

Master Thesis

OPENING PANDORA'S BOX OF INNOVATION: AN EXPLORATION INTO THE
FRAGMENTATION OF INDIVIDUAL INTERPRETATIONS

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ABSTRACT

Innovation is a popular concept among organizational researchers, all of whom tend to share a common consensus that it is highly important for organizational effectiveness. Furthermore, whether theoretically or conceptually presented, innovation has been widely described and argued as something which organizations can control and manage with a view to increase their levels of competitiveness. However, the importance of individual interpretations and sensemaking of the innovation discourse (i.e. the use of innovation as a general term in organizations) has, as a research area, been largely neglected. This thesis presents an in-depth study using an interpretative approach exploring on an individual level how workers at a knowledge intensive firm interpret innovation. The study illuminates high levels of fragmentation in the way individuals understand the term by presenting four *ideal types* of innovators – the uncertain, the improver, the inventor, and the sceptic. In addition, an attempt is made to explore the origins of these interpretations through investigating an identity led approach to sensemaking that is argued to lie behind and determine the various views. Ultimately the knowledge contribution and aim of the study is two-fold: to steer innovation research into a new, more interpretive and theoretically free direction; and to critically question the use of innovation discourse within organizations.

Keywords: Innovation, fragmentation, identity, discourse, sensemaking.

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1. Introduction

Innovation as an organizational concept has been extensively written about, both in academic journals and popular management literature. Whether theoretically or conceptually presented, it has been widely described and argued as something which organizations can control and manage with a view to increase their levels of competitiveness (Wolfe, 1994). Innovation therefore is often presented as a strong, coherent and intrinsically 'good' concept. However, as this study will demonstrate, these common notions cannot necessarily be relied upon or taken for granted. In short, from a research viewpoint, there is a clear requirement for investigation and a need for the concept to be challenged and problematized in order to engender greater understanding of how innovation functions within organizations. This thesis will therefore look to explore how individuals within a knowledge intensive firm, DevComp, attribute meaning and interpret innovation discourse (by discourse this thesis specifically refers to the general use of the word innovation in everyday organizational contexts, such as informal and formal conversations, corporate messages, or management rhetoric). This will be achieved through discussing some of the key themes in innovation theory and comparing these to how employees speak about and interpret innovation on an individual level. In what way do individuals talk about innovation? Do they speak about innovation in a common way sharing a unified understanding? How is innovation, as a theoretical concept, and an individual's interpretation linked? And where do these individual interpretations originate from?

The thesis draws upon empirical material from a qualitative study collected through a series of interviews with employees who use, or are exposed to, the innovation discourse regularly in their work life. A knowledge intensive company in the high-tech industry provides a particularly suitable context for studying innovation, as the innovation concept is commonly argued to play a significant role in such organizations (Newell et al., 2002). The research was approached with the aim of being open to, and led by, the empirical material, with a distinct lack of expectation as to the direction of the research. Innovation was a theme, although put forward by the researchers, readily voiced and elaborated on by interviewees. From this we hoped to ascertain how they understood and attributed meaning to the concept of innovation.

Individuals, although frequently hesitant at first, often formulated firm, albeit contrasting, views on what they understood innovation to be. In speaking about it, as well as revealing their understanding of the concept, they provided a distinct organizational context by relating innovation to their work, job functions and the overall role it played for DevComp. Their views on innovation often displayed a positive relationship to their work in organizational practice. However, when asked to elaborate on their understanding, their talk frequently displayed contradictory elements or diverged in how they framed innovation. Findings from the empirical material revealed that interviewees talk around innovation was fragmented across different individuals. Furthermore, as suggested, an unexpected finding of the study was that individuals themselves often displayed fragmented and contradictory views in how they understood innovation depending in which context they related it to. Although fragmentation was apparent, individuals' understanding of innovation could be broadly categorized into a number of *ideal types* (Bruun, 2007). Their understanding of innovation were creatively themematized as *types of innovators* that saw an innovation as something *uncertain*, as an *invention*, as a *process*, or ultimately being *sceptical* towards it in general. Furthermore, the thesis, albeit ambitiously, attempts to explore the origins of the various interpretations. Here we suggest that differing identities of the interviewees are a factor behind their individual sensemaking (Weick, 1993), and thus fragmented understanding, of innovation. Again, we interpreted and thematized interviewee work identities suggesting that individuals draw upon different identities in framing various, often fragmented and contradictory, positions around innovation. In this thesis therefore we aim to investigate how and why individuals relate to, frame and sensemake a seemingly confusing and 'messy' concept as innovation.

We put forward, and somewhat reinforce, the idea that innovation is an ambiguous and therefore 'messy' concept. Knowledge intensive firms have been argued to contain high levels of ambiguity due to the often intangible nature of the work they undertake (Alvesson, 2004). It is suggested that this ambiguous work environment may impact on how innovation is understood by individuals. Wolfe (1994) argues that innovation is a complex phenomenon thus it is conceivable that ambiguity plays a significant role in how innovation is understood in organizations. This study therefore considers ambiguity and innovation as having a significant relationship. By suggesting that ambiguity and innovation are inherently linked and acknowledging that innovation is a complex concept we call into question much of the

existing research on innovation which suggests it is a coherent and manageable concept. With the highly fragmented nature of individual understanding around innovation we question the very nature of innovation and the use of innovation discourse as a worthwhile and viable concept within organizations. We argue that, as innovation is both highly uncertain and ambiguous, it inherently limits its ability to be rationalised into a 'strong', coherent and ultimately good concept. Rather, it is used as a diverse and temperamental term, from which individuals can draw elements in order to relate it to their individual identity.

The empirical material collected for this study was analysed using varying methodological standpoints with an aim of being interpretive. In using an interpretative approach we purposely resist the notion that the empirical material can provide a holistic meaning or singular viewpoint in which to understand innovation. We aim to closely examine the empirical material accepting the possibility of unitary meaning and themes, as well the possibility of fluid and temporarily constructed meaning which may produce fragmented thoughts and understanding (Alvesson & Sveningsson, 2003). Therefore, although we examine the existing literature on innovation we do not take for granted, or are dictated by, the existing assumptions that surround it. This approach enables us to problematize innovation as a viable and coherent concept. In doing this we explore a variety of questions:

- How do knowledge intensive workers view and attribute meaning to innovation?
- Is meaning and understanding of innovation coherent and shared between individuals?
- How does individual identity impact the way individuals make sense of innovation?

We approach answering these questions by firstly examining existing theory that surrounds innovation. Following this, we outline the interpretative methodology and methods that were used for this study. After an outlining of the organization – DevComp – and its knowledge-intensive context, we examine the main questions as outlined above highlighting the fragmented interpretations that talk on innovation seemingly creates. In our discussion and conclusion we examine the identified identities, individual sensemaking and how this relates to how individuals understand and attribute meaning to innovation. We put forward

the idea that innovation is a messy and ambiguous concept which engenders its ability to be made sense of differently by individuals and subsequently moulded and framed to fit peoples' identity. Ultimately, we make a stark and somewhat radical conclusion that questions the taken for granted assumptions concerning the existing theoretical and management approaches.

2. Literature review

Innovation is a popular concept among organizational researchers, all of whom tend to share a common consensus that innovation is highly important for organizational competitiveness and effectiveness (Wolfe, 1994). Unsurprisingly then the cauldron of innovation academic and pop literature is vast and has attracted broad and consistent interest among scholars and practitioners alike. Thus in this review of literature we will: focus our discussion on the key theoretical debates that engulf innovation studies; and, more specifically, position our research question and methodological approach.

The review will first briefly discuss the uncertain and inconsistent nature that riddles innovation research, before going on to outline the various propositions presented across the literature of 'what innovation is'. Two key empirical perspectives, that of a macro organizational and a micro individual viewpoint, will then be presented and discussed before, finally, an argument for the need for an interpretative line of thought is put forward.

Complexity and incoherence in research

Much of the innovation literature accepts that, as a concept, innovation is riddled with complexity, incoherence and ambiguity (Bodewes, 2002; Newell et al., 2002; Wolfe, 1994). Newell et al. (2002) specifically identifies that innovation as a research subject matter is extremely broad ranging, uncertain, and highly political. "Probably one thing that studies agree upon is that there is no single best way of understanding or achieving innovation" (Newell et al., 2002, p.142). The uncertainty and conflicting theoretical viewpoints that surrounds innovation have resulted in an "inconsistent definition of, operationalization and measurement of innovation" (Bodewes, 2002, p.215) and an overall lack of coherence across research. Wolfe (1994) identifies three major barriers that have caused this disintegration, namely that studies unwittingly: focus on different stages of the innovation phases; give minimal focus to the complex nature of attributes associated with innovation; and, attempts to generalize findings despite being empirically based on limited organizational or industry types.

In addition, due to its complex nature, the vast majority of research has aimed to *ease* ambiguity (for examples see de Jong & Den Hartog, 2007; Hage, 1999) thus seeking to

further *establish* the notion of innovation rather than *explore* it and it's uncertainty in an open manner. As a result, it could be argued that this bid to rid innovation of ambiguity is preventing the development of a deep rooted understanding of the phenomena, a notion that is supported by Wolfe (1994, p.406): "The underdeveloped state of the innovation literature, in spite of the substantial number of studies and reviews conducted across numerous disciplines, suggests that the challenge rests in the complex nature of the phenomenon itself".

Propositions of what innovation is

As acknowledged the majority of innovation research attempts to set propositions outlining what innovation is in order to reduce the ambiguity surrounding the concept. These attempts are arguably based around a number of theoretical themes engulfing innovation literature, namely: innovation as loosely defined as something new and good, innovation being seen from either a linear or processual perspective, and innovation types based on either products or work practices within an organization. These major streams of thought will now be briefly outlined and explored.

Innovation is 'new' and 'good'

Despite evident contradictions and inconsistencies around theoretical definitions there are arguably two, and notably very vague, distinguishing features that are consistently associated with all types of innovation, that of; being 'new' and being 'beneficial'. This is perfectly summed up by Mckeown's (2008, p.4) attempt to define innovation as simply "new stuff that is made useful". There is also a clear pattern of equalling innovation to change (Tidd & Bessant, 2001; Dooley & Van de Ven, 1999), specifically in terms of the transition from 'new ideas' to 'improved organizational competitiveness'. Despite the loose and vague nature of these characteristics surprisingly few studies have been sceptical of the meaning and use of the term. However some researchers have shown caution by arguing that what distinguishes an innovation "is the perception of newness... rather than whether the idea or object is new to the world or some other environment" (Slappendel, 1996, p.107). However this critical line of thinking has yet to be fully explored.

Innovation is 'linear' or 'processual'

The turbulent nature of this field of research can be further demonstrated by the radical change and evolution of general models and perspectives of innovation. Initial conceptualizations in innovation studies were heavily rationalistic as researchers adopted deterministic and objective views, viewing innovation as a set 'thing' (e.g. Baldrige & Burnham, 1975; Kimberley, 1981; Moch & Morse, 1977). Here innovation is seen as an entity with fixed parameters and something that is developed externally, packaged and then exported (Swan et al., 1999). This traditional view likens innovation to a linear model "whereby decisions are made about the adoption of new forms of best practise based on a rational assessment of their technical efficiency" (Newell et al., 2002, p.142).

However, this linear perspective was later widely challenged by contemporary theorists who began to recognize the complexity and uncertainty surrounding the implementation of innovative practises (for examples see Dooley & Van de Ven, 1999; Harkema, 2003). Thus a processual model emerged, viewing innovation process as "more realistically characterized as a complex, interactive design and decision process involving the creation, diffusion, blending and implementation of new ideas in different contexts" (Newell et al., 2002, p.142). Through this lens innovation is viewed as "not simple or linear, but is, rather, a complex iterative process having many feedback and feed forward cycles" (Wolfe, 1994, p.231). This view, also termed the *Interactive Process Perspective* (Slappendel, 1996), essentially attempts to: understand the process of innovation itself, capture the relationship between action and structure, and explore how innovation unfolds over time. This processual model of innovation has largely dominated recent theoretical approaches to innovation (for examples see Clark & Staunton, 1989; Harkema, 2003; Lounsbury & Crumley, 2007; Newell et al., 2002; Slappendel, 1996).

Innovation is 'product' or 'work practices'

Significantly, a distinction is often made between two different types of innovation: product and work processes (Newell et al., 2002; Tidd & Bessant, 2001; Hage, 1999; Clark & Staunton, 1989). Specifically, product, also termed *technical* (Damanpour, 1992), innovation is viewed as a change in the "thing an organization has to offer" (Tidd & Bessant, 2001, p.6), often either products or services, through the invention and application of new, tangible

ideas (Dougherty, 2008). Here the focus “tends to converge around the product itself where diverse sources of knowledge are integrated within a single product or service specification” (Newell et al., 2002, p.145).

Whereas product innovation is concerned with change of ‘things’ such as products and services, process, also termed “administrative”, innovation (Damanpour, 1992), “involves the development of new management and work or organizational practises” (Tidd & Bessant, 2001, p.6). The creation and implementation of these innovative *new practises* (Lounsbury & Crumley, 2007) specifically relates to changing and ultimately improving, the methods of achieving overall organizational functions. Knowledge produced through process innovation is largely “intangible, tacit and context-dependent” and includes “relating to changes in work practices, changes in roles and responsibilities and changes in attitudes and cultural values” (Newell et al., 2002, p.146).

This divide is summed in simple terms up by Hage (1999, p.601) who states that “the most widely used definition of innovation is that it is the adoption of an *idea or behaviour* that is new to the organization”. However, despite their apparent clear differences, it is also recognized that there are cases when empirical examples fail to fit neatly into one innovation category and that “sometimes the dividing line is somewhat blurred” (Tidd & Bessant, 2001, p.6).

Empirical focus of the innovation research field

In order to galvanize the various positions of innovation research it is highly important that umbrella approaches encompassing the literature are discussed from an empirical perspective. Here two noticeable approaches to empirical research are identified, namely viewing innovation from a macro organizational viewpoint and, secondly, viewing it from a micro individual perspective. However, as will be discussed, the latter individual perspective, despite its acknowledgement of the deep complexities of innovation, tends to loop back and relate itself to that of an organizational context, rather than delving into exploration of the personal meaning and sensemaking of the innovation discourse.

The organizational innovativeness focus

Due to the notion that innovation improves widespread organizational competitiveness it is no great surprise that empirical studies have been traditionally dominated by a macro

structuralist perspective (Slappendel, 1996) that is primarily concerned with *organizational innovativeness* (Wolfe, 1994). Such research "assumes that innovation is determined by organizational characteristics" (Slappendel, 1996, p.113) with the focus of these studies generally revolving around key management issues that strongly associate innovation with organizational success and survival. These issues commonly range from: strategic approaches of utilizing innovation, assessing and improving innovative practices, and helping to create and stimulate innovation within an organization (for examples see Tidd & Bessant, 2001; de Jong & Den Hartog, 2007). Specifically, organizations are seen as the adopters of innovation, rather than its individual employees. Thus organizations are treated as individuals with their general characteristics seen as variables of interest to the researcher (Wolfe, 1994).

This stream of research has tended to focus on the influence of the structural characteristics of an organization, perhaps because it has been widely argued that "structural variables are the primary determinants of organizational innovation" (Wolfe, 1994, p.409). Specifically research into this area tends to highlight three structural properties of an organization that are key for innovation (Dougherty, 2008), these include: a) fluidity, the flexibility and responsive nature of a company; b) integrity, the coherence of 'innovative parts' working together; and c) energy, the firm's ability to motivate innovation. Significantly, there is argued to be a clear divide in how research on organizational structure view ways to improve innovative practices, namely the *social constraint view* (Dougherty, 2008), where research is based on the notion of rationally dictating and controlling innovation through a top down structure, and to the more contemporary *social action* (Dougherty, 2008) approach, where theory suggests that organizational structure needs to be indirect, minimal and encourage a bottom up diffusion.

However, the increased scrutiny on the ambiguous and temperamental nature of innovation has increased the focus on the need for a more contingent approach. This view was founded by Dougherty (2008, p.430) who concluded in her empirical study that in order to manage innovation "managers cannot force action and they cannot avoid constraint" adding that "theories and designs for innovative organizing that are based on only one side of the constraint/action duality of social order are not only incomplete, but also incorrect". Thus, she puts forward three alternative general approaches to encouraging an innovative organizational structure that bridges this divide. Here it is suggested that there should be a

reflective approach to work (fluidity), continuous problem solving across all areas (integrity), and the available resources to enable innovation (energy). Neither the less, on the whole “empirical support for theoretical assertions that structure is important to innovation is inconclusive” (Bodewes, 2002, p.214) once again attributed to the inconsistent definition and measurement of innovation in these studies.

The role of the individual focus – a loop back to organizational innovativeness

However, the increasing complex and context specific nature of innovation means that studies with an organizational context simply outline general strategies to initiate the implementation of innovation have limited validity and use. Due to this common approach a notable neglect in empirical research developed, as noted by Wolfe (1994, p.405): “Despite broad interest and a vast literature, understanding of innovative behaviour in organizations remains relatively undeveloped”. As a result a more contemporary stream of research has taken into account the multifaceted nature of innovation by acknowledging the important role of individual actors for achieving innovation. This *individualist perspective* (Slappendel, 1996) on empirical research has notably started to gather pace over recent years, arguably in parallel with the previously discussed widespread adoption of the processual view of innovation. The central thought of this approach is that “innovation depends upon the involvement of a range of individuals within and across an organization” (Newell et al., 2002, p.142). Thus this stream of research looks "to explain innovative behaviour in terms of the characteristics and actions of organizational participants" (Slappendel, 1996, p.113) and assumes that "certain individuals have personal qualities which predispose them to innovative behaviour" (Slappendel, 1996, p.110).

However, rather than deeply exploring the *views of actors* (Van de Ven & Rogers, 1988) this line of research merely loops back to an organizational context by suggesting that ‘innovation on an individual level’ correlates with ‘competiveness on an organizational level’. This line of research is thus underpinned by the “requirement to understand the interrelationship between the individual action and organizational structure” (Dooley & Van de Ven, 1999, p.362). As a result many practitioners and academics now endorse the view that “individual innovation helps to attain organizational success” (de Jong & Den Hartog, 2007, p.41). Unsurprisingly then, much of the research on the role of individuals acts as an

arm for its organizational counterpart by ultimately arguing for “an organic model rather than mechanistic systems” (Bodewes, 2002, p.220) of innovation structure to be adopted.

As discussed there is a range of studies that makes the link between the role of individual innovation and the subsequent implications for the wider organization. A study by Lounsbury & Crumley (2007) looked into how everyday innovations done by an individual actor, also termed “activity innovations”, can eventually result in new widespread organizational practises. They suggested that individual innovations contribute to the “re-theorizing” of ways of working which then create new working practises across the organization. Here the notion of *performativity* is put forward which “assumes that individual performances of a practice play a key role in both reproducing and altering a given practice through variation in its enactment” (Lounsbury & Crumley, 2007, p.997). Similarly Harkema (2003, p.343) suggests that individual innovation should be seen as “a mentality, which needs to be channelled towards the development of commercial and successful solutions”. Here a Complex Adaptive System (CAS) view of innovation is presented as “a diversity of agents that interact with each other, mutually affect each other and in doing so generate behaviour for the system as a whole” (Harkema, p.342).

Research that actually questions the nature of this ‘individual innovation = more organizational competitiveness’ notion are few and far between. However, one such notable example is that of Guest & King (2004) who acknowledged two different types of individual innovation: conformist and deviant. Whereas the individual conformist innovator accepts the dominant organizational values and goals and looks to establish “a closer relationship between his activities (means) and organizational success criteria (ends)”, the deviant innovator “attempts to change this means/ends relationship by gaining acceptance for a different set of criteria for the evaluation of organizational success and his contribution to it” (Guest & King, 2004, p.85). However, in their empirical study they found widespread conformist innovation among individuals and very scarce deviant innovation, suggesting that in reality the link between individual innovation and organizational competitiveness is quite often a ‘means to an end’ scenario.

An interpretive approach – looking past popular notions

Traditionally quantitative methods have been used in innovation research, usually consisting of top management interviews "in order to determine the characteristics (such as size, age,

and financing) that facilitated or inhibited organizational innovativeness” (Van de Ven & Rogers, 1988, p.632). However, with the traditional linear model of innovation being replaced with a more complex processual view, a better understanding of innovation has been recently sorted after through qualitative methods, gathering data over a time-interval and analysing it in-depth.

Despite this recent shift to more qualitative methodological approaches the innovation literature continues to be dominated by a functionalist and deductive approach of viewing reality, and in particular innovation, as concrete, solid and ‘out there’. Specifically a narrow focus on achieving the *initiation* and *implementation* of innovation through various organizational structural features and management characteristics has steered research away from exploring the complexities of the innovation concept. In other words, studies have focused on "putting innovation to use" (Van de Ven & Rogers, 1988, p.632) rather than reflectively opening up and exploring the actual existence of the concept. Therefore it is argued that existing studies on innovation fall into what could be termed as the ‘research trap’, where the empirical world is simply plugged into the theoretical world. This results in research either agreeing, or disagreeing, with earlier propositions of what innovation is and how it should be managed. Therefore this thesis study will aim to avoid this trap by letting reality ‘kick back’ and being open minded to and led by the empirical material.

Integral to achieving this will be an interpretative approach, which is so obviously lacking in the innovation research field. Such an approach will enable an inductive focus on the individual in terms of their subjective meanings, and sensemaking of the innovation discourse, rather than taking innovation as a given ‘thing’. A need for an interpretive approach to studying innovation is made further evident by the ‘tell tale’ signs identified at the beginning of this literature review, namely the incoherent and ambiguous nature of the innovation concept. This is exemplified by Bodewes’s (2002, p.221) notion that “[i]f inconsistencies result from unsatisfactory definitions then we should start by examining the way we define our constructs and variables”.

Thus this study takes the micro perspective of individual innovation down a new interpretive path. Rather than linking back to organizational competitiveness, as discussed in the previous section, this study aims to delve deep into the sensemaking of individuals in relation to the ‘innovation discourse’ or more specifically the meaning and usefulness of the word innovation for individuals tasked with being innovative. This approach is strongly

supported by Van de Ven and Rogers (1988) who suggest that an interpretive orientation holds great promise, arguing that innovation, being so uncertain and intricate, can best be understood from the point of view of individuals. "The interpretive perspective would emphasize that innovation is a highly uncertain and complex type of behaviour, which can best be understood from the point of view of the actors involved" (Van de Ven & Rogers, 1988, p.638). As earlier acknowledged "many practitioners and academics now endorse the view that individual innovation helps to attain organizational success" (de Jong & Den Hartog, 2007, p.41). However, this popular and taken for granted notion has plagued innovation research since its conception by failing to acknowledge the role of everyday interpretation and sensemaking of individuals, something that ultimately this thesis will look to address.

3. Method, methodology and knowledge contribution

A semi structured method approach

The research organization which provided the material for this study provided access to study innovation in a knowledge intensive company. Innovation is part of DevComp's core values as well as a term widely used within the company. DevComp has also been attributed with producing innovative products. These features provide us as researchers an ideal opportunity to study how individual employees within DevComp understand and attribute meaning to the term innovation.

The empirical data for this study was conducted through six semi structured interviews as well as some supplementary field notes. The interviews were conducted over a period of approximately a month. The participants interviewed had a variety of job roles and positions in the company engendering our ability to gain insight into whether these were factors in their perception of innovation. Job roles in DevComp included: software programming and designing (Rupert), technical designing (Derek), quality control (Madeline), software architect & developing (Simon, Harry) and management (Mark). These job roles ranged across a few levels of seniority depending on the individual concerned.

As part of the semi structured interview format the theme of innovation was explored and participants were asked to elaborate on the subject in the hope of providing insight into what meaning was associated with innovation and how the concept was understood. Typical key questions included 'What is your understanding of innovation?', 'Is it relevant for your job and if so how?' and 'Do you find it hard to innovate at work and if so why?' Employees were also asked to discuss their general work, their job role and how they understood the role of innovation in their work and the organizational context. Interviewees were encouraged to elaborate on how these different elements interrelated. In general any direct questions put to the interviewees were simply used as prompts, allowing the participants to freely dictate the direction of conversation.

All interviews were completed on a two on one format i.e. two researchers and one participant. This interview arrangement worked particularly well as it enabled the researchers to reflect on their formulation of relevant questions. Furthermore, researchers posed questions differently from one another thus capturing a broader and wider set of

responses from the participants. Preliminary discussions with management and one of the researchers previous work experience and thus intimate knowledge of the organization provided strong background understanding. This aided the ability to ask solid and appropriate questions and in instances aided trust and familiarity with the participants. Furthermore, it provided a familiarity and a contextual background facilitating our initial understanding of the organization and consequentially limiting the tendency for misunderstandings. Interviews lasted approximately one hour and took place within the company's headquarters. All interviews were recorded and later transcribed and subsequently themematized to explore unitary links and fragmentation between participants.

This study aims to approach the topic of innovation within organizations in an empirically open manner, examining and interpreting closely the empirical material. With this in mind, the aim is to avoid slipping into vague, all inclusive terms, categories and claims associated with innovation and organizations of this type (Alvesson & Sveningsson, 2003). Therefore the research was approached in a less structured way, and maintaining less expectation as to the purpose and the direction the research would take in order to uncover what participants believed to be occurring in the organization. In doing this we avoid assigning any 'objective' truth to what the empirical material espouses but rather what is meant behind the value laden sentiments of participants. Recognising this we are interested in how the participants construct a temporal, often fragmented and contradictory reality. As an interpretive approach is used we move away from the notion that the researcher is able to look upon the empirical material objectively and thus removing our own subjectivity. The empirical material therefore does not lead the researcher in the 'right' direction through the empirical data speaking for itself (Sveningsson & Larsson, 2006). Thus, what is presented in our analysis cannot assumed to be representative of an objective truth or reality as views expressed in an interview are value laden and it should be understood in this context. In keeping with an interpretative approach our analysis of the findings recognises the possibility of unified meaning and patterns emerging from the empirical material as well as fragmentation, contradiction due to the fluid nature of meaning (Alvesson & Sveningsson, 2003, p.967): "The willingness to inscribe patterns, order and coherence must be balanced with a preparedness to consider divergence, contradiction and fluidity". We are also seeking to uncover the underlying meaning of what the empirical material presents us with by

comparing the empirical *part* to the contextual *whole*. Finally, we aim to be critical of innovation as a populist management term as it conveys a multitude of meanings. These approaches are inspired by the post modernist, hermeneutical and critical theorist schools of thought (Alvesson & Sköldbberg, 2009).

In taking this approach we aim to explore and interpret the empirical material perhaps avoiding widely existing assumptions about innovation. Thus, trying to uncover and interpret how participants frame or position themselves in relation to innovation. With this reasoning, although definitions of innovation and existing innovation theory have been discussed, it would be counterproductive for this paper to define or subscribe to a particular definition of innovation. It is uncertain whether predefined views and theories of innovation are prevalent in the studied organization. This study therefore, calls for caution in advocating particular theory led views on innovation (Alvesson & Sveningsson, 2003).

The approach outlined can be described as being interpretative, with the aim of the empirical material taking a front seat and guiding the direction of the research. This interpretative approach took inspiration from elements of a range of methodologies in our intent to be reflexive on the empirical material (Alvesson & Sköldbberg, 2009; Alvesson et al., 2008). Finally, the method was chosen due to its successful application in previous qualitative studies which have similarly aimed to explore individual meaning and understanding in a knowledge intensive context associated, albeit around alternative themes which have also been argued to be ambiguous (see Alvesson & Sveningsson, 2003; Alvesson & Sveningsson, 2008).

Using multiple interpretations - a reflexive methodological approach

Qualitative study proposes that empirical data does not mirror an objective reality and research hypothesis and theory cannot be objectively proven through the analysis of data (Alvesson & Sveningsson, 2003). This approach also proposes that empirical data is value laden: reality is socially and temporarily constructed through language and is influenced by situated factors such as politics, cultural and social norms (Alvesson et al., 2008). This approach of allowing reality to 'kick back' in research is in contrast to the widely popular quantitative and positivistic approaches which privileges the empirical data and connects it directly to theory generation through methodological measures which provide the notion of rationality (Alvesson & Sveningsson, 2003). Alvesson & Kärreman (2007) outline that theory

is often developed and emergent from the gathering and analysis of empirical data. However, they argue that empirical data is influenced, dependent on and has a relationship with the interpretations of the researcher. Therefore, if a researcher undertakes a study from a theoretical stance this cannot be disconnected from the empirical data gathered and theory which they generate. In other words, the theoretical frameworks and methodologies used by the researcher and the researchers language and pre-understanding will produce certain versions of the observed social reality.

Alvesson & Kärreman (2007, p.1266) suggest that research and its results must be understood in relation to these factors: “empirical material never exists outside perspectives and interpretive repertoires”. It is for this reason that a reflexive approach to research, through using various different methodological lenses of interpretation, is advocated (Alvesson & Sköldberg, 2009; Alvesson & Kärreman, 2007; Alvesson et al., 2008). Reflexivity could be defined as the process of researchers critically reflecting on the empirical material by accepting key underlying assumptions about interpretive research, e.g. that reality and knowledge is developed or constructed through political, social and linguistic factors (Alvesson et al., 2008). This is achieved through viewing the empirical material through various lenses of methodology, allowing the researcher to gain different insights and a fuller understanding by interpreting the material from a range of philosophical standpoints (Alvesson & Sköldberg, 2009; Sveningsson & Larsson, 2006). In addition reflexivity also helps to move away from the notion that there is a single school of thought that holds superior authority and thus aids interpretation by being less narrow in its incorporation of theory as well as help researchers to move beyond their own understanding (Alvesson et al., 2008). This paper conforms to the reflexive approach by working with these interpretive ‘lenses’ thus avoid the constructionist or positivistic approach as favoured by much of the previous literature. For the purpose of this study it was decided that inspiration would be taken from the hermeneutic, postmodernist and critical theory schools of thought.

A lowdown on the methodological lens

Hermeneutics, at its simplest level, is an interpretive methodology where researchers aim to go deeper beyond the surface meaning (Alvesson & Sköldberg, 2009). It aims to uncover the underlying meaning through interpretation behind the information being examined, for

example: observations, books, interview material etc. (Gummesson, 2003). Meaning can only be attributed to the *part* if it is understood in the context of the *whole*. The researcher aims to achieve understanding by examining the relationship between the part and the whole e.g. understanding the context of an interview in relation to the wider organizational context. In hermeneutics the researcher also accepts that their own pre-understanding affects their understanding of their research. Upon analyzing and interpreting empirical material new understanding is formed thus adding to their own pre-understanding (Alvesson & Sköldbberg, 2009; Gummesson, 2003).

Critical theory aims to problematize the obvious, self-evident and taken for granted assumptions that may become apparent through hermeneutical interpretations (Alvesson & Sköldbberg, 2009). The goal of critical theory is to emancipate people from repressive systems and restrictions that exist politically, socially and historically. This is achieved by questioning dominating discourse and providing knowledge and insight into these taken for granted meanings and assumptions (Alvesson & Willmott, 1992). With this knowledge people are able to free themselves by altering existing norms, behaviour and practice. Consequently critical theory challenges researchers to be self critical in order to provide a better understanding. Furthermore it looks to challenge existing dogmas, ideologies etc that empirical material, without critical examination, may reinforce. Uncritical acceptance of underlying truths and espoused theory and rhetoric may result in a lack of positive progression in understanding and emancipation (Alvesson & Willmott, 1992).

Postmodernism questions whether objective fact or underlying meaning actually exists outside language. This line of thought entails that language is ambiguous, incoherent and constructs only temporal meanings, and therefore is disconnected from reality. Empirical data can therefore only capture snapshots of reality but a reality that has been constructed by subjective language mirroring a construction of one of possibly many personal selves (Alvesson & Sköldbberg, 2009). This philosophy allows researchers to question supposed certainties and resist the idea that there is one over-riding truth. Concepts and ideas cannot be separated from their context and time or even states of mind thus the meaning of empirical data is tied to this (Arias & Acebrón, 2001). This approach helps open up phenomena by accepting that there are a multitude of different perspectives and minority voices that have roles to play in our understanding of different phenomena (Farmer & Farmer, 1996). Significantly, post modernist thought argues that one should be

aware of the ambiguity of meaning, the different identities of those being studied (Westwood & Jack, 2007). Farmer & Farmer (1996) argue that a postmodernist perspective is likely to have increasing relevance in a world where there is increasing diversity and differing organizational types limiting our ability to justifiably prioritize single, dominating voices. Arias and Acebrón (2001) argue in a similar vein suggesting that postmodernist thought is increasingly relevant in business marketing as, for example, value systems of people, fashion and business practice is diverse and fragmented.

Drawing inspiration from these methodologies is particularly useful in helping us explore openly the concept of innovation within organizations. Firstly, a hermeneutical approach allows us to go beneath and interpret the statements of interviewees and look for underlying meanings. Their talk on innovation therefore can be related to the wider organizational/cultural context which they are exposed to. Secondly, the critical approach towards the concept of innovation presents us as researchers the opportunity to question the effectiveness of innovation as a term widely used within academia, organizations and popular literature when it conjures such diversity of meaning and fragmented views. Finally, using elements of postmodernist thought enables us as researchers to query the existence of innovation as an objective concept by suggesting that its meaning is tied up in temporal reality which is constructed through language. An individual's choice of language may be impacted by the prevalence of innovation as a populist term rather than based on their personal subjectivity or their fixed beliefs (Alvesson & Sveningsson, 2003). Therefore, innovation and its meaning are perhaps associated with the individual and how they construct its meaning at the time of the interview.

The empirical data and its interpretation, as described, take inspiration from these methodological lenses (Alvesson & Sköldberg, 2009). Therefore, the empirical material selected is naturally imprinted with our own familiarity of these and other theoretical standpoints which influence our research. However, we make an effort to present the empirical material in a way which reflects the multitude of standpoints expressed in the interviews. Researcher led views and descriptions are purposely avoided or minimalised with a view to examine the participants meaning of innovation (Alvesson & Sveningsson, 2003). The interpretative and reflexive methodological approach therefore aims to be empirically driven and to avoid being dictated by commonly accepted findings in previous academic literature.

Knowledge contribution and validity: utilizing the ideal type

This study evidently aims to contribute theoretical and insightful knowledge to the field of innovation research. Thus it is appropriate to further elaborate on how this knowledge emerged from the empirical material in order to discuss both the validity of knowledge that is being offered, and how the study's findings can be theoretically generalized.

In order to justify the knowledge created in this study, the process of how the theoretical assumptions surfaced up from the empirical material (i.e. how did key theoretical propositions originate from the interview transcripts) requires attention. Significantly the knowledge this study creates is based around Max Weber's notion of *ideal types* (Bruun, 2007). This is made evident by the presentation of four ideal types of innovators – the uncertain, the inventor, the improver and the sceptic (see Table 5-1: Outlining the fragmentation of innovation, p. 31). Here the reference of an ideal type of innovation is not meant to correspond neatly with the phenomena but rather to stress certain elements found to be common within it (Bruun, 2007). This approach is commonly used in social science and specifically when attempting to explore complex phenomena. Weber (cited in Bruun, 2007) suggests, in simple terms, that ideal types are used to provide order, and to a degree clarify, the chaos of social reality – in this case the individual interpretations of innovation.

However, this ideal type methodology places a strong emphasis on the researcher to interpret dialogue from interviewees in order to classify them in an ideal type. Thus, our thought processes and deliberations in doing this must be justified in order to prove the validity of our knowledge. In general a fairly systematic approach was taken. First each researcher listened to the recordings and read the transcripts in detail, and began to formulize categories for different themes of discussion around innovation – these were identified as how innovation was defined, what purpose innovation had, and the barriers to achieving innovation. Following this, common themes within each category emerged with the help of focused interpretation by the researchers and thus four creative 'ideal types' naturally surfaced. It was also interpreted that these four ideal types correlated across the three conceptualizations (the definition, purpose and barriers) due to various correlations found across the interviews.

In terms of generalizing the theoretical notions of these four 'ideal types' it is important to recognize that no claims are being made regarding the "reproduction of, or a correspondence with, social reality" (Bruun, 2007, p.78). However, what is suggested is the ability for theory focusing on the fragmentation of the interpretations of innovation to be generalized. In other words the 'ideal types' put forward in this study should not be viewed as a generalized theoretical base for future studies but the notion of fragmentation demonstrated by these multiple types should be taken into consideration. In summary, although some sceptics to this 'ideal type' approach may question the validity of having such a heavy reliance on interpretation and classification, it is argued that this critique misses the point, as paradoxically one must create order to successfully demonstrate chaos. Our creative and credible process of achieving order and consequently demonstrating fragmentation of the interpretation of innovation through formulizing 'ideal types' does exactly this.

4. Background

For a better understanding into how the phenomenon of innovation was approached in this thesis, it is necessary to have insight about the company from which we obtained our empirical material as well as its underlying context.

DevComp is a renowned international high-tech company. It was established during the dot-com crisis as a result of a merger between the units of two corporations and currently employs more than 8,000 people. One of its parent companies was founded in the 1970s and had managed to become prominent in the IT industry by producing revolutionary products and having R&D centres established throughout the world. The additional parent company was founded in the 1920s and become a renowned brand-name in the global consumer electronics market. Seeking to create a unique brand by complementing IT know-how with consumer market experience, DevComp was created through the merger of the parent companies two divisions.

The direct result of the merger was a new and original line of products that introduced a novel level of experience and functionality, paving the way for a rapid growth of market share and increased competitiveness across the market. Amid this growth and success, DevComp was recognized by market analysts as product trend-setters and as a 'highly innovative' company. As with many companies, DevComp was not immune to the financial crisis of 2008-2009 and, catalyzed by escalating competition in its fast-changing operating environment, the company underwent a series of organizational changes to confront the challenges it was facing. The changes included, among others: downsizing, strategic product repositioning, adopting a flat hierarchy and lean product development model. Following this wide spread organizational change there was a reaffirmation by DevComp's top-management on placing an even higher emphasis on innovation in order to stay ahead and stay competitive.

A knowledge-intensive context

It is argued across innovation research that, for a better understanding of innovation, it is necessary to set an organizational context before embarking on the exploration of empirical material (Wolfe, 1994). Thus a brief elaboration of DevComp in relation to its knowledge-intensive traits is necessary. In addition “individual innovation has received little attention in such firms [KIFs], which is surprising given how relevant innovation by employees is for knowledge-intensive services” (de Jong & Den Hartog, 2007, p.57). This research project will contribute by filling this startling research gap.

A key characteristic of knowledge-intensive firms is said to be the central role of highly qualified individuals performing intellectual work rather than drawing on manual labour (Alvesson, 2004; Alvesson & Svingsson, 2003). As such DevComp can be classified as a knowledge-intensive company as it employs skilled and educated professionals who take part in intellectually challenging and demanding work tasks. It is recognized that the products or services of knowledge-intensive companies are often difficult to assess as they can often be intangible (Newell et al., 2002; Alvesson, 2004). Thus it has been claimed that knowledge-intensive companies operate in an environment surrounded by ambiguity (Alvesson, 2004). Such claims did show to have substance in our empirical material and examples of ambiguity in relation to innovation will be presented in the thesis.

Various types of knowledge-intensive companies exist and this is dependent on the nature of products produced. Bente Løvendahl (2005) has analyzed and classified knowledge-intensive companies accordingly. This is illustrated in the following table:

	Strategic focus	Priority	Examples
Output-based	Adapting solutions	Job security	Large management consultancy firms
Client-based	Client relation	Autonomy	Law and accountancy practices
Problem-solving	Creative problem solving	Learning, Innovation	Advertising agencies, software development firms

Table 4-1: Types of knowledge-intensive firms (adapted from Løvendahl (2005))

Here DevComp could be said to fall in line with the *problem-solving* type of KIF with a focus and priority on creative-problem solving and innovative learning respectively, as it is highly

valued in the company. This is made evident, among others, by: DevComp's web site which has a section that is dedicated to product innovation; the company's core-values which strongly state the importance of innovation; the introductory letters that were provided to the researchers stated that innovation is highly valued within the company; and finally, the interviewees themselves who generally showed clear awareness of the importance of innovation.

5. The four ideal types of Innovation – providing order to the chaos

The topic of innovation was voiced in detail by all the interviewees in the study. However, the overall framing of the concept reflected the theoretical ambiguity and inconsistencies that plagues the research in this area (Bodewes, 2002; Newell et al., 2002; Wolfe, 1994). Specifically, two levels of fragmentation were made apparent: a) externally across the interviewees; and b) internally within individuals.

In spite of this, there was a degree of order to the fragmentation which resisted becoming completely sporadic and irregular. As mapped out in Table 5-1: Outlining the fragmentation of innovation (below), four ideal types that reflected the way of framing innovation were made apparent. These include: the uncertain, the inventor, the improver, and the sceptic. These configurations reflect the various individual understandings associated with the innovation discourse, with each one conceptualized in three aspects: *what* is innovation (individuals *perspective* on what innovation is); *why* is innovation (what *purpose does innovation serve*); and *how* is innovation (how is innovation affected by *barriers*) . Exploring these three aspects across each ideal type is imperative for adding depth to the individual interpretations, specifically in terms of providing interpretations with a degree of context, but, importantly, also acknowledges the multiple dimensions and complexity of the innovation concept. However, it is important to note this study is not claiming that individuals fit into particular types and therefore possess certain views but is merely demonstrating, and to some extent simplifying, the fragmented nature of innovation sensemaking on an individual level.

The initial part of our analysis will argue that innovation is ‘messy’ through opening up the four diverse ideal types and exploring the empirical themes, as well as tying in existing theory, across the three conceptualizations of the *what*, *why* and *how*. Following this dissection both the external and internal levels of fragmentation, and their implications, will be briefly discussed. Finally, the sense-making, specifically in terms of how identity influences these various framings, will be explored in a bid to develop a deeper understanding of the origins to the individual interpretations of the innovation discourse.

Ideal type of innovator	Innovation perspective	Purpose of innovation	Barriers to innovation	Key related theory	Sensemaking: Common identities
<p>The uncertain</p> <ul style="list-style-type: none"> Innovation as uncertainty Difficult and problematic to define 	<ul style="list-style-type: none"> Coming up with new tangible ideas Episodic - start and finish One 'does innovation' 	<ul style="list-style-type: none"> Survival – keeping job Meeting job requirements Success/progression 	<ul style="list-style-type: none"> Dependant on the individual Can vary in relation to the below 	<p>Innovation is an ambiguous and messy term (research trend)</p>	<p>Multiple identities</p>
<p>The inventor</p>	<ul style="list-style-type: none"> Improving competitiveness Consumer focused Product development/design Attracting customer attention 	<ul style="list-style-type: none"> Individual agenda Streamlined Not enough pressure Time Deadlines Fear of losing job Pace of market Internal politics 	<ul style="list-style-type: none"> Product innovation (Newell et al., 2002) Linear model of innovation (Everett, 2003) 	<p>I am a producer</p>	
<p>The improver</p>	<ul style="list-style-type: none"> Changing the way of working Refining methods and processes Ongoing – one 'naturally' innovates Day to day tasks and decision making 	<ul style="list-style-type: none"> Improve competitiveness Organizational focused Internal efficiency Adapt work practices to changing environment 	<ul style="list-style-type: none"> Restricted perspective Misconception of word innovation Not seeing opportunities Structural change Change in management Growth and expansion 	<ul style="list-style-type: none"> Process innovation (Newell et al., 2002) Processual model of innovation (Van de Ven & Rogers, 1988) New practices/activity innovations (Lounsbury & Crumley, 2007) 	<ul style="list-style-type: none"> I am wise I am a problem solver
<p>The sceptic</p>	<ul style="list-style-type: none"> Innovation as a fad Managerial/popular term Buzz word Questions importance of innovation discourse Stating the obvious 	<ul style="list-style-type: none"> Innovation is merely a message/rhetoric PR/image tool Responds to feedback from customers Rhetoric/corporate message 	<ul style="list-style-type: none"> Using the innovation discourse with little substance in meaning The use of innovation as an 'empty' term 	<ul style="list-style-type: none"> Innovation as the perception of newness (Slappendel, 1996) Challenges the wide spread theoretical assumption that innovation is good (research trend) 	<p>I am inquisitive</p>

Table 5-1: Outlining the fragmentation of innovation

Opening up innovation – a diverse and varied range of types

The uncertain

Uncertainty surrounding the innovation concept was an over-riding theme from the interviews, despite DevComp's perceived heavy focus on encouraging more innovation across the organization and a wide awareness of the term by all interviewees. As Rupert, a Staff Engineer put it, when asked about whether innovation was a regularly used term within DevComp:

"I think I have heard that word at least ten times today."

Specifically, uncertainty was made apparent in a number of different ways. Perhaps most obvious were instances when interviewees were asked to articulate in their own terms what they thought innovation was. Many participants initially found innovation a difficult and problematic term to define, correlating with the uncertainty that exists across the theoretical world (Bodewes, 2002; Newell et al., 2002; Wolfe, 1994). This more than often resulted with the individuals showing hesitancy or verbally struggling to define the concept. Typical statements highlighting this uncertainty included:

"[Innovation] could mean everything, or anything or nothing" (Mark).

"[Innovation is a] tricky word" (Simon).

"[Innovation is a] tough concept to define" (Madeline).

"[Innovation] could have a very diverse definition" (Derek).

Although initial uncertainty was frequently the case, once interviewees began to speak about innovation, and were prompted by the researchers to elaborate, particular views generally began to take shape. This suggests, from a postmodernist viewpoint, that uncertainty resulted from the need to construct their interpretations of innovation through language. Notably, however, interviewees often tried to consolidate this initial uncertainty by stressing the individuality of their views, regularly stating that it was often 'down to the individual' and these were 'their own personal opinions'. From these views, some unitary themes emerged between the various individuals in how they spoke about innovation.

However, these themes will be explored further below in relation to the three additional ideal types.

In addition, the internal fragmented nature of innovation within some interviewees resulted in contradictions, particularly across the definition of innovation, its purpose and its barriers. Once again this reflects the various and diverse theoretical propositions of 'what innovation is' that engulfs innovation literature (Dooley & Van de Ven, 1999; Harkema, 2003; Wolfe, 1994). Here it was apparent, albeit less obviously, that when participants elaborated about innovation, in terms of its purpose and barriers, they regularly described and framed innovation differently to their initial conceptualization of the word. This was true even if participants had initially expressed a strong view on how innovation should be defined. The disjointed correlation of these three factors and the resulting uncertainty within particular individuals will be further discussed later in the analysis.

On a final note regarding the theme of uncertainty, one participant articulated uncertainty surrounding the definition of innovation, not by himself but by fellow professionals. Although this particular participant felt secure in his definition of innovation, he believed that the understanding of the word by others within the organization was wrong or confused, and thus its use often resulted in being unproductive.

The inventor

Perspective on what innovation is:

This 'ideal type' views innovation as the process of invention or coming up with 'something new'. Specifically innovation was related to creatively coming up with novel ideas for products or ways to use technology. As Harry, a Senior Software Architect, said:

"[Innovation is] interesting ways to use our technology... using new cool stuff we have... in new ways that's never been thought of yet."

This ideal type evidently draws strong parallels with the 'product innovation' theoretical position where innovation is viewed as a change in the "thing an organization has to offer" (Tidd & Bessant, 2001, p.6) through the invention and application of new, tangible, ideas (Dougherty, 2008).

Another interviewee, Rupert, suggested:

“Innovation is a certain period of coming up with new cool stuff.”

Within DevComp the patent application process is seen as integral to the above view of innovation. Here employees systematically put together and put forward new technological ideas in the hope to get a patent granted. This highly episodic view of invention, which has a clear start and finish, suggests that innovation is something ‘one does’ and thus revolves around ‘doing innovation’. This could be likened to the traditional linear model where innovation is “seen as an entity with fixed parameters and something that is developed externally, packaged and then exported” (Swan et al., 1999, p.264). It could be argued that, in real life work environments, this linear view of innovation still exists among some individuals despite it being viewed as outdated and too simplistic by the theoretical world.

Senior Manager Mark, who focused on *the inventor* type, described *hardcore* or *old* innovation, interestingly referring to the creation of tangible “physical” ideas as something that was focused upon in the past. In this case the patent process and act of invention was seen as being an integral cog for the technology industry, both past, present and future. The reference to *old* and *hardcore* perhaps alludes to the increasing complex, abstract and intangible nature of ideas that are now integrated into technology. This suggests ‘innovation as invention’ has taken on a more complex and multi-faceted meaning in contemporary high-tech organizations.

Purpose of innovation:

Two general purposes for innovation are encapsulated in this ideal type. Firstly a number of interviewees outlined their own individual agenda for being innovative, namely viewing innovation as: important for meeting job requirements, an opportunity to be successful in their career, and key for individual survival (i.e. to keep ones job and to stand out from other workers). This last point is summed up by Simon, Senior Programmer, who stated:

“This is the only key we can survive it, tomorrow actually, that we are innovative.... How can I survive and keep my job in Europe? One big key could be, I am innovative.”

These individual motives for innovation have received very little theoretical attention due to the tendency for research on individual innovation to loop back to an

organizational context rather than explore the intricate interpretations of the word (see chapter 2). However, due to the need to fulfil these personal motives, it could be suggested that *the inventor* type tends to be a *conformist innovator* (Guest & King, 2004) who accepts the dominant organizational values and goals and looks to establish “a closer relationship between his activities (means) and organizational success criteria (ends)”.

A second and highly prolific purpose for ‘innovation as invention’ viewed by individuals is that of improving market competitiveness. This falls in line with common consensus within literature that innovation is “highly important for organizational competitiveness” (Wolfe, 1994, p.137). Here interviewees tended to make a strong correlation between inventive and being commercially minded. In this context a strong link was often made between ‘innovation as invention’ and the development of ‘advanced products’ that meet customer requirements and make DevComp’s product line stand out from competitors. As two interviewees, Rupert and Harry said:

“I mean that is the way you earn money, you have to be innovative, you have to show something new otherwise nobody is going to buy your product.”

“We need this cool new stuff, we need something; they call them the signature applications now. We need new cool stuff which actually sets us apart.”

Barriers to innovation:

Finally, two significant barriers to innovation were strongly associated with *the inventor* type, namely lack of resources and pressure. One issue that relates to both of these barriers and was a strong theme throughout the interviews was that of lack of time, correlating with the view that time is a “resource that energizes innovation” (Bodewes, 2002, p.214). This perceived barrier has strong correlations with the discussed highly episodic and time dependent ‘doing innovation’ nature of *the inventor* type. This view was concisely summed up by Derrick, Project Leader:

“Often it’s a lot of time pressure, and then it’s hard for people to be innovate because they don’t have time, they have all these tasks that they need to fulfil.”

Interestingly, Henrik who strongly related himself as *the inventor* type suggested that doing invention and fulfilling everyday work tasks was a “trade-off” with each other,

emphasising that he didn't have time to "do his job" and in addition "do innovation" as a separate activity:

"So this is kind of a trade-off, how... how can you be innovative when you have your full work, on just trying to get stuff together. So just it's a trade-off, you need, we need to do a product, but still we need to... invest in the future, we need to get this time when you can actually sit down and think and so on."

Another common barrier related to the notion of idea generation, so central to the *inventor type*, was that of pressure. Here pressure on an individual was communicated in a number of different ways such as deadlines, the pace of the market, product cycles, internal politics, and fear of losing one's job, all of which hindered the idea generating process. This was interestingly articulated by Simon:

"You know the driving power of something is never supposed to be the fear. It can never end up with something good. You can never put a gun against someone's head and say 'yeah spit out a good idea or I kill you'. The result will be lots of sweat. He's not going to get anywhere. But put some flowers, open a window, change the air, put some nice music and say 'go, take your time' he maybe comes the next hour for him to say 'hey, you know what' and he already has two ideas. This is how we work, right? We are human."

Interestingly, a paradox is arguably made apparent with the need to fulfil a personal agenda both acting as a purpose for innovation as well as barrier through creating pressure. This suggests that in order for pressure on an *inventor type* to be eased the perceived purpose of innovation needs to be altered, specifically away from the need to fulfil their personal agenda.

The improver

Perspective on what innovation is:

In contrast to the themes prevalent in the *inventor* analogy, the *improver* ideal type is anchored by the notion that innovation is essentially changing the way of working for the better. Here interviewees particularly drew on working on organizational processes, or refining methods to produce more favourable outcomes. As shown below this view was consistently articulated by a number of interviewees:

“Innovation for me is something that you get into the process which is existing and you change the way of working” (Madeline).

“But Innovation, you view this as products, processes, everything. Sometimes you combine them all together and you change the way of working and you create something new which hasn’t been working that way. You know, this is for me, is innovation” (Simon).

“A different way of working or a different approach towards a problem, that’s innovation” (Derrick).

Innovation within this form of understanding was related to the day to day tasks that individual job roles required. Therefore the improver type of innovation could be seen as “a mentality, which needs to be channelled towards the development of commercial and successful solutions” (Harkema, 2003, p.343).

Theoretically the *improver type* closely relates to the theory of process innovation or “administrative innovation” as it evidently “involves the development of new management and work or organizational practises” (Tidd & Bessant, 2001, p.6). In addition the *improver type* views innovation as continuous and heavily linked to everyday decision making. Thus, in contrast with *the inventor*, there are parallels with the processual theoretical perspective which views innovation as complex “decision process involving the creation, diffusion, blending and implementation of new ideas in different contexts” (Newell et al., 2002, p.142).

Interestingly interviewees who leant towards *the improver* view also often acknowledged *the inventor* stance by making a clear and deliberate distinction between inventions and improving ways of working. This trend of purposely outlining the differences between the two types often resulted in *the improver* view being framed as the more contemporary and ‘enlightened’ understanding of the word:

“Twenty five fifty years ago it would probably be more focused on things you can write down on a piece of paper and give in to a patent agent or something like that. So sort of a proof of something physical that you can either build or put into some device whereas now I’d say we are much closer to thinking also about the way we work, the way we think, the way we do what we do and so on” (Mark).

This distinction is exemplified strongly in one case where interviewee Simon who adopted *the improver* view went so far to say that *the inventor* type was in fact not innovation:

“People can actually not distinguish between innovation and invention, they talk about innovation but really they mean invention.”

Purpose of innovation:

The primary purpose associated with *the improver* type is that of once again improving competitiveness. However, in contrast with *the inventor* which tended to focus on market competitiveness through meeting consumer needs, *the improver* revolves around an internal organizational focus, such as becoming more efficient and adapting practises to changes. This conforms to the theoretical view that “individual innovation helps to attain organizational success” (de Jong & Den Hartog, 2007, p.41). The importance of this constant adaptation in order to avoid failure was expressed Senior Manger Mark:

“In an industry where you need to adapt all the time you don’t know what arena you will be working in. One year from now if you are not adapted internally in that company to having this constant change, constant need to address issues that pop up then you are dead.”

Thus the purpose of innovation in this context is the ability to adapt to continuous changes, as noted here:

“Innovation because we take what we know, we take what we know is working and we adapt that to a new situation and that is also a sort of innovation.”

In addition, an example of the *improver type* improving internal efficiency is provided in detail by Simon, who retells a scenario of a typical worker looking to solve a software problem. Here he states it is common and accepted practise simply to do a “quick fix” rather than go through the more efficient and beneficial process of identifying where the problem originates from. This shift in working is seen as innovation for him:

“Innovation, yeah, you find this problem, you do problem reports, before you find it go and try and find where the problem is introduced actually into the system and replace it there, fix it there. So everything based on that product will be problem free.”

This focus on innovation therefore could be argued to be centred on the continuous creation of *new practises* (Lounsbury & Crumley, 2007) as a result to adapting to changes and attempts to improve ways of working. Thus *the improver* type could also be argued to draw parallels with *activity innovations* (Lounsbury & Crumley, 2007) which contribute to the “re-theorizing” of ways of working. Similarly the theoretical notion of “performativity” can also be related to *the improver* type as it “assumes that individual performances of a practice play a key role in both reproducing and altering a given practice through variation in its enactment” (Lounsbury & Crumley, 2007, p.997).

Barriers to innovation

In addressing the barriers to *the improver* type of innovation, two main themes were expressed throughout the interviews. Firstly, having a restricted view of how they defined innovation was suggested to hinder *improver* innovation. This was strongly exemplified in two cases. In one example an interviewee told of how he had attempted to stimulate *improver* style innovation within his team of workers who, due to their restricted perspective of innovation as being just invention, had not looked at ways to improve their methods of working. The second case was an example of the interviewee himself not spotting opportunities for innovation. He was currently trying to adapt processes to a new project, but referred throughout the interview to the fact that he could not ‘do innovation’, once again due to his restricted view of innovation as simply coming up with new designs. Such a problem was acknowledged by Madeline, who said:

“People may not necessarily see the opportunities they have. And if they don’t see that they will focus more on the fact that they can’t innovate.”

A second barrier thought to hinder the *improver* type was that of structural changes within the organization, specifically change in management and the rapid growth and expansion into new markets. This creates a notable paradox similar to the one identified for the *inventor* type regarding one’s personal agenda. Here change similarly acts as both a purpose for innovation and also a barrier to it. This falls in line with the view that “structural variables are the primary determinants of organizational innovation” (Wolfe, 1994, p.409). Specifically the interviewees suggested that these changes negatively affect the flexibility and responsive nature of a company (fluidity); the coherence of ‘innovative parts’ working

The four ideal types of Innovation - providing order to the chaos |

together (integrity); and the organizations ability to motivate innovation (energy) (Bodewes, 2002).

The sceptic

Perspective on what innovation is:

Whereas the previous two types have clear perspectives on innovation, its purpose and its potential barriers *the sceptic* type takes an alternative line of thought. Here the importance of the term and use of the innovation discourse is questioned.

Some individuals demonstrated scepticism to the notion of innovation as being a viable concept and therefore questioned its effectiveness as a term within the organization. Innovation was understood in terms of it being merely a management message rather than a concept in which people could practically work with. Innovation was product of populist management literature which resulted in its wide spread talk, however did little to produce results for the company as whole:

“It’s one of those words, well when there are ten management books written in half a year about innovation then suddenly everyone feels the urge to talk about it but it can still be around both before and after and I think it has been around and will be around if you don’t stop it and I think it is hard to stop it. It is there” (Mark).

Others displayed moments of scepticism about innovation by describing it as a “buzzword”. Another individual outlined that others were confused as to the definition of innovation in the organization and therefore it was ineffective as a term in framing discussion and to focus on in meetings. This type strongly opposes the vast majority of existing theory which tends to share the notion that innovation is beneficial and ‘good’ (Mckeown, 2008).

The purpose and barriers of innovation:

Although some participants felt innovation was a widely banded around term or “buzzword” others felt that the requirement for innovation was implicit in their job role and tasks. In other words people viewed the use of the term innovation as stating the obvious due to the fact that the generation of ideas or improving work practises was part of their normal job

expectations and routine and therefore framing these requirements through the word innovation had little effect:

"We don't have to use the terms always. I mean, it should be understood. It's an attribute, it's a trait, right, but if people are bringing up ideas and all that...means that they are innovative. We don't have to point out that this is innovation" (Derek).

However, part of the implicit and expected nature of innovation within DevComp could be argued to originate from its strong presence in the company 'directives':

"One of the company directives was to be innovative, passionate, innovative and responsive to the customer. That has been there since the start of this company. So in a way it is expected" (Derek).

In addition, it is suggested that the explicit use of the word also originates from external customer influence:

"It [innovation] is started to be talked about when we have feedback from the market, from the customers that we were lacking innovation here so, and also a company on a downside it is sort of natural you start to think in those terms, we need to be more innovative, we need to change, we need to do stuff. How do we start this? But basically I think we as people working in the company we haven't changed that much" (Mark).

This cultural understanding within DevComp is argued to remove the need for innovation to be expressed explicitly by those at ground level. These views although not outwardly sceptical towards innovation can be read that 'talking innovation' would do little to change the performance or attitude towards individuals work.

Thus *the sceptic* type sees the use of the word innovation as rhetoric device aimed at customers or a reactive message aimed at employees, both of which lack any real substance. From a customer focus being seen as being innovative is viewed as the primary function of the discourse. This view has been touched upon theoretically with some researchers distinguishing innovation as "the perception of newness" (Slappendel, 1996, p.107) but remains to be fully explored. This suggests that *the sceptic* views innovation as somewhat dictated by external market expectations and that the innovation concept is more of a PR and image tool than a genuine practise of work. Mark put forward this viewpoint:

“We are most sensitive to that word [innovation], when it comes from the customer...It is actually what they see and I mean a consumer can feel, and they are allowed to feel it as well of course, that a [product] that looks nice is innovative, just because it looks nice. And if we have missed that, then we will be perceived as less innovative. I mean, when we were at some point perceived as innovative we were not really doing anything different two years before that, either. It was just that we were lucky to pick out a couple of things ...that just happened to be ready for mass market.”

From a more internal focus *the sceptic* type views innovation as a corporate, reactive message that lacks real meaning. As Mark further expressed:

“It is a buzz word in the sense it is something that management like to talk about, we need to be more innovative and so on and probably a company in a crisis situation will talk allot about that, we need to be innovative whereas it has basically been proven in last couple of year, this is not necessarily the case but I think for me it is not something I get in the back of my head all the time because management tells me you need to be innovative.”

As the meaning and purpose of innovation were called questioned by *the sceptic* the barriers to innovation were not explicitly communicated. Instead, as already discussed, the internal use of the innovation discourse was viewed in itself, due to its perceived lack of meaning and influence on behaviour, as a barrier to organizational effectiveness.

The two levels of fragmentation

As briefly mentioned previously, two levels of fragmentation regarding the interpretation of the word innovation were made apparent: a) externally across the interviewees; and b) internally within individuals. The nature of these will now be examined further.

Externally – across the interviewees

First of all, and most obviously, a fragmentation regarding contrasting interpretations of innovation occurred across the interviewees. Essentially, different individuals had different perceptions of innovation compared to those of other fellow DevComp workers. These differences occurred across the ideal types in terms of how individuals viewed: *what* is innovation (perspective); *why* is innovation (purpose); and *how* is innovation (barriers).

Interestingly, the majority of interviewees expressed a reflective awareness of this external fragmentation by accepting that the word was understood differently across the organization. This is simply exemplified here:

“[Innovation] means different things to different people” (Rupert).

“[Innovation:] it is very case to case based and it’s very much individual based for me” (Madeline).

Ultimately this suggests that the wide use of the innovation discourse lacks a unified meaning and cohesion in its use. This fragmentation suggests that different workers apply the various different notions of innovation in contrasting ways. Thus, for a company such as DevComp, an organization where innovation is part of its values and a term which is widely used, the effects of pushing the discourse and promoting the concept could have unpredictable results when it comes to its effects on employee behaviour.

Internally – within individuals

Fragmentation was also apparent within individuals themselves who displayed fragmented views when talking about innovation. Perhaps most interestingly this was apparent in some individuals who displayed fairly strong and clearly defined views on innovation but went on to adopt a mix of elements from the ideal types: the uncertain, the inventor, the improver and the sceptic. Thus contradictions and incoherency occurred within individuals across how innovation was defined, its purposes and its barriers.

It was clear that interviewees displayed these fragmented views when framing innovation against different contexts, particularly their personal context (how they saw innovation in relation to their job), and an organizational context (how they saw innovation in relation to DevComp). This supports the theoretical stance that the way innovation is viewed is *context-dependent* (Tidd & Bessant, 2001).

This internal fragmentation is apparent to varying degrees across the majority of interviews. Here one example of internal fragmentation is outlined. Derek, a Technical Designer, displayed little uncertainty in defining innovation by adopting *the improver* perspective that innovation was changing the way of working:

“[Innovation] means, if one is doing something which is a day to day, routine works or process, a small change in that is an innovation. A different way of working or a different approach towards a problem, that’s innovation.”

Much of his interview centred on a personal context of the need to meet deadlines, customer expectations and requirements, and therefore approaching problems in different way was in keeping with his need to work efficiently. However, in contrast, when he switched to an organizational context, that of meeting customer requirements, he referred to an *inventor* type of innovation, and specifically the purpose associated with this perspective. In this instance innovation was the ability to come up with ideas which were new and different to the end users:

“When the product is [in the] market and the user sees it, he sees the simple design but in the next project or the next product he sees something advanced. So that’s innovation....it’s the industry where lots of youngsters of the teenagers are the, uh, between 15 and, uh, 40, 45 age people. I mean, say they keep changing DevComp products, right? So it is their industry. And as a product company we need to keep track of what these people expect and keep innovating in order to, in order to do things based on that.”

This contradiction continues when he refers to barriers to innovation, which he again frames from an *inventor* perspective rather than his initial strong *improver* standpoint. Here he states that lack of resources inhibit the implementation of new design ideas:

“I mean that maybe you suggest an idea but we don’t have many resources to implement it, that’s the one hindrance.”

The example given highlights again the difficulty of pinning down innovation into an easily definable term but also how its ambiguity transpires within individuals expected to be innovative. The often loose nature in which participants talk about innovation depending on the context further shows the fragmentation and messiness of innovation as a concept. It is apparent that individuals draw upon different aspects of what innovation can mean depending on the context in which they are referring to. The fluidity of meaning is clear and is evidently present, perhaps unsurprisingly, as interviewees were placed in a situation where they were asked to speak about an ambiguous term in a variety of ways.

Ultimately, the fragmented and unstable nature of innovation suggests a startling new notion that current literature and popular lines of thought fail to acknowledge, namely that innovation is inherently difficult to manage. This notion, which is discussed in more detail in the conclusion, questions the wide spread assumption which dominates the vast majority of research that innovation in organizations can be controlled. Rather than falling into the trap of focusing on the necessity to manage innovation this study demonstrates that an attempt to control behaviour in relation to the concept is a highly problematic task, made evident by its internal and external fragmented nature across its interpretation, its purpose and its perceived barriers. Further implications for research and the subsequent practical use of the innovation discourse will be discussed in the conclusion.

6. Discussion – an identity led perspective on sensemaking

The previously presented and analyzed material has shown and explored the multiple interpretations of innovation that the interviewees have. This thesis however aims to look beneath this obvious layer of fragmentation by exploring the process of individual sensemaking that ultimately lies behind, and determines, the various 'ideal types' of innovation innovators. As acknowledged in more detail later in the discussion, an individual's identity, specifically in terms of how one view themselves in an organizational context, is argued to be an integral cog in the sensemaking process.

Thus the influence of identity, an area yet to be touched upon in innovation research, will be explored in an attempt to scratch below the surface in order to gain a deeper understanding of the individual sensemaking of the innovation discourse; to further acknowledge and provide reasoning for the complex and ambiguous nature of the innovation concept; and to justify the external and internal fragmented nature of interpretations that occurred. Ultimately, in simple terms, this exploration into the interviewees' various work identities aims to uncover the origins, or causes, of the diverse interpretations of innovation as outlined in chapter 5.

On Identity

Researchers have widely explored the concept of identity, unsurprisingly resulting in a variety of attempts to describe the concept. It could be argued to be an attempt to "create a version of yourself in order to understand yourself" (Alvesson, 2004, p.190), as well as creating a sense of distinctiveness, coherence and continuity by posing the question 'who am I?' (Albert et al., 2000). However, as will be further discussed now, implications uncovered when exploring such a question are more far-reaching than one initially could presume.

Factors such as professional experience and education have been shown to affect and shape a person's interpretation and experience of social phenomena (Ashforth & Mael, 1989; Hogg & Terry, 2000). However, how one understands such phenomena and what guides "a person's feelings, thinking, and valuing in a particular direction" (Alvesson, 2004, p.189) is said to be a person's identity. Albert, Ashforth & Dutton (2000) views

organizational identity as a definition of the self by an individual through which meaning and connection to a formal institution is provided. Alvesson & Willmott (2002) argue further that such meanings and connections are built up through constant, although unconscious, identity work in which identity constructions are formed, repaired, maintained, strengthened and revised. Similarly, Sveningsson & Larsson (2006, p.206) suggest that “identities are temporary and processual constructions that are regularly constituted, negotiated and reproduced in various social interactions”. Moreover, as individual identity is also influenced by the identities of the organization and work-groups to which individuals belong (Ashforth & Mael, 1989; Hogg & Terry, 2000), the necessity, importance and centrality of identity in organizational life becomes self-apparent.

On the other hand it has also been shown that identity can be used as means to achieve indirect employee control. Alvesson & Willmott (2002, p.624) argue that organizations intervene to shape and construct individual’s identities through identity construction and thus the “production of subjectivity” in order to establish an anchoring point for managerial control. Accordingly, it is thought that an individual’s identity can be moulded to be “more ‘adaptable’” and controllable. However, it is also recognized that identity cannot be totally controlled (Alvesson, 2004) and that any efforts to do so can “bring along signs or messages that can trigger suspicion [and] resistance” (Alvesson & Willmott, 1992). Thus deliberate identity construction must be approached with caution as erosion of trust, insecurity and anxiety can be one of the consequences of a faltered identity (Collinson, 2003).

In summary, in an attempt to formulate an easily understandable interpretation, identity can be seen as a ‘construction of self’ by an individual, one that provides meaning and solace by positioning a self view in relation to an organization, social group, or a desired perception of self.

Identity, sensemaking and understanding – an interpretation trichotomy

In relation to our empirical material, the individual sensemaking of innovation that spans across the four ideal types – the uncertain, the improver, the inventor, and the sceptic – is argued to originate deeper than factors such as individual education, job experience or job roles. Here it is argued that the various interpretations of innovation displayed by the interviewees is attributed to their individual sensemaking which in turn influences, and is

influenced by, their organizational identities. Thus an identity-centred perspective in the assessment of the empirical material has been adopted. This was achieved by specifically examining the interviews in a number of different ways, including: the common referrals to the way work was conducted by individuals in DevComp (spoken of as *the way we work*); the common referral of colleagues (spoken of as *them* and *they*); and through how interviewees position themselves in relation to the innovation (such as *the ideal types*).

The topic of sensemaking in organizations has received wide theoretical attention. Describing sensemaking, Weick (1993, p.635) sees it as an “accomplishment that emerges from efforts to create order and make retrospective sense of what occurs”. Importantly sensemaking is said to be “grounded in identity construction, meaning that a primary purpose behind finding meaning, or sense, is to create identities for oneself and for others” (Seligman, 2006, p.111). Moreover, sensemaking is said to determine one’s meanings through shaping both an individual’s identity and their corresponding actions (Weick & Sutcliffe, 2005). Therefore it is established that sensemaking has an important position in the shaping of identity. However, such a situation is paradoxical in that whereas sensemaking shapes identity, identity is vital to providing understanding and meaning which sensemaking feeds off. Such a circular trichotomy, in which each constituent affects the next, can graphically be represented by the following figure:

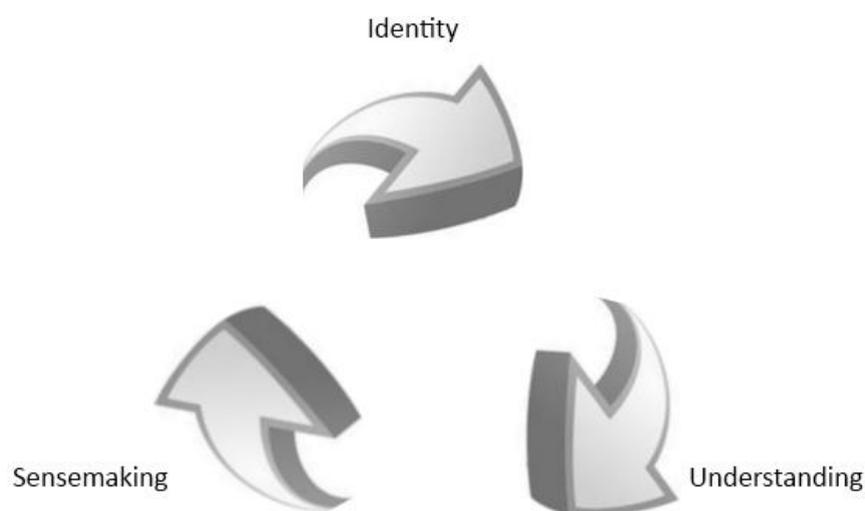


Figure 6-1: The interpretation trichotomy

Thus this study puts forward, and will discuss further, a key argument, that *identities are both influenced and influential in the individual sensemaking of innovation*. Therefore,

by exploring a range of different identities displayed by the interviewees, an attempt to unravel the origins or so called underlying 'causes' of their various fragmented interpretations can be made.

Exploring common identities

In our assessments we identified a number of different organizational identities, in terms of how the interviewees constructed versions of themselves in relation to their role at DevComp. Here metaphors have been adopted as means of describing these identities since metaphors challenge, inspire, and open up "interview situations and accounts" (Alvesson, 2003, p.31) to various readings and critical interpretations.

We suggest that these identities are constituents to the interpretation trichotomy behind the individuals' interpretation of innovation. In total we identified four identities that existed across our interviewees: (1) **I am a producer**; (2) **I am wise**; (3) **I am a problem solver**; and (4) **I am inquisitive**. We argue that each of these, admittedly rather loose and thematized, identities help shape and guide the individuals in their perception of themselves in individual and group behaviour, and have an ultimate impact to their interpretation of innovation.

To ascribe generalized types to a slippery, fluid and fragmented phenomena such as identity (Alvesson & Willmott, 2002; Alvesson & Sveningsson, 2003) can be a tricky path to tread, and we recognize that this approach is vulnerable to critical assessment. However, due to the near non-existent state of research into the area of identity and innovation we see this simplified attempt as a first step rather than a sophisticated effort to explore such an intrinsic relationship.

The four individual identities will now be discussed in relation to the sensemaking behind the ideal types of innovators that we previously elaborated upon (see Table 5-1: Outlining the fragmentation of innovation, p. 31).

I am a producer

We adopted the metaphor of a producer to describe the identity that was found to be prevalent in relation with *the inventor* innovator type. Here individuals constructed a version of themselves as being creators, or builders, of 'things' at work. Accordingly, this identity fuelled the individuals with a need to produce tangible results in the form of new

ideas or products, products that were interpreted as innovations. The sensemaking around innovation thus correlated with this identity by suggesting innovation was essentially the creative invention part of this production process.

Interestingly, the individuals who showed elements of this identity had in common predominantly a professional background that was for the major part limited to software engineering (development of software), although with vertical¹ movements throughout the organization. The construction of the 'I am a producer' identity thus could perhaps be attributed to two different variables, namely: a fairly narrow and pragmatic job specification, and a lack of professional experience in terms of having had a variety of horizontally² spanning functions, or job-roles. This is clearly empirically exemplified by the contrasting perspectives of innovation shown by individuals with the same job function. Whereas two interviewees who possessed both of the above variables identified themselves as producers, and thus saw innovation as invention, the exception drew on the alternative work identity, possibly due to his varied professional background and having had a variety of different work functions in the past.

I am a problem solver

We suggest that this identity was a mechanism to the sensemaking in *the improver* type of innovator. This work identity was evident in individuals who saw themselves as 'trouble shooters' or problem solvers for DevComp. This identity resulted in sensemaking of innovation rotating around different ways to use this perceived ability, ultimately through improving specific technical processes or general ways of working. Accordingly, innovation is seen as something intangible. The people that were noted to have such an identity did not work as software developers, rather, they had worked as, or with, software developers and had wider, less pragmatic job-roles, predominantly involving, or working in close relation with, project management. In their eyes innovation was seen as an improvement of a process according to which other people worked. Such modifications resulted in a *different way of working*, the saving of time and a more optimal transition from a state A to state B.

¹ Vertical movement means movement up-and-down the ladder in the same organization and field of work (i.e. a move from being a developer to becoming a senior developer).

² Horizontal movement means moving, or working, across different organizational units (i.e. a shift from working with software development to working with quality assurance).

Once again innovation was perceived as a core trait of their identity as most of their work was looked at from a lens of problems and how they should be solved.

Contrary to the producer, interviewees ascribed with the problem solver identity worked in different organizational units. They had had a more diverse breadth of job-roles which spanned horizontally across different organisational units, rather than being vertical shifts within the same organization. Furthermore, they had been in social contact with a more diverse span of professionals. We are however not claiming that this ultimately shaped their identity, but are suggesting it could have been active in influencing the subsequent understanding and sensemaking mechanisms eventually affecting this identity.

I am wise

Closely related to a prevalent 'I am a problem solver' identity was the identity type 'I am wise', which, like the previous identity, was also related to the sensemaking of *the improver*. This was touched upon in the analysis which observed that interviewees who leant towards *the improver* view also often acknowledged *the inventor* stance by making a clear and deliberate distinction between inventions and improving ways of working. This trend of purposely outlining the differences between the two types often resulted in the improver view being framed as having the more contemporary and 'enlightened' understanding of the word. Individual's thus saw themselves as astute for avoiding the traditional and 'more obvious' interpretation of innovation and subsequently tended to frame themselves as an 'enlightened' individual for taking this approach.

Although innovation was accepted to exist in various forms the 'wise' identity generally positioned individuals outside the consensus by often talking about their fellow employees' meaning of innovation. Moreover, an impression was that the identity recognized that company rhetoric related to innovation could, and did, affect other employees' interpretations of the phenomenon. Arguably, we could say that the identity type was marked by the will to explain, and express understanding of, innovation from multiple perspectives. The sensemaking factor was accordingly also seen to be the understanding that each job-role has its own view on, and interpretation of, innovation.

The causes to such an identity could be linked to socialization and networking within the company. With a past-experience that consisted of working horizontally across organizations and cooperating with colleagues vertically a broader understanding of the

various individuals' job-roles and their according interpretations of innovation seemed to have appeared. However, more importantly, their social environment and/or extensive experience could be seen to demand a certain degree of status, thus the identity 'I am wise', and framing their view of innovation as 'insightful' helps reaffirm their more prestigious rank.

Although it is suggested that the innovator's interpretation, thus sensemaking, was influenced by two identities, they appeared to be mutually exclusive. Generally speaking, while the 'I am a problem solver' identity seemed to shape the individual's own interpretation of innovation, the 'I am wise' seemed to shape the understanding behind the interpretations of innovation by other employees in a bid to position themselves as 'enlightened'.

I am inquisitive

The 'I am inquisitive' identity was linked to *the sceptic* innovator. Rather than being within the circle of innovation and taking, in some form, an active part in being innovative this identity constructed a version of themselves as being critical observers lingering on the outskirts, and hesitating to engage with, the innovation discourse. The sensemaking mechanism subsequently interpreted innovation as a product of popular literature, as a fad, and as a discourse that was 'pushed down' by top-management after which the attention tended to disappear. Accordingly, innovation, as a term, was critically questioned. Furthermore, 'I am Inquisitive' seemed almost as a shielding mechanism, one that kept the sceptic innovator on the outer rim of the innovation discourse, preventing the individual from becoming an active constituent in the discourse. This identity thus shaped an individual's view of themselves as an 'independent entity' that did not go with the flow by conforming to the view that innovation was of worth, but rather observed the flow, by inquisitively questioning the common consensus.

The causes to this identity can perhaps be attributed to previous extensive and profound project management and a line management experience where the individual had gained a deep understanding of the use of the innovation discourse by being exposed to various interpretations, and understandings, of individuals that concerned innovation. Moreover, being a senior-manager meant being more directly exposed to top-management messages, resulting in a clearer picture of the conveyed messages throughout the company,

a picture that may have ultimately shaped the identity to be more reflective, critical and independent, rather than being an active constituent to the innovation discourse.

Identity, sensemaking and fragmentation

The central argument that the way individuals construct themselves at work, through adopting the various identities, is integral for the sensemaking of innovation. Interestingly, this suggests an explanation for the two levels of fragmentation previously outlined.

In relation to the external fragmentation that occurred across individuals, it is acknowledged throughout identity theory that individuals possess their own personal identities (Alvesson, 2004). Thus an individual's sensemaking of innovation will depend upon an identity that can be invariably different to their co-workers. These differing personal identities coupled with the ambiguous nature of the term, which enables freedom for one's own identity to attribute meaning, ultimately resulted in a wide range of different sensemaking and interpretations throughout the interviews.

Furthermore, in relation to the internal fragmentation that was observed within individuals, it is acknowledged that identity is slippery, processual, and that people can possess multiple identities (Alvesson, 2004). Thus a conflict of internal sensemaking can occur resulting in contradictory and varied meanings being held by a single individual. This arguably, occurs in a number of the interviewees who throughout the interviews drew on different identities in their explanations. In the examples previously outlined, this internal fragmentation was said to occur when the interviewees referred to either an individual or organizational context of innovation. This could be elaborated on by suggesting that when interviewees talk in relation to different contexts they also draw on different identities.

7. Conclusion

A brief recap

This thesis has explored the phenomenon of innovation from an interpretive perspective. A deep understanding was sought after through an in-depth examination of semi-structured interviews with employees of an internationally renowned knowledge intensive firm. From the interviews common themes emerged and were discussed such as *what is innovation*, *why does innovation occur*, and *how does innovation manifest*. From this the interviewee's individual interpretations around³ innovation were observed. The obtained information made it possible for us to assess and analyze innovation from a broader perspective and explore the underlying factors behind the individual understandings, sensemaking, and eventual causes to why individuals interpret innovation discourse in the way they do.

This study consciously avoided the so called 'research trap' by being empirically led rather than plugging into and reaffirming existing theoretical notions. As has previously been discussed, a variety of interpretations exist as to what innovation is. Innovation is seen to be, among others, 'a new thing', 'new working practices', 'an entity that is developed and distributed' and a 'complex process that brings together various working contexts'. Although efforts exist to gain a more thorough understanding of these propositions of what innovation is (see Van de Ven & Rogers, 1988), surprisingly little research seeks to gain a deeper understanding of how innovation as a discourse is interpreted by individual actors. Our first step in gaining a deeper understanding acts accordingly like a drop of rain in a dry desert; a lot of rain needs to fall for the oasis to blossom, although the tiniest drop, to the delight of the dry sand, might precede the rain.

A reflexive approach was adopted that facilitated a variety of methodological angles through which we interpreted our material. We accepted the fact that individuals are different and that they as such have different interpretations of innovation. Moreover, a postmodernist view was adopted through the acknowledgment that interpretations of innovation could be shaped and affected during the interviews as language is fluid and is

³ All questions regarding innovation were indirectly covered, meaning that issues of interest were rather discussed than directly answered. Thus the focus was more *around* innovation rather than *directly referring to* innovation.

used to construct meaning (Alvesson & Sköldbberg, 2009). Furthermore, in an attempt to understand the origins of an individual's interpretations, we explored sensemaking which lies behind how individuals see innovation in relation to various organizational identities. Finally, we critically assessed what was expressed, trying to delayer the interpretations, look behind the surface and reveal complexities. In short, an attempt to open up and explore *Pandora's Box of Innovation* was made, a metaphor that we will now expand upon.

Pandora's Box of Innovation – exposing the treacherous nature of the discourse

In contrast to Greek mythology we did not unleash chaos, instead we *unmasked* common theoretical beliefs that surround innovation, exposing the use of the discourse as potentially treacherous for organizations. Specifically our study offers two main, and interlinking arguments in relation to the use of the innovation phenomena: firstly, that innovation is beyond control and thus cannot be managed in organizations; and subsequently, that the use of the innovation term in order to channel key messages to employees should be abandoned by management.

A common theoretical and popular literature standpoint that has dominated research in this area is that innovation can be managed, whether it is indirectly through the management of knowledge (Newell et al., 2002), or through the shaping and steering of innovation processes (Van de Ven & Rogers, 1988). Even theoretical models that take into account the complexity of innovation, namely the *process model*, presumes that it can still, to an extent, be managed. This study has challenged such beliefs by displaying the highly individual and fragmented nature of interpretation (both externally across individuals and internally within individuals) and acknowledging the temperamental and complex identity-led sensemaking process that determines these interpretations. Therefore we put forward the argument that innovation is inherently difficult to manage in contemporary organizations and thus can be seen as being *beyond control*.

It has been shown that individuals have different understandings and sensemaking mechanisms which produce varied interpretations of innovation. With such a variety of different interpretations, attempts to manage and foster innovation even through a wide-spread referral to, and talk of, the word is shaky, if not unwise. With the lack of a common organizational and shared understanding of *what innovation is* individuals might be further convinced that their interpretation of innovation is the right one, thus being further

motivated in their work. This however may be contrary to the original intention of the ‘managers’ of innovation whose aim is to bolster a common view. We have shown however, that a variety of individuals produce a plurality of interpretations. Thus it is possible that innovation discourse produces a multitude of effects due to varying individual interpretations, which may or may not drive innovation in the same direction. Trying to manage innovation through organizational discourse can be likened to the metaphor of an oarsman. Each oarsman strives to steer the boat in a desired direction, but due to the uncertain directions provided (i.e. the uncertainty of innovation discourse) different oarsmen interpret the instructions differently and row in various directions (i.e. fragmentation occurs). The ship, due to oarsmen’s lack of unity in interpretation, thus fails to reach its destination.

So, to what extent is it then possible to govern individual’s work behaviour in a collective, organizational, context through innovation rhetoric or discourse? Indisputably, certain organizations view themselves as being innovative – which is the case of DevComp. However, such views are also based on the end-customers interpretation of innovation: if a product is seen by customers as innovative, ultimately it is; a view shared by the interviewees. On the other hand, end-customers have little, if no, insight into the intricate complexities and underlying fragmentations in organizations. This is of interest to researchers of social science and it is where we believe that our research can provide some unmasking of commonly held views on innovation. Ultimately though the study puts forward a second, albeit radical, argument regarding the use of innovation discourse in organizations; specifically, due to its discussed treacherous, fragmented and uncertain nature, innovation as a term should be abandoned by management. Instead elements of the innovation discourse, which are desired by organizations, should be more explicitly communicated rather than cast under, and lost among, the blanket term of innovation.

Research implications

Importantly, our thesis also makes a number of strong recommendations for the future direction and approach of innovation research. “The Interpretive approach may hold considerable promise for providing useful understandings about the process of innovation” (Van de Ven & Rogers, 1988, p.637). In line with our thesis, we also suggest that the interpretive approach should be continued and that more focus on individual

interpretations should be further explored. Through a deeper analysis of such individual interpretations a broader picture can be obtained. By accepting and adopting a *lens of fragmentation* towards innovation, research could be steered in new directions, expanding on understanding the causes, which we have touched upon, prior to exploring innovation in a broader organizational context.

Additionally, the thesis has outlined and related four common identities to the fragmented interpretations and understandings of innovation and argued that individuals may sensemake by drawing upon these identities. This is evidently a void in innovation research which leaves room for further in-depth, interpretive and inductive studies to investigate (c.f. Van de Ven & Rogers, 1988). We therefore call for more research to explore how identities are formed in relation to their interpretation of innovation, in a step to fully grasp the underlying intricacies of how they shape the understandings of individuals.

Ultimately, in addition to a continued interpretive approach, and an acknowledgment of fragmentation in individual interpretation, this thesis strongly argues that a critical stance that questions the worth and use of innovation discourse within organizations should be more prevalent in future innovation research. Thus views put forth in current innovation literature to explain, understand and manage innovation should be re-examined.

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