studies are presented in five papers. While addressing different questions, the papers all deal with some aspect of sensemaking of, or in, knowledge work. The first paper describes how the management team in the case company went through a process to make sense of the intangible dimensions of their organization. The second paper is a conceptual treatise outlining an alternative conceptualization of strategy for knowledge-intensive firms that emphasizes the importance of identity. Paper three provides an analysis of how the category of knowledge-intensive firms is used in the research literature and the consequences thereof. In paper four branding is analyzed as a management practice. The last paper discusses the role of emotion, ambivalence and embodied experience of the physical environment in identity construction.

The exposition reflects further on the insights from this journey and what they entail for making sense of knowledge work. It is argued that a better understanding of knowledge work has to take the knowledge worker – the individual – as the starting point for theorizing. Taking this position requires us to scrutinize the theoretical perspectives that guide our conceptualizations of the knowledge worker. Theoretical perspectives are constructions that allow us to see certain things and not others. Current conceptualizations are, by necessity, extensions of earlier dominant perspectives or worldviews. Based on the findings from the empirical studies, an alternative perspective is proposed that takes the embodied experience of the knowledge worker as a point of departure. Implications of this perspective for conceptualizing and studying knowledge work are then discussed.

Key words: embodiment, emotion, intellectual capital, knowledge-intensive firms, knowledge work, organizational identity, physical setting, place, work environment.
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INTRODUCTION

The notion that we have entered a new era in economic development where knowledge and information are the primary sources of value creation is widely established in the management literature (Bell 1973; Drucker 1993; Winter 1987). For well over twenty years now, it seems like “knowledge” has become an all-embracing term that has come to stand for all the magic that goes on within contemporary organizations. An elusive, yet pervasive asset that cannot be seen or touched, that resides in people’s heads as well as in the relations between them, embodied in people or embedded in texts or artifacts. Knowledge is seen as the pre-eminent resource, essential for individuals, companies, cities and countries to be successful. This is the premise underpinning the Knowledge Economy Rhetoric that has dominated the business, economic and political debate.

According to this rhetoric, contemporary organizations are faced with a new competitive landscape, dominated by uncertainty and turbulence. The forces of globalization and rapid technological advances, spurred on by the emergence of the Internet, have led to ever faster rates of change and dissolving boundaries around traditional social structures, organizations and markets. In the wake of these changes, the separation of space from place that has marked the modern age has spiraled. Since we can now interact without being physically co-present, “our interactions occur in abstract place, not in a locally situated place” (Tsoulas 2005:41). In this virtual world where “[t]he Internet is the fabric of our lives” (Castells 2001:1) markets become liquid, based on dematerialized information (Normann 2001). What is increasingly being produced and exchanged in these markets are not material objects, but signs (Lash and Urry 1994).

In such an environment, pressures on contemporary organizations to focus on the symbolic dimensions of their activities and outputs are steadily on the rise. The markets of today seem to be demanding well-crafted identities that are able to stand out and break through the clutter, and hence organizations are investing
more resources that ever in articulating, expressing and celebrating their identities (Christensen and Cheney 2000). These activities are not only directed toward the marketplace, but also toward internal audiences. To be credible, identities must be enshrined in the organization and reflected in the behaviors and values of employees. “Within the company, people must recognize the brand values as their own” (Kapferer 2004:52). With the rise of knowledge workers (Drucker 1988) comes a shift from bureaucratic to normative forms of control (Kunda 1992). Leadership becomes a process of interpreting a continuously evolving context, formulating notions of the organization’s own identity and the new context into a set of “dominating ideas” which are both descriptive and normative, and then translating these ideas into various realms of action (Normann 2001). In the Knowledge Economy, emotional and symbolic expressiveness becomes part of the experience of doing business (Schultz et al. 2000). These developments, causing pressures on individuals to search for and define their own identities when traditional social structures disintegrate, have led to an increasing “existential anxiety” (Giddens 1991). Put briefly, the Knowledge Economy is characterized by ambiguity and uncertainty; the focus is on the abstract and immaterial rather than the concrete and material, and people increasingly search for meaning and identity to find their place in this fast moving world.

This thesis represents my attempt to make some sense of this Knowledge Economy. As a student of knowledge work, two themes stood out as particularly critical from the discourse in contemporary writings and research, what I called the Knowledge Economy Rhetoric – the search for identity, a key theme in social sciences in general as well as management studies during the past few decades, and the role of physical places. While place has lost its importance in favor of space according to the Knowledge Economy Rhetoric, reality is constructed in social interactions in our everyday lives (Berger and Luckman 1967). “The reality of everyday life is organized around the ‘here’ of my body and the ‘now’ of my present. This ‘here and now’ is the focus of my attention to the reality of everyday life” (p. 22). Whether social structures are breaking down or not, when we spend all this time in front of our computers engaging in knowledge work we have to be somewhere, and that somewhere is for many of us still an office, providing the context for the interactions that shape our reality. I thus set out to research the role of intangible and tangible dimensions in knowledge-intensive firms.
The Knowledge Economy Rhetoric, at its most extreme, is reflected in the rise of the New Economy. Because of the profound transformations of the competitive landscape induced by the Internet, it was argued that old principles no longer apply and we need “New Rules for the New Economy” (Kelly 1998). The work of this thesis covers two empirical studies and spans the boom and bust of the New Economy. The data for the first study was collected during 1998. This was during the booming years and APiON, the case company, was in many ways a typical New Economy success story; a small high-tech firm in the telecommunications sector that set out to grow rapidly in order to multiply and realize shareholder value as quickly as possible. It succeeded in doing so by implementing a strategy designed to develop and leverage knowledge. The second study was conducted in 2004, well after the bust, in a large global IT/management consulting firm. While a very different company from APiON in terms of size, structure and identity, it portrayed itself as a New Economy company during the booming years, and had experienced both the ups and downs and the shakeouts by the time the study was conducted.

The themes and topics, frameworks and models presented in the papers in this thesis are, to some extent, a reflection of the general discourse in the field of management studies. Or perhaps more bluntly put; of the dominant trends at the time of writing. With fashion in clothing, it is generally only in retrospect that we realize that a particular cut of a suit was really not all that becoming. At the time, it just looked new and fresh. Similarly, there are trends in management studies; frameworks, words, categories, theories that are more or less popular at a certain point in time. These trends guide what gets published, what tools become popular among practitioners and what theories are taught in business schools. But it is only afterwards that we become aware of the impact these trends have had on how we made sense of the world of work at that particular point in time.

It occurred to me in retrospect that the core of this thesis, or the work that this thesis is a result of, is an attempt to make sense of what “knowledge work” is – and consequently, how it can be studied and, perhaps, managed. As reflected in the papers, this effort has taken many routes; from the discipline of strategic management, via a brief detour in marketing to organization studies. The thesis also reflects the migration from studying organizations from the perspective of a management consultant, working with managers, to a full time academic doing research on management consultants, which allows (indeed prescribes) a different perspective as a student of organizations. Because different perspectives allows
us to see different things, the search for alternative vistas for guiding the exploration of a topic as complex and elusive as that of knowledge work should be more fruitful than stubbornly sticking only to one tried and tested perspective. As Deetz (1996:204) pointed out, “any research group dominating over time becomes inward looking, isolated from the problems of the larger society, and filled with blinders and trained incapacities”. Rather than a chronological display of management fads this thesis is better read as a reflection of my personal journey and search for knowledge in an attempt to understand what makes contemporary organizations tick. Therefore, while the titles of the papers included in this thesis may come across as very diverse – and indeed in many respects they are – the pursuit of understanding knowledge work runs through them as a common thread. Instead of trying to provide a summary or a representative span of the entire body of work covered by the papers in the thesis I will reflect on the key insights that I had in making sense of knowledge work.

Weick (1999) has noted that theorizing in organizational studies has taken on a life of its own since the beginning of the nineties, where more of its concerns seems to be directed inward than outward. While this has lead to an increased awareness of influences on how we construct theories, it has also caused turbulence and confusion. The darker consequences of this reflective turn include “narcissism, self-indulgence, an inability to stop the regess of doubting the doubting and the doubts” (Weick 1999:802). It is when reflexivity is instrumental, Weick further argues, that it increases our understanding and makes for better theories. This happens when closer attention to self-as-theorist is instrumental to spotting excluded voices and serves as a platform for thinking more deeply about topics such as identity and cognition. With these words in mind, I will recount the reflections from my pursuit of “knowledge about knowledge work”.

The purpose of this exposition is thus twofold. Firstly, to make the trail of thought visible and show how the various perspectives that have been used have added to the development of the thesis. In this respect, chapter two provides an overview of the theoretical perspectives that provided the point(s) of departure for this journey and guided the design of the studies. Chapter three describes the methodological perspectives applied in the studies. The two empirical studies were very different, both in terms of research topic and methodology. The first study adopted an action research approach, taking part in a process of
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formulating a knowledge-based strategy. The central feature of this study was being part of the process of making sense of the immaterial dimensions of the organization. The second study adopted a more traditional approach, based on interviews and observations, exploring the relations between the physical setting and identity construction in knowledge-intensive firms. The central feature of this study was to get some insights into how organizational members make sense of the material dimensions of organizations. In addition, an analysis of the literature on knowledge-intensive firms was conducted. The central feature of this study was attempting to uncover how the research community makes sense of the organizational category of knowledge-intensive firms. Chapter four summarizes the papers and their respective contributions to the development of the thesis. This chapter puts the adopted theoretical perspectives in context and shows how they are linked to, and build on, each other. Together these three chapters provide the background for the last chapter, Reflections.

The second purpose of the exposition is to reflect further on the insights from the papers and try to summarize what they mean for making sense of knowledge work. Whereas the earlier chapters illustrated the theoretical perspectives that framed the design of the empirical studies, and to some extent their interpretation, the last chapter reflects on how these perspectives guided sensemaking. It can also be read as an extended conclusion of the thesis in the sense of providing my perspective for making sense of knowledge work, and some ideas for how to progress. Or where this journey ended up. For now.
Chapter Two

Theoretical Perspectives

The task of making sense of “knowledge work” is undoubtedly a daunting one and there are almost an infinite number of possibilities for approaching this problem. Various theoretical lenses have guided my journey and only the most fundamental ones for designing the empirical studies will be outlined in this chapter. Before looking into the particular theoretical perspectives that have been used for making sense of intangible and tangible dimensions of knowledge work, we cannot avoid dealing with the problematic notion of “knowledge” within the Knowledge Economy Rhetoric. The core of the problem is of course the pervasive and elusive nature of knowledge. While increasingly considered a critical issue for organizations, knowledge has become such an all-embracing concept in organization sciences that it covers “everything and nothing” (Alvesson and Kärreman 2001). However unpleasant it might be, sorting through this epistemological jungle is, inevitably, among the first assignments any student of knowledge work has to take on. In a sense, all the theoretical frameworks and different perspectives in this thesis can be seen as simply different approaches to addressing the issue of understanding knowledge in organizations, albeit from different perspectives.

Discourses on knowledge in and around organizations

In accordance with the Knowledge Economy Rhetoric, the interest in studying knowledge has grown dramatically as knowledge has come to be seen as increasingly important for the performance of organizations. While the recent research focus on knowledge has undoubtedly benefited organization science, the literature still presents sharply contrasting and at times even contradictory views of knowledge (Seely Brown and Duguid 2001).
Many scholars have tried to identify different categories of knowledge within organizations, and highlight their contrasting roles and consequent implications for management. Early researchers drew on Polanyi’s (1958, 1967) work and, in particular, on the distinction between ‘tacit’ and ‘explicit’ knowledge (e.g. Nonaka and Takeuchi 1995). Blackler (1995) has identified five “images of knowledge” in the organizational learning literature, depending on where it is located, i.e. relating back to how knowledge was acquired: embrained (in brains), embodied (in bodies), encultured (in dialogue), embedded (in routines) and encoded (in symbols). Knowledge has been labeled multifaceted and complex (Blackler 1995; Tsoukas 2005), esoteric (Blackler 1993; Starbuck 1992), “sticky” and “leaky” (Seely Brown and Duguid 2001). Some observers distinguish between knowledge creation and knowledge use (von Krogh et al. 2001). Others have focused on the difference between individual (or personal) and organizational (or common) knowledge (Dixon 2000; Edvinsson and Malone 1997; Sveiby 1997, Tsoukas and Vlădimirou 2001). The importance and practice of knowledge transfer or sharing have also been the focus of many studies, not just intra-organizationally (Leonard-Barton 1995; Dixon 2000), but also through alliances and joint ventures (Badaracco 1991; von Krogh and Roos 1996b; Zajac and Olsen 1993).

Knowledge is claimed to be important for organizations because it represents value. Yet the economic attributes of knowledge are very different from those of economic goods, and this presents difficulties in deploying traditional measurement techniques and approaches. The difficulty with using traditional economic terms such as “value in use” and “value in exchange” is that they cannot be interpreted for knowledge as knowledge is only valuable when used.\footnote{Of course, while the notion of value lies at the heart of organisation success and survival, there is still confusion surrounding what is meant by value and value creation (Bowman and Ambrosini 2000, 2003; Makadok and Coff 2002)} Value also tends to be correlated with scarcity, yet knowledge is not scarce in the traditional sense. Organizations, economies and environments are awash with knowledge. To overcome this problem Glazer (1998) has suggested that the subject or user of the knowledge (the knower) can be introduced into the measurement process as an intermediate measure. This recommendation, however, is in direct opposition to most conventional theories and assumptions applied in economics.

Nevertheless, it is sometimes argued that knowledge – especially if residing in peoples’ heads – is of no value if it is not used. Knowledge is often described as
being linked to action; the importance of “doing” is strongly emphasized (Blackler 1995; von Krogh and Roos 1996a; Denisen 1997; Nonaka and Takeuchi 1995; Sveiby 1997). Rather than regarding knowledge as something that people have, it has been suggested that knowing should be regarded as something that people do (Blackler 1995; Choo 1998; Pfeffer and Sutton 1999). In distinguishing between knowledge and knowing, Cook and Seely Brown (1999) contend that knowledge is a tool of knowing, that knowing is an aspect of our interaction with the social and physical world, and that the interplay of knowledge and knowing can generate new knowledge and new ways of knowing. However, while the link between knowledge and action may be a useful insight, it is not clear how knowledge is linked to action (Tsoukas and Vladiou 2001).

As knowledge has assumed increasing prominence, its management has become a fruitful field of study. In this regard the recent expansion of the literature on knowledge management (KM) deserves a mention. Over the last decade, organizations have implemented KM initiatives, ostensibly premised on knowledge being an asset and source of competitive advantage. Following the many KM initiatives that have often turned out as implementations of IT systems in practice (Johannessen et al. 2001; McDermott, 1999; Walsham 2001), the debate about the difference between knowledge and information has been recently revived (Peppard 2005). While most observers distinguish between data, information, and knowledge, they describe these categories very differently. Nonaka et al. (2000) contend that the KM that academics and business people talk about often means just “information management”, although Teece (2000) notes that the latter can certainly assist the former. Ellingsen and Monteiro (2003) refer to information as one of many knowledge representations while Sveiby and Lloyd (1987) portray know-how as “value added information”.

Spender (2002) argues that the field of KM has become separated into two distinct domains – one in which knowledge is seen to be ultimately objectifiable, understandable in a scientific sense, and inherently unproblematic, and the second, less explored domain, wherein the term knowledge is considered to extend beyond that which can ever be objectified or otherwise made explicit. In this latter domain it is often easier to frame the epistemological problem that derives from the assumed nature of knowledge than it is to identify the managerial problem. Indeed it is often so difficult to frame the managerial problem that some dismiss the domain as irrelevant to organizational theorizing. Alvesson and Kärreman (2001) argue that knowledge management is inherently
problematic as a concept because of the ambiguous and dynamic nature of knowledge. Typically, authors struggling with the concept slide either to a "knowledge" or a "management" pole, or move away from what may be seen as the typical meanings of the two labels, for example in the direction of community creation and maintenance (Lave and Wenger 1991).

The purpose of this brief, and by no means comprehensive, review was to illustrate the complexity of issues that are inherent in any discussion concerning "knowledge work". What becomes immediately apparent is that many of the authors referred to have completely different conceptualizations of what knowledge is, and consequently, what "knowledge work" means and how it should be studied. Therefore, for any discussion or theory to be meaningful to others, authors have first to make their own assumptions about knowledge explicit. Yet most researchers, as well as their informants, seem to have problems in specifying and making explicit what they refer to as knowledge (Alvesson and Kärreman 2001). Venzin et al. (1998) claim that before researching into the concept of knowledge itself, the process of knowledge development has to be explored by revealing its epistemological roots. They argue that the development of knowledge based concepts (e.g. the notion of "tacit knowledge") take different forms depending on the epistemology, i.e. the basic assumptions about knowledge, on which the concepts and theories are based. They suggest three different epistemologies relevant to the discourse on knowledge in organizations: cognitive, connectionist and autopoietic epistemologies.

Drawing on a cognitivist epistemology, organizations are considered to be open systems that develop knowledge by formulating increasingly accurate 'representations' of their pre-defined worlds. Hence, cognitivist approaches equate knowledge with information and data. With a connectionist epistemology, representationalism is still prevalent, but the rules for how to process information (i.e. represent reality) are not universal, but vary locally. Organizations are seen as self-organized networks composed by relationships – knowledge resides in the connections of experts and is problem-solution oriented. An autopoietic epistemology takes the view of the organization as an autonomous and observing system that is open to data, but closed to information (which is seen as data in context). Consequently, knowledge resides in mind, body and social systems. It is observer and history dependent, context sensitive and thus cannot be directly shared, only indirectly through discussions and conversations.
These epistemological stances have implications for how we conceptualize knowledge-based concepts and phenomena. For example, a statement such as Starbuck's (1992) suggestion that a knowledge-intensive company may not be information-intensive – or the other way round – will have very different meanings from a cognitivist, a connectionist or an autopoietic perspective. For the latter it is an obvious statement as knowledge and information are of completely different nature, whereas for the cognitivist the statement does not make sense at all as knowledge and information are seen as one and the same. Similarly, the notion of “knowledge work” would entail very different kinds of activities and occupations.

The point of departure for the research in this thesis was the autopoietic perspective. Originally developed in the field of neuro-biology to characterize “living systems”, autopoiesis theory suggests the composition and structure of individual cognitive systems. According to this view every act of knowing and every reflection “brings forth a world”. Knowledge is thus constituted in our interactions with our surroundings; it is contextual and situated (Maturana and Varela 1987). Von Krogh et al. (1994) applied this perspective to management studies, drawing out some implications for our views on knowledge and knowing in organizations. Fundamentally, knowledge is not abstract, but embodied in the individual. This means that all knowledge is dependent on the individual – or, everything is known by somebody somewhere. “Where you stand or what you know determines what you see or what you choose to be relevant”, “knowledge” and “observation” thus become closely related (von Krogh et al. 1994:58).

It is this perspective that underpins the design and methodology of study 1. While these basic assumptions still hold, this perspective has come to be enriched throughout the work with the thesis. These developments will be further discussed in chapter five, Reflections.

**Intangible and tangible dimensions of knowledge work**

Having highlighted the inherent problematic of researching knowledge work, and outlined the epistemological starting point for this thesis, I will now turn the literature that guided the research design for the two studies. Intellectual capital, the perspective applied in the first study, seemed an obvious starting point for exploring knowledge work at the time. According to *Harvard Business Review*
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editor Tom Stewart, three big ideas have fundamentally changed the way organizations are run in the past few decades. The most important, and the one generating the richest and deepest discussion in business and economics today, is that of intellectual capital (IC)\(^2\) – because IC is based on knowledge assets, “and they determine success or failure” (Stewart 2001:x).

The second perspective applied, organizational identity, also seemed like a natural next step. The notion of identity is not only a key theme in the Knowledge Economy Rhetoric, but also emerged as an important dimension in the first study – although I did not have the vocabulary to label it “organizational identity” at that time. However, as Glynn (2000; 286) notes, “[o]rganizational identity is a key intangible aspect of any institution”, because it affects not only how an organization defines itself, but also how strategic issues and problems are defined and resolved.

The second study set out to explore not only organizational identity as a critical intangible dimension, but also its relationship to the tangible cimens of knowledge-intensive firms\(^3\). Because I was primarily interested in studying firms offering complex services, thus not producing any tangible output, I concluded that the physical setting, the office environment, was the most interesting tangible aspect to study. In contrast to the concepts of intellectual capital and organizational identity, there is no coherent theory or perspective for making sense of the tangible dimensions of knowledge work, that is readily there to be applied. This section therefore takes more of the form of a review of the literature that addresses the role of the physical setting for knowledge work and identity construction. The purpose is to give a sense of the literature that guided the design of study 2.

The intellectual capital perspective

The intellectual capital (IC) perspective, which provides the theoretical underpinnings and has guided the research design of the first study, is a fairly recent concept that emerged during the latter part of the 1990’s. It is based on the premise that intangible, or knowledge-based, resources are somehow different from traditional, i.e. physical and financial resources. Intangible

\(^2\) The two others being Total Quality Management and Reengineering.

\(^3\) The theorizing around knowledge-intensive firms is yet another important theoretical source of inspiration, or perspective, that guided and underpins the research conducted in the second study. However, this perspective puzzled me so much that I decided to conduct a separate study of the literature on knowledge-intensive firms, as described in the next chapter. This review is found in paper III.
resources are often internally generated, non-additive and often characterized by improving rather than decreasing returns (Rylander et al 2000). Consequently they are not captured, nor rightfully valued by the current accounting-based performance measurement and valuation models. Instead we need to devise alternative models that are better up for this task (Edvinsson and Malone, 1997; Mavrinac and Siesfeld 1998; Mourtizen et al. 2001; Pike et al. 2002; Roos et al 1997; Stewart 1997; Sveiby 1997; Viedma 2001).

What sets the IC perspective apart from the other concept dealt with in this thesis is that it was first devised by practitioners, and only afterwards adopted by academics. The frustration with the failure of traditional management tools to incorporate knowledge-based resources – the drivers of the knowledge economy – led various groups of practitioners to devise their own language and tools for beginning to address issues around intangibles (notably Sveiby et al. 1989). As one manager was quoted saying: “Whereas knowledge management is a theory in search of a practice, IC is a practice in search of a theory” (Roos 1998:151). The very nature of intangible resources is of course that they cannot be touched, nor seen. A basic mission of the IC perspective is therefore to “visualize” these hidden resources (Edvinsson and Malone 1997). If we do not know what resources we have, how could they be managed? The “visualization” was mostly carried out metaphorically through words and – ideally – numbers, rather than pictorially. The reason for this, it was argued, was that “what gets measured gets attention” (Roos et al 1997). To be heard in the world of business, or more specifically, by top managers and investors, you have to speak their language – and their language is numbers. Consequently, the field of IC has been largely dominated by various approaches for measuring and valuing intangibles, whether for internal audiences (management information systems), or for external audiences (disclosure to capital markets or valuation models). This affinity to financial perspectives is reflected in the IC vocabulary, indeed chosen to mimic the language of economists.

In parallel, a number of developments within the scholarly literature have, until recently, evolved with seemingly little awareness or recognition of each other. First, is the work of economists, particularly Penrose, Coase, Rumelt, Wernerfelt and Teece. Fundamental to this stream of research is the proposition of resource heterogeneity across organizations, with marketplace advantage seen as flowing from the creation, ownership, protection and use of difficult to imitate resources, both tangible and intangible. From this work, new theories of
the firm have emerged including resource-based theories (Barney 1991; Wernerfelt 1984) and knowledge-based theories of the firm (Grant 1996; Spender 1996). A parallel development within this genre has been a focus on intellectual property (IP) and the commercialization of the intellectual endeavors of employees (Sullivan 1998; Teece 1998, 2000). Even the financial markets have recognized the need for financial reporting and disclosure to reflect the value inherent in intangibles and expose their value creating potential (Blair and Wallman, 2001; Mouritsen et al., 2002; Rylander et al., 2000).

When I first started to look into the field of intellectual capital, in early 1997, I got seven hits for “Intellectual Capital” in an Internet search (admittedly the Internet was not at a very mature state at the time) and there was one book published with “Intellectual Capital” in the title (Brooking 1996). Later that year the first special issue on IC appeared in an academic journal Long Range Planning, and a number of foundational books for the field were published (Edvinsson and Malone 1997; Roos and Roos 1997; Stewart 1997). Today (16 November 2005), a Google search gives “around 2,200,000 hits” for “Intellectual Capital”, there are 137 books for sale on Amazon.com with “Intellectual Capital” in the title, and since 2000 the field even has its own journal, Journal of Intellectual Capital. While, arguably, Intellectual Capital may not have developed into the influential academic field that some observers hoped for and predicted in its early days, it has certainly attracted a lot of attention and become an established term within many realms of society. This illustrates the interest in, and importance attached to, the immaterial dimensions of organizations and society at large.

**Organizational identity theory**

As noted in the introduction, identity is a key theme not only for this thesis, but has been a core concept in the Knowledge Economy Rhetoric. It is an attractive concept for many reasons, not least, perhaps, because “identity” is a term that is used in everyday talk and concerns us all. Gioia (1998:17) asserts that “[i]dentify is arguably more fundamental to the conception of humanity than any other notion /.../ I can think of no other concept that is so central to the human experience, or one that infuses so many interpretations and actions, than the notion of identity.” Certainly, the notion of identity has gained considerable ground in various managerial disciplines in the past few decades, but also among practitioners. As a term understandable by all (albeit on a superficial, or abstract and esoteric, level) it holds the promise of providing a link between theory and practice. In addition, it is a notion that is of relevance to most managerial
disciplines, although the different disciplines use various theories, perspectives and concepts. Many scholars have tried to make the link between the disciplines through the notion of identity, in particular between the “internal” and “external” dimensions of the organization, (e.g. Dutton et al. 1994; Dutton and Dukerich 1991; Elsbach and Kramer 1996; Glynn 2000; Hatch and Schultz 1997, 2002).

It is not surprising then, that the concept of organizational identity (OI) has received such a surge of interest within the field of organization studies in the past couple of decades. Based on Albert and Whetten’s seminal paper in 1985, OI is often defined as that which is ‘central, distinct and enduring’ about an organization’s character. Identity represents the answer to the question ‘Who am I?’, or, in the case of organizations “who are we?” (Albert et al. 2000; Alvesson 2000; Ashforth and Mael 1989; Gioia 1998).

While philosophers of all times have been preoccupied with the questions surrounding the nature of identity, or the self, the theoretical roots of organizational identity theorists most frequently referred to are writers from sociology and psychology such as James (1980), Cooley (1902), Mead (1934) and Erikson (1950; 1968). These scholars all emphasized the interplay between the individual and society, or the social, in the construction of identities. In the organizational context it is thus the social, rather than the highly individual identities that are of interest, and identities are seen as constituted and reproduced in social interaction (Alvesson 2000; Ashforth and Mael 1989; Dutton and Dukereich 1991; Kärreman and Alvesson 2001; Scott and Lane 2000). In particular social identity theory (SIT) has become influential in organizational identity theorizing. SIT, which emerged in the 70’s, is credited to social psychologists Henri Tajfel and John Turner (1979). In essence, according to SIT people tend to classify themselves and others into various social categories, such as organizational membership. This, according to SIT is a process central to social life that, as such, is subject to the pressures and distortions of the rich and varied culture within which it arises (Tajfel and Forgas 1981). Categories are defined by prototypical characteristics abstracted from the members. Social classification cognitively segments and orders the social environment, providing the individual with a systematic means of defining others as well as enabling the individual to locate or define him- or her-self in the social environment (Ashforth and Mael 1989).
Social identification is defined as the perception of oneness with, or belonging to, some social category such as one’s work organization (Ashforth and Mael, 1989; Dutton et al. 1994; Pratt 1998). Self-enhancement, which involves making favorable ingroup comparisons is a critical underlying process of identification posited by SIT (Pratt 1998) and is based on the argument that positive social identification affects self-esteem (Ashforth and Mael 1989). Accordingly, organizational identification is more likely occur when organizations have high prestige (Ashforth and Mael 1989), when organizations have attractive images and when the perceived organizational identity enhances members’ self-esteem (Dutton et al. 1994). Organizational identity thus defines the relationship between the employees and their organization. As noted by (Haslam et al. 2003), what makes the construct of OI different from other organizational concepts, such as organizational culture, is that it deals with the problematic of the individual and collective levels of analysis. In addition, identification is argued to be a potentially exciting field for organization researchers to explore as there is an implied link to co-operative behaviors in organizations (Albert, et al. 2000; Alvesson 2000; Dukerich et al. 2002; Ashforth and Mael 1989, Haslam et al. 2003).

The purpose of this section was not to provide a complete overview of the notion of identity in and of organizations and its various conceptualizations – a formidable task given the vast literature on the topic(s). This dissertation represents, in part, my attempt to clarify the role of identity in contemporary work organizations, and hopefully the result of this quest will become clearer throughout the remainder of the exposition. The objective of this section was merely to sketch the main tenets of the theoretical perspective that provided the starting point for study 2, that of organizational identity. In this respect some critical points were raised, which may also indicate why the concept of organizational identity has become so popular within organization studies. Firstly, the concept of OI is to a large extent underpinned by theories in social psychology, in particular SIT, which enjoy a relatively long and solid theoretical and empirical history. These theories tell us that identities are constructed in social processes which are linked to behaviors, and which can be studied. Secondly the concept of OI helps us research the tricky relationship between organizational and individual levels of analysis.
Intangibles, knowledge work and the physical setting

The focus on the intangible aspects of the organization, brought about by concepts such as IC and KM, and indeed, the Knowledge Economy Rhetoric, has tended to push back any material dimensions of organizations from the general discourse in management studies. Because the attention was directed towards understanding how intangibles, the alleged key to value creation, differ from “traditional” physical and financial resources, any physical aspect of organizations seemed to have fallen out of focus. However, given the epistemological stance outlined above, stating that knowledge is created in interactions with our environments, and if identities are constituted in social interactions, can we really ignore the role of the physical surroundings when researching knowledge work?

Pfeffer (1981:41) noted that the “size, location and configuration of physical space provide the backdrop against which other managerial activity takes place, and thereby influence the interpretation and meaning of that other activity”. The design of office settings may therefore have substantial effect on the quality as well as quantity of social interactions in office settings (Oldham and Rochford 1983). While the role of the physical setting is a topic that has not traditionally received much attention in organization theory, this is does not mean that its role in organizations is marginal. On the contrary, people often spend much time and energy on discussing physical features, and skilled managers understand well the importance of physical settings for their symbolic value. As Berg and Kreiner (1990) noted, huge investments are made into in corporate “looks”; “it is an indisputable fact that organizations increasingly care about their physical appearances” (p.41), and “it is indeed a common understanding that the individuality of organizations somehow surface in the way they build and dwell” (p.42)

Physical settings can be defined as the collection of things surrounding a person physically and providing him with immediate sensory stimuli (Steele 1973). It includes décor, physical layout, and other background items, which supply the scenery and stage props for the spate of human action played out before, within or upon it (Goffman .959). As Dovey (1999) points out, architecture “frames” space, both literally and discursively. In the literal sense everyday life “takes place” within the clusters of rooms and buildings and action and interaction is shaped by walls, doors, and windows, framed by the decisions of designers. As a form of discourse, architecture constructs and frames meaning. Buildings and
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places tell us stories. In this sense, organizational spaces are both the medium and the message (Yates 1998). Architecture is a particularly powerful medium because it affects all senses and because of its permanence. We use all our senses to communicate with the outside world – the more senses involved, the richer the experience. Physical settings evoke complex human responses in the form of feelings, attitudes, values, expectancies, and desires, and it is in this sense, as well as by their physical properties, that their relationship to human experience must be understood (Becker 1981).

To deal with this complexity, scholars interested in the influence of the physical environment on organizations and organizational members have made various classifications of these influences such as first-order effects (environment as support) and second-order effects (environment as catalyst) (Becker 1981). Steele (1973) suggested the internal physical environment has six main functions; to provide 1) shelter and security from surrounding, potentially harmful stimuli, 2) social contact and encourage or discourage interaction, 3) symbolic identification, 4) task instrumentality in facilitating the activities that take place in the setting, 5) pleasure for those experiencing the setting and 6) growth, that is opportunities for stimulation and learning. According to Davies (1984), the physical environment of organizations could be fruitfully viewed as being composed of three main elements; physical structure, physical stimuli and symbolic artifacts. More recently, and based on empirical studies, Vilnai-Yavetz et al. (2005) and Rafaeli and Vilnai-Yavetz (2004) have suggested that office design should be considered along three concurrent and independent dimensions: instrumentality, aesthetics and symbolism.

Instrumentality. Traditionally, the physical environment of work places has been viewed as primarily instrumental, serving functional purposes relating to the work that people do, thus providing management with a tool for improving productivity in some way. This includes studying the effects of features such as lighting, noise, ergonomics etc. While some research in organizational behavior suggests that these dimensions of the physical environment can influence job satisfaction, productivity, and motivation (Biner 1992; Oldham and Rothchford 1983), taken as a collective this type of research is inconclusive. After much research it is still not clear what particular elements or arrangements of the physical environment affect productivity, communication and job satisfaction in what specific ways (Mazumdar 1992). Moves from traditional, closed, offices to open plan offices have received some attention in studies from an instrumental
perspective, but findings have not been consistent, indeed sometimes contradictory. Therefore, some researchers have concluded that a symbolic approach is more suitable for studying of the role of the physical environment in work organizations (e.g. Hatch 1987, 1990; Mazumdar 1992; Rapoport 1990; Zalezny and Farace 1987).

_Aesthetics._ Already in the 50’s Mazlow and Mintz showed that being in a “beautiful” versus an “ugly” room affected subjects’ willingness to stay in the room (Mintz and Mazlow 1956) as well as their judgments of the energy and well-being in photographs of people’s faces (Mazlow and Mintz 1956). Organizational scholars such as Gagliardi (1990) and Strati (1992, 1996, 1999) have argued for the importance of aesthetic experience in organizations. According to this perspective, aesthetics in organizational life concerns a form of human knowledge. Specifically the knowledge yielded by the perceptual faculties of hearing, sight, touch, smell and taste, and by the capacity for aesthetic judgment. (Strati 1999). The “beautiful” lies at the core of this analytical framework (Strati 1992).\(^4\)

_Symbolism_ refers to the associations elicited by the physical setting. It is this dimension that has received the most attention from organization scholars in recent years. The concepts of symbols and symbolism are central to many researchers in organizational culture (Alvesson and Berg 1992), and it is also in this literature that much of the interest in the meaning of physical settings is found. The interiors of office buildings are rich in symbolic content through their layout (structure), furniture, color schemes, art, and so forth. As Morgan et al. (1983) point out, when one walks into the office of a senior executive the size, layout and décor often shout out symbolically “I am the boss”. Symbolic artifacts are those aspects of the physical setting that individually or collectively guide the interpretation of the social setting (Davies 1984). In ethnographic studies descriptions of the physical setting are often used to convey a sense of the culture to the reader, or to illustrate other cultural phenomena such as values, hierarchies, rituals and so forth, derived from a cultural analysis. For example

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\(^4\) Vilnai-Yavetz et al. (2004) argue that the dimensions “aesthetics” and “symbolism” are conceptually different and separable because a chair that may be aesthetic or unaesthetic may or may not symbolize power and prestige, depending on the associations it triggers. For the practical purpose of organizational analysis however, these dimensions seem difficult to separate. In this respect aesthetics is perhaps better seen as a particular approach to organizational symbolism, in opposition to the cognitive paradigm often employed when studying symbolic aspects of organizations. Instead the aesthetic approach pays more attention to various forms of tacit and non-verbal knowledge (Strati 1996). Indeed, Strati’s (1992) “aesthetic reading” of the physical setting in an office space is a reading of the symbolism of this space.
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Rosen (1985) and Kunda (1992), in lieu of a more traditional introduction, provide detailed descriptions of the physical setting. The intention is of course to “set the scene” where the organizational activity is to be played out and the assumption is that the reader will be able to “read” the symbolism of the physical setting and thus quickly get an impression of the cultural prerequisites. According to the symbolic perspective, organizations are seen as human systems manifesting complex patterns of cultural activity. The physical setting, with its symbolic artefacts, is thus seen as part of a language that shapes organizational reality (Morgan et al. 1983). As Gagliardi (1990:vii) writes; “[s]pace and artifacts constitute systems of communications which organizations build up within themselves and which reflect their cultural quiddity: artifacts speak, though we seldom listen, and through them we communicate and act”. McCaskey (1979) suggests that, with intelligent practice, a person can learn to “speak place” – that is to understand the symbolic, territorial, and behavior-influencing aspects of physical settings.

There is thus an implied link to behavior also in the symbolic dimension of the physical setting. The physical setting may communicate symbolically through the events that have occurred in the setting. Over time, people’s reactions to a place become based partly on its present shape and partly on the memories of what happened there before (Steele 1973). People respond spontaneously to certain cues in a physical setting, based on familiarity and/or association. For example churches (may) elicit religious behavior even in people who are not religious, and clean restrooms have been claimed to elicit tidier behavior among users (Berg and Kreiner 1990). Hatch (1997) calls these behavioral responses to environmental stimuli symbolic conditioning and mentions waiting rooms, executive offices, libraries and conference rooms as places where this type of behavioral responses can be easily studied in everyday life.

While the importance of the symbolic dimensions of physical settings is now acknowledged and often noted in organization studies, much owing to the literature on organizational culture, empirical investigations are still curiously lacking. This reflects the situation in other managerial disciplines, although some empirical studies from service marketing have examined the effect of the physical surroundings on customer behavior and the attributions customers make to employees and the organization (Bitner 1990, 1992; Hoffman and Turley 2002; Turley and Milliman 2000). That we make social attributions to people based on their physical surroundings is confirmed by studies in
environmental psychology (e.g. Broadbent et al. 1980; Sadalla et al. 1987; Sadalla and Sheets 1993; Wilson and MacKenzie 2000). Within this research tradition however, the office environment is rarely the topic of investigation (notable exceptions being McCoy (2002), Sundstrom (1987) and Wineman (1982)) and this research has yet to find its way into organizational theorizing.

The physical setting and identity construction
Different social identities are cued or activated by different settings, as a developing sense of who one is complements a sense of where one is and of what is expected (Ashforth and Mael 1989). As Steele (1973:5) pointed out, “[a]ll human activities take place in some kind of setting – everybody has to be someplace”. And, as we saw above, physical settings influence all interactions, directly (facilitating or hindering them to take place) as well as indirectly through mediating symbolic content about the individuals involved as well as the organization. By inference, all physical settings potentially have identity effects. On a more profound level, environmental psychologists Twigger-Ross and Uzzell (1996:218) have argued that “all identifications have location implications, place is part of the content of an identification”.

Indeed, most of the organization scholars referred to above that take an interest in the physical dimensions of organizations note that physical settings have a role to play in identity construction. Still, in organization identity theory there is hardly any mention of the physical setting. This may be partly due to the different theoretical and methodological influences (and, of course, trends) of the fields of organizational culture and identity. The former draws much on sources from anthropology, where the studies of physical artifacts and their symbolism have traditionally played an important role in cultural analysis. The literature on organizational identity draws on sources from social psychology and, to an increasing extent, discourse analysis. In neither of these traditions is there a focus on the physical setting or the material dimensions of identity. As a consequence, identities in organizations are increasingly viewed as discursively produced in social processes and the focus of studies on identity construction is directed towards linguistic practices. For example, Kärreman and Alvesson (2001) claim that organizations are best viewed as settings in which social reality is constructed and that social identities are one potentially important outcome of such processes. They further “claim that social identity is achieved, maintained, changed, elaborated and communicated through conversation and narrative”
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(p.66). With this focus the physical dimension of the setting takes a passive role as background, at best.

Yet, as the brief review above illustrated, the physical setting influences social interactions and sends messages about the organization and its members. Over time, buildings come to represent their organizations and have the effect of helping people construct what they think and feel about the organization. Elements of the physical setting contain cues and communicate messages capable of reminding people of who they are in terms of their organizational identity (Hatch 1997). This is important not only on an organizational level, but physical settings also contain markers of individuals’ identity within the organization. Most individuals set up their office spaces to encourage certain types of interaction, and consciously or not, to send messages about themselves (McCaskey 1979). Kunda (1992) describes the individual offices (cubicles) as the most dominant stage for self-display at the case company Tech. Through transforming this standardized, impersonal space into their own territory, members reveal aspects of the self that they wish to convey to themselves and to others. This typically includes a personal region where non-work aspects of the self are displayed (such as family pictures and hobbies) and a professional region where statements about the company are displayed - conveying views, ideas and feelings with regard to the organizational culture and values (including both signs of embracing the culture, e.g. company stickers with slogans, and signs of distancing, e.g. ironic comics). In addition, the individual work setting provides information about the functions and activities of those who use them. At Tech, artifacts were used to convey the impression of intense effort; extra equipment, piles of tapes, computer output, reports, trade press etc.

In a sense then, built spaces materialize identities for the people, organizations, and the practices they house. To summarize, Gieryn (1999) suggests buildings solve three problems faced by any identity, personal or collective:

1) Buildings give tangibility and demonstrability to what is intrinsically elusive and explicit. Office buildings display the meanings of the “knowledge work” performed in them, and so provide the prima facie answers to the question “Who are we/they?”.

2) Buildings give stability and durability to the potentially transient through fixing the goals and purposes of the people and practices they contain.
3) Buildings discriminate identities that are always at some risk of blending through spatially segregating “insiders” from “outsiders” – or “us” from “them”.

There is, however, one more aspect of the office environment to note that potentially changes the traditional role of offices in identity construction processes. The forces of change laid out by the Knowledge Economy Rhetoric has lead to new organizational forms and new ways of working, and consequently also new approaches to structuring workplaces. Horgen et al. (1999: 6) argue that “[i] causal arrow connects organizational transformation to changes in the workplace: The new world of work should logically be reflected in new workplaces and new ways of designing them”. Increasingly then, new mobile ways of working, requirements for cost savings as well as changing managerial philosophies have started to change the design of workspaces in knowledge-intensive firms. Whether called hoteling, just-in-time, nonterritorial or shared offices, these terms imply that the individual employee has no dedicated, personally assigned office, work-station, or desk. Instead workspaces are available on an as-needed basis. The primary driver behind nonterritorial offices for most organizations has been cost reduction (Becker and Steele 1995). A side-effect is of course that traditional markers in the physical setting reflecting the hierarchy and structure of the organization disappear; office size and furnishings were indications of status, certain spaces and artifacts acted as boundaries for personal or group territories, and individual work spaces were stages for self-expression of employees.

Issues relating to stress in the work place caused by open plan office solutions, causing high levels of noise and other distractions, are also becoming an increasing concern. Becker (1981) argues that visual order reduces ambiguity by masking individual differences among setting occupants. Environments that acknowledge individual requirements (e.g. people requiring different levels of privacy, personalization of work place) are often considered chaotic because different offices or work stations do not have identical equipment or the same type of visual or acoustical barriers. Such an environment is ambiguous and threatening because it forces recognition of individual capabilities, preferences and work habits that may be unrelated to hierarchical positions. The physical design in many organizations therefore attempts reduce ambiguity by ignoring the differences among individuals within job classifications. Personalization of workspaces is generally considered territorial behavior as it allows people to
mark and defend their territories and regulate social interactions. It has therefore been suggested that personalization may enhance psychological well-being (Wells 2000). As noted in the introduction, the loss of place has been a key theme within the discourse of modernity (Tsoukas 2005), and even more so in postmodern rhetoric, where contemporary life is dominated by fragmentation and transience, leading to a certain root- and restlessness. We have gone from “place” to “flow” (Lash and Urry 1994). The nonterritorial office, where employees are working “virtually” and are “always on the move” is in a sense a physical manifestation of this “postmodern condition”. We still know very little about the potential identity effects of these new types of offices. Empirical studies are lacking at individual as well as organizational level. As noted above, studies based on instrumental approaches are inconclusive, and the relationship to psychological well-being of personalization has yet to be empirically studied (Wells 2000).

To conclude, the interest in organizational symbolism has brought attention to the role of physical settings in organizations as something more than merely instrumental. However, research in this tradition tends to emphasize the meaning of particular artifacts rather than settings, and is portrayed as a background, thus secondary in the study of culture. Within the field of organizational identity there has been little interest in physical objects or settings. Nevertheless, the physical setting is potentially important for identity construction as it affects social interactions and sensemaking in relation to organizations and people within them as well as members’ own perception of the role within the organization.

The literature on organizational identity and the physical setting, influenced by theories on social identity and symbolism, led me to take an interest in studying the socially constructed nature of meanings in relation to the office design in study 2.
- Chapter Three -

**METHODOLOGICAL PERSPECTIVES**

Most sensemaking studies in organizations rely on a social constructionist approach, heavily influenced by Weick (1995). Nonetheless, most researchers use methods that aim to establish objective knowledge (using systematic comparison techniques in particular) (Allard-Poesi 2005). “Although celebrating the priority of subjective and socially constructed human experience, researchers seek to disengage from that experience to objectify it. In doing so, researchers not only contradict their own conception of sensemaking but also undermine, if not loose sight of, the very conception of sensemaking they want to convey” (p. 190). To get around this tricky paradox of the “objective science of subjectivity”, we need to re-engage in sensemaking, understood as an active, purposeful and interactive process itself. Allard-Poesi (2005) tentatively suggests two routes. One the one hand to *deconstruct sensemaking*, i.e. to engage against our sensemaking process so as to uncover the precarious, undecided character of sensemaking in organizations. This involves methods such as discourse analysis. On the other hand to *co-research sensemaking*, i.e. to fully engage in sensemaking and sensemaking research with the members of the organization. This entails methods such as participatory action research. Within the framework of this thesis I have ventured down both these routes.

Like changing theoretical perspectives, changing methodological tools implies a change of perspective, and thus the way we make sense of reality. Single-mindedly continuing to use one sole mode of inquiry “will produce feeble results – that is results that are precise but irrelevant” (Evered and Louis 1981). The two case studies included in this thesis are different in many respects – from the organization and topics studied to the purpose of the studies and the methodologies used as well as my own role as researcher. These different approaches have indeed generated insights of different kinds and have allowed me to explore the nature of knowledge work from different angles. In addition to the case studies, a study of the literature on knowledge-intensive firms was conducted as an attempt to uncover the constructions guiding our
interpreting knowledge work. This study was in a sense an outgrowth from
the design of study 2 and was conducted in parallel with the second empirical
study. The notion of a category of knowledge-intensive firms was central to the
formulation of the research question and also represented an important
theoretical perspective on which this study was based. However, I found it too
problematic to be meaningfully applied to the empirical work. Instead this
problematic inspired me to explore why we construct concepts around
knowledge work the way we do. This chapter describes the methodological
underpinnings of the studies and how they were conducted. At the end of this
chapter the influences of the theoretical perspectives on the design of the studies
and papers are illustrated.

Study 1 – Visualizing intellectual capital at APiON

The objective of study 1 was to test and develop a model for visualizing and
measuring intellectual capital at APiON, a software company in the
telecommunications industry. The study was designed for the output to be
twofold; to develop a model “robust” enough to be applied to other
organizations, and to publish the results of the study in academic journals.
Because the objective of this study was not only to observe some phenomena in
an organization and contribute to the literature, but also to actively participate in
producing change, action research was adopted as the most suitable research
method. Action research is inquiry in which participants and researchers
cogenerate knowledge through collaborative communicative processes, and
builds on the interaction between local knowledge (i.e. of management team) and
professional knowledge (i.e. of researchers) (Greenwood and Levin 2000). This
method allows researchers to work with managers on issues of genuine concern
to both groups, intentionally contributing to more effective action. The process
of participatory action research is generally thought to involve a spiral of self-
reflective cycles of planning a change, acting and observing the process and
consequences of the change, reflecting on these processes and consequences,
replanning, acting and observing, reflecting and so on. Kemmis and McTaggart
(2003) add seven other key features that they consider at least as important as the
self-reflective spiral—participatory action research;

5 The two remaining features are emancipatory and critical. For the purpose of management research,
these features are covered by the self-reflective spiral. Participatory action research can also be seen
as an alternative philosophy of social research and as such is often associated with social
transformation in the Third World. In this context these features have a different meaning and
relevance.
• is a social process, that is, it deliberately explores the relationship between the realms of the individual and the social. It is a process where people, individually and collectively, try to understand how they are formed and re-formed as individuals in relation to each other in certain settings.

• is participatory, that is, it engages people in examining their knowledge (understandings, skills and values) and interpretive categories (the ways they interpret themselves and their action in the social and material world). It is a process in which each individual tries to get a handle on the ways his/her knowledge shapes his/her sense of identity and agency and reflects critically on how that knowledge frames and constrains his/her action.

• is practical and collaborative, that is, it engages people in examining the social practices that link them with others in social interaction. It is a process in which people explore their practices of communication, production and social organization and how to improve them.

• is recursive (reflective, dialectical), that is, it aims to help people investigate reality in order to change it, and to change reality by changing their practices.

• aims to transform both theory and practice, that is, it aims to articulate and develop each in relation to the other through critical reasoning about both theory and practices and their consequences.

As with any research design and context, this implies a particular perspective and thus particular metaphors for understanding the organization and its internal and external environment. Firstly, because the objective was to develop and test a management tool working with managers, a managerialist perspective is implied. This prescribes the use of a vocabulary and metaphors that managers can easily relate to. The ability to provide this is one of the major benefits of the IC perspective. Secondly, the epistemological stance and theoretical perspectives prescribe particular research approaches. As noted above, the model to be tested was based on an autoepoietic understanding of knowledge. According to this perspective, knowledge is created in interactions, and dialogue is required for a common understanding to emerge.

Because the key objective of the study was to create a common understanding of strategy within the management team, the bulk of the data was collected in
workshops with the management team. Six half-day workshops were held with
the top management team during the first half of 1998 with one to two weeks
between them. This process allowed the team to have some time and space to
reflect on the conclusions from the previous workshop before the next took
place. Every new workshop began with a summary, in graphical form, of the
discussions and outcomes of the preceding meeting. This way the strategic vision
emerged in an iterative fashion. In addition, interviews were conducted with the
participants in parallel with the workshops to get a more detailed understanding
of the intangible resources in their respective areas of responsibility. Several
interviews were also conducted with the CEO to get a better overall
understanding of the organization and its competitive context. A follow-up
interview was held in March 2000 to get an understanding of the insights and
changes the process had led to. While actively participating in the workshops, my
primary role in this process was to act as the researcher collecting, putting
together and analyzing the data.6

This method allowed me to engage with the management team and thus, to some
extent, take part in the sensemaking process of the APion management team.
This provided valuable insights into how the sensemaking process evolved. The
results of this study are reported in paper I.

**Study 2 – Exploring identity and the physical setting at Global**

The point of departure for the second study was very different. The objective of
this study was to generate theory rather than to test and develop a model. I had
identified the disappearance of the physical dimensions of organizations as a gap
in the literature on knowledge work and knowledge-intensive firms, and noted
the centrality of identity for those firms. Furthermore, the topics and
underpinning literature on organizational identity and physical settings in
organization studies led down methodological routes based on social
constructionism.

Because of the complex nature of the topics, the research objective was
formulated more openly and exploratory; “to develop insight and understanding

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6 Joe Peppard, co-author of paper I, which discusses the findings from this study, did not take part in
this process. He had, however, been involved in the process of strategy formulation with the APION
management team prior to study I.
about the role of the physical setting in identity construction in knowledge-intensive firms with non-territorial offices". The idea was to capture the notion of knowledge work at its most "extreme". However, as I failed to delimit what constitutes a "knowledge-intensive firm" based on the literature, I instead set up a number of loose criteria designed to maximize the ambiguity of knowledge work:

- High level of intangibility of output (i.e. the service component of the client offering is dominant, and end product lacks tangible manifestations)
- High level of complexity of output (i.e. projects are non-standardized/unique and involve the solving of complex problems)
- High level of knowledge asymmetry (i.e. the difference in knowledge about the problem to be solved differs between seller and buyer – the seller possesses some form of expertise that the customer is lacking)
- High perceived importance to customer (i.e. the service is critical to the customer's own functioning/performance)

The consequence of these criteria is that the quality and value of the work and its output is difficult to assess for the client, but to some extent also for organizational members themselves as there is no possibility to compare the results of the work performed with that of other firms. Management consulting, as a practice or service, fits these requirements well and is often considered to compete under particularly high levels of uncertainty (Glückler and Armbrüster 2003). Indeed, Clark (1995) has described management consultancy as the "management of impressions", and Czarniawska-Joerges (1990) has called management consultantts "merchants of meaning".

Inhabiting a non-territorial office, with highly educated "knowledge workers" often on project site, a large IT/management consulting firm, here called Global, was deemed a suitable case company. In addition, Global was known for its "strong" organizational identity.

The three inquiry processes suggested by Yanow (2005) for accessing data on the meaning of physical artifacts and spaces were used; observations, talking to people (conversational or “in-depth” interviews), and studying relevant documents. 42 interviews exploring the role of the physical setting (the office) in identity construction provided the bulk of the data. In particular, the symbolic
character of the physical setting, that is how consultants interpret the physical setting and use it as resource in their identity construction, was focused upon during these conversations. Informants included the architect for the office, into which Global had moved five years prior to the study, two project managers from Global who had been involved in the office design, and five other Global employees in support or administrative functions. The rest of the interviewees were consultants ranging from new analysts to partners, with relatively equal number of interviewees per hierarchical level. The sample was not representative in a demographical sense as there are substantially more employees in the lower than the upper echelons of the organization. The assumption was that this approach would generate more relevant and insightful material because members in the higher echelons have greater experience with the organization. The interviews were conducted individually in different types of meeting rooms in the Global office, were based on a set of common themes and conducted in conversational form rather than strictly kept to an interview protocol. New themes were thus allowed to emerge and develop throughout the research process. This approach allows for different emphasis on different themes in each individual interview depending on the experience, expertise and interest of the interviewee. Interviews were tape-recorded and transcribed, and thematically analyzed with the aid of qualitative analysis software. In addition, observations were made at various times and places in the office work space during a period of three months, although visits to the office were made during a period of about a year's time. Documentation relating to the planning, design, and construction of the office as well as the move to the new premises was studied to extract information on the intentions behind the office design as well as its implementation. In addition, corporate communications material, such as annual reports, recruitment brochures and web pages provided the “official version” of the organization’s identity (i.e. the desired version from the point of view of the corporate head office).

The approach adopted for the analysis of the data was a particular version of discourse analysis that might be labeled discursive pragmatism (Alvesson and Kärreman 2000a). There are many definitions and different versions of discourse analysis, perhaps because of the diverse roots in various disciplines. On a higher level, discourse analysis is concerned with how discourses produce a social reality that is experienced as solid and real. Discourse analysts show that the more traditional emphasis on the representational capacities of language conceal and obscure these creative and functional capacities. “The statement Á may or may
not represent the thing T, but why is the statement A produced in the first place, and what does it accomplish?” (Alvesson and Kärreman 2000a:137).

Adopting the approach of discursive pragmatism implies that the major interest remains on discursively produced outcomes, such as text and conversations, but it also entails working toward interpretations beyond this specific level. The assumption is that the study of discourses provides a possibility to illuminate issues close to those discourses such as organizational identities or taboos. This approach acknowledges the complexity of social practice and thus the multiplicity of possible meanings in any discourse. Attempting to capture a complete or exhaustive understanding of the investigated phenomena is therefore unsustainable, and it makes more sense to attempt to capture the inherent richness of social realities. This implies a focus on the micro-level, elaborating on the many facets of particular situations, rather than trying to cover all the events and interactions spotted during a fieldwork (Alvesson and Kärreman 2000a).

Beyond the focus on “text” there is no agreed definition of what constitutes “discourse”. A common approach is that of Potter and Wetherell (1987:7), who write that “[w]e will use ‘discourse’ in its most open sense /…/ to cover all forms of spoken interaction, formal and informal, and written texts of all kinds. So when we talk of ‘discourse analysis’ we mean analysis of any of these forms of discourse.” However, as both organization scientists and architectural theorists have pointed out, buildings and their interiors can be read as “text” and as such have discursive effects (Dovey 1999; Markus and Cameron 2002; Yanow 1998). My interest in this study was not so much in reading the physical setting as text, but to explore how organizational members read it as such, and the discursive effects thereof. The physical setting thus acts as a medium for surfacing hidden thoughts and disclosing conflict regarding organizational identity. Results from this study are presented in papers IV and V.

I had no involvement as an advisor or other such relationship to the firm prior to the study, but only as an “independent” researcher - to the extent that is possible. Of course, in any interview situation a particular version of the situation and the world is constructed, and the interviewer is inevitably and active agent in this process. However, instead of having the aim of producing change, as in study 1, in this study the objective was to get some insight into the interviewee’s view of the organization and his/her role within it. People
interviewed were involved on a voluntary basis and interviews were conducted individually and anonymously in meeting rooms in the Global office. Thus instead of taking part in a collective process of sensemaking, as in this study, I was more interested trying to deconstruct the sensemaking process of the person interviewed.

Analysis of “knowledge-intensive firms”
Not only how organizational members make sense of their own organizations and work, but also how the research community makes sense of the organizations studied, is of critical importance for a researcher with the aspiration of making sense of knowledge work. At the outset, the research question for this dissertation was formulated along the lines of exploring the interplay between intangible and tangible dimensions of “knowledge-intensive firms”, or KIFs. This is a well-established category of organizations within the organization studies literature, and management literature in general, and therefore seemed like a suitable label. However, as noted above, fruitfully delimiting this category proved difficult, even impossible. While the notion of a “category of knowledge-intensive firms” had initially seemed intuitive and made perfect sense to me, definitions of KIF seemed to boil down to organizations dependent on “knowledge workers”, thus being tautological. This made me reflect on what guides the way we, as researchers, frame our research on “knowledge work”. In addition to the empirical study, a review of the scholarly literature on KIFs was therefore conducted. The purpose was to explore how scholars define and use this concept in order to make sense of their own research as well as how they present it to other audiences, and what the discursive effects of this use might be.

The study of discourse varies, among other things, depending on the level, or “formative range” of discourse (Alvesson and Kärreman 2000b). In study 2, the focus was on the local situated level of discourse, and language was thus understood in relationship to the specific process and social context in which discourse is produced. One may of course also treat discourse at a macrosystemic level, seeing it as a rather universal, if historically situated, set of vocabularies, standing loosely coupled to, referring to or constituting a particular phenomena (Alvesson and Kärreman 2000b). The Knowledge Economy Rhetoric is an example of such a high-level discourse.
Somewhere in the middle is the discourse on “knowledge-intensive firms” within the scholarly literature. On the one hand it is guided by, or is an outgrowth of, the Knowledge Economy Rhetoric. On the other hand it influences our constructions of contemporary firms. Discourses are embodied and enacted in a variety of texts, although they exist beyond the individual texts that compose them. Texts are not meaningful individually; it is only through their interconnection with other texts, the different discourses on which they draw, and the nature of their production, dissemination and consumption that they are meaningful (Phillips and Hardy 2002). While investigations of the local construction of discourse treat discourse as an emergent and locally constructed phenomenon, the study of high-level discourses instead start from well established a priori understanding of the phenomenon in question. Combining these approaches within the same study may therefore be difficult (Alvesson and Kärreman 2000b). However, this is also why making sense of such a complex phenomena as “knowledge work”, infusing and infused by all levels of discourse, deserves to be scrutinized from several levels.

As Phillips and Hardy (2002) note, discourse analytic approaches share an interest in the constructive effects of language and are a reflexive – as well as interpretive – style of analysis. In this respect the analysis presented in paper III of how KIFs are portrayed as an organizational category in the research literature, why and how the term is used and the discursive effects thereof, is of course a discourse analysis. However, we chose not to frame the paper as such, or to use some particular version of discourse analysis as the main theoretical framework to guide the analysis. Instead, we used theories on categories and categorization derived mainly from social psychology and cognitive sciences. This approach, we believed, would allow more profound, or at least different, insights than a more traditional discourse analysis - if there is such a thing – would have produced.

To summarize this chapter, the papers in this thesis draws on two different empirical studies, with different research objectives and strategies, employing different methods for collecting and analyzing data. In addition, a study of secondary data was conducted, employing yet a different approach. However, there was also a common thread underpinned by an ontological stance; all studies are based on qualitative inquiry. Qualitative research stresses the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. This implies relativist ontologies (multiple constructed realities), interpretive
epistemologies (the knower and known interact and shape one another), and interpretive methods (Dezuini and Lincoln 2003). As Schwandt (2000) has pointed out, the qualitative inquiry movement is built on a profound concern with understanding what other human beings are doing or saying. There are various philosophies, such as interpretivism, philosophical hermeneutics or social constructionism, providing different ways of addressing this problem. To label complicated theoretical perspectives as either this or that is not only difficult, but may also be dangerous, “for it blinds us to enduring issues, shared concerns, and tensions that cut across the landscape of the movement, issues that each inquirer must come to terms with in developing an identity as a social inquirer” (Schwandt 2000:205).

**Figure 1.** Connections between theoretical perspectives, studies and papers

![Diagram showing connections between theoretical perspectives, studies and papers](image)

The figure above is intended to illustrate how the theoretical perspectives have influenced the design of the studies as well as where they provided the theoretical underpinnings for the papers. The figure also shows how the papers are related to the studies.
PUBLISHED AND SUBMITTED PAPERS

This is intended as a platform for the reflections in the next chapter. It will provide a summary of the papers and the insights they generated, as well as how each paper contributed to the development of the thesis. In particular I want to highlight the different perspectives that have guided the sensemaking processes both for myself, in the work with this thesis, and for the people in the organizations studied. How each paper has contributed to the understanding of identity construction is also of central interest for the development of the thesis. The interlinkages between the papers are illustrated in Figure 2 at the end of the chapter, on page 46.

Paper I. Using an intellectual capital perspective to design and implement a growth strategy: The case of APiON

The first paper tells the story of how APiON, a software company in the telecommunications industry located in Belfast, Northern Ireland, adopted the IC perspective and underwent an IC process to develop and implement a growth strategy. The purpose of the paper is to illustrate how the IC perspective can provide insights into value creation processes in knowledge-intensive firms. It is argued that this perspective provides a complement to the more traditional perspectives on value creation, such as financial and economic perspectives, strategic perspectives, managerial action perspectives, and resource based perspectives. The IC perspective responds to some of the other perspectives’ shortcomings relating to knowledge work.

With the explicit objective to allow shareholders to realize a dramatic increase in shareholder value within a few years time, CEO Denis Murphy was faced with a number of challenges. These essentially evolved around developing and coordinating the deployment of the “right” knowledge and competencies that would enable APiON to become “a world-leading niche telecommunications
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software company by successfully utilizing leading edge technology in the commercial exploitation of ‘first to market’ computer based network infrastructure components”. A number of initiatives were put in place to achieve this, including various training programs, strategic rotation of staff, joint project work with major players in the industry, and joining specialized technology forums within the industry. Murphy was convinced that a culture characterized by an open and informal atmosphere was instrumental to achieving the strategic objectives. He was keen to promote regular social events and actively encouraged employees to contribute and make suggestions. However, Murphy felt frustrated with the traditional strategy process and model as well as with the management information and reporting systems as they did not help him much in developing and implementing a strategy essentially evolving around the creation and development of knowledge. While happy with the initiatives mentioned above per se, he felt they remained just that; a bundle of “initiatives”. Without a structured framework for describing the strategy – or even a common language within the organization for communicating the strategy – it was difficult to take action. The purpose of the IC process was to create such a framework, enabling a common understanding of the strategy among the management team and how it was to be implemented.

In a series of work shops, with the help of a number of “tools” in the form of simple graphs and charts and weighting exercises, the management team worked through their intangible resources – what they were, how they should best be used in order to achieve the strategic goals, and the relative importance of the resources and their deployments. The purpose was to uncover and articulate the implicit mental models experienced managers have of how success is achieved in their business, and to arrive at a common model, or “value creation path”, for how the firm ought to work to achieve the strategic goals. The result was visualized in the form of a “navigator”, a schematic picture of the intangible and tangible resources required and their relative importance. Subsequently a measurement system, an IC index, was to be put in place to measure the achievement of the goals.

The process of articulating and visualizing the value creation path was of course also a sensemaking process. It was important for the development of the team’s understanding of the organization; what the challenges were, what would make them successful etc. As such it can be seen as an ambiguity coping exercise – making sense of the uncertain, complex and abstract context of their activities.
Through dialogue and visual expression of the intangible aspects of their organization the management team together made sense of this “wordless” situation.

This study underlines the importance of dialogue for sensemaking, in this case face-to-face interaction within a group. But, perhaps even more importantly, it highlighted the importance of visual symbols for making sense of extremely abstract and complex phenomena - such a knowledge based strategy. The sensemaking process was one which combined interpersonal interaction and interaction with words, pictures and numbers - the weighting of the relative importance of the different resources and transformations was also critical to the sensemaking process. Furthermore, the APION case illustrates the power of the IC perspective, with its vocabulary and underlying assumptions, describing all the value creating resources at the company’s disposal. The application of this perspective, as opposed to the more traditional perspectives on value creation reviewed in the paper, allowed the team to think differently about their strategy and how to achieve it.

Finally, and of significance to the development of this thesis, was the insight about the critical importance of what we called “the APION way”. In the paper we wrote that the APION way represented APION’s “unique culture” and a “shared context for knowledge creation and application” that “shaped the behaviors of people”. It was something we struggled to find a suitable word for but that seemed to be critical for people at APION. At the time we likened it to the Japanese notion of “Ba” (Nonaka et al. 2000). Today I would perhaps have used the notion of organizational identity.

**Paper II. From implementing strategy to embodying strategy: Linking strategy, identity and intellectual capital**

The second paper can in many ways be read as a springboard for the next study. Building on reflections and experiences from the first study, as well as other experiences from working with strategy and IC processes, it indicates what might be seen as the starting point for a, or rather my personal, research agenda for knowledge-intensive firms.

The paper argues that traditional conceptualizations of strategy dominated by a militaristic view and the theories of the industrial organization, as well as the frameworks and tools derived from them, have led to the present crisis of the
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strategy discipline where it seems to have lost its relevance for practitioners. A conceptualization of strategy based on those assumptions is not appropriate for knowledge-intensive firms competing in uncertain, fast-moving, immature markets, selling complex goods and services with high knowledge content. These predicaments require a proactive rather than a reactive approach to strategy-making, allowing for flexibility and improvisation to cope with changing conditions, instead of latching on to a stifling detailed strategic plan. Furthermore, markets are often better conceptualized as complex value networks than value chains, and firms have to look to their internal resources – which are often knowledge-based and intangible – to find a competitive advantage and carve out a role in the network. In such a context people are the key value drivers, and vision, values and beliefs become a key component of strategy to enable coordinated action.

A different conceptualization of strategy for knowledge-intensive firms competing in uncertain environments is presented. In this context, the key role of strategy is to provide a common vision and a purpose. It should also provide managers with a shared context for decision-making and for guiding the behaviors of all employees. Strategy is therefore seen as a process rather than a point concept, kept together by the values and beliefs held by organizational members, reflecting the vision and purpose and – in a best-case scenario – reflected in the reputation among external audiences. Achieving consistency and alignment between the vision and purpose and the values held by organizational members as well as external stakeholders becomes critical for the strategy to be successful in practice.

With this conceptualization, crafting strategy entails having strategic conversations among the management team, establishing a common language to explore internal and external issues, and about sensemaking of events and trends in the environment. The problems arise when the vision is to be implemented. There has been nothing in the strategy literature to replace the concept of strategic planning. The paper suggests that the concept of “identity” may provide an “integrative mechanism” between the high-level abstract vision and the organization's resources. While the notion of organizational identity has gained a lot of ground in the organization science literature, and is argued to be of particular importance to knowledge-intensive firms, it has been largely omitted in the strategy literature. Organizational identity can, however, act as an interpreter, or a means for making sense, of the vision, providing organizational members
with guidelines for conduct. Organizing can therefore be portrayed as constructing and maintaining identities and facilitating collective action. Taking a symbolic interactionist position, it is suggested that identities are socially constructed and meaning evolves through verbal and non-verbal interactions of individuals. To influence identity organizations therefore need to manage not only their formal corporate communications, but also symbols of various kinds as well as the settings in which social interactions occur.

Embodying strategy in this paper means mobilizing intangible and physical resources to support and facilitate identity construction. This implies supporting behaviors and reflecting values rather providing a set of directions. While identity cannot be managed, resources can - or at least they can be influenced. The IC perspective therefore offers a helpful and practical framework as it allows for the inclusion of all resources, whether tangible or intangible. Many of the most critical resources in a knowledge-intensive firm are IC resources, such as structures, processes, systems, culture, brands, competencies, relationships etc. and they all influence social interactions and can carry symbolic meaning. Physical resources, and in particular the physical environment is emphasized in this respect, “frame” IC resources by influencing interactions both in a direct and indirect (symbolically mediated) sense.

This paper thus sets out the centrality of identity for knowledge intensive firms and highlights the role of the physical setting in identity construction. The choice of the word embodying strategy for this alternative conceptualization is interesting and reflects the contribution of this paper to the development of the thesis well. At the time it was more of a “hunch” than a well-articulated argument that led to the use of that particular word, a word that will take on a much richer meaning throughout the dissertation.

**Paper III. What really is a knowledge-intensive firm? (Re)framing research in the “Knowledge Economy”**

This paper differs from the others in this thesis because it is a purely theoretical paper based on a literature review rather than an empirical study\(^7\). It is also a more reflexive probe into Knowledge Economy Rhetoric as it explores how the research community (seen as a collective) makes sense of the Knowledge

\(^7\) While paper II makes a theoretical argument, the model, or conceptualization, of strategy presented in that paper is derived from action research. That study is not included in this thesis but was described in Poppard and Rylander (2002).
Economy and knowledge work and what the implications might be for how knowledge-based concepts are used. Because the knowledge-intensive firm (KIF) was a key concept in the formulation of the research question, it seemed like a good place to start. At the time, I thought I was doing research on KIFs, but the more I reflected on what that was, the less it made any sense. What, actually, is a knowledge-intensive firm?

The paper was a working document during most of study 2 and changed substantially during this period. As such it became an important instrument in the process of formulating what it actually is that I study. It was first drafted for a course assignment in philosophy of science in early 2003 as critique of the term “knowledge-intensive firms”, essentially arguing that it is a meaningless term as it is based on “knowledge”, a concept that covers everything and nothing in organization sciences. Adding the word “intensive” makes it impossible to set any boundaries around the “category”. It is thus an inherently flawed concept and therefore not useful for the purpose of classifying research, which is to a large extent how the term is, although often implicitly, used. And, indeed, how it was used in papers I and II.

It was then further developed into a conference paper, together with Joe Peppard, and presented at the 25th McMaster World Congress in January 2004. The perhaps somewhat naïve objective at this stage was to find a better framework for classifying so-called knowledge-intensive firms - preferably in the form of a two-by-two. This turned out to be an impossible task, something that really should have been evident from the conclusion of the first version of the paper. This failure led me to reflect on why we so stubbornly continue to use terms that are so obviously flawed from both an ontological and instrumental point of view. What makes us think about knowledge and organizations in the way we do? And what are the consequences of the way we construe knowledge and how we use knowledge-based concepts?

Rather than doing a “pure discourse analysis” we chose to analyze the notion of the KIF as an organizational category and explored literature on categories and categorization, essentially from social psychology and cognitive sciences within the framework of theories on the embodied mind. According to this view, every living being categorizes. This is necessary for our brains to handle the enormous

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8 This paper was then selected for publication in The Learning Organization, but we declined as we felt the analysis was not satisfactorily developed at that stage. However, the interest the discussion raised at the conference encouraged us to continue developing the analysis.
amounts of incoming information. Categories are part of infrastructures, or classification systems, that are usually so enmeshed in our lives as to be invisible, nevertheless they guide everyday sensemaking and behavior. Inevitably then, each category or standard valorizes some view and silences another. This is not inherently a bad thing – indeed it is inescapable – but we need to become aware of these infrastructures to be able to see and analyze their effects.

By using the word “category” the scholarly literature provides the illusion of the KIF as representing a homogenous group of firms, and consequently that research findings could be applied to these particular firms. We also argued that the use of the word “knowledge” makes the KIF inherently flawed as an organizational category as knowledge is an all-embracing concept within the organization science literature, covering everything and nothing. However, while the KIF may be a meaningless category in the technical sense (i.e. there are no common properties that would meaningfully set these firms apart from other firms) it is clearly meaningful to the many scholars, practitioners and policy makers who continue to use the term. Knowledge is positively charged in the Knowledge Economy Rhetoric and KIF becomes an attractive label to attach to research. The concept evokes particular meanings, giving studies the appearance of being cutting edge and promoting particular interpretations of knowledge and it’s role in contemporary organizations at the expense of other possible interpretations. The use of the illusory category of KIFs contributes to shaping and perpetuating the more general discourse on the Knowledge Economy.

The danger is that the notion of a KIF has become so intuitive that it is now used in an unquestioning way. While some earlier studies did question the whole notion of a KIF, the more recent papers make little reference to its problematic nature. It has become, it seems, an integrated part of the knowledge economy rhetoric. This rhetoric is however, to a large extent a reflection – and an extension – of the very same “traditional” worldviews and assumptions that this “new” economy is said to be calling into question. It is of course impossible to start wholly afresh, as from a blank sheet, stuck as we are in the current infrastructures that guide how we make sense of the world. But we can strive to uncover these infrastructures and their underpinning assumptions so that we can better understand and question how they influence the way we construct new concepts. In the paper we argued that taking knowledge seriously implies exploring alternative conceptualizations of knowledge (such as categories and
Making Sense of Knowledge Work

metaphors) as well as alternative approaches for framing research on knowledge in organizations.

The main contribution of this paper is that it illustrates the role of “terms” in how we research make sense of what it is that we study when we do research on “knowledge work”. Understanding the infrastructures that govern how we design studies on knowledge work and perhaps even more importantly, how we frame, or present the results to the outside world, is critical for making sense of knowledge work. Furthermore, the paper illustrates the importance of structural dimensions for sensemaking of knowledge work. The other papers in this thesis explore how organizational members make sense of their organization and their own role within it through interactions with people, symbols and their physical surroundings. This paper explored how our interactions with the discourse on the Knowledge Economy constitute the context for how we make sense of knowledge work in organizations – perhaps equally important for how we design, conduct and present research.

Paper IV. Managing meaning through branding: The case of a consulting firm

This paper departs from the increasing pressure on contemporary organizations to focus on the symbolic dimensions of their activities. While a popular concept among practitioners and scholars within marketing and strategic management, the concept of branding has been virtually absent in organization studies. In this paper we argue that the practice of branding can be productively understood as an exercise in management of meaning and a leadership practice. Based on study 2, in combination with a similar study of the same consulting firm conducted by Dan Kärreman and colleagues, starting five years prior to my study, we discussed how branding shapes meaning for organizational members, and how this relates to organizational identity.

In the case company Global⁹, a large IT/management consulting firm, the brand is perceived to be a powerful symbol that is emotionally charged and elicits strong reactions among outsiders, which influences outsiders’ attitudes towards organizational members as well as the interactions with them. However, while the brand is charged with meaning, the meaning(s) seem to be highly ambiguous, esoteric and emotional and relate more to some kind elitist notion of the

⁹ In this paper the case company was called DeliverIT; however for the purpose of clarity, I will use the name “Global” throughout the exposition.
consultants than some characteristics of the service performed to clients. In this organization then, the brand seems to be inseparable from the employees.

Interestingly, there is somewhat of a mismatch between the branding discourse, i.e. corporate communications, and the internal discourse, or the organizational identity. The branding discourse changed considerably during the five years the two studies cover, emphasizing some mysterious and elitist dimension of the organization. The internal discourse was more stable and surprisingly coherent. Interviewees emphasized that there is a strong internal discourse about what a Global consultant is supposed to be like. This discourse was learned informally in social interactions at project site, emphasizing hard work, but also a social and collegial side. To some extent this contradicts the elitist notion of the branding discourse, particularly as the branding campaign featured a lone star. Nevertheless, the brand seems to play an important role for organizational identity in that it reinforces organizational identification. Branding and organizational identity play different, but complementary roles in organizational members’ sensemaking processes. Indeed, the brand may even be more important for the employees, and prospective employees, than for clients, who, according to our informants, are more likely to purchase projects based on personal relationships, reputation (word-of-mouth) and cost.

As a powerful symbol for the organization, the brand and branding practices can be interpreted as a means to channel and influence the ambiguity inherent in knowledge work. For external audiences the brand may help reduce ambiguity as the strength and allure of the Global brand reduces uncertainty and ambiguity by providing a coherent image, albeit on an abstract and esoteric level, of a complex organization providing complex services. Somewhat paradoxically, the brand can also be interpreted as an ambiguity increasing strategy for internal members, as it provides a “counter force” to the development towards the low-end of the market.

This paper on the one hand indicates that branding is an under explored concept in organization studies as it clearly is a common practice among Global and their competitors, and one that seems to influence how members make sense of the organization and themselves as organizational members. On the other hand the empirical material suggests that there are several mismatches between the branding literature and empirical reality for our case company, consequently calling into question some of the underpinning assumptions of the branding
literature. The role of branding in Global is not so much about creating distinction from other brands in the sense of attaching certain values to the brand; creating a “brand promise” in marketing lingo. Instead it seems, the brand works as a reminder, evoking associations and emotions that are already attached to the brand derived from previous experiences of social interactions (with organizational members or through word-of-mouth). Nor is the primary audience necessarily clients or prospective clients, but is more likely to be employees and prospective employees. In addition, while Global is no doubt a prime example of successful corporate branding; the external and internal communication is well aligned and messages are perceived as integrated, it is clearly different from the values that are “lived” by organizational members. The implication is that, for Global, it seems that the brand is more important for internal than external audiences. Indeed, organizational identity might be more important for the sales process than the brand as it is the former that guides values of relevance for social interaction and “how the work gets done”. And this, according to our respondents, is why clients actually choose Global.

The paper thus illustrates the complexity of symbols in sensemaking; organizational identity influences the interpretation of the brand, and branding affects the interpretation of organizational identity in the sense that it reinforces identification (the attractiveness of belonging to the firm). The paper also illustrates the power of a simple and coherent symbol and how this is achieved through the combination of what Blumer (1969) called human, abstract and physical objects. Global advertisements feature a well known sports star to convey an image of success and achievement. It is thus a symbol that anthropomorphizes the organization and uses physical attributes from a sport to convey meaning about abstract knowledge work.

**Paper V. Bringing the “I” back into the self: Body, place and emotion in identity construction**

The last paper in the thesis criticizes the organization identity theory literature for taking a theoretically too narrow approach to organization identity construction. The notion of organizational identification, derived from social identity theory (SIT) is the theoretical perspective that underpins most studies on the relationship between the self, or members’ identity, and the organization. While SIT has been instrumental to the development of theories on organizational identity and identification, the heavy influence of this perspective at the expense of other possible perspectives for viewing organizational identity
construction also has its drawbacks. In particular, SIT is a group level construct that is concerned with how we cognitively structure the world around us. It has therefore not been able to account for the ambivalence, ambiguity and emotion at the individual level of identity construction processes, repeatedly displayed in empirical studies.

As a complement to SIT, this paper suggests that George Herbert Mead’s theory of the self (1934), which views the self as a dynamic process constantly going on between the two phases, the social “me” and the individual “I”, can be fruitfully applied as a framework for studying identity construction in contemporary organizations. This framework allows us to focus on the experience of the individual in the process of constructing the self and social reality through symbolic (and non-symbolic) interactions with the environment. It is further argued that we relate emotionally to objects and places and that they have an important, albeit under explored, role to play in the constitution of identities in organizational contexts – whether personal or social. Consequently, it is hypothesized, the study of the physical setting can provide a route to exploring the missing dimension, or “other side”, of identity construction, that of emotion, ambivalence and conflict.

The study of Global provides the empirical basis for the analysis. The data shows that there were two competing discourses relating to organizational identity, both often salient in the same interview. One more coherent and “controlled” discourse was in line with the organizational identity, playing down conflicts and negative aspects of the organization. The other discourse was more emotional, diverse and personal and surfaced negative aspects and associations. These discourses were used to illustrate consultants’ struggle to make sense of the organizational self in terms of Mead’s framework. According to his theory, these competing discourses, or this ambivalence towards the organization, do not constitute a problem, but are just two phases of the process that is the self.

In addition, the accounts introduced a new dimension of sensemaking, that of embodied experience. Physical environments are extremely complex, and thus ambiguous, and all sense modalities are involved in their experience. Consequently, studying the meanings they evoke from solely a symbolic perspective can only tell part of the story - we need to consider the experiential aspects of symbolism in physical environments to get a full understanding of the richness of their meaning. A set of doors provided the example of an embodied
metaphor, that is a symbol that is experienced with all senses, and seemed to elicit particularly emotional and "strong" meanings to the respondents.

The study of Global affirmed the ambivalence and conflict found in earlier studies as an integrated part of processes of identity construction. It also confirmed that our relationships to physical environments are emotional and related to the overall experience of the place as well as particular symbolic artifacts. Exploring our relationships to the physical setting therefore proved to be a fruitful approach for uncovering the previously missing dimension of identity construction (emotions and ambivalence). Furthermore, Mead's framework of the self seemed well suited as a theoretical lens for understanding identity construction in organizational contexts. Although Mead is a frequently used reference in the organizational identity literature, what authors have picked up on is predominantly the social "me"; the notion of the "I" seems to have disappeared somewhere along the way, as have the interactions with the material world. However, Mead's view of the self is not complete without its "I" and the dynamic process in which they evolve; the "me" cannot develop without an "I".

The empirical material from the study of Global clearly illustrates this process and the importance of the "I" for the "organizational self" to develop. However, the empirical application also highlighted some gaps in Mead's framework that need to be addressed if this approach is to be suitable for exploring identity construction in contemporary organizations. While Mead acknowledges that our interactions with physical objects are social and embodied, we need a better understanding of the role our interactions also with environments, or places, play in the development of the self. Furthermore, just like the "I" seemed to have disappeared in the later interpretations of Mead in favor of the socially constructed "me", the relation to the material world has not received its due attention.

To address these gaps, an "updated" version of Mead's symbolic interactionism is suggested, labeled embodied symbolic interactionism. The term follows from the theories of the "embodied mind", a perspective that emphasizes the body as the basis for the self and explores the implications of how we are embodied, i.e. how minds and bodies are interconnected, for how we make sense of ourselves and the world around us. These theories acknowledge, and empirically explored further, the philosophical heritage of William James and John Dewey, who also had a major influence on Mead.
The primary contribution of this paper is that it provides an empirical investigation into the role of the physical setting in identity construction. Critically, it illustrates how all our senses are involved in sensemaking and how our physical surroundings are an integrated component in this process. This paper is also the most important paper in the thesis from a theoretical point of view because it outlines a theoretical perspective on identity construction grounded in the experience of the physical setting. It also picks up on, and ties together, the various theoretical threads that made up the starting point for the empirical investigations. For me, this was when it all fell into place. Hopefully the next chapter will illustrate this also for the reader.

Figure 2 Contribution of papers to development of thought
Figure 2 illustrates pictorially how the papers have contributed the development of this thesis. The purpose of this chapter is to clarify that development and to reflect further on the insights from the papers and their implications for making sense of knowledge work.

In the introduction I noted that there are trends in management studies that frame the research topics we choose to study and the theoretical and methodological perspectives we choose to apply to make sense of what we study. By necessity, any one perspective promotes a particular view of the world by providing a certain lens through which to study some phenomena. But what are the assumptions that underpin the perspectives that we use? And what are the alternative worldviews that the dominant perspectives suppress? Chapters two and three outlined the perspectives that guided the design of the studies in this thesis, and chapter four illustrated how these perspectives influenced sensemaking processes in and of the empirical studies. In this chapter I will reflect on the underlying assumptions as well as the consequences of applying these particular perspectives. Keeping Weick’s (1999) advice about the importance of instrumental reflexivity in mind, I have tried to look for “excluded voices” that could help me think more deeply about identity, knowledge and sensemaking (knowledge work).

The relationship between theoretical perspectives, methodological perspectives and empirical studies is iterative in the research process. While the theoretical perspectives guide the design of the study, the methodology applied influences what data is captured. In turn, any empirical study, especially a qualitative study using an open and emergent approach, is full of surprises and generates insights that may alter the perspectives initially applied. This was certainly the case for me. Of particular importance for the development of this thesis was the use of the physical setting as a lens for studying identity construction. This perspective
led me to explore dimensions of sensemaking that I would have missed, had I used a more traditional approach, focusing on organizational identity only. In particular, the empirical material required that I explored new theoretical perspectives to make sense of the data. The perspectives originally applied turned out not to be enough. The second part of these reflections outlines the perspective that resulted from this iterative process.

Sensemaking and identity in the Knowledge Economy

All the papers in this thesis deal with some aspect of the Knowledge Economy. The starting point for all the papers was the “new”, or changing, conditions that contemporary (if not knowledge-intensive) organizations are facing according to the Knowledge Economy Rhetoric. According to this rhetoric companies today face a much more complex environment than those of the “industrial era”, much due to rapid rates of technological innovation and change. As a result, markets become fragmented, boundaries around organizations are dissolving and highly qualified knowledge workers, knowledge and other intangibles become key to competitive advantage. In this increasingly complex and abstract world, companies experience an increasing pressure to focus their attention on the symbolic dimensions of their activities. To what extent these alleged changes are “real”, i.e. reflected in some sort of empirical conditions, can of course be discussed. Certainly, everything changes from minute to minute, so by definition every situation is new. The other side of the argument is that history always repeats itself – plus ça change, plus c’est la même chose – the more it changes, the more it stays the same. This, however, is a discussion I will leave for others to have. What is of importance for this thesis is that these (alleged) changes have preoccupied academics in the field of management, as well as practitioners, and so they came to preoccupy me.

The notion of “identity” as being critical for knowledge work was a fundamental idea that came to guice the direction and form that the research underpinning this thesis took. Paper II suggested identity as an “integrative mechanism” between the abstract vision and organizational resources as well as between values and beliefs about the organization held by inner and outer stakeholders. Identity then becomes critical for strategizing as well as strategy implementation, or embodiment, which is suggested to be a better word. Consequently it becomes essential for understanding and thus studying such firms and therefore
became a defining theme for study 2. To a certain extent this theme was derived out of study 1. There was something about the way people at AP/ON viewed themselves and the company that seemed to be important also for how people interacted and how the strategy was set into action. At the time we labeled it the “AP/ON way” (see figure 6 in paper 1) and likened it to the Japanese notion of ba (Nonaka et al. 2000). However, the organization science literature subsequently taught me that the appropriate term (i.e. the term in vogue at the time), with its underpinning theoretical framework, was that of organizational identity.

Within the context of the Knowledge Economy, the notions of identity and sensemaking are intimately related. Identity is critical for how we make sense of knowledge work in at least two ways. Firstly, if we take the view that identities are constituted in social interactions, as Weick (1995) explained, sensemaking is grounded in identity construction:

“Depending on who I am, my definition of what is ‘out there’ will also change. Whenever I define self, I define “it”, but to define it is also to define self. Once I know who I am then I know what is out there. But the direction of causality flows just as often from the situation to a definition of self as it does the other way. And this is why the establishment and maintenance of identity is a core preoccupation in sensemaking and why we place it first on our list [of the properties of sensemaking].” (Weick 1995:20)

Secondly, “identity” is a key term in the Knowledge Economy Rhetoric. Just like the Knowledge Economy has come to stand for certain conditions of today’s society, the search for “identity” has come to stand for our struggle to find a place in this fast-moving world of blurring boundaries. Whether at individual, city, regional or national level, we need to brand ourselves to differentiate ourselves in a globalized world. Books with titles such as “the brand me” and “place brands” have become increasingly common, and cities and regions invest in branding campaigns. “Having” an attractive identity is critical to success and well-being, and “bad identities” need to be fixed, or serious problems may occur. As an example, in response to the recent riots in the suburbs of Paris and the suicide bombings in London earlier this year, historian Timothy Garton Ash (2005) suggested that half the problem is one of identity (the other half being due to socio-economic issues). Being European should be the overarching civic identity which allows everybody to feel at home, regardless of descent, he argued, and so “to address the greatest problem of our continent […] we need
to do nothing less than to redefine what it means to be a European”. While this may or may not be a correct analysis (how does one “redefine” the identity of Europeans?), there are certainly other possible ways of framing the problem of certain groups not being at ease in society. Medical sociologist Aaron Antonovsky, for example, would say that they lack a sense of coherence, i.e. that these group do not experience their life as meaningful, that they cannot anticipate and do not have the resources to cope with forthcoming events in life (Antonovsky 1987).

Similarly, the notion of identity has long been important for our understanding of organizations in management studies and what is required for them to be successful in the Knowledge Economy. In organization studies the concept of organizational identity has gained substantial ground during the past couple of decades. As explored in paper V, this perspective has guided how organization scholars have come to understand and study how employees make sense of their view of themselves and their role as organizational members. Marketing is perhaps the discipline most obsessed with the notion of identity in various forms such as product identity, brand identity, and as discussed in paper IV, corporate identity and corporate branding. These are concepts that call for an “integrated approach”, as was also done in paper II, to communication strategies and underline the importance of a common message to all stakeholders. While it is no doubt a bad idea to send different messages to different stakeholders, as paper IV and to some extent paper V showed, the way these messages are made sense of by organizational members is much more complex. This depends on how, and in what context, members interact with people, symbols, physical objects and environments.

The notion of “identity” then, is just as problematic as that of “knowledge”. However, while on the one hand these terms represent trends both among practitioners and academics, on the other hand they also represent some of the fundamental questions of philosophy. While there is no simple answer to the question “who am I” – or to make it even more complex; “who are we”, it does not stop us from continuing to ask. And, as the argument goes, increasingly so in today’s Knowledge Economy. Therefore, exploring questions of identity; how we come to understand ourselves and our role in the world, is by no means ephemeral. We always have and it is likely we always will. What changes then, are not so much the questions as the frameworks, perspectives, or their underlying infrastructures as Bowker and Star (1999) would put it, that we use to guide our
understanding of the answers. Paper III explored some of the infrastructures that guide our constructions of what is a “knowledge-intensive firm”. In this chapter I will reflect further on how these infrastructures guide our constructions of knowledge work and identity, and the implications for how these phenomena are, and perhaps ought to be, studied.

In contrast to the term identity, the term “sensemaking”, was chosen after some conscious reflection and not because it is trendy (way past that date). There are several reasons for this choice. The everyday understanding of the expression “to make sense of” captures what I want to convey better than its possible alternatives (such as understanding, interpreting or constructing). Indeed, sensemaking is one of the few terms in the social and organizational sciences that literally means what it says: sensemaking refers to the concern with making sense of events and experience (Gioia 1986). Most importantly however, I chose the term sensemaking because it includes the word “sense” which, with its many meanings, is a key term for many of the arguments in this thesis (for a full definition see box on following page). This may be a wider understanding of the term than Weick’s (1995) classic version of sensemaking. Sensemaking “means the making of sense” (Weick 1995:4), he writes, which implies that active agents construct sensible, sensible events; they structure the unknown. While I agree with this view, we should not forget the origin of the word sense (see box on following page); sensation, feeling, mechanism of perception, meaning. I would like to emphasize that “sense” is also, indeed originally, “the faculty of perceiving by means of sense organs”. This needs to be considered when studying the central questions of sense-making: how, what, why and with what effects people construct what they construct (Weick 1995).
Entry retrieved from: Merriam-Webster’s Collegiate Dictionary (online version 12 Nov. 05)  
Main Entry: 1sense  
Pronunciation: ‘sen(t)əs  
Function: noun  
Etymology: Middle English, from Anglo-French or Latin; Anglo-French *sen*, *sens* sensation, feeling, mechanism of perception, meaning, from Latin *sensēs*, from *sentire* to perceive, feel; perhaps akin to Old High German *sinnan* to go, strive, Old English *sith*  
Date: 14th century  
1: a meaning conveyed or intended: import, signification; especially: one of a set of meanings a word or phrase may bear especially as segregated in a dictionary entry  
2 a: the faculty of perceiving by means of sense organs b: a specialized function or mechanism (as sight, hearing, smell, taste, or touch) by which an animal receives and responds to external or internal stimuli c: the sensory mechanisms constituting a unit distinct from other functions (as movement or thought)  
3: conscious awareness or rationality -- usually used in plural <finally came to his senses>  
4 a: a particular sensation or kind or quality of sensation <a good sense of balance> b: a definite but often vague awareness or impression <felt a sense of insecurity> <a sense of danger> c: a motivating awareness <a sense of shame> d: a discerning awareness and appreciation <her sense of humor>  
5: consensus <the sense of the meeting>  
6 a: capacity for effective application of the powers of the mind as a basis for action or response: intelligence b: sound mental capacity and understanding typically marked by shrewdness and practicality; also: agreement with or satisfaction of such power <this decision makes sense>  
7: one of two opposite directions especially of motion (as of a point, line, or surface)  

**Intellectual capital and KIF as bridging concepts**

An important theme in the review of the papers in the previous chapter was the capacity of different perspectives to modify how we make sense of the world around us and of particular phenomena. This was illustrated in the empirical studies. For example, paper I demonstrated how the IC perspective changed the way the management team at APION made sense of their strategy and identity. It was also illustrated by the application of various theoretical and methodological perspectives. In particular, the analysis of the discourse on KIFs in paper III underlined how the dominant infrastructures guide theoretical constructions. Terms such as “knowledge-intensive firm” can be thought of as some form of “bridging concepts”, necessary for moving from one infrastructure (or world view) to another. As we are constrained by the current infrastructures that guide our thinking, new concepts easily become extensions of old concepts. When organizational categories are not enough due to the increasing dependence on knowledge in certain firms, it makes perfect sense that
we should construct a new category of firms that can sit alongside the old
categories. New concepts that deal with new phenomena, or represent a new
way of describing old phenomena, only constitute the first stab at the development
of exploring this new, or unexplored, phenomenon. A certain ambiguity is
therefore necessary for the concept to be able to develop and is indeed a good
thing. At some stage, however, as I believe has become the case with the notion
of a “category of KIF” within the scholarly literature, the term becomes over-
represented and loses its initial significance, in this case making the point that
traditional classification systems are inappropriate for firms particularly
dependent on knowledge. Only the discursive effects remain.

Intellectual Capital is a prime example of a bridging concept. With its entire
vocabulary and set of measurement methods and tools it constitutes a very
ambitious attempt to develop a new infrastructure to sit alongside the “old
financial perspective” of the “industrial age”. It is not only the words and
metaphors that imitate the “traditional perspective”, but the visual
representations of intangibles also use the traditional templates. In paper I IC
resources and transformations were illustrated by organization charts and boxes
with arrows between them. Most importantly perhaps, the main objective was to
arrive at a numerical language – measurement was always at the heart of the IC
perspective, and has continued to be so¹⁰. What was called “visualization” would
perhaps more accurately have been described as “numerization”.

The attentive reader will also note the epistemological confusion raised by
combining the autopoietic perspective on knowledge and the resource-based
view of the firm. It is interesting to note that the terms “intangible assets” and
“intellectual capital”, designed to mimic “financial capital”, as well as
“intellectual resources”, which is derived from the resource-based view of the
firm, tend to objectify knowledge (as will be discussed in the following section).
The epistemological stance underpinning the Navigator as portrayed in paper I,
however, does not. On the contrary, the IC process was based on the premise
that knowledge is context specific and emerges through interaction and dialogue.
This was why it was designed primarily in the form of workshops. And, indeed,

¹⁰ Leif Edvinsson, one of the originators of the concept of intellectual capital, pointed out to me that
the IC perspective and the Navigator were initially about assessing future potential and about “me-
assuring” rather than measuring. That is, assuring oneself of being on the right track at the right
speed. However, subsequent theorizing and interest has been focused on tools and techniques for
measuring these achievements rather than other potential means of assessing them.
the fundamental logic behind the IC perspective is that intellectual capital is somehow different than financial and physical capital.

The consequence of this linguistic mimicry is that it overlays and imitates the very same logic that it seeks to over-turn. This is so almost by necessity, partly because, as noted above, we are bound to think according to the current infrastructures, and partly because we are bound by the current infrastructures to communicate to the outside world. As Deetz (1996) has pointed out, marginalized groups are defined as “the other”, thus acquiring an identity and valued functions, but only as given by the opposition pole in the dominant group’s conceptual map. Similarly, new (or marginalized) concepts are defined in relation to the present, or dominant, ones.

In hindsight then, the IC perspective does not seem like such a great idea after all for exploring knowledge in organizations. It does not have the prerequisites for developing into a new academic discipline of its own, as was called for in certain groups. The calls for creating “a common language” for defining IC and its components in a sense defeat its own purpose. The IC perspective allowed us to make new distinctions and new categories, but by their very nature (as extensions of the traditional frameworks it was devised to refute), these categories and distinctions were constraining in the pursuit of making sense of the role of knowledge in value creation. However, providing a robust framework for academic research is not where the contribution of the IC perspective is, nor where it ever was. From my own point of view it was an excellent starting point – it worked well as a bridging concept, building on theories I was familiar with from my education, and thus provided a good platform for empirically exploring the role of intangible dimensions of organizations.

Likewise, while this perspective may not have proved ideally suited for further theoretical exploration into the nature of knowledge work for me, in other contexts it may still have substantial benefits. As Denis Murphy, the CEO of APON reflected after the study:

“The IC approach worked very well for our team here because it allowed us to develop a common language around strategy, a common understanding of the key drivers of value creation, to understand the relative importance of each of these drivers and to understand that the [transformations] between [resources] are the key to value creation – that was quite a new revelation to us.” (Excerpt from interview, 7th March 2000)
With the help of this vocabulary (words, numbers and pictures), through dialogue and interaction, they constructed a common language for discussing strategy and identity; what they were to become and how. In other words, the IC perspective enabled the management team to make sense of knowledge work in their context. The IC perspective also acted as a bridging concept between theoretical concepts and the practical situation faced by managers. Discussing the role of knowledge in terms of resources and transformations is considerably more digestible (and applicable) for a managerial audience than the economic theories underpinning the methodology. The power of the IC perspective thus lies in its ability to reduce ambiguity. And it is precisely because it is an extension of the well-known infrastructures that it is easy to grasp and it just seems like common sense. This is most likely the major reason for the popularity of the concept among practitioners and consultants.

Because we are constrained by our current infrastructures in how we make sense of the world, we have no choice but to use them as basis for thinking about the new. These kinds of bridging concepts are therefore fundamental to the development of thought and construction of new perspectives and theories. Again, this is illustrated in the development of this dissertation. The investigation into the nature of “knowledge work” started with the IC perspective and evolved through the application of various other perspectives. As a researcher, in order to progress the understanding of some phenomena (such as knowledge work) it is important to know when to let go, or when a bridging concept has served its purpose.

**Doing research from the inside-out**

On the left-hand side of Figure 2 is an arrow going from “outside-in” to “inside-out”. This represents the direction the theoretical as well as the empirical investigations took in the pursuit of understanding knowledge work. I started from the high-level strategic perspective, trying to get a birds-eye view of all of the organization’s resources, and ended up focusing on the perspective of the individual employee, aspiring to understand how interactions with people, words, symbols, physical objects and environments shape meaning for people.

Within the strategic management discipline, the outside-in perspective (industrial organization theories, according to which competitive advantage is derived from
position in industry – i.e. outside the firm) has seen itself pushed back by the inside-out perspective (resource-based theory, knowledge based view of the firm and so forth, theories according to which the source of competitive advantage is to be found inside the firm) in the wake of the Knowledge Economy Rhetoric. However, the results of the quest for understanding how knowledge creates competitive advantage have been meager, beyond the numerous categorizations of knowledge briefly reviewed in chapter two. As noted by Grant (2002), most of the developments in the concepts and techniques of knowledge management and the knowledge-based view of the firm that appeared during the 1990’s were not specific to the present digitally-based, post-industrial economy, but represent a rediscovery of the discussion of knowledge by writers from the 1950’s and 1960’s. It seems therefore that, in spite of grand and laudable ambitions, the strategic management literature (resource based theory, knowledge-based view of the firm) has fallen short of unlocking what happens inside the black-box, the key to understanding competitive advantage. As one of the key contributors to the resource based view noted (Wernerfeldt 1995: 173):

“We have a rich taxonomy of markets and empirical knowledge about market structures, in contrast ‘resources’ remain an amorphous heap to most of us” Yet, at the same time he notes that: “Strategies which are not resource-based are unlikely to succeed /…/. This is so obvious that: I suspect we soon will drop the compulsion to note that an argument is ‘resource-based’.”

The resource-based view thus seems to assume what it seeks to explain. While it has re-emphasized the importance of organizations (as collections of resources) in strategy research, it offers little guidance on the key questions that should move this research forward (Hoopes et al. 2003). The perspective taken by the strategic management literature tends to objectify knowledge within organizations, abstracting it from it’s situated and socially constructed origins. A practice that produces too linear a view of the causal relationships between organizational knowledge and competitive performance (Scarborough 1998). As highlighted by Grant (2002, p.133) in his treaties on the development of the knowledge-based view of the firm, “[t]he outcome was not so much a new theory of the firm as a number of explorations into aspects of the firm and the organization of production that were unified by their focus on the role of knowledge as a factor of production.”
Why this lack of progress? Perhaps it is time for strategic management as a discipline to re-examine the fundamental assumptions and infrastructures that govern how we conceptualize, design, conduct and present research. As noted by Harris (2001) in his review of the recent economic theories providing the intellectual foundation for the theorizing around the knowledge based economy, a serious focus on knowledge poses such fundamental challenges to traditional theories that basic concepts such as how to define a market or a firm need to be rethought. As researchers, we need to apply the principles of the inside-out perspective on our own thinking and practices if we are to really progress. This implies embracing new research topics and methods. The current research in strategic management assumes a relationship between firm resources and competitive position but treats the organization largely as a black box. In contrast, with its roots in sociology, anthropology and other social sciences, organization scientists tend to focus on the application and use of knowledge. With its different philosophical roots, epistemological view points and different research traditions (including methods) and objectives, it produces contrasting insights. Furthermore, these perspectives highlight the need for strategy researchers to embrace research methods that allow a focus on the micro-level. Spender (2002) also reminds researchers on knowledge in organizations to pay renewed attention to the needs of all types of practitioners as they grapple with the challenges of the new economy and the new world order, to keep a careful eye on the utility of our theorizing, and whether our conclusions can ever be reattached to established empirical work.

As an approach initiated by practitioners with the explicit aim to identify and “visualize” knowledge-based resources and how they contribute to value creation, the IC perspective, and the process described in paper I, was an attempt to address some of these shortcomings. The IC perspective has subsequently gained substantial popularity, to some extent among academics, but even more so among practitioners and consultants. In particular, it has led to a multitude of models and tools for somehow measuring the performance or value of an organization’s intangibles. However, as Andriessen (2004) noted, many of the methods available for measuring intangible resources seemed to be a solution in search for a cause – or for the Holy Grail. They didn’t seem to last all the way. Perhaps this is because the IC perspective stuck to the outside-in perspective. Most measurement models use standardized measures or measurement categories, thus building on the underlying assumption that all firms face
identical challenges and have identical knowledge based resources at their disposal to face these challenges.

The disconnect between the outside-in theoretical approaches and knowledge based resources was addressed in paper II, where it was suggested that the concept of identity could usefully be seen as an “integrative mechanism” between these two levels (high-level strategies and knowledge based resources). Study 2 was then designed to explore the social interactions in which identities are constituted. The results, as presented in papers IV and V seemed to give some merit to this idea as they indicated that organizational identity influences how the brand as well as the physical setting are interpreted. Yet at the same time, branding and the physical setting both influence processes of identity construction. The study thus underlined the complexities inherent in processes of identity construction. This further emphasizes the importance of understanding what goes on at the micro level of personal interactions and thus the inappropriateness of high-level standardized approaches for exploring a knowledge-based view of organizations. Furthermore, paper IV also underlined the increasing irrelevance, or perhaps better put as misguidance, of the division inside/outside of organizational boundaries and the division between the disciplines “marketing” and “organization studies”. We noted in the paper that branding, traditionally viewed as a marketing tool for convincing customers, may be more important for influencing employees’ organizational identification than for customers’ willingness to purchase the service. In return, at Global, the organizational identity may be critical for customers’ purchasing decisions.

Finally, the need for doing research from the inside-out when the focus is on knowledge work was also highlighted in paper III. In reviewing the research literature on KIFs we concluded that “[i]f there is a common thread in [the literature reviewed], regardless of the definition of KIF or the organization studied, it is the emphasis placed on the reliance on people to perform intellectual work as opposed to manual labor”. Consequently, the research themes in these studies evolved around and the challenges this poses for organizations. While having a problem with the distinction intellectual/manual as will be discussed in the following section, the importance of the so-called knowledge worker (i.e. the qualified individual) is also the conclusion from the discussion above. Inevitably, knowledge-based resources emanate from the knowledge worker, or from interactions between knowledge workers. A conclusion of paper III then, was that the outside-in approach is not suitable for
framing (a looser term than classifying) research on knowledge in organizations. Attempts to devise an all-inclusive category of “knowledge-intensive” firms is doomed to lead nowhere because such a category covers everything and nothing, and therefore is useless for discriminating among firms. Instead we argued that researchers who adhere to the view that knowledge is somehow context specific (i.e. socially constructed and situated) should take the particular research issue and context as point of departure for framing their research. That is, they should strive to frame research from the inside-out rather than the outside in.

In summary, what this analysis boils down to is that a serious focus on knowledge (given the epistemological stance taken in this thesis) requires a serious focus on the knowledge worker. I am not suggesting an inside-out perspective should replace the outside-in perspective, but that it is a necessary complement to move the knowledge-based view on organizations further. The discussion in this section also points to the increasing inappropriateness of the traditional distinctions between the different “disciplines” within management studies. These distinctions are of course arbitrary, and made sense from the perspective of the theories of the industrial organization. However, a knowledge-based view of the firm, particularly taking an inside-out perspective, challenges these distinctions as irrelevant, if not misleading. It is perhaps time to collapse the boundaries between the managerial disciplines and instead explore what each perspective has to learn from the others.

**Knowledge work and the Cartesian split — time to let go?**

If we put the knowledge worker in the center of our investigations, as required by the inside-out approach, it becomes important to uncover the infrastructures that guide how we make sense of the “knowledge worker”. Perhaps the most dominant idea, or at least the most commonly blamed, is the so-called Cartesian split that infuses Western thinking. Descartes divided the world into an objective, material realm (matter), and a subjective, mental realm (mind), thus the separation between body and mind of the human being. Indeed, Sandelands and Srivatsan (1993:13) argue that “[t]he ideas have created more confusion or done more harm to our understanding of ourselves and the way we know things” than the Cartesian split. Following from this concept, they argue that a major problem for organization studies is the separation between theoretical concepts and perceptive experience. Unlike natural sciences, where scientific theorizing is
founded on perceptual experience of some kind, organizations cannot be perceived and therefore not unambiguously theorized. Rather than seeing theoretical concepts and perceptive experiences as developing from essentially the same act of mind, perceptual experiences (construed as embodied and irrational, and therefore unreliable) have been swept under the carpet at the expense of “purely” theoretical concepts in the pursuit of the rational (and, by implication, reliable).

Dale (2001) argued that the Cartesian split has been incorporated into the very heart of organization theory, and is an important reason for the lack of explicit theorizing on the body in organizations. The body is seen as merely the biological container of the person, and the need to control the body has been seen as a problem within organization studies that can be traced to Taylor’s experiments and throughout the development of theories since then. Thus the division of body and mind was institutionalized through the division of labor, of “execution” and “conception”, and taps into the tradition of Cartesian thought “since the mind/body split is also a hierarchical relationship whereby the mind is seen as the living, active principle, and the body merely material that is only animated by the indwelling mind” (Dale 2001: 21).

The Cartesian split is of course also reflected in the theories organization scholars produce, research methodologies applied and the topics scholars choose to study relating to knowledge work, identity and the physical setting. The relative lack of attention to materiality in the social sciences has also been related to the prevalent influence of Cartesian dualistic thinking (Dale 2005). We noted in paper III that the literature on KI’s tends to stress knowledge as related to intellectual competencies at the expense of other possible understandings and conceptualizations of organizational life and work. The consequence is that we come to view knowledge as purely “intellectual” and “disembodied”, and knowledge workers as purely “rational”, with other aspects played down and receiving less attention. There has been a longstanding bifurcation within organization studies between emotion (seen as embodied and thus irrational) and rationality, with emotion labeled in pejorative terms and devalued in matters concerning the workplace (Domagalski 1999). In paper V I noted that the theoretical lens that dominates conceptualizations of organizational identification deal mainly with the cognitive aspects of identity and are unable to cope with emotion. This neglect of emotion is in stark contrast to what I found in my study in Global (which is indeed in line with other similar studies on
organizational identity), so much so that emotion and ambivalence became key themes in paper V. Also in paper IV, we emphasized that both insiders’ and outsiders’ reactions to the brand were highly emotional and, as such, important for processes of organizational identification.

Hence, theoretical concepts aside, as we all know from experience, the workplace is a highly emotional context – as are indeed all contexts of significance to people. Nevertheless, it seems the assumptions derived from the Cartesian split are so deeply rooted in our conceptual systems that they play an important role in guiding the way we conceptualize and value organizational life – not only in management theories, but also among practitioners. The notion of rationality was a key feature of the organizational identity at Global. The internal discourse (organizational identity) emphasized that Global consultants should be “professional” and perform “quality” work. In essence, this meant that employees should not be too expressive or emotional, but be meticulous and conscientious in the way they performed their work. Indeed, Armbrüster (2004) has argued that promoting a culture of rationality beliefs, and producing symbols signaling rationality to the business environment, are particularly important to management consulting firms. This is because their services are experience goods, that is, they are difficult to measure and evaluate in advance of purchase. Symbols of rationality are thus construed to compensate for the ambiguity inherent in consulting work. Theoretical concepts, such as work methodologies and data-driven analysis, as well as recruitment and training policies focusing on “analytical skills”, are devised to symbolize a rational approach to business issues.

This rational attitude in Global was particularly evident in relation to the office environment, or the physical environment in general, as is discussed in paper V. “It doesn’t matter, I can sit anywhere”, was often the first response to a direct question about the role of the physical setting and its design. The physical workspace is not supposed to matter, a consultant is supposed to be able to work anywhere. Yet as interviews evolved, it often turned out that people did have their favorite spots in the office and rather specific and strong views about how a good workplace ought to be. Interestingly, Kornberger and Clegg (2004) make a similar argument about the devaluation of architecture as Karen Dale (2001) did with the devaluation of the body. Both architectural design and organizational design are based on an imperative of control, derived from a common Cartesian heritage. “To picture space as a ‘frame’ or container with no
other purpose than to preserve what has been put in it is an error displaying traces of Cartesian philosophy” (Kornberger and Clegg 2004: 1101).

We rarely reflect on environments we are used to, where we perform our daily, habitual activities. In general, it is only when something happens, as in the case of “environmental deprivation”, when features in the environment are taken away (Mazumdar 1992), that we become aware of our everyday surroundings – but when this happens our reactions are often strong and emotional. That this was the case also in Global was confirmed by the project manager responsible for the move five years prior to the study. This move was a significant change, leaving a traditional office where partners and senior managers had their own rooms with space for personalization, for the new premises which were open plan with no assigned personal workspaces. “The reactions were extremely strong. Had we not had outside help from a change management consultant I don’t know how we would have made it”, the project manager recalled. Yet none of the senior people I interviewed, who had all experienced the move, said they were unhappy with this model today – all agreed that the new office was much better than the old office. It had become “the way things are supposed to be”. In his case study of environmental deprivation, Mazumdar (1992) found that high-ranking organizational members became very animated and emotional when it came to talking about conditions of environmental deprivation regarding themselves. Yet at the same time, many of these officers who had expressed such deep emotions made decisions that amounted to environmental deprivation for others, and did not see why others should fuss about their environments when faced with environmental deprivation. He suggested that this may be due to what he called the “rhetoric of functionalism” that is dominant in some academic circles, but also in many work settings. It also underlines one important aspect of the Cartesian heritage as relates to physical environments; we are simply not aware of their importance. We tend to think of the role and influence of the physical workplace as a theoretical concept rather than in terms of emotional and perceptual experience. Accordingly, many believe that the physical environment at work, especially the office, is and perhaps should be viewed as primarily and solely instrumental, serving functional purposes relating to the activities members in the organization carry out.

In conclusion, the heritage of the Cartesian split is often blamed for the failure of management studies to integrate the emotional and bodily aspects of humans into organizational theorizing, as well as for the devaluation of the physical
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setting. Rationality and control are key words in this discourse. Traces of the Cartesian heritage can also be found in the constructions of knowledge work and knowledge workers, both among practitioners and academics. Yet, while many scholars recognize this bias, it seems incredibly hard to let go. Perhaps the reason for this “Cartesian anxiety”, as Varela et al. (1991) put it, is that it touches upon the fundamental existential questions of who and what we are and how we come to know the world. As Dewey (1934:22) wrote: “Oppositions of mind and body, soul and matter, spirit and flesh, all have their origin, fundamentally, in fear of what life may bring forth. They are marks of contraction and withdrawal.” It would perhaps be presumptuous to call an idea that has lasted for several hundred years a “bridging concept” (or even thousands of years as some, e.g. Chia (2003), would argue Aristotle is really the one to blame. Others, such as Sandelands and Srivatsan (1993), point the finger at Plato). The Cartesian split is of course more fundamental than that. Nevertheless, it is precisely because it is so deeply enshrined in the dominant conceptualizations of the knowledge worker that we need to explore the alternatives. As our everyday perceptual experiences tell us, as well as the more recent empirical work on the role of emotion and embodied experience, the Cartesian split promotes a view of the knowledge that is incomplete, if not deeply flawed.

The disconnect between theoretical conceptualizations of organizational identification and the findings from the study of Global led me to explore alternative theoretical frameworks that could better account for the ambivalence, emotional and embodied dimensions of processes of identity construction, so prevalent in empirical data. The resulting framework is outlined in the next section.

Embodied symbolic interactionism

Paper V presents an “updated version” of George Herbert Mead’s symbolic interactionism, labeled embodied symbolic interactionism. It is argued that this framework for conceptualizing identity construction in organizational settings provides a complement to social identity theory because it allows us to incorporate emotions and embodied experiences as an inherent part of the self11. From a theoretical point of view, this framework represents a form of conclusion of the view of the knowledge worker. It integrates and develops

11 In the following the term “self”, which was the term used by Mead, will be used interchangeably with “identity” at the individual level (i.e. identity as organizational member).

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further the autopoietic and the social constructionist views of knowledge and identity. The development of this framework was guided by the empirical investigations, both in terms of the research questions and methods applied, and the empirical data that followed suit. In particular, the focus on the physical environment as a lens for exploring identity construction was important for the subsequent theoretical development. I will here briefly outline the theoretical and philosophical underpinnings of embodied symbolic interactionism and discuss some implications for making sense of knowledge work. A more detailed description of Mead's framework is found in paper V.

George Herbert Mead is often referred to as the founding father of symbolic interactionism (and indeed one of the founding figures of social psychology). In particular, his book *Mind, Self & Society* (1934) has had great impact on the view of the self and society as social constructions constituted in symbolic (and non-symbolic) interactions. The term symbolic interactionism was coined by Mead’s student Herbert Blumer. According to Blumer (1969) symbolic interactionism rests on three simple premises:

1) Human beings act toward things on the basis of the meanings these things have for them,

2) The meaning of such things is derived from, or arises out of, the social interaction that one has with ones fellows, and

3) These meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters.

The concept of objects is a fundamental pillar of Mead’s analysis. Human beings live in a world of objects, and their activities are formed around objects. An object is a human construct and is thus anything, whether physical or abstract, that can be designated or referred to. The nature of the object is constituted by the meaning it has for the person, or group of people, for whom it is an object. This meaning is not intrinsic to the object but arises from how the person is initially prepared to act toward it (Blumer 1969).

This version has become the most influential interpretation for the contemporary understanding of Mead's theories of the self. As with all interpretations, Blumer’s version of symbolic interactionism emphasizes certain aspects of the original work and downplays others. Westlund (2003) has argued that Blumer’s interpretation, and the work that has followed from it, neglects the biological and evolutionary strands in Mead’s thought, intellectualizes the
concept of meaning and reduces the concept of action to interaction. Mead did indeed acknowledge the embodied nature of our interactions with objects, and the role of our senses in experience and interpretation, or development of the self. However, this view does not provide a fully satisfactory understanding of our interactions with environments. The study of Global, and consultants’ accounts of their experience of the office, highlighted the role of our bodies and sensory experiences in interpreting places and spaces. In order to understand how our interactions with physical environments create meaning we need a better understanding of these embodied experiences.

To do this I turned to theories which might be summarized under the heading of embodied mind, stemming from cognitive sciences, a cross disciplinary field concerned with the empirical study of the mind, involving among others, philosophers, psychologists, linguists and neuroscientists. This stream of literature emphasizes the body as basis for the self. A central premise is that our bodily experience is the primal basis for everything we can mean, think, know, and communicate (Johnson 1987, Lakoff and Johnson 1999, Varela et al. 1991, Damasio 1994; 2000). The way we are embodied (i.e. how our minds and bodies, and in particular our sensorimotor systems are interconnected) directly influences why and how things can be meaningful for us, the ways in which these meanings can be developed and articulated, the ways in which we are able to comprehend and reason about our experience, and the actions we take (Johnson 1987).

French philosopher Maurice Merleau-Ponty is probably the primary source of philosophical inspiration and reference for modern day embodied mind scholars. He developed a phenomenology of perception (1962) that emphasized lived experience as central to phenomenology, and the centrality of the body for the self and being-in-the-world. “The world is not what I think, but what I live through” (Merleau-Ponty 1962/2002:xviii), he wrote, and “[t]he body is the vehicle of being in the world, and having a body is, for a living creature, to be interwoven in a definite environment” (ibid, p. 94). Merleau-Ponty thus strongly opposed the Cartesian mind-body dualism and criticized the tendency throughout the history of

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12 The term “cognitive” may be confusing here as the “cognitivist perspective” was used previously to describe a functionalist understanding of knowledge. This perspective corresponds to what Johnson (1987) called the first generation of cognitive sciences, which departs from a “brain as machine” metaphor. The perspective of the “embodied mind” forms the second generation of cognitive sciences.

13 Merleau-Ponty’s philosophy is also often referred to as “existential phenomenology” and “phenomenology of the body”.

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philosophy to understand the world based on a set of dichotomies, such as “subject” and “object” or “inner” and “outer”. The originality of his philosophy lies in the idea that subjectivity is physical, that “I am my body”; that I am a subjective object or a physical subject (Priest 2003). For Merleau-Ponty embodiment encompasses the body both as lived, experiential structure and as context for cognitive mechanisms.

The respective philosophies Mead and Merleau-Ponty grew out of different traditions. Mead was influenced by, and contributed to, classical American pragmatism, while Merleau-Ponty’s primary sources of influence were the European phenomenologists. Of course, these different perspectives allowed, or prescribed them to see different things and approach the philosophical questions from different angles, using different theoretical lenses and vocabularies to construct and present their own theories. Yet, as Rosenthal and Bourgeois (1991:4) have noted, their visions are “radically new, insightful, at times converging, at times complementary, but always compatible”. Each from within a different context, they both reacted against a tradition of philosophy culminating in the modern worldview with its illicit reification of scientific contents and the inadequate understanding of humans and nature to which this gave rise.

Both [Mead and Merleau-Ponty] return to the richness of lived experience within nature, and in such a return, reveal the impossibility of making the contents of science the ultimate building blocks of reality or knowledge. /…/ They both attempt to integrate the characteristics of consciousness that emerge from its natural empirical conditions with the idea of consciousness as the tissue of significations, the field of meanings by which humans are intentionally bound to their world. Further, this intentional link is rooted, for Mead and Merleau-Ponty alike, in the corporeal dimension of existence” (Rosenthal and Bourgeois 1991:3-4)

The other philosophical heritage of embodied mind theorists is precisely that of the classical American pragmatist philosophers William James and John Dewey. As Lakoff and Johnson (1999) note, like Merleau-Ponty, they drew upon the best available empirical psychology, physiology, and neuroscience to shape their philosophical thinking “For their day, Dewey and Merleau-Ponty were models of what we refer to as ‘empirically responsible philosophers’” (p. xi).
In a sense then, embodied mind theorists integrate and empirically explore the work of these philosophers further. The embodied mind theorists cited above come from various disciplines and have different research interests. But they do share the basic point of departure in considering the fundamental importance of embodied experience and, in different ways, explore the implications for how we make sense of the world and ourselves. Fundamentally, following James, Dewey, Mead and Merleau-Ponty, this entails a radical opposition to the Cartesian split.

**Implications of embodied symbolic interactionism for making sense of knowledge work**

Our sensorimotor capabilities are central for the view of the embodied mind as a link between the “inner” and “outer”, “mind” and “body”. Varela et al. (1991) use the word embodied to bypass this distinction. Instead they want to highlight that cognition depends on the kind of experience that comes from having a body with various sensorimotor capacities, and these capacities are themselves embedded in a more encompassing biological, physiological and cultural context. Sensory and motor processes, perception and action, are fundamentally inseparable in lived cognition. The figure below illustrates the implications of conceptualizing symbolic interactionism as embodied. Meaning, and thus the self, is shaped in interactions with the environment in both versions. In the “traditional” Meadean version, interactions are conceptualized as taking place between the “organism” and “objects”, whether human, physical or abstract, whereas the embodied version acknowledges the complexities that follow from conceptualizing interactions as taking place between an embodied subject and environments.
The implications for the study of knowledge work are profound. At heart, the embodied mind perspective requires us to think differently about sensemaking. If “[s]ense-making is to be understood literally, not metaphorically” (Weick 1995:16), we need to revisit the term “sense” within the framework of embodied symbolic interactionism. As Dewey (1934:22) wrote:

“Sense” covers a wide range of contents: the sensory, the sensational, the sensible, and the sentimental, along with the sensuous. It almost includes everything from the bare physical and emotional shock to sense itself – that is, the meaning of things present in immediate experience. /.../ The senses are the organs through which the live creature participates directly in the ongoings of the world about him. This material cannot be opposed to action, for motor apparatus and “will” itself are the means by which this is carried on and directed. It cannot be opposed to “intellect”, for mind is the means by which this participation is rendered fruitful through sense; by which meanings and values are extracted, retained, and put to further service in the intercourse of the live creature with his surroundings.

In Weick’s version of sensemaking, a key property is the focus on retrospect because of “the reality that people can know what they are doing only after they
have done it” (Weick 1995:24). Petrunker (2005) argues that this position commits us to a rather remarkable claim; if the present is the when of our experience, we are being told that knowing is not inherent in experience but imposed from without, from elsewhere. “We must choose between knowing and immediate experience because the two stand in conflict” (p. 245). In other words, this version of sensemaking denies the possibility of knowledge in the ongoing flow of pre-reflective, embodied experience. It also reflects an interpretation of Mead (whom Weick references for making this argument) that emphasizes the rational, social “me” that we are aware of in favor of the impulsive, unexpected “I” of lived experience. As I noted in paper V, what most social and organizational thinkers inspired by Mead have picked up on is the “me”. However, for Mead the self is an ongoing process between the two phases “I” and “me”. Separating them in the process of sensemaking, and focusing on the “me” as the true source of knowledge is perhaps a reflection of the Cartesian heritage. But, as Petrunker (2005:250) noted:

As we move along in the course of saying something, we often have no idea of what we are going to say next. It just happens. Yet somehow a knowing guides the saying. Where does that knowing come from?

Embodied mind theorists would say that we have to look for answers in our “cognitive unconscious” which depend on our sensorimotor systems (Lakoff and Johnson 1999). Paper III illustrated how our conceptual systems guide sensemaking of abstract concepts such as “knowledge-intensive firms”. According to the embodied mind perspective all abstract concepts are underpinned by metaphors, and the metaphors we construct are consequences of how we are embodied. Because we are living beings with neural systems we must categorize to handle all incoming information. How we categorize is a consequence of how we are embodied; that is, on the sensing apparatus and ability to move and manipulate objects. What that means is that the categories we form are part of our experience (Lakoff and Johnson 1999). The embodied mind perspective thus helps us situate ideas as well real objects. “For example, the notion of self is ‘close to my heart’ but the idea of homunculus is ‘far from my liking’” (Damasio 2000:145). These expressions build on spatial-relations concepts which are at the heart of our conceptual system. They are what make sense of space for us, but also the building blocks for other, abstract concepts (Lakoff and Johnson 1999). Analyzing the metaphors that underpin constructs such as “knowledge” and “knowledge-intensive firms” can help reveal what
conceptual structures guide our thinking, for the most part unconsciously. For example, in paper III we argued that the notion of a KIF builds on the metaphor of “knowledge as something physical”, thus implying a functionalist understanding of knowledge.

The notion and importance of metaphors is of course well known in organization studies and has received much attention in the aftermaths of Gareth Morgan’s *Images of Organization* (1986) (which was indeed inspired by Lakoff and Johnson’s *Metaphors We Live By* (1980)). However, in line with the verbal bias in organization studies - reinforced, in recent years, by the “linguistic turn” in social sciences - metaphorical imagery is almost always treated in this form. But metaphorical imagery is not just verbal. Non-verbal communication and imagery are important as means for dealing with ambiguity (McCaskey 1979). Indeed, Bürgi and Roos (2003) have suggested that, because of the way we are embodied, metaphorical imagery of organizational dimensions is likely to be richer and more human when it is constructed multimodally. This can involve a variety of sense information: pictorial/visual, verbal/narrative, spatial/kinaesthetic or haptic etc. Richer sensory experience tends to reduce rather than increase ambiguity because these different forms of information have different properties. For example, narrative knowledge, which is vivid and plausible, often has ambiguous and multivocal meanings, whereas visual knowledge, which aggregates information into depictions and patterns, simplifies it. This was illustrated in paper V where the notion of the embodied symbol was introduced. It was argued that we need to take into account the experiential dimension when analyzing the symbolic capacities of physical setting. The act of walking through a particular set of doors seemed to have a very profound and emotional meaning to consultants at Global. We can also glean some cues from the other papers about the importance of constructing metaphors multimodally. In particular, paper I showed the importance of the combination of verbal dialogue with visual as well as numerical representations. Each of the three forms of communication/information were important in different ways, but it was their combination that made sensemaking so rich in these workshops. Verbal discussions made up the bulk of the communication and provided the platform for a common understanding of the issues, the visual depictions summarized the discussions and portrayed relationships between resources – put briefly, they summarized and simplified, or made comprehensive, the complex and abstract “vision” of the strategy. It was the pictures that evoked the “aha-experiences”, or the feeling of things to suddenly “making sense”. The numerical exercises on the
other hand, which amounted to distributing weights between resources, forced the team to be more focused and think in a different way than when they had merely been talking about the resources. This forced the team to make trade-offs, which was what sharpened the strategy. Finally, the study of Global illustrated that various forms of interaction and of symbols shape meaning in different ways. For example, there was a stark difference between the experience of the brand and of the corporate values. The branding campaign featured a sports star (and very few words – the visual metaphor of a “winner” is what constitutes the message) displayed mostly outside the workspace, evoked strong and emotional reactions. While the interpretation of the brand message stayed at a high level (some kind of elitist notion of the consultants), it was still received loud and clear as such by consultants. The corresponding internal communication of “corporate values” however, which was profuse but merely verbal, seemed to have had very little impact. None of the interviewees were able to recall them. On the other hand, the internal discourse (organizational identity) was very strong and coherent, and by no means identical with the official corporate values, but this was learned in face-to-face interactions. Of course, the physical setting evoked yet another set of reactions, more diverse, more personal and more emotional. And, to make it even more complex, while the different forms of information may evoke different reactions they seemed to become blurred in sensemaking. As paper IV illustrated, the organizational identity influenced the interpretation of the brand, and the branding discourse influenced identification mechanisms.

The examples above illustrate the complexity inherent in sensemaking when conceptualized as embodied. They underline the necessity of considering all sense-modalities for understanding the sensemaking process and the importance of perceptual experience for theoretical concepts. A significant consequence is that, as noted by Sandelands and Srivatsan (1993), it makes curious our usual idea that perceptual experiences are more subjective than theoretical concepts. “Although the thing-like appearance of theoretical concepts may suggest objectivity, when we follow these ‘disembodied’ ideas back to their sources, we go back upon a process of abstraction that is as subjective as can be” (p. 14). Accordingly, we cannot separate perceptual experience and theoretical concepts in theorizing – they are inherently intertwined. There is no such thing as “pure reason”, thinking is always underpinned by embodied experience, and, as painful as this might be for the Western view of the world, we are often not aware of how this happens. A common rule of thumb among cognitive scientists is that
about ninety-five percent of all thought is unconscious – and this may be a serious underestimate (Lakoff and Johnson 1999).

It should be clear by now that embodied symbolic interactionism requires us to rethink the notion of “knowledge work” and the “knowledge worker”. Construing them as principally “intellectual” activities is no longer sustainable. According to this perspective embodied experience is central to the notions of “knowledge”, “sensemaking”, and “identity”. Indeed these constructs become so enmeshed in experience that they are difficult to separate. Just like the “body” is inseparable from the “mind” according to this perspective, the distinction between the “material” and the “immaterial” also becomes questionable. While there is no doubt a difference between “that which you can touch” and “that which you cannot touch”, they are entwined in sensemaking – and thus in knowledge and identity construction. Or, consequently, in “value creation processes”, or other such concepts in management studies where we often make a big point of the difference between tangible and “intangible assets”. Materiality is imbued with culture, language, imagination, memory; it cannot be reduced to mere object or objectivity, but takes on social meanings. What is less often recognized is that people enact social reality through a materiality which simultaneously shapes the nature of the social world. “For humans are part of the material world, not transcendent gods or magicians able to manipulate the material without being incorporated or changed by it” (Dale 2005:652).

Many have pointed out that the Cartesian split is particular to Western thinking, and that Eastern philosophies have a completely different view of the world and the self (e.g. Dale 2001; Markus and Kitayama 1991; Varela et al. 1991), and of knowledge (e.g. Chia 2003, Maturana and Varela 1987; Nonaka and Takeuchi 1995), much more in line with the embodied mind approach. While these points may raise interest among readers, invoking Eastern views of the world seems to generate reactions that tend to stay at the level of “interesting points”. They have had little actual impact on organizational theorizing and we continue to conceptualize the knowledge worker as rational. Introducing cognitive sciences as a “rational approach” to deconstruction of the rational can perhaps constitute a “bridging function” similar to that of bridging concepts discussed above. Using the “language of science” to describe how knowledge, sensemaking and identity are inherently embodied – with empirical studies of the brain and body to support the claims – is more likely to have an impact in Western theorizing.
MAKING SENSE OF KNOWLEDGE WORK

Perhaps we have to use the language of Western science to justify a different view of knowledge and the knowledge worker.

To summarize this section, the theories of the embodied mind were suggested as a complement to Mead’s more well known symbolic interactionism, one of the founding pillars of the view of identity as socially constructed. While adding several layers of complexity to the analysis of knowledge work, the embodied mind theories also illuminate sensemaking processes and can thus add new insights to organizational analysis, as well as indicate new areas for further research. Of particular relevance to this thesis is the central role that these theories implicitly assign to the physical environment. If experience and knowing are so intimately related and dependent on our sensorimotor systems, then by inference, the physical surroundings potentially take on a much greater significance for sensemaking than generally recognized. While the theories of the embodied mind have added greatly to our understanding of the role and nature of our interactions with the physical surroundings for sensemaking and identity, these theories are based on empirical studies of the mind and have paid very little attention to the actual interactions with the physical environment. Further explorations have focused on the, indeed profound, implications on a philosophical level and stopped short examining how our interactions with physical environments shape meaning for individuals in their everyday lives. This would, of course, require a different perspective, and empirical studies of these interactions. I will suggest here that the place perspective might prove a suitable route.

Towards a “place” perspective for studying sensemaking

As noted in chapter two, most studies of the physical environment in organization studies (which, admittedly, are far and few between), tend to use a symbolic perspective. This was also my point of departure. In the design of study 2 I therefore used the term “physical setting”, which is a common term in social sciences. It provides the connotations of a scene and underlines the dramaturgical metaphor of organizational life (Goffman 1959) which has had quite a significant influence in the study of physical environments in organizations. This is a suitable metaphor is from the perspective of symbolism. From the perspective of the embodied mind however it is perhaps less useful as it portrays the physical environment as a passive background, a stage with its props. As noted in the theoretical review, ethnographic studies have included the physical setting as background within descriptions of organizational life, but little
attention has been paid to our interactions with environments, and even less to embodied experiences. The latter requires an approach to materiality that, as Dale (2005) put it, “navigates between the Scylla of realist material determinism that presents the physical world as a natural given and the Charybdis of a strong social constructionism that only recognizes the social and cultural as meaningful” (p. 652), further suggesting that Merleau-Ponty’s conceptualization of the embodied subject provides a tool for understanding the negotiation of the material and the social, the organizational and the subjective. This however, requires new metaphors for conceptualizing the physical work environment, and different theoretical perspectives for studying it.

One such alternative, as was indicated in paper V, could be to explore the perspective of place, stemming from environmental psychology and geography. David Canter is generally accredited with having provided the first cut at a “theory of place” with his book *The Psychology of Place* (1977). Instead of the topics that traditionally interested experimental psychologists such as space perception, object perception, colors or shapes, he wanted to write a book that was concerned with those situations in which people live and work, converse with others, are alone, rest, learn, are active or still. “This does not mean that it is concerned with activities alone, or only with the buildings that house them. It is about those units of experience within which activities and physical form are amalgamated: places.” (p.1) From Canter’s seminal book the place literature has grown so as to become a significant field within environmental psychology. While many different directions can be discerned, there are two of particular importance for identity construction as construed in this thesis.

The concept of place identity, developed by Prohansky and colleagues (Prohansky et al. 1978; 1983) criticized the emphasis given to individual, interpersonal and group processes as exclusive factors in the development of identity in the (social) psychological literature in the wake of Mead (1934). They asserted that “the subjective sense of the self is defined and expressed not simply by one’s relationships to other people, but also to the various physical settings that define and structure day-to-day life” (Prohansky et al. 1983:58). This perspective developed alongside SIT and takes its point of departure in Mead’s view of the self, but adds place-identity as a “sub-structure” of self-identity. It can therefore provide an interesting complement to the traditional symbolic interactionism.
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The progressive interest in the “place” construct in environmental psychology was also heavily influenced by the phenomenologist philosophies that took an interest in space and place, notably that of Merleau-Ponty (1962). Most of the literature in environmental psychology on people’s emotional relationships to places have their roots in phenomenology (Manzo 2005). This direction, sometimes referred to as phenomenology of place, has however been more elaborated by geographers such as Tuan (1977), Relph (1976), and Buttmer and Seamon (1980). This literature examines the experiential aspects of places, how environments give and have meaning to people. Phenomenologists oppose the Cartesian split and use the notion of intentionality (that we always act towards something, or think or feel about something) to argue against any person-world division: human experience and consciousness necessarily involves some aspect of the world as their object, which in turn provides the context for the meaning of consciousness and experience (Seamon 1982). According to this perspective, to sense, think and feel are closely related processes. In Tuan’s (1977:8) words: “Experience is a cover-all term for the various modes through which a person knows and constructs reality.” Understanding how people feel about space and place therefore becomes critical to this perspective. This requires taking into account the different modes of experience (sensorimotor, tactile, visual, conceptual) and exploring how people interpret space and place as images of complex feelings. The relationship between identity and place within this perspective then, is more concerned with how we experience our relationships with places; using concepts such as sense of place, rootedness and sense of belonging.

The theoretical contributions and empirical studies in the literature on places have primarily focused on residential settings. The role of the physical setting in work organizations is yet to be explored from this perspective. However, it resonates with the empirical data from the study of Global. When trying to describe what was missing in the office, interviewees often had a hard time articulating it and used vague words like “homeliness” and “sense of belonging”. I found it difficult to explore this dimension with the traditional organization identity literature, yet it seemed important for the individual’s relationship to the organization. Steering away from some of its more idealistic or romantic versions (such as Norberg-Schulz’s (1980) notion of genus loci, claiming essential qualities inherent in natural places), the place literature could be helpful for exploring this dimension and its relations to identity, both at individual and organizational level. The place perspective could present a new route to
exploring members’ relationships to their organizations that acknowledges the embodied nature of sensemaking. This literature provides insights into why and how places are important for how we create meaning about the social context we are in, and for how we construct the identities of others as well as ourselves. While the study of place adds several more dimensions of complexity, it also provides clues to the interrelations between emotions, the physical surroundings, and identity processes – as the notion of place incorporates all these dimensions.

As Csordas (1999) has argued, embodiment is neither behavior, nor essence per se, but about experience and (inter)subjectivity, and understanding these is a function of interpreting action in different modes and expression in different idioms. Consequently, there is no special kind of data or special method for eliciting such data, but a methodological attitude that demands attention to bodiliness even in purely verbal data such as written text or oral interview. In addition to the reflective stance required by discourse analysts, the researcher invoking being-in-the-world need also to be reflective, raising prereflective gut feeling and sensory engagement to the level of methodological self-consciousness. In this sense, “the reflexive and reflective can be seen as complementary contributions from textuality and embodiment to the reformulation of ethnographic practice” (Csordas 1999:150). Accordingly, in terms of the methodologies applied in this thesis, they seem suitable also for studying embodied experience of place. Perhaps a focus on individuals’ embodied experiences would entail one step further down the “inside-out” scale, and underlines the importance of methods that allows researchers to engage with people, such as participatory action research. Methods that engage against sensemaking, such as discourse analysis can also be important for unpacking sensemaking processes when conceptualized as embodied. However, examining linguistic practices from this perspective entails taking into consideration how the way we are embodied affects these practices. Still, the philosophical roots of discourse analysis and participatory action research, have much in common with those of the embodied mind, at least on a higher level. Phenomenological methods, such as conversational analysis and ethnomethodology, are also methods favored by discourse analysts working at a micro-level, and the philosophical roots of participatory action research can be traced back to the American pragmatists, Dewey in particular (Greenwood and Levin 2000). It seems then, that it is not so much a question of changing methods. Again, it is a question of changing perspective.
CONCLUSIONS

The intention of this exposition was to illustrate how the process of making sense of knowledge work has evolved during my research. This entailed describing the various theoretical and methodological perspectives that have been used at different stages in the process, and how the use of these perspectives have contributed to the development of the thesis. I have also tried to uncover the assumptions that underpin and guide our thinking about knowledge work by reflecting further on the insights, looking for excluded voices in the discourse within management studies.

The point of departure for this journey was the Knowledge Economy Rhetoric, i.e., the discourse within contemporary writings and research emphasizing the importance of knowledge for succeeding in today’s economy. According to this rhetoric, the present economy is characterized by uncertainty and ambiguity. Organizations have to face challenges caused by a globalized world marked by rapid rates of change and fragmented, dematerialized markets. As a consequence, intangible and symbolic dimensions of organizations and organizational life are attracting increasing attention. Dealing with ambiguity resulting from these conditions is a key feature of knowledge work according to the literature. Indeed, the notion of knowledge work is premised on the expanding prevalence of these conditions—the more complex, abstract and ambiguous a situation or a task, the more knowledge is required to cope with it. We need the notion of knowledge work to deal with the unknown.

Two case studies were conducted, exploring the role of tangible and intangible dimensions and identity in organizations. The first study involved a small high-tech firm in the telecommunications sector that adopted an intellectual capital perspective to develop a knowledge based strategy. The second study explored the relationship between the design of the physical setting and identity construction in a large IT/management consulting firm. In addition, a study of
the literature on the organizational category of knowledge-intensive firms was conducted to unpack the dominant constructions of knowledge work within the research community. These studies all investigated different aspects of coping with the ambiguity inherent in knowledge work, whether from the point of view of organizational members engaging in knowledge work, or from the point of view of the researcher studying it.

Two basic insights guided the analysis of knowledge work in this thesis. Firstly, the power of theoretical perspectives to guide how we make sense of knowledge work. Theoretical and methodological perspectives can be seen as lenses through which particular phenomena are studied and interpreted. They are constructions that allow us to see certain things and not others. Applying several perspectives therefore stands a greater chance of generating rich insights than sticking to a single one. In this exposition I have attempted to illustrate how the various perspectives used have contributed to the development of the thesis. The aspiration was that leaving this trail of my process for making sense of knowledge work would provide some additional insights into the function and consequences of applying these particular perspectives. As such, this exposition may be seen as a case study of sensemaking within the context of the Knowledge Economy Rhetoric.

Secondly, the necessity of taking the perspective of the knowledge worker, or the qualified individual, as starting point for any theorizing on knowledge work. This follows from the Knowledge Economy Rhetoric with its focus on uncertainty and ambiguity. In this fast moving, unpredictable world where we constantly have to make sense of new situations, organizations face increasing pressures to be innovative. We can no longer put our trust in strategic plans, nor in rigid control systems for ensuring people do the right things. Instead, organizations need to be flexible and agile and therefore become dependent on highly qualified knowledge workers to act based on their own understanding. Addressing the challenges posed by this predicament is indeed what the literature on knowledge-intensive firms boils down to. The analysis showed that research themes evolved around issues relating to coordination and control (with an emphasis on normative control and identity) of knowledge workers and new organizational forms or relationships. While the increasing importance of the individual knowledge worker is certainly not a new insight, its implications for organizational theorizing are profound and has yet to be fully absorbed in management research. I suggested that research on knowledge work should be
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capitalized and framed from the *inside-out* rather than the *outside-in* as is traditionally the case, owing to the heritage from the industrial organization.

Furthermore, placing the knowledge worker at the core of investigations prompted me to explore the assumptions that underpin the dominant conceptualizations of the knowledge worker. In this effort I identified the Cartesian split between mind and body, reason and emotion, as particularly influential for our view of the knowledge worker. That this view is invalid was evident from the data of my studies - as indeed it is from observation of everyday life. While many of us recognize that the notion of the Cartesian split is inherently flawed, it seems so deeply engrained in current theoretical perspectives that it is hard to let go. However, being serious about understanding knowledge work compels us to explore what other possible conceptualizations might yield.

The data from the empirical studies led me to explore theoretical perspectives that could accommodate a view of the knowledge worker as emotional and ambivalent as well as rational. This resulted in an alternative framework for conceptualizing identity construction, labeled embodied symbolic interactionism, presented in the last paper in this dissertation. This framework then provided the basis for a different perspective of the knowledge worker. Building on Mead’s theory of the self as a dynamic process going on between the two phases the individual “I” and the social “me”, this perspective adds the more recent theories from the literature on the embodied mind. This addition provides a better understanding of how our interactions with the physical as well as the social environment shape our understanding of ourselves and the world around us. In particular, this perspective emphasizes the body as a basis for the self. The way we are embodied, that is how our minds and bodies, and in particular our sensorimotor systems are interconnected, determines why and how things are meaningful to us and how these meanings are interpreted, reasoned about and articulated. Put briefly, bringing the “I” back into the self, as is called for in the last paper of this dissertation, requires bringing the “senses” back into sensemaking.

This requires us to scrutinize the distinctions and categories that we traditionally use for making sense of organizational life and work. For example, the boundaries between managerial disciplines are based on a world view promoted by the theories of the industrial organization, or the outside-in approach. This
world view is invalidated by the Knowledge Economy Rhetoric, but its underpinning infrastructures still guide much of the research and theoretical developments in management studies.

On a more profound level, embodied symbolic interactionism compels us to think differently about sensemaking, and thus about knowledge work. According to this perspective embodied experience is central to the notions of "knowledge", "sensemaking", and "identity". If knowledge and identity are constructed as somehow dynamic and fluid, situated and socially constructed, these constructs become different aspects of sensemaking. While knowledge is more than sensemaking, and sensemaking is more than identity, these concepts became so closely interwoven it is hard to tell them apart.

Furthermore, from the perspective of embodied symbolic interactionism, the distinction between the “material” and the “immaterial” also becomes questionable as they are inseparable in experience. By extension, the distinction between tangible and intangible dimensions of the organization, so common in the discourse of management studies – and indeed was an important starting point for the theorizing in this dissertation, needs to be rethought. The importance of the physical surroundings is also emphasized by this perspective, but not in as initially conceived in this thesis. If experience and knowing are so intimately dependent on our sensorimotor systems, then the all-embracing physical surroundings take on an added significance for sensemaking henceforth unexplored in organizational theorizing. As indicated in paper V, the workplace may take on the role of an “embodied existential metaphor”.

With this perspective on knowledge work, departing from the embodied experience of the knowledge worker, how might it be studied? Based on promising potential of the unexplored role of the physical surroundings for understanding sensemaking and identity construction, I suggested the “place perspective”, derived from environmental psychology, as one possibly fruitful route to explore. I also indicated that Eastern philosophies may have some interesting insights to offer as they are not stuck in the Western conceptualization of the Cartesian split. Another possibility might be to explore the interface between art and management. These are indeed emerging trends in management research. It remains to be seen if, when and how they contribute to the infrastructures of tomorrow.
References


Chia, R. (2003). From knowledge-creation to the perfecting of action: Tao, Basho and pure experience as the ultimate ground of knowing. Human Relations, 56(8), 953-981.


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