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ROTTEN WITH PERFECTION?

AN EXPLORATION OF THE RHETORIC OF KNOWLEDGE IN KNOWLEDGE MANAGEMENT

by

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ABSTRACT

Knowledge management (KM) is a topic of interest to local and national organisations on the potential of 'knowledge'. In over a decade of theorising, the concept of knowledge as projected by theory seems to remain largely positive. My research probes these concepts of knowledge and asks if it was rhetoric that sustained these images of knowledge and, if so, what were the processes that enabled it to do so.

In this thesis, I critically examine several academic texts in KM theory and find out that the concept of knowledge in KM as portrayed by these texts is rhetorically perfect but potentially corrupted. Concepts of knowledge which have been ignored or omitted in KM become apparent in a unique method of rhetorical analysis which I have developed and called 'embedded cluster-agon' analysis. Based on this analysis, I propose that in the 'perfecting' of knowledge a 'dark side' has developed. In the KM theory analysed, this emerges as a pattern of assumptions that regards individuals as: resources to be exploited, pawns in organisational strategies, victims of unbalanced power relationships and anonymous nodes on networks. This hints at a possible lack of moral or ethical consideration in managing knowledge. Therefore, KM needs to be theorised with care.

INTRODUCTION

In 2003, New Zealand held a 'Knowledge wave conference' where knowledge management (KM) was the key focus and, for the period of the conference, the nation was exposed to the theories and practices espoused by those involved in the field of KM. One major outcome of the conference was a policy for growth and innovation, championed by the Prime Minister, which led to the creation of the 'creative industries' in New Zealand (Clark, 2002). The underlying premise of all this activity was the potential economic benefit of managing knowledge. This gave me the impetus to examine the field of KM.

At about the same time, my postgraduate research on leadership theory ended and the concept of knowledge was revealed to be closely associated to notions of leadership success (Teo-Dixon & Monin, 2007). I was intrigued by the eminent role 'knowledge' had in management predictions of the future (Drucker, 2001) and the promise it held for those who could manage it.

Consequently, I surveyed the field and research surrounding KM and found that it is a significant feature on the organisational landscape. Large sums of money, time, resources and manpower have been spent implementing systems and procedures, networks and learning communities. There are even designated 'knowledge managers' such as 'knowledge engineers' and 'knowledge officers' (Nonaka & Takeuchi, 1995). The English language has had to adapt to KM as well, with new terms such as 'knowledge industries', 'knowledge workers', 'knowledge intensive firms' appearing in dictionaries and newspapers.

There has been just as much activity on KM within the academic community. Publications on KM have steadily increased (Gu, 2004) and many theories

are posited about managing knowledge at local and national levels. To some, KM is the only way organisations can remain competitive (Davenport & Prusak, 1998; Liebowitz, 1999; Stewart, 2001). To others it is possibly another management fad (Ponzi & Koenig, 2002; Scarbrough & Swan, 2001; Spiegler, 2000). For all the fanfare it has generated, suspicions about KM still lurk beneath the hype. Two main reasons have been given for this scepticism.

Firstly, KM is a relatively new field (Shariq, 1997). It does not have any particular discipline from which it derives its boundaries, which implies that the discipline is still in the process of being established. As a result, many opposing epistemologies and perspectives exist within KM's literature (Hazlett, McAdam, & Gallagher, 2005) which raises questions about its viability and credibility.

Secondly, the concept of knowledge as a key component of KM is even more ambiguous than KM. There are multiple definitions and perceptions of what knowledge means and just as many approaches and theories for managing it. It can be a commodity as well as a concept, a noun as well as a verb, a skill as well as a process. The concept of knowledge is generally assumed to be a 'good thing' and highly prized by individuals and organisations. The concept of knowledge also seems to accommodate every approach that seeks to define it. As Alvesson and Kärreman (2001) have commented: 'something that captures everything is not necessarily very useful, theoretically nor practically' (p. 1014).

Nevertheless, the fascination with managing knowledge has not abated and I want to explore how the rhetoric surrounding the concept of knowledge in KM theory has been sustained. I am not suggesting that KM theory is invalid because it is rhetorical in the sense of being insubstantial. Rather I suspect there is an undercurrent of assumptions regarding the efficacy of

‘knowledge’ and I want to examine it further. In this regard, I expected a close reading of KM theory would help provide answers.

However, before I could analyse KM theory, I needed a methodology and method to approach the reading of texts. In the research on leadership theory, I found the work of Kenneth Burke to be particularly useful. In the field of rhetoric, his work stands out for two reasons. Firstly, his theories on rhetoric included the notion of ‘identification’ which expanded the traditional ideas associated with Classical Rhetoric. ‘Identification’ highlighted the response of the reader (in the case of texts) in the process of making texts meaningful, and not just the techniques applied by the writer or rhetor. He also outlined a method of textual analysis which Berthold (1976) expanded and developed to become ‘cluster-agon’ analysis. This form of analysis can be applied across texts consistently in order to draw out patterns of persuasion.

Another reason for selecting Burke was his theory of logology. The theory of logology says that language inherently reaches for ‘an ultimate’, a ‘god-term’ that covers every other category within its domain of meaning. If, as logology suggests, the nature of language is ‘a process of entitlement leading in the secular realm towards an over-all title of titles’ (Burke, 1961, p. 25), then an exploration of the rhetoric of knowledge in KM theory could be examined for its place in organisational discourse.

Berthold’s (1976) ‘cluster-agon’ method of analysis, however, assumed a prior understanding of a text and did not account for the initial encounter with a text. It also did not make provisions for reflexivity on the part of the reader. In order to overcome these limitations, I added the basics of ‘scriptive reading’, as established by Monin (2004). Her method observes three reading phases: dominant, critical and reflexive. The dominant phase summarises the

standard meaning of a text while the critical phase looks for underlying meaning. The reflexive phase then looks back on the other two phases, acknowledges and records the subjective process of interpretation in the reading of texts. I also expanded the 'cluster-agon' method of analysis, situated at the critical level of reading, to include meaning found in subtexts. As such, I labelled my method 'embedded cluster-agon' analysis.

Having established the methodology and a method of rhetorical analysis, I turned to selecting texts that represented mainstream KM theory. After exploring several academic journals that published on the topic of KM, I decided on the *Journal of Knowledge Management* as it was a peer-reviewed, well-established journal with a good track record in academic circles. The selection process narrowed down the number of articles to six over a period of 11 years by various authors from different backgrounds.

The research question that guided my analysis of the selected texts was: Does the rhetoric of knowledge in knowledge management theory posit a particular perspective of knowledge? If so, what are the rhetorical processes that enable it to do so?

There were three objectives that came out of this research question. Firstly, it was to find the rhetorical basis for the positive depiction of 'knowledge'. Secondly, it was to identify whether or not rhetorical processes have made the concept of knowledge a positive one and, thirdly, it was to uncover what has been left unsaid about the concept of knowledge in KM. To meet these objectives, I have laid out my thesis as follows.

Chapter one begins with a literature review of mainstream theory in KM. Two foundational theories of KM are emphasised in this chapter to show how current concepts of knowledge in KM have come about. The first

foundational theory is the resource-based theory of a firm that had its origins in economic theory. From this theory, the knowledge-based theory of the firm was developed which saw the concept of knowledge as an asset and resource being adopted and a reliance on technology for KM efforts. The other foundational theory was the concept of organisational knowledge. The theories that came out of this field of research focussed on the relational aspects of knowledge and the processes that led to collective knowledge. The notion of 'knowledge creation' and the possibility of 'new knowledge' being generated in and through organisations became a bestseller via Nonaka and Takeuchi's book (1995), *The knowledge-creating company*. The concept of communities of practice and the exploration of tacit knowledge also took shape in the bid to manage organisational knowledge. As theory was developed, critical perspectives were also offered alongside it. As these perspectives observe theory rather than generate more theory, I have distinguished them from mainstream theory to form another chapter.

Chapter two starts with an introduction to critical management studies (CMS) as it is a relatively unknown entity in the wider academic community. The place of CMS in relation to KM is important because the critical community from CMS have been active participants in the debate on knowledge in KM. There is quite a substantial body of research devoted to KM from this group and this chapter provides a review of their work. Chapter two also explains how I arrived at my research question and research objectives as stated above.

Chapter three shifts the spotlight to rhetoric and briefly introduces the tradition of classical rhetoric before describing the tenets of 'new rhetoric'. Burke's theory of logology and the notion of 'identification' are explained and I also trace the guiding principles of 'cluster-agon' analysis according to various authors.

Chapter four picks up from the previous chapter and expands on my method of 'embedded cluster-agon' analysis. This method of text analysis is unique in management studies and this thesis represents a pilot effort in this regard. Adaptation of the 'scriptive reading' process to form 'embedded cluster-agon' analysis is also explained and this chapter ends with the process and criteria that went into selecting the texts for analysis.

Chapter five puts into action the 'embedded cluster-agon' method of analysis. The six selected texts were ordered chronologically and the point of focus was the concept of knowledge as projected by the authors. Each text was subjected to three levels of readings which I have denoted as 'overview', 'critical' and 'reflexive' readings. The 'embedded cluster-agon' method of analysis took place at the critical level of reading and each of the clusters and agons that are formed were analysed before the reflexive reading took place.

Chapter six takes the findings from the above analyses and compares them again in chronological order but in terms of 'cluster-groups'. These 'cluster-groups' are formed from shared attributes found in the clusters from chapter five.

The recurring image of knowledge obtained from the analyses suggests that collective knowledge is a *rhetorical* goal of KM endeavours and that reified notions of knowledge have been theorised to exhaustion. The analyses also exposed aspects of knowledge that have been omitted or ignored. These 'omissions' revealed a pattern of assumptions regarding the individual in KM. These include the individual being seen as a resource to be exploited, a pawn in organisational strategies, a victim of unbalanced power relations and an anonymous node on networks. I propose that these 'omissions' reflect a suppressed fear of 'personal knowledge' because it lies outside the control of the organisation.

Chapter seven summarises the outcomes from the preceding chapters and comments on them from a logological perspective. Based on the findings, I search for the presence of a 'god-term' by considering three basic logological principles: perfection and order, identification and 'negative' theory. Two potential concepts or 'candidates' for the 'god-term' emerge from the discussion and they are the notions of 'collective knowledge' and 'wisdom'. I track the development of these concepts and find that their place on the knowledge hierarchy raises more questions that I can fully answer. Rather than force a conclusion, I acknowledge that there is still more to explore and the quest to find a 'god-term' cannot be reached within the scope of this thesis.

Moving from the 'god-term' to KM, I place the research outcomes in the wider body of KM literature and draw out the implications of the research to KM literature and comment in particular on the 'dark side' of KM theory.

In the conclusion, I reflect on the contributions of this thesis to 'new knowledge'; methodology and rhetoric and consider some future directions for research.

Chapter One

FOUNDING FATHERS & FAMILIAR FORMS: MAINSTREAM CONCEPTS OF KNOWLEDGE IN KNOWLEDGE MANAGEMENT

Introduction

The literature surrounding the topic of knowledge management, or KM as it is popularly known, can seem disjointed at a glance. Several authors have tried summarising the literature (Assudani, 2005; Martensson, 2000; Metaxiotis, Ergazakis, & Psarras, 2005; uit Beijerse, 1999) but after reading each review, there seems to be little agreement as to what constitutes the field of KM. There are, however, commonalities in the theories that underpin the study of KM. From my understanding, one set of theories stems from economic theory and the other from organisational studies.

According to Davenport and Prusak (1998), knowledge management (KM) is about what a firm 'collectively knows, how efficiently it uses what it knows, and how readily it acquires and uses new knowledge' (p. xxiv). The fundamental theory that underpins this definition is the resource-based theory of the firm (Kogut & Zander, 1992; Grant, 1996) as the theory posits the most efficient and effective ways to organise knowledge as a resource. The other important theory is organisational knowledge (Blackler, 1993; Tsoukas, 1996) and its associated theory of situated learning (Lave & Wenger, 1991). I consider these theories the foundations of mainstream theorising in KM. Thus, I will begin with the resource-based theory of the firm, explain its main tenets and examine its application in KM and then move on to the other theory based on organisational knowledge. In the

process, I will also pay attention to the concept of knowledge as projected by theorists in KM.

Resource-based theory of the firm

The resource-based theory of the firm is not a new theory in KM but an adapted one. According to Sveiby (2001), the resource-based theory was developed as a response to the traditional product-based one. It began with the economic theory of the firm which sought to justify the existence and consumption of a firm in society (Foss, 1996). Its main argument was that firms (or organisations) were best suited to use the resources of society because it was the most efficient and effective form of organisation. This theory of the firm focussed mainly on tangible, natural resources until Penrose (1995) proposed a more holistic view of a firm's assets to include capital and human resources. This theory came to be known as the resource-based theory of the firm.

Grant (1996) defines the resource-based view as one that perceives the firm as:

a unique bundle of idiosyncratic resources and capabilities where the primary task of management is to maximise value through the optimal deployment of existing resources and capabilities, while developing the firm's resources for the future (p. 110).

Building on the resource-based theory, Grant argued that a knowledge-based theory of the firm could treat knowledge as a resource which could then be deployed strategically. He explained that a firm existed primarily to produce goods and services because it can create conditions for the maximisation of resources. In other words, the firm (or the organisation) is primarily an *economic* institution (italics mine). Consequently, without the firm, knowledge cannot be integrated and made 'tradable'. Consequently, to manage knowledge as a resource, the focus should logically be on co-

ordination within the firm. Grant's theory has since become known as the knowledge-based theory of the firm.

One of the main tenets of the knowledge-based theory of the firm is, therefore, the co-ordination of knowledge within the firm. Kogut and Zander (1992) call it the 'central competitive dimension of what firms know how to do' (p. 382). In addition to co-ordinating knowledge effectively, Kogut and Zander state that firms can also 'create and transfer knowledge efficiently within an organisational context' (p. 384), which implies that knowledge is a source of innovation. They define knowledge as consisting of information (who knows what) and know-how (how to do something) and argue that the next logical step would be to build on this dynamic capability to create 'new' knowledge within the firm by 'recombining their current capabilities' (p. 383). They explain:

Because new ways of cooperating cannot be easily acquired, growth occurs by building on the social relationships that currently exist in a firm. What a firm has done before tends to predict what it can do in the future. In this sense, the cumulative knowledge of the firm provides options to expand in new but uncertain markets in the future (p. 383).

Therefore, the knowledge-based theory of the firm posits that since a firm can organise natural resources for economic benefit, it can similarly organise knowledge. When knowledge is well co-ordinated within the firm, innovation and competitive advantages for the firm can be generated through the collective knowledge that resides within the firm. This 'cumulative knowledge' is, thus, the key to creating new knowledge and opportunities for organisations.

It is not hard to see why the knowledge-based theory of the firm offered 'an enormously optimistic view of the future' (Harris, 2001, p. 23). With the promise of 'new' knowledge and potential economic advantages, the

knowledge-based perspective holds much promise for KM. Harris explains its allure:

The great virtue of the knowledge-based, post-industrial vision was its firm rejection of the economic law of diminishing returns, and its corollary – slowing productivity growth. A new piece of knowledge (a) could be applied an infinite number of times with no deterioration in its value due to repeated use, (b) was infinitely durable through both time and space and (c) could be stored at low to zero cost in the new digital mediums. This in turn led to entirely new visions of economic growth based on the creation of new knowledge and its applications (p. 23).

The theory, however, has its limits. Foss (1996), for example, highlights some of the assumptions in what he calls the ‘knowledge-based *approaches* to the theory of the firm’ (p. 470) rather than the knowledge-based theory of the firm. Firstly, he mentions the common perspective of ‘conceptualising firms as heterogeneous, knowledge-bearing entities’ (p. 470). Foss says that such a conceptualisation, influenced by theories of organisational knowledge, should not be simplistically applied to issues of economic organisation because its concerns are not economic (such as production) but relational. In addition, he notices that knowledge-based approaches tend to ignore the contractual nature of the firm as well as notions of ‘opportunism’ and ‘moral hazards’ which are addressed in most economic theories of the firm but not in KM. He also criticises the generalisations made by Kogut and Zander (1992) about knowledge and how to organise it as being too optimistic.

Nevertheless, the influence of the knowledge-based theory of the firm is evident in KM writing. One of the major outcomes was the view of knowledge as a tangible resource. For example, in one of the early definitions of KM from Wiig (1997), KM is defined as:

the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximise an enterprise’s knowledge-

related effectiveness and returns from its knowledge assets and to renew them constantly (p. 8).

From this definition, it is apparent that the firm is the focus of analysis as suggested by the knowledge-based theory of the firm. Knowledge is also assumed to be a physical resource that can be systematically and deliberately managed. What is more interesting is the notion of 'knowledge assets' introduced by Wiig. It implies that knowledge is more than just another resource but an asset with long-term value. This is a perception of knowledge that is prevalent in KM and I will highlight it along the way.

Knowledge Management Systems

As seen from Wiig's definition of KM, the knowledge-based perspective led to a conceptualisation of knowledge as a physical resource. It implied that knowledge was a concrete entity that could be managed, much like capital or equipment. In the table below that was published as the ontology for KM, the influence of 'knowledge as a resource' comes across strongly in the use of the term 'knowledge manipulation'. It implies that knowledge can be moved around, broken apart and put together again in a different form for different purposes. Other terms used by Holsapple and Joshi (2004), such as 'knowledge warehouse' or 'knowledge flows' (see Table 1), again emphasise how quickly the concept of knowledge was reified once it had been labelled a resource.

Table 1: Examples of technologies that support KM.

Aspects of knowledge manipulation activities	KM technologies for knowledge manipulation
Acquisition / selection	Knowledge identification tools (e.g. search technologies, intelligent agents), knowledge capturing tools (e.g. retrieval technologies), knowledge

	organisation tools (e.g. knowledge visualization tools)
Assimilation	Tools that help in knowledge storage (by creating knowledge warehouses), capture organisational expertise (e.g. in the form of expert systems or case bases), aid in the assimilation process (through computer-based training)
Generation	Data mining, decision support systems; expert systems, executive information systems, modelling
Knowledge flows	Messaging systems (such as email), knowledge exchange (chat-rooms, electronic bulletin boards, video conferencing)

Source: Adapted from Holsapple & Joshi, 2004, p. 610.

The above table also exemplifies the technologies that were promoted to support KM in an organisation. As Grant's theory of the firm indicated, managing knowledge required co-ordination within the organisation. As a result, mechanisms within the organisation that helped co-ordinate processes were called upon to manage this 'new' resource. It has been pointed out these technologies were essentially existing tools that were 'renamed' for KM purposes (McKinlay, 2002). However, it created a dependence on technology to drive KM initiatives because it provided concrete outcomes. Stewart (2001) lists a few of the KM initiatives that have become well-known and they indicate the reliance on technology for KM:

Anderson set up its Knowledge Xchange; Booz Allen & Hamilton developed KOL - Knowledge On-Line; Ernst & Young created a Center for Business Knowledge; KPMG Peat Marwick a Knowledge Manager [and] Price Waterhouse something called Knowledge View (p. 112).

In addition to technology, models, flowcharts and other sequential-type representations of managing knowledge were produced. Alavi and Leidner (2001) term this array of technological methods as 'Knowledge Management Systems (KMS)'. Knowledge Management Systems are 'IT-based systems developed to support and enhance the organisational processes of

knowledge creation, storage/retrieval, transfer and application' (p. 172). It is important to note that KMS was not meant to be KM but to support KM. Alavi and Leidner also point this out when they acknowledge that not all KM initiatives involve implementation of IT, although most initiatives rely on IT as an enabler. However, surveys suggest that the connection between technology and KM is still very strong (McCullough, Oliver, Symonds, & Brown, 2004).

Explicit knowledge

The presence of 'Knowledge Management Systems' also meant that what constituted 'knowledge' had to be defined and the reliance on technology meant that the concept of knowledge had to be defined in very explicit terms. For example, the word 'data' was borrowed from work in artificial intelligence (Fowler, 2000) and it was defined as 'known fact'. Information was considered analysed data, and knowledge was a combination of information, context, and experience (Harris, 1996). Zack (1999) defined data as observation or facts, with information as data in a meaningful context, and knowledge as 'meaningfully organised accumulation of information' (p. 45).

The relationship between data, information and knowledge according to the definitions above is an accumulative one. Data is seen as a basic building block on which information is gathered which then becomes knowledge. This sequential and explicit understanding of knowledge became the norm as exemplified in the following definitions supplied by Shin, Holden and Schmidt (2001):

Dretske (1999) regards knowledge as a production that is made from raw material and information. Greenwood (1998) suggests that information is raw material and knowledge is information, which is valuable for a specific organisation. Kock and McQueen (1998) regard data as carrier of information and knowledge, information as relating to descriptive and

historical fact, and knowledge as new or modified insight or predictive understanding. Knapp (1997) defines information as raw material and knowledge as selected useful information for certain jobs. Vance (1997) suggests that knowledge is authenticated information and information is interpreted data. Bohn (1994) suggests that knowledge is something that prescribes what to do (e.g., prediction), information is organized or structured data, and data is raw material. Kogut and Zander (1992) define information as factual statement and knowledge as a statement of how to do (e.g., recipe). (p. 336)

From this sequential and explicit understanding of knowledge, a knowledge hierarchy was formed where data is understood to be the basic building block, followed by information and knowledge (Tuomi, 1999). This hierarchy develops further but I will return to this concept after the review on tacit knowledge as the hierarchy includes elements of explicit and tacit knowledge.

As many of the early initiatives were driven by technology, KM was soon criticised for its emphasis on technology at the expense of other organisational concerns (Fahey & Prusak, 1998). For instance, the IT approach of narrowly defining knowledge as 'data' and 'information' was seen to create more problems than it solved. Thus, there was a need to address KM beyond technological methods and systems.

In addition, Cohen (1998) showed how IT and explicit definitions of knowledge did not necessarily produce long term results as they focussed only on 'near-term economic returns' (p. 23). Ruggles (1998) also concluded from a survey he conducted that although many organisations start with the implementation of a technological capability, the focus on IT neglected the 'people aspect' of knowledge. He concluded that:

if the people issues do not arise, the effort underway is probably not knowledge management. If technology solves your problem, yours was not a knowledge problem (p. 88).

However, it must be noted that the IT approach is in no way discredited because of its limitations. Current models of how technology can facilitate KM in that they consider the different dimensions of knowledge as well as the social interaction in collecting and sharing knowledge. For instance, Stenmark (2002) writes:

When facilitating KM initiatives, information technology environments such as intranets may be utilised to establish a virtual meeting place where communities of practice can engage in dialogue and collaboration. Actions such as information creation, information seeking, and information interpretation can successfully be performed in these environments. To facilitate this, intranets must be designed to support not only the informational aspects but also include people by making salient networks of users with similar interests and allow these to communicate and collaborate (p. 9).

Thus, rather than dismissing technology or arguing about the outcomes, Stenmark suggests that the needs of an organisation should drive the use of technology.

In summary, the knowledge-based theory of the firm, following the resource-based theory of the firm, has had a fundamental influence on KM. Its view of knowledge as a physical resource and its belief that the organisation is the best vehicle to manage such a resource is evident in the literature of KM. In the next section, the theory of organisational knowledge will be reviewed as it has also influenced KM in many ways. As Foss (1996) has already pointed out, theories on organisational knowledge focus on the relational, social aspects of organisations.

Organisational knowledge

As we saw earlier, cumulative knowledge (Kogut & Zander, 1992) is an important part of KM. This accumulated knowledge is said to be a 'synergistic advantage not replicable in the marketplace' (Brown & Duguid, 1998, p. 90). The notion that 'knowledge' can be accumulated shows its links

to concrete concepts of knowledge and, from what Brown and Duguid say of it, collective knowledge is highly desirable to organisations because of the advantage it can bring to organisations. Hence, theories of organisational knowledge were added to mainstream theorising in KM.

According to Tsoukas and Vladimirou (2001), organisational knowledge is:

the capability members of an organisation have developed to draw distinctions in the process of carrying out their work, in particular concrete contexts, by enacting sets of generalisations (propositional statements) whose application depends on historically evolved collective understandings and experiences (*original italics*, p. 983).

In other words, the systems and processes within an organisation provide a framework for organisational knowledge to develop out of the interaction of individuals. The fundamental premise of this theory is that organisational knowledge is 'real' and distinct from individual knowledge. Or, in the words of Foss (1996), the theory is about conceptualising organisations as 'heterogeneous, knowledge-bearing entities' (p. 470).

In an earlier paper, Tsoukas (1996) showed how an organisation was a distributed knowledge system by highlighting the lack of an overall 'mind' in an organisation. In his perspective, knowledge residing within an individual was developed in response to the organisation and that knowledge when it turned into explicit knowledge became part of the collective knowledge. By delineating the individual and organisational aspects of knowledge, their interaction was hence more apparent. Following that paper, Tsoukas with Vladimirou, then elaborated on what organisational knowledge constituted. They began with the understanding that knowledge is both personal (citing Polanyi, 1962) and collective (Wittgenstein, 1958). Referring to a case study of a mobile telecommunications call centre in Greece, they showed how knowledge was

‘the individual capacity to draw distinctions, with a domain of action, based on an appreciation of context, or theory, or both’ (p. 976). Likewise, they suggested that organisational knowledge was the capacity of its members to enact generalisations whose application depends on ‘historically evolved collective understandings’ (p. 976). The implication for knowledge management was to make personal and organisational knowledge reflective by ‘elucidating the rules guiding the activities of practice, by helping give a particular shape to collective understandings, and by facilitating the emergence of heuristic knowledge’ (Tsoukas & Vladimirou, 2001, p. 973). In other words, the effectiveness of KM in an organisation involved making unreflective *activities* into reflective *practices*. Their conclusion was that knowledge originated in the individual but organisational knowledge is ultimately collective (Wittgenstein, 1958) and ‘real’. Hence the generation of organisational knowledge is ‘inevitably heavily social in nature’ (Brown & Duguid, 1998, p. 91) but it can be managed.

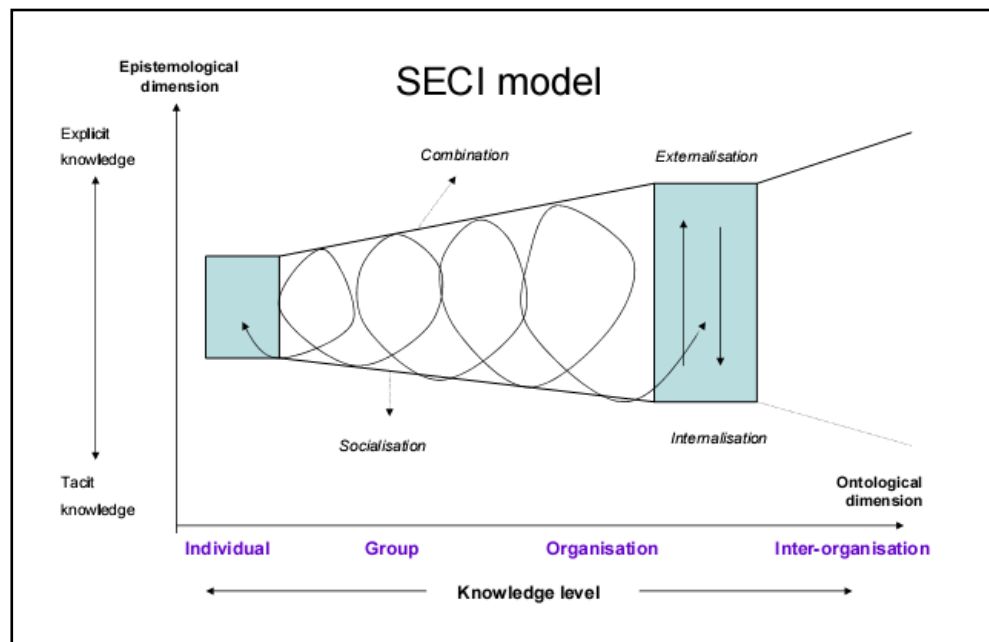
Based on a theory of organisational knowledge, KM could be seen as an active process where people could contribute knowledge and collectively create ‘new’ knowledge (Blackler, 1993). The potential of such a theory to organisations looking for ways to enhance profit could not be overlooked. As a result, when this potential was popularised by Nonaka and Takeuchi (1995), interest in KM soared (Li & Gao, 2003).

Nonaka (1994) published his theory of knowledge creation in a journal, but it was in a book called *The knowledge-creating company: How Japanese companies create the dynamics of innovation* (1995) that the theory of organisational knowledge was popularised.

Theory of organisational knowledge creation

In this book, Nonaka and Takeuchi (1995) present their 'spiral of organisational knowledge creation' model (Figure 1) as a way for organisations to continually create knowledge.

Figure 1: Spiral of organisational knowledge creation (SECI) model.



Source: Adapted from Nonaka & Takeuchi, 1995, p. 73.

The theory states that organisations can help to trigger shifts between four different modes of knowledge creation (socialisation, externalisation, combination and internalisation, or SECI), which then lead to innovation. For example, socialisation can begin with a team which facilitates sharing of experience and perspectives. Externalisation can then be triggered through meaningful dialogue where members can articulate their own perspectives with the help of metaphors. Nonaka and Takeuchi suggest that the sophisticated use of metaphors can help 'reveal hidden tacit knowledge that is otherwise hard to communicate' (1995, p. 20). From here, co-ordination

between team members and documentation of existing knowledge produce the 'combination mode'. Finally, through experimentation and other forms of action, participants internalise their learning. As the process is repeated and expanded, knowledge is mobilized in the form of a spiral which can become larger and faster as more people are involved.

Thus, organisational knowledge creation can be viewed as an upward spiral process, starting at the individual level moving up to the collective (group) level, and then to the organisational level, sometimes reaching out to the inter-organisational level (p. 20).

Reflecting on this theory, it would seem that the spiral process is much like a hierarchy. Individual knowledge forms the basis for collective knowledge which then becomes organisational and inter-organisational knowledge. As it spirals *upwards*, the suggestion is that knowledge at the 'higher' levels is superior to the initial levels. According to Cook and Brown (1999), such a move privileges one form of knowledge over another. They argue instead that different forms of knowledge (individual, group, tacit, explicit) should be treated as distinct and co-equals. Like the knowledge hierarchy created by defining knowledge as data and information, there seem to be tendencies to not only differentiate one type of knowledge from another, but also to rank the different types of knowledge in ascending order.

The theory of organisational knowledge is, in summary, based on two main points. The first is that organisations have knowledge that is particular to the organisation in the same way that an individual has a sum of knowledge unique to that individual. Secondly, that collective knowledge is the result of the systemic nature of the organisation. Hence, to manage knowledge in the organisation would require managing the systems within it. It is at this point that the knowledge-based theories of the firm as well as the theory of organisational knowledge converge. Nonaka and Takeuchi were, essentially, saying what Kogut and Zander (1992) had already said about the

‘combinative capabilities’ of firms to generate new applications from existing knowledge.

The application of these theories, however, differs. Technology and other IT based systems of managing knowledge came out of the resource-based view of knowledge. From the theories of organisational knowledge came the concept of ‘communities of practice’.

Communities of Practice

The concept of ‘communities of practice’ (Lave & Wenger, 1991) was derived from theories of situated learning. It was a concept that quickly gained currency with practitioners and academics as noted by Swan, Scarbrough & Robertson (2002):

The notion of ‘community of practice’ has achieved prominence in the context of wider debates on knowledge, learning and innovation in organisations. It has played a crucial role in highlighting the extent to which knowledge and learning are situated in work practices and has provided an important counterpoint to alternative views focussing more narrowly on cognition (pp. 477-478).

Communities of practice are, in essence, groups of individuals focussed on shared goals and expected outcomes (Lave & Wenger, 1991). These communities differ from project teams in that they can emerge spontaneously from networks or join up with other groups with similar interests (Swan et.al., 2002). These communities could also be applied across organisations.

From a practitioner perspective, the notion of communities of practice (CoP) is particularly appealing because it allows a manager to conceptually manage the ambiguity of knowledge. For example, in IntelligentKM.com, the basic concept of a CoP was described as:

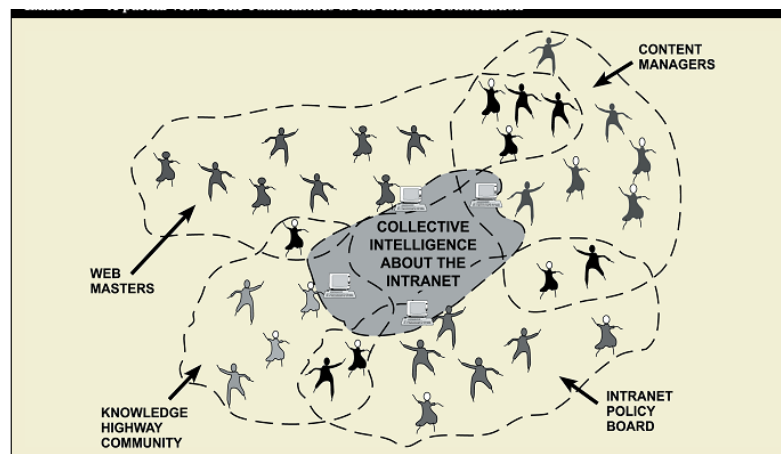
A self-organising social entity engaged in a joint enterprise in which the members develop a shared repertoire of communal resources (routines, vocabulary and so on) in the process of collaborating on a subject' (Harney, 2002, p. 53).

It went on to describe CoPs as voluntary, minimal in hierarchies, a place of 'intellectual osmosis' and other positive traits. In addition to promoting sharing of knowledge within an organisation, the concept was also extended to link relevant CoPs to a 'constellation of communities (CoCs)' (Wenger & Snyder, 2000). As Wenger (2000) argues:

Communities of practice are the basic building blocks of a social learning system because they are the social 'containers' of the competences that make up such a system. By participating in these communities, we define with each other what constitutes competence in a given context (p. 229).

Supported by technology, CoPs could easily be set up and connected to each other. In Figure 2, Ward (2000) illustrates this concept by showing how intranet managers could participate in CoPs and CoCs.

Figure 2: An illustration of communities in an intranet constellation.



Source: Ward, 2000, p. 8.

A system which encouraged individuals to create, store, distribute and apply knowledge, in a self-sustaining fashion, was surely a KM manager's utopia.

However, Wenger (2000) also warned that CoPs could be self-limiting in that communities could narrowly define what counted as legitimate knowledge. As he wryly noted: 'after all, witch-hunts were also community practices' (p. 230). Hence, to ensure that CoPs kept learning and sharing, Wenger recommends a balance where a view to deep learning in a specific area is linked to other parts of the system or organisation where the individual is 'a player in system-wide processes of knowledge production, exchange, and transformation' (Wenger, 2000, p. 243).

In the long run, Wenger predicted that informal systems would have dominance in an organisation because:

the primary source of value creation lies in informal processes, such as conversations, brainstorming, and pursuing ideas. Formal organisational designs and processes are still important, but they contribute to value creation to the extent that they are in the service of informal processes (p. 244).

Due to the informality of CoPs, Iverson and McPhee (2002) point out that managing CoPs from a managerial perspective of control would have to change. They recommend that, 'management must accept the understanding that CoPs engage participants, negotiate meanings, and share knowledge naturally' (p. 263). Therefore, one way to go about 'managing' CoPs is to 'nurture and support' them as one would with plants in a garden (Wenger & Snyder, 2000). In contrast, Buchel and Raub (2002) argue that structure and management guidance in the form of best practice and 'business opportunity networks' would derive more from CoPs and 'contribute directly to the bottom line' (p. 587), a concern that is never far from the managerial mind.

Although appealing, the concept of CoPs relies on the assumption that people will get involved in CoPs and that they will share knowledge freely. Other research has shown that sharing knowledge can be particularly difficult. For example, Szulanski (2003) coined the term 'sticky knowledge' to emphasise the barriers to sharing knowledge within a firm. In his use of the word 'sticky', it referred to both the 'characteristics of the transfer situation as well as those of the knowledge being transferred' (p. 13). In essence, Szulanski argued that just creating connections was not sufficient to successfully share knowledge; potential barriers had to be removed as well.

In the same vein, Argyris (2004) highlights the powerful 'defensive routines' within organisations that limit organisational knowledge. He contends that these 'defensive routines', such as cover-ups and self-protection, are so entrenched that questioning them could be 'dangerous and risky to the organisation as a whole' (p. 16). Yet, in order for an organisation to learn and continue to do so, both practitioners and researchers (or scholars as he calls them) have to deal with such mindsets.

Nevertheless, the concept of CoPs captures the general thinking around seeing knowledge as part of a social network. By enlarging the scope of KM to include the process of 'knowing' or learning, knowledge is not seen as merely an objective reality but is instead viewed as a social construct, developed, transmitted and maintained in social situations (Blackler, 1995; Tsoukas & Vladimirou, 2001). The influence of studies in organisational learning is also apparent in the concept of CoPs. Rather than just considering explicit models of knowledge transmission, the learning perspective emphasises the process of interaction between individuals and the role this plays in the creation, legitimating and dissemination of knowledge on an ongoing basis (Brown & Duguid, 1991). In other words, when knowledge is seen as a process of 'knowing', people became the focus. One significant

outcome of this expansion of knowledge beyond data and information is that the definition of knowledge moved from a focus on the explicit to the tacit.

Tacit knowledge

When Polanyi (1962) first introduced the concept of tacit knowledge, he called it 'the observance of a set of rules which are not known as such to the person following them ... the principle by which the cyclist keeps his balance is generally not known' (in Whitley, 2000, p. 49). Polanyi's work is considered seminal in that he created the basis of a new epistemology (Prosch, 1986 in Whitley, 2000) but, in terms of KM, it became a launch pad for all sorts of ideas about knowledge.

For example, tacit knowledge which began as 'knowing more than we can tell', became associated with the human, embodied forms of knowledge and, in doing so, combined many different forms of knowledge (Whitley, 2000).

Whitley calls it a term with 'conceptual flexibility' because:

things can be called tacit if they cannot be expressed; they can be tacit if they simply haven't been articulated and formalised; and embodied skills may also be considered as tacit. Sometimes this tacit knowledge seems to depend on situational factors, in others it can be specified in advance. Some forms of tacit knowledge can be taught by drill and patience, others can only be learned through socialisation (p. 3).

As we saw earlier, explicit knowledge is much easier to define and codify but it covered only a limited aspect of knowledge. Tacit knowledge, on the other hand, is associated with its 'behavioural expression' (Kreiner, 2002, p. 115) and hence expanded the boundaries of what had so far been defined. The need to further understand knowledge led to an interest in Polanyi's notion of 'tacit knowing'. The application of the concept was particularly useful as it was a point from which individual knowledge could be examined.

According to von Krogh (1998), tacit knowledge can be conceptualised as a product of the interaction between individual cognition and reality. Polanyi (1962) uses the example of the ability to notice problems to exemplify this interaction. In the noticing of problems, the problem does not yet exist but the ability to know that something is not the way it is supposed to be is where tacit knowledge comes into play. Whitley (2000) explains:

The noticing of problems involves tacit knowledge because many cases exist where the specification of the solution involves complex skills that are not possessed by the actor who first noticed the problems. Even if the noticing is done by someone who does possess the skills to also define the problem, these skills are rarely used to determine that a problem exists (p. 3).

When taken into the context of work, Wagner and Sternberg (1985) define tacit knowledge as:

Work-related practical knowledge learned informally through experience on the job. It is an intellectual and cognitive process that is neither expressed nor declared openly but rather implied or simply understood. It is intimately related to action such that it reflects knowing how as contrasted with knowing what. It is normally procedural in nature and acquired without direct instruction or help from others (p. 436).

An additional example of tacit knowledge being applied to managerial purposes can be seen in Brockmann and Anthony's (2002) view:

A working definition of tacit knowledge is the work-related practical know-how that is acquired through direct experience and instrumental in achieving goals important to the holder ... It can be associated with achieving strategic goals and objectives that are part of the larger organisational strategic plan (pp. 436-437).

These definitions were largely intuitive. To make tacit knowledge more explicit, Lam (2000) generated a taxonomy of knowledge using two dimensions of knowledge. Firstly, knowledge is divided into the epistemological (how we know) and ontological (what we know). Then four

types of knowledge (or taxonomies) are derived from whether the source of knowledge is individual or collective (Figure 4).

Table 2: Cognitive level, knowledge types.

Epistemological dimension	Explicit	Ontological dimension	
		Individual	Collective
	Tacit	Embrained knowledge	Encoded knowledge
		Embodied knowledge	Embedded knowledge

Source: Adapted from Lam, 2000, p. 491.

These four types of knowledge, explained briefly by Lam below (pp. 492-493), combine the explicit and tacit aspects of knowledge:

Embrained knowledge (individual-explicit) is dependent on the individual's conceptual skills and cognitive abilities. It is formal, abstract or theoretical knowledge. Scientific knowledge, which focusses on the rational 'understanding' and 'knowing' of universal principles or laws of nature, belongs to this category.

Embodied knowledge (individual-tacit) is action-oriented: it is the practical, individual type of knowledge on which Polanyi focussed ... Embodied knowledge builds upon 'bodily' or practical experience (doing). Embodied knowledge is also context-specific; it is 'particular knowledge' which becomes relevant in practice ... its generation cannot be separated from application.

Encoded knowledge (collective-explicit), sometimes referred to as 'information', is conveyed by signs and symbols. It is knowledge that has been codified and stored in blueprints, recipes, written rules and procedures. It tends to generate a unified and predictable pattern of behaviour and output in organisations.

Embedded knowledge is the collective form of tacit knowledge residing in organisational routines and shared norms. It is rooted in an organisation's 'communities-of-practice', a concept used to denote the socially constructed and interactive nature of learning. Embedded knowledge is relation-specific, contextual and dispersed. It is organic and dynamic: an emergent form of knowledge capable

of supporting complex patterns of interaction in the absence of written rules.

In spite of attempts to define tacit knowledge, its indeterminate nature made it difficult for managers to know what to do with it. Buchel and Raub (2002), for example, were putting it mildly when they remarked that CoPs and the tacit knowledge within those networks were 'more difficult to guide than traditional organisational forms' (p. 595).

Shultze and Stabell (2004) have also pointed out that because tacit knowledge is 'nonverbalised, or even nonverbalisable, intuitive, [and] unarticulated' (p. 550) it is, in essence, unmanageable. Alvesson and Karreman (2001) agree with this opinion and critique it even further.

In their analysis of KM, Alvesson and Karreman (2001) take to task the whole concept of knowledge management. They do this by unpacking and critiquing the writings in KM and argue that, firstly, the concept of knowledge in KM is 'inconsistent, vague, broad, two-faced and unreliable' (p. 997). For instance, they critique how 'knowledge' in KM is used in such a broad sense that it seems to cover almost any and everything. Even though using such a term is rhetorically pleasing, they feel that 'something that captures everything is not necessarily very useful, theoretically nor practically' (p. 1014). Secondly, as knowledge is intrinsically related to meaning, understanding and process, attempting to manage something so ambiguous and dynamic would be pointless. Instead, they suggest that KM is more likely to operate as the practice of managing people or information than as a practice 'attuned towards facilitating knowledge creation' (p. 996). Alvesson and Karreman (2001) conclude that since knowledge cannot be realistically managed at all, the best use of KM would be as a metaphorical possibility to inspire thinking about organisation and management.

Along these lines, Styhre (2003a) suggests:

The question is not whether we are capable of managing knowledge or not, but whether we are pleased with the ideas and images of knowledge management which have been provided by mainstream knowledge management theorists (p. 149).

Given the rise of KM (Gu, 2004), the ideas and images of KM seem to have pleased many. However, KM is not without its critics and, like Alvesson and Karreman (2001), there are others who have highlighted the limitations of KM theory. In the next chapter, I will review the critical literature on KM that has developed alongside mainstream KM theory. It is an important part of the wider 'conversation' in KM and I will provide some background to its presence in a literature review on KM.

Summary of chapter one

In this chapter, I introduced the resource-based theory of the firm and theory of organisational knowledge as 'founding fathers' of the literature in KM. I also traced the development of KM and examined the concepts of explicit and tacit knowledge. These concepts of knowledge had references to familiar expressions such as 'asset', 'capital' and 'communities'. The theories of managing knowledge are, however, not without limitations. These limitations will be highlighted in the following chapter.

Chapter Two

BEYOND THE CHEERLEADERS: CRITICAL PERSPECTIVES ON KNOWLEDGE MANAGEMENT

In the first chapter, I highlighted two streams of theory that have fed the literature on KM. I also emphasised the explicit and tacit notions of 'knowledge' and the generally positive perceptive projected by these notions. In this chapter, I want to capture the critical commentary that has developed alongside KM. Hence, I will first provide some background regarding the group that has been most vocal regarding KM.

Critical Management Studies

A large number of the critiques specifically focussed on KM have come out of a group called Critical Management Studies (CMS). Their presence in KM has been acknowledged by the *Journal of Intellectual Capital* who devoted a special issue to papers developed at a CMS conference. As CMS is a fairly unknown entity, I will briefly explain their inception and development before highlighting their critiques of KM.

At about the same time that KM was gaining popularity, Critical Management Studies (CMS) began to gain prominence after having been 'birthed' (Parker, 2002) in 1992 with Alvesson and Willmott's (1996) collection of essays titled 'Critical Management Studies'. A critical approach to management studies was not new. It had existed since management became an accepted social practice in the late eighteenth and early nineteenth centuries (Fournier & Grey, 2000). However, as a group within management studies it was new.

In terms of profile, CMS appeared at a pre-conference workshop in 1998 at the Academy of Management's annual meeting (Eden, 2003). CMS conferences in the United Kingdom were also gaining interest (Parker, 2002) and one of the first topics that gained attention was KM, as reflected in conferences such as 'Knowledge Management: Concepts and controversies' held in February 2000 (Scarbrough & Swan, 2001).

However, before outlining how KM has been examined from a critical perspective and how those perspectives have become part of the literature in KM, a look at what CMS currently is and what it stands for is necessary in order to distinguish it from other groups.

At its most basic level, CMS scholars or 'critters' (as the people involved have dubbed themselves) sought to 'go deep in their quest to expose, understand, and change the underlying causes of managerial and organisational phenomena that others study more superficially' (Eden, 2003, p. 390). They were quick to point out that in the development of critical interpretations of management, they were not being critical of poor management or of individual managers but of 'the system of business and management' that produces (and reproduces) the firm's narrow goal of profits and its subsequent 'structure of domination' (Adler, 2002, p. 387). The CMS workshop in 1998 also looked at the teaching of critical management studies and made a call to management scholars to 'question their assumptions and to analyze whose interests they [were] promoting with their research, [and] at whose expense' (Eden, 2003, p. 390). As CMS is an emerging stream of research and teaching, identifying and defining what it is about is still in progress.

One of the first persons to attempt to put in writing the goals of CMS was Mayer Zald at the Critical Management Studies Workshop in 2001 at the

Academy of Management meeting (Adler, 2002). According to Zald (2002), the call to question the underlying assumptions of management research grew out of a response to a largely positivistic view of knowledge and empirical methodologies that had taken centre stage in the institutional education of the United States of America (USA). As a result, 'history, debate about ends, and critique of foundational premises' were marginalised (Zald, 2002, p. 367). However, the nature of the scholarly community who were involved in such questioning was more akin to 'schizoid mavericks' (p. 380) than to regular academia. It involved people 'across the theoretical and methodological spectra, as well as across elite and not-so-elite institutions' (Walsh & Weber, 2002, p. 402) and traditions such as (but not restricted to) 'Marxist, post-Marxist, post-modernist, feminist, ecological, irreductionist, critical-realist, [and] post-colonial' (Adler, 2002, p. 388). Setting the agenda for such a diverse group under the banner of CMS was inevitably broad, and more directional than specific. Little wonder that Zald himself calls it 'this thing loosely called Critical Management Studies' (Zald, 2002, p. 383).

In comparison to the American views above, acceptance of CMS has been smoother and easier for those in the United Kingdom and Europe, a difference which is noted by the American authors as well (for example, Zald, 2002, and Adler, 2002). With a long tradition of critique on which CMS is based, United Kingdom (UK) and European management studies had already begun to question the positivist methods and theories dominant in management studies (Fournier & Grey, 2000). Because of their traditional strength in critique, there is less said about justifying the work of CMS in the UK and more about the complexities involved in being engaged in CMS, as can be seen in Fournier and Grey's explanation of CMS.

According to Fournier and Grey (2000), CMS encompasses a plurality of intellectual traditions. However, they suggest that there are three broad areas

in which one can distinguish a critical work from a non-critical one. The first relates to what they call 'performative intent':

Non-critical management study is governed by the principle of performativity which serves to subordinate knowledge and truth to the production of efficiency. In non-critical management study, performativity is taken as an imperative towards which all knowledge and practice must be geared and which does not require questioning (p. 17).

Hence the work of CMS is to question the alignment between knowledge, truth and efficiency and in so doing, attempt to 'expose and reverse' the work of mainstream management theory (p. 18).

The second issue which CMS deals with is 'denaturalization'. By this it is meant that what is taken for granted as 'reality' or the 'truthfulness' of organisational life or organisational knowledge is questioned and exposed for its 'un-naturalness' (Alvesson & Willmott, 1996). This area also includes looking at things that used to be omitted in management studies such as sexism or power. It is a reflection of the impact critical studies have had that feminist or political issues have made it into management theorising. Furthermore, because CMS is constantly looking at (and through) a dominant position to what lies on the periphery, the 'target' of CMS is never constant.

This commitment to denaturalization suggests that CMS is not a static entity. It is subject to ongoing shifts and revisions both in relation to the range of traditions and theorizations which it invokes and in relation to shifts in the nature of managerial practices and knowledge (Fournier & Grey, 2000, p. 19).

By the same token, CMS also has to critique itself. And it is this sense of reflexivity that Fournier and Grey suggest is the third area in which CMS is distinguished from other non-critical traditions. For example, most positivistic, mainstream management studies barely question their methods,

methodology or even the position of being positivistic. CMS, on the other hand, argues for more reflection on epistemological and ontological issues in management studies.

The nature of CMS, thus, allows for 'doubt, questioning and reflexivity' (Fournier & Grey, 2000, p. 16). However, it is because of its nature that several tensions are inherent in the work of CMS. For example, one of the main reasons critique is given is to engender change. Yet, to do so by critiquing from the margins of mainstream studies may not bring about the change desired. In the case of CMS in the USA, Zald (2002) highlights the marginal role it has in management education and argues for a move towards it being part of the core curriculum. Hence, Zald proposes a 'humanist' approach of respectful engagement but, in doing so, it would risk becoming part of 'the establishment' and lose its *raison d'être*.

Fournier and Grey (2000) frame the tensions as a contest between realism/relativism and engagement/disengagement. In terms of realism/relativism, the debate swirls around what sort of political ground critique should take; neo-Marxist, post-modern, or one that takes a middle ground which argues for 'epistemological relativism with some form of ethical commitment' (p. 21). In other words, critique should add something of use to society. The arguments for and against engagement or disengagement are similar to those on remaining marginal or moving towards the 'core' of mainstream theory. On the one hand, engagement with management and organisational practice allows for more pragmatic outcomes but compromises the position of those seeking to critique from the 'inside'. On the other hand, disengagement could lead to CMS becoming a 'forum for the exercise of academic indulgence' (p. 22).

These debates have led CMS writers to question the grounds for critique, their rights and ability to offer critique, and have alerted

them to the paradoxical and even preposterous nature of their position as academic writers, condemned to provide critique that effaces or appropriates the voices of those in the name of whom they claim to speak (p. 21).

Despite the complexities involved, Fournier and Grey feel it is a necessary process which most 'critters' would 'juggle uncomfortably' with because 'for all the difficulties that attend it, we would not wish to give up on critique as a worthwhile endeavour in management' (Fournier & Grey, 2000, p. 27).

Other authors have echoed the same sentiments as they see that the potential contribution of CMS to management is worth the effort (Walsh & Weber, 2002).

The purpose of the critical approach in management can be summarised thus:

Critical management research should expose the constructed and political nature of taken-for-granted knowledge and practices promoted by dominant groups in organisations as well as in mainstream management research. In order to do so, it should uncover hidden assumptions and give voice to marginalized groups (Fournier, 2002, p.176).

Keeping this in mind, the following review will look specifically at the literature in KM that has been generated through a critical approach and which has contributed to KM by exposing some of its limitations.

Critical perspectives of KM theory

In February 2000, a conference was convened specifically to discuss the concepts and controversies of KM from a critical perspective. According to Swan and Scarbrough (2001), this conference was 'one of the first avowedly academic conferences on the topic' (p. 913). The purpose of the conference was 'to contextualise knowledge management and expose some of the assumptions that govern this particular form of discourse' and to do so by 'standing outside and critiquing, the knowledge management mainstream'.

By doing so, it would help 'to evaluate the grandiose claims which have been made for knowledge management to date' (p. 913). In their overview of the papers presented at the conference, Swan and Scarbrough (2001) highlight many of the assumptions present in mainstream KM literature. For example, by setting the context of KM within the larger pattern of capitalism, the economic significance of knowledge is shown to be 'fragile, politicised and rhetorical' (p. 914). This is in contrast to knowledge (such as data) being seen as robust, organised and objective. They also point to the multifaceted, contradictory, ideological qualities of 'knowledge', 'knowledge work' and 'knowledge intensive firms' (p. 914) and question whether knowledge is manageable at all.

For example, in a paper by Lanzara and Patriotta (2001), the mainstream perspective of knowledge as 'objective truth' is questioned. In their examination of a court case and the production of legal knowledge, they show how 'truth' is more of a story than an objective account. They also highlight the fragmentary nature of 'making knowledge' by exposing the discontinuity generated within a particular activity such as a court case. Hence, contrary to viewing knowledge as a static entity, they propose that 'knowledge-making' is continuous. The implication of their study is that rather than thinking in terms of 'transferring knowledge' from one party to another, we must remember that piecing together knowledge from within an organisation is ultimately fragmentary.

Another assumption that the conference proceedings exposed was the ideological nature of KM. In Thompson, Warhurst and Callaghan's (2001) research, they showed how the literature in KM tends to downgrade technical skills and routine work because the focus of research was only on a sub-set of total employment. They cite, for example, that in the UK, only 10 percent of new jobs could be classified as knowledge work. Yet that 10

percent has had more focus than the remaining 90 percent. Hence, professional occupations and 'professional intellect' have been privileged over more 'mundane' occupations. In response, they propose that a distinction be made between 'knowledge work' and 'knowledgeable workers' so as to 'broaden [the] understanding of labour in the contemporary workplace' (p. 923).

In another contribution, Andriessen (2006) highlights the metaphorical base on which KM is built. By identifying the metaphors used in the literature to describe knowledge, the assumptions made about knowledge are also uncovered. For example, Andriessen identifies two predominant metaphors of knowledge in KM: knowledge as a resource and knowledge as capital. He believes these metaphors were inevitable as they came from the industrial age which implies that KM has applied them almost subconsciously.

Andriessen warns against this subconscious use of metaphors and assumptions because:

The way we conceptualise knowledge will steer the way we think about improving knowledge in organisations. The types of metaphors that we choose to conceptualise knowledge drive our ideas about how knowledge can be acted upon. When metaphors like KNOWLEDGE AS AN OBJECT and KNOWLEDGE AS A RESOURCE are the dominant metaphors in how we think about knowledge, we will be more inclined to try to store, distribute, and manage knowledge. When our thinking about knowledge is dominated by the KNOWLEDGE AS THOUGHTS AND FEELINGS metaphor we will be more sceptical about this codification strategy and will probably have more faith in a personification strategy. Therefore, scholars should reflect on their (often unconscious) use of metaphors in conceptualizing knowledge (Andriessen, 2006, p. 106).

In response to knowledge being defined in explicit and tacit terms, critiques of KM have problematised knowledge instead. For example, knowledge has been shown to be reified and commodified (Hellstrom & Raman, 2001), ambiguous, vague and unreliable (Alvesson & Karreman, 2001), fragmentary

and contested (Lanzara & Patriotta, 2001), ideological (Thompson et al., 2001), politicised (McKinlay, 2002), rhetorical and mythical (Alvesson, 1993). The numerous metaphorical references (Andriessen, 2006) that are used to describe knowledge also indicate its abstract nature. In other words, knowledge does not have any referent in the real world on which to base its study. Giroux and Taylor (2002) hence argue that knowledge is 'a construction of reality, not something that is true in any abstract or universal way' (p. 511). As such, language plays a crucial role in 'constructing' the reality of knowledge.

Not surprisingly, most of the studies mentioned above used language-based approaches, with text analysis featuring strongly in studies by Andriessen (2006), Giroux and Taylor (2002) and (to a lesser extent) Alvesson (1993). Other methods that were used include case studies, discourse analysis and rhetorical criticism.

Another unnoticed assumption in KM picked up by critics is the 'positive spin' on knowledge. For example, Martensson (2000) says:

Knowledge is assumed to be generally positive. However, it is untenable to assume that knowledge is always positive and good. Within the framework of knowledge-based theory, it is claimed that the only resource that provides an organisation with sustainable competitive advantages is knowledge. Nonetheless, knowledge as such will not have much value for the organisation in building its competitive advantages since only relevant knowledge can function in such a capacity (p. 214).

From Martensson's point of view, only 'relevant' knowledge can produce value for the organisation which implies there is 'irrelevant' knowledge. It is also implied that such 'irrelevant' knowledge would be of little or no value to the organisation. Mainstream KM theory has yet to factor such 'knowledge' into its theorising. There have been studies on 'sticky' knowledge (Szulanski, 2003) and barriers to knowledge transfers (Argyris, 2004) but the intrinsic

worth of knowledge to the organisation has yet to be seriously challenged.

Alvesson (1993) also attested to the unchallenged notion of knowledge when he said:

Many authors acknowledge that knowledge is very difficult to define but treat it nevertheless as a robust and substantial capacity which can produce 'good results' (p. 1001).

He goes on to caution against taking knowledge for granted because:

Knowledge contains such strong symbolic value that it can easily create biases when discussed, which motivates an extra dose of scepticism when accounting for it (p. 998).

From this perspective, Alvesson argues that the 'strong symbolic value' of knowledge generates a rhetorical force which should be recognised. For instance, in his analysis of knowledge intensive firms, organisations and workers (KIFOWs), he illustrates how 'being perceived as an expert is more crucial than being one' (p. 1004). Rhetoric is also how KIFOWs set themselves apart from other organisations:

Rhetoric then, is not just external to the core of KIFOWs, but in a way is its core. An aspect that differentiates KIFOWs from non-KIFOWs is thus the degree of elaboration of the language code through which one describes oneself, one's organisation, regulates client-orientations as well as identity (Alvesson, 1999, p. 1007).

In his conclusion, Alvesson suggests that the best way to study such organisations is to take their ambiguous nature seriously, examine their claims to knowledge and uncover the rhetorical strategies generated by such organisations.

Raub and Rauling (2001) provide another explanation for the rhetoric employed by those concerned with KM. By looking at the rhetorical strategies on a wider scale, they identified two distinct speech communities in KM; one driven by information technology concerns, the other by

managerial concerns. According to them, speech communities within the same field tend to compete for supremacy. However, they found that KM had little competition within it which produced 'integrative rhetorics'. Raub & Rauling (2001) explain their findings:

The knowledge management gurus mentioned in the introduction, tend to concentrate on integrative rhetorics in order to gain recognition for knowledge management as an issue that lies 'beyond the eternal struggle of IS/IT and management'. While it was expected that the struggle for resources would lead to negative rhetoric and clear demarcation between competing interpretations, this study did not find any substantial support for this hypothesis. This result can be interpreted in line with ideas from the fashion literature, according to which different (competing) fashion actors join in an effort at sustaining the fashion field they are engaged in as a whole. The absence of negative rhetoric should therefore not be read as an indicator of the absence of a struggle between different interpretations of the same theme (pp. 125-126).

Hence, according to this study, the positive rhetoric in KM is the result of an unspoken agreement among 'actors' within KM to sustain, and by implication to promote, KM. Nevertheless, it does not mean that there are no tensions within KM either.

Another perspective on the rhetorical power of knowledge is given by Giroux and Taylor (2002). Beginning with the definition of knowledge by Nonaka and Takeuchi (1995) as 'justified true belief', they show how 'justification' is a 'social and rhetorical accomplishment' (p. 497). They do this by comparing it to the 'quality movement' which culminated in 'Total Quality Management' (TQM).

It thus seems that TQM was created essentially as an umbrella construct, that is, a 'broad concept or idea used loosely to encompass and account for a set of diverse phenomena' (Hirsch & Levin, 1999: 200). The usefulness of umbrella constructs lies in their ability to facilitate collective action by providing agreement on labels without requiring agreement on the meaning of those labels (Astley & Zammuto, 1992). They are thus particularly advantageous for

executives, since they are the ones charged with creating organisational coherence and providing strategic direction for participants with vastly different demands, interests and worldviews (Giroux & Taylor, 2002, p. 509).

Based on their work, it would seem that KM is also a potential 'umbrella construct'. In the same way that quality became the key concept for management in its time, 'knowledge' also has the makings of such a concept. An example of the 'umbrella construct' that KM is becoming is the close relationship KM has to the literature on organisational learning. The concept of organisational learning itself has been shown to be increasingly mystified (Friedman, Lipshitz, & Popper, 2005) which adds to the ambiguity of KM. Pulling together what Raub and Rauling (2001) have said about the joint effort to sustain KM and Alvesson's (1993) suggestions on the motives for doing so, there seems to be a strong collective endeavour to elevate the concept of knowledge and KM. Whether such an endeavour is conscious or not is certainly debatable. Nevertheless, the critique of KM, although expressed by a small group of 'critters', is a voice that needs to be heard as there are many other areas in KM to examine. For example, McKinlay (2002) shows how discussions of KM have ignored organisational politics and its impact. Similarly, Swan, Scarbrough and Robertson (2002) have noticed the rhetorical use of 'community of practice' as a device to enrol professionals, mobilize the organisation and legitimise changes to work practices.

From the theories and critiques of KM, Shultze and Stabell (2004) distinguish four discourses within KM and show how they differ in terms of what knowledge is and what it means to manage knowledge. They centre their attention on the paradoxical notion of 'managing tacit knowledge' because its contradictory nature reveals the assumptions of the theories applied to managing it. And so they say, 'managing tacit knowledge is not a contradiction inherent in tacit knowledge, but rather built into the theoretical

lens that is applied to it. It is this insight that motivates our research' (Shultze & Stabell, 2004, p. 551). As they separate the various 'theoretical lenses' that have been applied to KM, they categorise the theories into four discourses. These discourses are further divided along epistemological lines (duality and dualism) as well as according to social order (dissensus, consensus). Table 3 summarises their findings.

Table 3: Four discourses of knowledge management research.

	Duality	Dualism
Dissensus	Dialogic Discourse Metaphor of knowledge: discipline Role of knowledge in organisations: deconstruction of totalizing knowledge claims, creation of multiple knowledges Theories: post-structuralist, feminist, postmodern	Critical Discourse Metaphor of knowledge: power Role of knowledge in organisational underclass: reformation of social order Theories: labour process
Consensus	Constructivist Discourse Metaphor of knowledge: mind Role of knowledge in organisations: coordinating action, shared context, recovery of integrative values, generation of understanding Theories: structuration, theories of practice, sensemaking, actor network theory	Neo-functionalist Discourse Metaphor of knowledge: asset Role of knowledge in organisations: progressive entitlement, prediction, reduction of uncertainty, optimal allocation of resources Theories: resource-based view of firm, transaction cost theory, information processing theory, contingency theories

Source: Adapted from Shultze & Stabell, 2004, p. 556.

What these discourses represent are the complexities involved in managing knowledge discursively and practically. Hence, any one-dimensional or narrow understanding of KM will be flawed. They conclude that:

All four discourses need to be appreciated, understood and represented in knowledge management research for this area of inquiry to deal with the rich and problematic nature of managing knowledge in practice (p. 549).

Another view on why KM is problematic, as Hazlett and her co-authors suggest, is that KM is still in the state of 'pre-science' which means that multiple approaches are still contesting the field for dominance (Hazlett et al., 2005). Nevertheless, KM has to be acknowledged as complex and should not be reduced to simplistic theories or practices.

By viewing KM as discourse and questioning the view of knowledge as an objective, portable and manageable commodity, the critical community in KM has begun to address the narrow and functionalist tendency of mainstream KM writing (Swan & Scarbrough, 2001). By contextualising KM within a wider organisational view and by questioning the claims made by KM to date, the limitations of KM have also been exposed. Therefore:

What is thus endorsed by a critical and postmodern analysis of knowledge management is an awareness of the pitfalls of too simplistic and reductionist a view of knowledge. That is its major contribution to the understanding of knowledge management (Styhre, 2003a, p. 147).

From the critical studies on KM, it would seem that KM and its view of knowledge is ridden with fundamental flaws, yet the literature on KM continues to grow (Gu, 2004; Scarbrough & Swan, 2001). Several possible reasons for this have been suggested such as the organisation's 'business bottom line'. For example:

This new discipline attempts to address fascinating and complex technological and organisational issues that have large implications for a business's bottom line. Knowledge management is so new that its meaning and the army of tools and techniques it encompasses are often in dispute. By getting involved in these initiatives now, communicators can help shape the discipline in ways that are useful

to an increasing number of people and organisations (Mudge, 1999, p. 2).

In contrast, Scarbrough and Swan (in Easterby-Smith & Lyles, 2003) argue that it is not the business bottom line that keeps KM going but the political agendas of professional groups within organisations that extend the 'shelf-life' of KM. In another paper, (Scarbrough & Swan, 2001) highlight that the diffusion of KM reflected the normal distribution associated with management fads and that the ambiguity of the concept lends itself to 'multiple interpretations and remoulding which potentially extend its relevance across different communities of practice' (p. 3).

Another possible reason is that KM is not limited to any discipline. Hence any discipline from Library Science to Psychology could contribute to KM. As Beamish and Armistead (2001) have noted, 'knowledge has been the domain of the cleric, the philosopher, the cognitive scientists the neuroscientists and, most recently, the management theorist' (p. 101).

Taking an historical perspective, Day (2001) suggests that KM is 'a symptom of a history of attempts to manage knowledge within instrumental, and largely capitalist, modes of production' (p. 726). This implies that as long as knowledge remains elusive to modes of production, KM will persist, regardless of whether the term 'KM' remains the same.

Looking at the critical work on KM so far, the critical community in KM, though small, has made sufficient impact to be acknowledged by those in mainstream KM literature. However, the work that has begun demonstrates a need to further investigate not just what is said in KM but how it is said. Critical studies on KM have so far discussed the epistemological assumptions in KM, the 'narrow and functionalist tendencies' of the writing, the complexities of knowledge and the discourses within the literature. To

some extent, the 'grandiose claims which have been made for knowledge management to date' (Swan & Scarbrough, 2001, p. 913) have been evaluated. But what about the grandiose claims which have been made about the concept of knowledge itself?

Having covered the main theories in KM, some operational and managerial concerns as well as the limitations of KM, it is apparent that much of KM revolves around the idea of knowledge. Whether it be managing or defining or critiquing knowledge, the literature is inherently drawn towards discussing 'knowledge'. Since knowledge is such a central concern in KM, the following section will examine what has been said about knowledge and the claims made about it such as knowledge being a resource and an asset; the construct of a knowledge hierarchy and the introduction of 'wisdom management'.

The concept of knowledge in KM

The various definitions of knowledge in KM literature have so far ranged from explicit to tacit considerations. Initial definitions of knowledge tended to view data, information and knowledge as distinct entities, with the first two components generally termed as 'explicit knowledge'. The notion of tacit knowledge was also included as KM sought to account for the knowledge that came out of learning and organisational interactions. An example of those views is exemplified in Kreiner's (2002) statement below:

Knowledge management can focus more or less on the two 'ingredients' in knowledge resources – the informational inputs and explicit knowledge, or the tacit process of mobilization, interpretation and use. The former part may be owned and possessed, stocked as knowledge and information and distributed or allocated by central authority. The latter part cannot be separated from its behavioral expression, and cannot be managed on conventional terms (p. 115).

From Kreiner's statement it is apparent that knowledge is seen to be a resource and the knowledge-based theory of the firm supports and promotes such a view. He also acknowledges tacit knowledge and the difficulty in managing it. Nevertheless, managers were exhorted to 'protect and utilise existing knowledge resources on the one hand, and to facilitate the mobilization and expansion of new knowledge resources on the other' (Kreiner, 2002, p. 122).

Conceptualising knowledge as a resource has become a dominant metaphor in KM and, as Andriessen (2006) has observed, it has led to thinking of KM in terms of storage and dissemination. However, his study of metaphors in KM did not comment on why the view of knowledge as a resource increased the value and importance of knowledge to an organisation. For example, Von Krogh (1998) emphasised the importance of knowledge when he stated:

The company's overall performance depends on the extent to which managers can mobilize all the knowledge resources held by individuals and teams and turn these resources into value-creating activities (p. 133).

Hence, knowledge was not just a resource to be used but one upon which a company's performance depended. In fact, Shariq (1997) called it the 'key resource'. Recall Karl Wiig's (1997) definition of KM as:

The systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge-related effectiveness and returns from its knowledge assets and to renew them constantly (p. 8).

In the above quote, knowledge has moved from being described as a 'resource' to being an asset which connotes that more value has been placed on knowledge.

In Brown and Duguid (1998), knowledge becomes a 'critical part' of an organisation:

Knowledge-based arguments suggest that organisational knowledge provides a synergistic advantage not replicable in the marketplace. Thus its knowledge, not its transaction costs, holds an organisation together. The knowledge-based view provides vital insight into why firms exist (and will continue to exist) and thus why organizing knowledge is a critical part of what firms do (p. 90).

Hence, knowledge had progressed from 'resource' to 'asset' to 'critical part of what firms do'. Not only was knowledge an organisational resource, it was also a form of competitive advantage when new knowledge could be created, as suggested by Nonaka and Takeuchi's (1995) model of knowledge creation. Such a belief is so widely accepted that Beamish and Armistead (2001) declare that 'the concept of knowledge as a form of competitive advantage has been *embedded* in contemporary management thinking' (italics mine, p. 103). It is, therefore, not hard to see that the concept of knowledge is highly valued for its potential economic return and the importance attributed by organisations interested in their business bottom lines.

The importance of knowledge has also increased with the focus on tacit knowledge. Davenport and Cronin (2000) call it a 'conceptual shift' of knowledge being seen as a resource, to knowledge being defined in terms of capability. Personal expertise, for example, has become more valuable as attested by the literature on intellectual capital (IC).

The notion of intellectual capital, which is premised on core competencies (Sveiby, 2001), is described as an operational concern focused on the knowledge within an individual. Petty and Guthrie (2000) make the distinction between IC and KM in this way:

In our view, knowledge management is about the management of the intellectual capital controlled by a company. Knowledge

management, as a function, describes the act of managing the object, intellectual capital (p. 159).

According to Petty and Guthrie (2000), IC grew out of practice rather than theory when efforts to measure and report a company's intellectual assets began to spread. As a result, most of the literature to date is focussed on metrics and reporting. Liebowitz and Suen (2000) feel that developing metrics and studies in IC would help to consolidate the field and give the discipline further credibility. In terms of KM, IC adds credence to the basic premise in KM that organisations are increasingly knowledge-based and that these organisations operate within a knowledge economy.

What makes IC appealing to organisations is that it places a value on 'intangible assets' such as staff competence and customer 'goodwill'. From a management perspective, IC is very attractive because of the belief that anything that can be measured can be rewarded (Liebowitz, 1999). Hence, for individuals and companies whose 'knowledge' was a means of production, IC legitimised and increased their worth.

When IC was first popularised by Stewart (2001), he described intellectual capital as 'packaged useful knowledge' (p. 67). In accordance with the predominant view of knowledge as a resource, he saw intelligence as an 'asset'. For example, he says:

Intelligence becomes an asset when some useful order is created out of free-floating brainpower — that is, when it is given coherent form (a mailing list, a database, an agenda for a meeting, a description of a process); when it is captured in a way that allows it to be described, shared, and exploited; and when it can be deployed to do something that could not be done if it remained scattered around like so many coins in a gutter (p. 67).

Even though Stewart talks about people and expertise as being part of intellectual capital, he still holds the same assumption of knowledge being an

asset that should be accounted for and used for organisational purposes. As a concept, however, intellectual capital has come to represent something more than just a resource or an asset. As Jorgensen (2005) observes:

It has by now perhaps become somewhat trivial to note that knowledge and learning have become increasingly important in creating economic and social value. Intellectual capital (IC) has emerged as a key concept in encompassing this development. The name itself indicates the basic idea behind IC – that knowledge and learning are becoming more important factors of production than the traditional capitalistic triad of land, labour and financial capital. IC is supposed to be knowledge about knowledge, knowledge generation and how these processes might be leveraged into some form of economic or social value (p. 2).

In the above observation, Jorgensen implies that the claims for IC, like the claims made for KM, seem to take on greater significance than they warrant. In his paper, Jorgensen (2006) refers to Wittgenstein (1958) and Foucault (1995) to show how IC is a language game and that consideration of power is neglected in the discourse that IC has produced so far. He further argues that if IC is a social construction, it has to be aware of the genealogy that influences this social construction.

In the issue of the *Journal of Intellectual Capital* where Jorgensen's paper appears, the guest editors hone in on IC's quest to measure knowledge and ask:

To what extent is the "static-ism" of a metric or reference system limiting (even dangerous), or enabling, under uncertainty? Such questioning needs to be at the forefront of research and practice in a knowledge-based economy and society (O'Donnell, Henriksen, & Voelpel, 2006, p. 8).

Some of the questions they raise apply just as well to KM and the increasing significance of knowledge. For example, Spender (2006) contends that even as IC measures knowledge that is present, it also has to account for knowledge that is absent. In other words, in the face of uncertainty,

managers are forced to be creative in order to make up for 'not knowing' and hence fill in the 'absence of knowledge'. If KM and IC only consider knowledge as an asset, it assumes that there is only certainty. Therefore, he argues that bringing uncertainty into the equation would help bridge a gap in the theories to date (Spender, 2006). The notion of 'absent knowledge' is one that is worth pursuing because it includes more than uncertainty. There is also knowledge that has been excluded which neither KM nor IC accounts for either.

Based on the literature so far, the concept of knowledge has been defined as explicit and tacit, as a resource and an asset as well as expertise and capability. In addition, the perception of knowledge and its value has also been shown to increase in significance. In the following section, I will examine how these definitions have been collated in what is known as the 'knowledge hierarchy'.

The knowledge hierarchy

The knowledge hierarchy is, by most accounts, an accepted feature in KM literature (Alavi & Leidner, 2001; Braganza, 2004; Liebowitz, 1999; Tuomi, 1999). At its most basic level, it is made up of data, information and knowledge. According to Anantatmula (in Stankosky, 2005), the definitions for data, information and knowledge as provided by the Oxford English Dictionary 'underline the hierarchic relationship among the three terms' (p. 173). He goes on to say:

... data represent facts, which are organised into information; when used by someone to solve a problem, information in turn becomes personal knowledge. When we convert it to explicit knowledge, it becomes an intellectual asset that can be shared (p. 173).

What Anantatmula says about data, information and knowledge is not unusual. In fact, it reflects the standard distinctions made by most authors in

KM and is based on the concept that knowledge is an asset as can be seen from the quote above.

Stenmark (2002) believes the knowledge hierarchy was created out of these recurring definitions of knowledge that implied data was the raw base from which information and knowledge were derived. Stenmark argues that these definitions form an image of a hierarchical relationship between the three elements which are linear and therefore over-simplified.

According to Stenmark, a linear relationship between data, information, and knowledge is suggested by the order in which they are placed. This also implies that the distance between data and information is the same as the distance between information and knowledge. Therefore, it also implies that the effort required in moving from one entity to another is the same.

Stenmark comments that 'though it may not be possible to correctly state the true relationship between these entities, there is nothing that indicates that it should be linear' (p. 3). Moreover, such a 'value-chain' implies that the relationship is asymmetrical, suggesting that data may be transformed into information, which may then be transformed into knowledge, but it does not go the other way.

Braganza (2004) argues that a 'top-down' (i.e., knowledge-information-data) perspective is just as plausible and questions the assumption that knowledge should be at the top of the value-chain or hierarchy. She argues that data, information and knowledge are inter-related and that purpose and context are necessary to determine which entity is most relevant. Tuomi (1999) elaborates on this point by showing how a reverse hierarchy is possibly more useful.

Firstly, he highlights how the conventional hierarchy assumes that data is a natural starting point. He argues that, on the contrary, data is the result of existing knowledge that has been distilled and de-contextualised in order to be a discrete and separate entity. For example, 'there are no "isolated pieces of simple facts" unless someone has created them using his or her knowledge' (Tuomi, 1999, p. 107). Moreover, information only makes sense when there is a 'socially shared' knowledge which then allows data to be created in a way that fixes its meaning for anyone else who accesses it.

The above authors certainly have a point in questioning the positions of data, information and knowledge. However, none of them questions the existence of the hierarchy itself or the basis of privileging one entity over another. In addressing the weakness of the hierarchic 'model', they implicitly acknowledge it as a feature within KM.

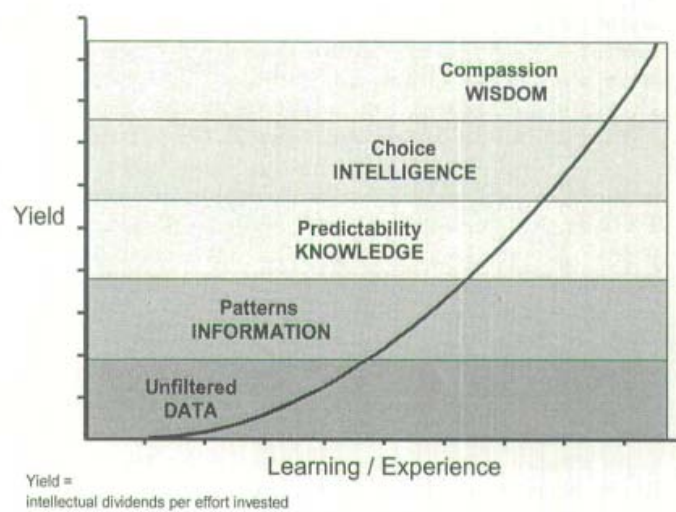
From the data-information-knowledge structure, other permutations of the hierarchy have developed. For example, Liebowitz (1999, p. 5) states that the knowledge hierarchy is made up of data, information, knowledge and wisdom. He does not explain how or why wisdom has been added to the list.

In another book with author Tom Beckman (Liebowitz & Beckman, 1998), a six-level knowledge hierarchy is presented where 'the increase in value of the knowledge corresponds to the maturation of human and organisational proficiency as one moves up the hierarchy' (p. 82). Prior to data, information and knowledge, the authors suggest that there is 'input' which consists of 'pre-processed data, text, information and knowledge' (p. 82). On the other end of the scale, 'expertise' and 'capability' have been added because 'expertise applies knowledge and heuristics appropriately and efficiently to achieve fast and accurate performance under resource constraints' (p. 83), whilst capability as the 'highest form of knowledge' is the 'organisational

capability to perform a process, produce a product or provide a service at a high level of performance' (p. 83). The authors do not elaborate much further on their hierarchy or the rationale of ranking one entity over another. Perhaps they feel that it is self-evident. However, it is interesting to note that whereas 'expertise' implies individual ability, 'capability' refers to an organisational capacity.

Another permutation of the knowledge hierarchy is referred to by Tuomi (1999) which he obtained from P ór(2001). The 'data to wisdom curve' pictured below illustrates the learning an individual goes through where data, as raw unfiltered facts, is transformed into information, knowledge and eventually into intelligence and wisdom. The symbolic curve in the figure, according to Tuomi, is 'intended to make the point that the value of the various forms of data-information-knowledge increases through learning' (p. 106). Tuomi does not make any further remarks on intelligence and wisdom as being higher levels of knowledge. Perhaps he also feels that it is self-evident.

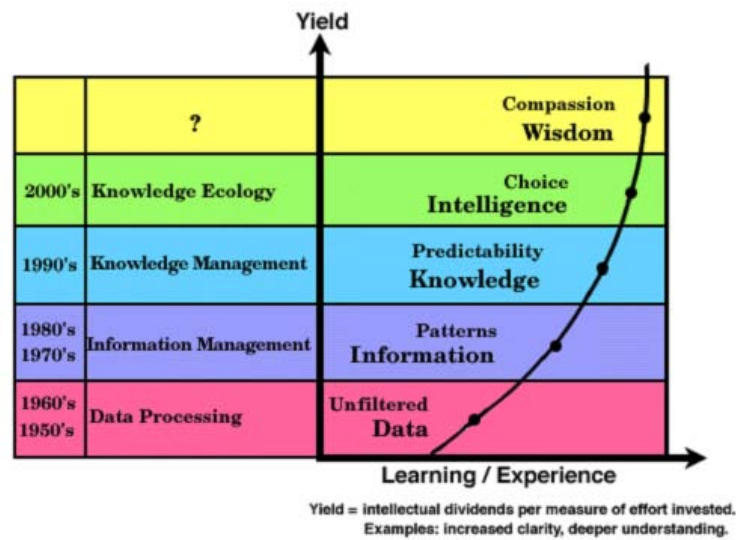
Figure 3: Conventional view of the knowledge hierarchy.



Source: Tuomi, 1999, p. 106.

Figure 3 is only part of what Pór suggests is happening in KM. In the complete picture (Figure 4), there is also a suggestion that KM is itself in progression ('knowledge ecology' is a term that Pór has created to indicate what KM will develop into).

Figure 4: The data to wisdom curve.



Source: Pór, 2001, p. 1

Seen in the light of the increasing significance attributed to knowledge, there seems to be an upward trend in KM writing that emanates from the developing perceptions of knowledge.

As Stenmark (2002), Braganza (2004) and Tuomi (1999) have indicated, the ordering of data, information and knowledge is not as straightforward or obvious as it is accepted to be. As such, the inclusion of wisdom, expertise or capability in the hierarchy as 'higher level' entities cannot be considered logical or self-evident. Cook and Brown (1999) have also warned against privileging one form of knowledge over another. However, an increasing number of publications focussing on wisdom have stemmed from this

hierarchy of knowledge on the assumption that the hierarchy is a valid model within KM theory. Hence, before examining the hierarchy further, I would like to highlight some of the literature on wisdom management.

Wisdom management?

In a paper titled *Organisational learning, knowledge and wisdom*, Bierly, Kessler and Christensen (2000) propose a framework that (unsurprisingly) includes the notions of data, information, knowledge and wisdom. In it they suggest that wisdom is 'the missing construct' in the knowledge-based theory of the firm. Therefore, they outline ways organisations can acquire 'organisational wisdom' in order to enhance their competitive advantage.

Similarly, Rowley (2006) is concerned that wisdom is 'missing' in KM literature, especially 'since in this knowledge-based economy the link between data, information and knowledge is seen as pivotal by practitioners, consultants and academics' (p. 265). Besides discussing organisational wisdom, Rowley also suggests managerial wisdom and 'wisdom management' as sites for future research. Like Bierly et al., Rowley applies the knowledge hierarchy unproblematically in the process of her argument.

A recently published book edited by Courtney, Haynes and Paradice (2005) also emphasises the notion of wisdom in organisations. In a chapter by Wickramasinghe, the author theorises the possibility of moving from KM to wisdom by applying the logic of the knowledge hierarchy. Despite the author's acknowledgement of the 'compound, complex construct' (p. 272) of knowledge, there was no similar recognition of the construct of a knowledge hierarchy.

Fortunately, some critics have noticed the unproblematic application of wisdom to KM and have raised their concerns. In an analysis of a public

sector document, McKenna and Rooney (2005) interrogate the notions of wisdom and wisdom management. One of the more important points they raise is the tension of incorporating a theory of wisdom into the dominant managerial discourse of KM.

What is demonstrated in our analysis, however, is a tension between a theorisation of wisdom, which falls outside the functionalist and utilitarian values and assumptions privileged in the dominant managerial discourse. An effect of this domination is that speaking about the more elevated processes needed for wisdom is made problematic because it comes from outside the dominant discourse, meaning that many of those who value the assumptions of the dominant paradigm will be uncomfortable with, even threatened by, wisdom theory. Therefore, we argue that wisdom is likely to be a partially understood and accepted concept in management leading to poor conceptualisations and implementations of it within organisations. Therefore, we caution that just as knowledge management is limited by a lack of theoretical completeness in relation to knowledge, it is likely to be the case that wisdom management will be weakened by a lack of knowledge about wisdom (p. 24).

Given the incompleteness of KM theorising on knowledge, to speak of 'organisational wisdom' or 'wisdom management' is surely premature, especially when the arguments are based on an unquestioned construct of a knowledge hierarchy.

This hierarchy, therefore, needs to be examined further. In terms of how knowledge is defined, the hierarchy represents the thinking surrounding knowledge in KM. It is also a reflection of the increasing value attributed to knowledge. As an accepted feature in KM literature, the hierarchy needs to be questioned and its premises examined before more theory is based upon it. As such, contemplating the underlying premise of the knowledge hierarchy will form part of my research objectives.

Summary of literature review

In summary of the literature review that began in chapter one, I started out with the basic theories that have influenced KM theorising. The resource-based theory of the firm, with its roots in economic theory, gave rise to the knowledge-based theory of the firm. This set of theories which perceived knowledge as a physical resource in turn led to KM developing a technological focus and explicit definitions of knowledge. Theories of organisational knowledge developed another aspect of KM that saw communities of practice and tacit definitions of knowledge entering the literature. In the process, it was observed how the concept of knowledge gained increasing importance as more literature was produced such that a 'knowledge hierarchy' is established in KM theory. Despite critiques that have highlighted the ephemeral, elusive and ambiguous nature of knowledge, the hierarchy continues to develop with the latest literature promoting 'wisdom management'.

In the section which looked at the limitations of KM theory, it was observed that language-based approaches, particularly text analysis and rhetorical criticism, featured strongly. Other approaches included case studies and discourse analysis. I will reiterate some of the observations about the concept of knowledge and KM that language-based approaches have uncovered as they are relevant to my research question.

One of the main things that can be seen in the concept of knowledge so far is that its 'value' is usually measured in terms of economic contribution through words like 'resource', 'asset' and 'capital'. The perception of knowledge as resource and capital is, however, limited precisely because of its economic connotations. For example, through the work of Lanzara and Patriotta (2001), Thompson, Warhurst and Callaghan (2001) and Alvesson and Karreman (2001), the notion of knowledge has been shown to be 'fragile,

politicised and rhetorical' (Swan & Scarbrough, 2001, p. 914). This then raises the question of what has been excluded in the thinking around the concept of knowledge. As Spender (2006) has pointed out, 'uncertainty' or 'absent knowledge' has not been accounted for in KM theory, neither has 'irrelevant' knowledge (Martensson, 2000). Knowledge in KM is thus 'a construction of reality, not something that is true in any abstract or universal way' (Giroux & Taylor, 2002, p. 511).

In addition to the constructed and limited concept of knowledge in KM, several authors have also highlighted the rhetorical force that the word 'knowledge' carries. For example, Martensson (2000) remarks how knowledge is assumed to be always positive and good despite how 'untenable' that is. Alvesson (1993) points out that this is because knowledge contains 'strong symbolic value' (p. 998) which means that how it is perceived is often more crucial than what it actually is. Raub and Rauling (2001) suggest that the positive rhetoric of knowledge is sustained to bolster the development of KM. Giroux and Taylor (2002) take it a step further and argue that the rhetorical power of knowledge and KM provide a point of collective action without the need to agree on what exactly they mean. In other words, the rhetoric surrounding knowledge and KM has elevated them to a point where their efficacy is no longer questioned.

Swan, Scarbrough and Robertson (2002) highlight a similar point of collective action in the rhetorical use of the concept of 'community of practice'. It would seem then that rhetoric plays a large part in the sustenance and promotion of the concept of knowledge and KM. In relation to examining the concept of knowledge and exploring what has been omitted or excluded about it, rhetorical analysis could provide a way forward.

Rhetorical studies on knowledge management have so far shown that when it comes to theorising the concept of knowledge in KM, there is a reliance on the 'strong symbolic value' (Alvesson, 1993, p. 998, p. 998) of knowledge. For instance, Giroux and Taylor (2002) have indicated that because of its ambiguity, the concept of knowledge has the capacity to host many other meanings under its 'umbrella construct' (p. 509). As a result of this ambiguity, KM has been accused of being a management fad. According to Scarbrough and Swan (2001):

Ambiguity is an important feature of fashions because it allows interpretive flexibility on the part of those adopting the new ideas (p. 8).

Scarbrough and Swan also show how KM contains many characteristics of a management fad. When compared to Kieser's (1997) analysis of a management 'bestseller', KM has 'all the right ingredients' (p. 9) of being a passing fad. There are those who say that KM has outlived accusations of being a fad (Jashapara, 2005) but the point I wish to highlight here is that if KM exhibits such faddish tendencies, then a measure of scepticism should be present when examining KM texts.

Raub and Rauling (2001) have hinted at a possible collusion within the 'communities' that produce the publications on KM to maintain a positive spin on knowledge in order to sustain the development of the literature on KM. If this is accurate, then it implies that there are rhetorical processes which are producing a particular perspective of knowledge in KM theory. If so, what are these processes and how do they bring about such widespread agreement?

Research question

The literature review has covered a wide range of perceptions of knowledge in KM. My research question focuses on the claims and assumptions made

about the concept of knowledge in KM theory and asks: Does the rhetoric of knowledge in KM posit a particular perspective of knowledge? If so, what rhetorical processes enable it to do so?

In addressing the question, I take the stance that all texts are rhetorical 'since anything posited through the medium of language must, by definition, be rhetorical' (Carter & Jackson, 2004, p. 22). Hence, I consider the texts in KM to present views or perspectives (as opposed to Cartesian notions of reality and formal logic) of the concept of knowledge which suggests that a rhetoric of knowledge is present. Even as I seek to make transparent the processes that have established certain views on the concept of knowledge, I am aware that my interpretation of KM texts will also be a perspective. Hence, there will be a measure of reflexivity in my discussion but, again, my focus will be on the rhetorical processes that drive the theorising of knowledge in KM.

When my research question asks if there is a 'particular perspective of knowledge', it does so from a critical position. By 'critical' I refer to Alvesson and Willmott's (2003) endeavour to challenge received 'wisdom' about management theory. 'Critical' can also imply 'critical theory' or postmodernist work but, for my study, I am influenced by the concerns and purposes of critical management studies which can be summarised as follows:

Critical management research should expose the constructed and political nature of taken-for-granted knowledge and practices promoted by dominant groups in organisations as well as in mainstream management research. In order to do so, it should uncover hidden assumptions and give voice to marginalized groups (Fournier, 2002, p. 176).

Alvesson and Deetz (2000) provide an overview of how such research can be carried out.

According to Alvesson and Deetz (2000), there are three tasks that need to be addressed. These tasks have been labelled 'insight', 'critique' and 'transformative redefinition':

The insight task demonstrates our commitment to the hermeneutic, interpretive and ethnographic goals of local understandings closely connected to and appreciative of the lives of real people in real situations.

The critique task demonstrates our commitment to the analytical aspects of critical traditions which recognise the possibility of domination in local formations and to reconnect local forms and meanings to larger social, historical and political processes.

The transformative redefinition task demonstrates our commitment to the more pragmatic aspects of critical thought, recognising that insight and critique without support for social action leaves research detached and sterile. (p. 17)

Their advice concerning these three tasks is:

The first task directs us to avoid totalizing thinking through the paying of careful attention to local processes; the second guides us to avoid myopia through looking at the totality; and the third task directs us to avoid hyper-critique and negativity through taking the notion of critical pragmatism and positive action seriously. Most critical research concentrates on one or another of the tasks, but a sound ambition would be to include at least a modest contribution to all three tasks of critical management research. (p. 20)

Acting on their advice, my research will seek insight on the concept of 'knowledge' in KM theory. I will return to the texts produced in KM and examine them in context. I will then critique the understandings of the concept of knowledge and their textual representations by analysing the rhetoric with which they are presented. I will also keep in view the broader perspective of where KM sits in relation to management studies. At this point, I cannot tell what sort of social action might result from my studies, but by 'uncovering hidden assumptions' and 'giving voice to marginalized

groups' through critique, I hope to offer an alternative reading to dominant ideas and understandings as presented by the literature.

For example, I would like to open up the question of whether negative views of knowledge are present in the literature. My first instinct was that given the developmental nature of KM theory, negative perceptions of knowledge could have simply been ignored or omitted. However, if there is a strong rhetoric of knowledge in KM such that a dominant view of knowledge is enforced, then it could be that negative views have been excluded quite deliberately.

The literature has indicated an inclination towards positive perceptions of knowledge (Martensson, 2000; Raub & Ruling, 2001). However, like two sides of a coin, glowing reports of knowledge do not mean that other kinds of knowledge do not exist. For instance, Machlup (1982) has highlighted how some types of knowledge can be dangerous, unwholesome or forbidden. As he points out:

Many high-spirited statements about the blessings of unlimited diffusion of knowledge are sensible only if one is aware of the exceptions and exclusions which the speaker or writer would surely propose were he more cautious in his pronouncements (p. 11).

This 'darker' side of knowledge is largely absent from KM writing. Hence, I want to signal this absence and in the process of research give voice to this unexplored area of KM.

Another aspect of KM that has not been critically examined is the 'knowledge hierarchy'. As the literature review has shown, the knowledge hierarchy developed as the literature in KM grew. It has remained unquestioned and is an accepted theoretical model within the field of KM (Rowley, 2007). Considering the lack of agreement regarding the definition

of knowledge itself, consensus regarding the 'knowledge hierarchy' model implies scant attention has been paid to what the hierarchy is based on.

By its very nature, a hierarchy is about distinctions. For a 'knowledge hierarchy' to exist, other types of knowledge have to be omitted or excluded. As Gusfield (1992) says, the absence of something is as important as what is present:

... an analysis of a corpus of studies can reveal how what is and what is not identified as objects of study acts to affect the perception the audience comes to have about the phenomena studied. That identity comes from and in turn affects what is studied in the entire field ... what they exclude is as important as what they contain. Insofar as an entire field is dominated by a single perspective towards its subject, it cannot avoid a rhetoric by silence (p. 120).

Giving voice to silences can be achieved through rhetorical analysis. For example, in their analysis of the rhetoric of management knowledge, Carter and Jackson (2004) reveal how systematic rhetoric is and that, by identifying the rhetorical techniques that are utilised, it is possible to discover the conditions of power that create and sustain dominant voices at the cost of marginalised ones.

There are many methods of rhetorical analysis (S. K. Foss, Foss, & Trapp, 2002; Hart, 1997) available. However, only Burke's logological theory (1961) specifically addresses the rhetorical construct of a hierarchy. His theory on the rhetorical motives of hierarchies is sited within a larger theory called 'logology'. As Burke's theory addresses much of my research question, I will base my methodology on his work. Burke's work and the methodology he suggests will be covered in greater detail in the next chapter.

To reiterate, the research questions asks: Does the rhetoric of knowledge in KM posit a particular perspective of knowledge? If so, what rhetorical processes enable it to do so?

Several objectives arise from this research question. Given that the literature review has established a theoretical hierarchy based on concepts of knowledge, the first objective would be to find the rhetorical motivation behind such a depiction of 'knowledge'. The next objective would be to identify whether or not the rhetorical processes have made the concept of knowledge a positive one. The third objective would be to uncover what has been left unsaid about knowledge in KM.

Given these objectives, it is necessary to outline the process I will undertake in order to answer the research question. In this regard, chapter three will explain the methodological principles of rhetoric that guide my research and chapter four will state in detail the method that I will apply.

Chapter Three

INVOKING THE LIGHT: RHETORIC, LOGOLOGY & CLUSTER CRITICISM

Introduction

At the end of chapter two, I stated my research question and objectives for this thesis. I also clarified the critical attitude I would take towards KM theory. In this chapter, I want to elucidate the methodological principles of rhetoric that will guide my approach to examining KM theory. I will start with a brief history of rhetoric and trace the development of New Rhetoric in which the theory of logology is situated. I will then explain logology and the method of cluster criticism as understood by different authors. This chapter then becomes a platform on which I will develop my method of rhetorical analysis which will be covered in chapter four.

Classical Rhetoric

Classical theories of rhetoric are western theories of rhetoric (Foss, Foss & Trapp, 2002). This is a point of note because rhetoric and its study has followed the development of western thought, losing popularity particularly with the rise of rationality (Rutgers, 1999). In organisation studies, the 'linguistic turn' gave new life to rhetorical approaches and it is now acknowledged as a useful approach to uncovering 'multiple layers of symbol systems' (Putnam, 1982, p. 203) in organisations.

In tracing the development of rhetoric from its Greek roots, my account will by and large be in chronological order. However, I am aware that each area presented is a selection and has been selected because the ideas and theories are relevant to my research question. Thus, authors or theories that relate to

the research question will be discussed more thoroughly, whilst others might just be mentioned to provide the necessary links through the narrative.

Historically, rhetoric is associated with Aristotle¹ (384-322 B.C.) and he is famous for establishing *logos* (words), *ethos* (values) and *pathos* (emotions) as a basic framework for rhetorical analysis. Drawing upon his predecessor Plato and the ideas of the Sophists, Aristotle's focus was largely on the techniques used to persuade, where attention was centred on the listener and the 'pragmatic processes of presentation' such as those found in speeches (Foss et al., 2002, p. 7). Hence, his treatise *Rhetoric* developed ideas around 'invention', which was the finding of material and the modes through which to present them to an audience. He also dealt with style, organisation and delivery. Memory, or memorisation of a speech for presentation was later added to Aristotle's foundational work to become the five major canons of rhetoric.

Among the Romans who took up the study of rhetoric and developed it were Cicero (106-43 B.C.) and M. Fabius Quintilian (35-95 A.D.). As an orator himself, Cicero devoted much effort towards style and delivery, formalising his techniques in the treatise *Orator* (46 B.C.). He also advocated a holistic approach to rhetoric where philosophy, or moral purpose, and rhetoric would drive 'all dealing with practical affairs' (Foss et al., 2002, p. 8). As a lawyer and educator, Quintilian systematised and synthesised Greek and Roman rhetorical thought which he felt was important for 'the education of the Roman gentleman, both useful and a virtue' (in Booth, 2004, p. 6).

As Booth (2004) has noted, rhetoric, as practised by the Greeks and Romans, was essentially confined to the 'oratory of males' (p. 4) and it assumed an

¹ Foss *et al.*, 2002, also mentioned Corax, Socrates and Plato but Aristotle was the first to systematise rhetoric as a body of thought.

environment where free speech was encouraged. The study and practice of rhetoric also implied a moral purpose as reflected in Aristotle's 'ethos', Cicero's inclusion of virtue and Quintilian's emphasis on 'the good man speaking well' (*Institutes of Oratory*, 93 A.D.). In terms of the areas of study, classical Greek/Roman rhetoric did not include poetry or other discourses such as science or textual interpretations. It was only in the Renaissance period that attention to language and poetry came to the fore through a group of intellectuals called 'Humanists'.

Unlike the meaning humanism has today, humanists (mostly Italian) during the Renaissance were interested in the human world as constructed through language. Hence, they studied languages of classical antiquity, history, moral philosophy and rhetoric (Foss et al., 2002). For them, rhetoric allowed humans access to the world through language, and poetry represented the capability to change the world.

During the same period, rationalism emerged as a dominant theme and was reflected in the theories espoused by French philosophers Petrus Ramus (1515-1572) and René Descartes (1596-1650). Ramus relegated rhetoric to just style and delivery, giving prominence instead to logic. Descartes rejected any form of truth found in discourse, consigning language to just a form of communicating truth once it was discovered. As such, Booth (2004) considers Descartes' contribution to rhetoric to be debatable since he was undermining its legitimacy with his insistence on certainty.

In terms of using rhetoric as a form of critical analysis, Aristotle's five canons were adopted and applied and the approach was named neo-Aristotelianism (Foss, 2004). This became the predominant method of rhetorical criticism but its limitations soon became obvious. Firstly, speeches were the only subjects that could be analysed because the approach focused on the effect of rhetoric

on an audience. This also implied that only single speakers, and usually those from the past, could be studied. Other forms of discourse, such as texts and nondiscursive rhetoric, were omitted as well because the neo-Aristotelian approach could not account for them. Secondly, and in relation to the previous point, Aristotle's canon was not intended to be a method of rhetorical criticism but a guide to public speaking (Foss, 2004). Thus, to apply it as a form of criticism was inappropriate. Thirdly, the Cartesian emphasis on rationality also limited the insights that could be generated out of a study because it meant that non-rational or emotional appeals had to be ignored.

As a result of these limitations and other related ones, rhetoric declined in prominence as an area of study until interest in the social constructions of language gave rise to what is called 'The New Rhetoric' (Carter & Jackson, 2004).

The New Rhetoric

Like its classical predecessor, New Rhetoric also sought to identify and analyse elements within a communicative act that were there to effect certain responses in an audience (Monin, 2004). However, it was 'new' because it broke away from Cartesian concepts of reason and reasoning and it also reconceptualised and demystified Aristotelian rhetorical logic (Carter & Jackson, 2004). New Rhetoric also enlarged the field to include texts and other forms of communication as proper subjects of rhetorical analysis.

Unlike the historical interest in the construction and presentation of a speech act (a macro perspective), New Rhetoric examined the building blocks of all communicative acts (a micro to macro perspective). For example, I.A.

Richards argued that rhetoric should be a 'philosophic inquiry into how words work in discourse' (Foss et al., 2002, p. 23). Instead of looking at groups of words, such as arguments and speeches, Richards believed that an understanding of how words functioned would allow individuals to

communicate that which they desired – whether speech, poetry or text. As such, he advocated that rhetorical studies should begin with words, the smallest units for conveying meaning.

Another significant move from classical to new rhetoric was the introduction of the importance of the audience. In this respect, Kenneth Burke and many of his ideas on rhetoric cannot be overlooked. Compared to the neo-Aristotelian approach, Burke was in many ways addressing the limitations of the traditional form of rhetorical analysis. In fact, Foss (2004) considers Burke to have had the greatest impact in terms of how rhetorical criticism is practised today.

Rhetoric, according to Burke, is not unlike traditional definitions of rhetoric where persuasion is the key feature. He defines rhetoric as, ‘the art of persuasion, or a study of the means of persuasion available for any given situation’ (Burke in Gusfield, 1989, p. 191). However, his concept of persuasion includes ‘unconscious intent, the self as audience, and nonverbal elements that have meaning for an audience’ (Foss et al., 2002, p. 197). These elements are woven throughout many of his publications and, according to Rueckert (1982), they come to a head in Burke’s book titled *The Rhetoric of Religion* (1961). As such, I will focus on this book more than the others. Portions of the following section on logology have been published (Teo-Dixon & Monin, 2007) and a copy of the paper has been included in appendix three (p. 275). The paper, however, only allowed a brief explanation of the theory. I will elaborate on it more fully here.

Logology

Burke’s theories are admittedly not easy to access. In his bid to create new ways of exploring rhetoric, he uses common words in different contexts and sometimes ends up obscuring what he means. To put it more mildly, Burke’s

work is considered 'ambiguous' (Klumpp, 1999). Logology is the most generalised theory and methodology Burke presents, so much so that Carter considers logology to be in the 'metalinguistic dimension of language' (Carter, 1992). He adds that in the light of logology, words 'give away their secrets' (Carter, 1992, p. 3). Hence, in rhetorical terms, logology is about 'motivational systems and orientations through the examination of words' (Foss et al., 2002, p. 204). In this section, I will endeavour to explain logology and the various terms that Burke employs and in the next chapter explain how Burke's theories will be applied.

Burke looked for occasions where persuasion would be the most complete and he found it in theology; the 'perfect model of the use of words' (Rueckert, 1982, p. 241). From his study, he formulated the theory of logology, which he calls 'studies of words-about-words' (Burke, 1961, p. iv).

Burke's theory of logology presents a series of observations on the nature of language based on theology. He states from the outset that he is 'concerned not directly with religion, but rather with the terminology of the religion; not directly with man's relationship to God, but rather his relationship to the word 'God' (author's emphasis)' (Burke, 1961, p. iv). He links his study of theology with rhetoric because 'religious cosmogonies are designed, in the final analysis, as exceptionally thoroughgoing modes of persuasion' (p. iv). For example, Burke sees the notion of 'God', or faith or doctrine, as possible only because language creates such a possibility. In other words, the existence of 'God' is derived from the existence of terms about God (Carter, 1992). Hence, theology, by employing language to represent 'an ultimate supernatural being' (Foss et al., 2002, p. 204) presents the perfect model of how language primarily works to persuade. Burke makes this fundamental connection between words and words about 'The Word' because the theory of logology posits an explicit conclusion as to where language will head.

In being words about so 'ultimate' or 'radical' a subject, it (theology) almost necessarily becomes an example of words used with thoroughness. Since words-about-God would be as far reaching as words can be, the 'rhetoric of religion' furnishes a good instance of terministic enterprise in general. Thus, it is our 'logological' thesis that, since the theological use of language is thorough, the close study of theology and its forms will provide us with good insight into the nature of language itself as a motive. Such an approach also involves the tentative belief that, even when men use language trivially, the motives inherent in its possible thorough use are acting somewhat as goads, however vague (Burke, 1961, iii, iv).

'The motives', he later claims, are a drive towards 'perfection' in a hierarchical sense. Rueckert (1982) explains what Burke means by 'motive' this way:

Language as a motive means the motive intrinsic to language, as if language were grounded in itself and generated its own motives for any user of it, whatever the specific language; and it also means the motives specific to a language-using or symbol-using species and not shared by non-symbol-using species (p. 241).

This 'motive' or drive towards perfection or 'entelechial principle' is a key point on which I will elaborate as it relates to the development of hierarchies. Rueckert (1982) provides a comprehensive discussion on 'entelechy' and I will rely on his insights to explain some of Burke's more complex notions. In order to get to this entelechial principle, it is necessary to explain the analogies and observations that Burke uses to explicate his theory.

One of the first observations Burke makes about language is that there are four realms to which words refer. There are words for the natural, such as things or nouns, words for the socio-political realm, words about words and words for the supernatural. The first three realms 'cover the world of everyday experience' (or the empirical) but the fourth necessarily borrows from the other three because 'the supernatural is by definition the realm of the "ineffable"' (Burke, 1961, p. 15). For example, when 'King of Kings' is used to describe the sovereignty of 'God', the word 'king' is borrowed from

the natural and socio-political realms. These 'realms' form the background for Burke's analogies and when he talks about the up-down movements of words or language, it is through these realms that movement occurs.

First analogy

Starting from the first analogy, or the 'master analogy', and working through five other analogies, Burke aims to show how words inherently strive towards perfection. In the first analogy, 'the likeness between words about words and words about The Word' (Burke, 1961, p. 33) is explained by establishing a relationship between what is said about words in the empirical realm and what is said about God in western theology. As Rueckert (1982) points out, Burke is not interested so much in the analogy between theology and logology, but in the 'reversible analogical relationship between the empirical realms of words and the supernatural realm of The Word' (p. 247). Once such a connection can be set up, it becomes apparent how words move through the secular into the supernatural and come back again with added meaning. Burke gives the example of the word 'spirit' which, in its natural meaning is 'breath', but because of its association with the supernatural now has connotations of temper and temperament.

Second analogy

The second analogy of 'words are to non-verbal nature as spirit is to matter' is essentially about the effect of words on the physical realm. Words, as Burke sees them, are symbols. But he also says that 'there is a qualitative difference between the symbol and the symbolised' (Burke, 1961, p. 16). For example, the naming of a thing such as a tree does not affect the physical tree. However, when the word 'tree' is used to symbolise the cross in Christian tradition, the symbolised 'tree' transcends its meaning and could provoke religious fervour if some piece of wood was said to be from the

cross of Christ. Therefore, what we can do with the thing 'tree' and the word 'tree' is as spirit is to matter. Or as Rueckert (1982) puts it, 'the verbal symbol has the power to transform the thing, reversing (sometimes destructively) the transformation that occurred when the thing was inspirited in its name' (p. 252).

Third analogy

The third analogy deals with the principle of the negative. Words in the empirical realm can be used literally to indicate natural things, 'every natural condition being positively what it is' (Burke, 1961, p. 19). Only in the linguistic 'realm' is there a notion of the negative. For instance, when we use language, we recognize that a word for something is that thing itself.

Quite as the word 'tree' is verbal and the thing tree is non-verbal, so all words for the non-verbal must, by the very nature of the case, discuss the realm of the non-verbal in terms of what it is not. Hence, to use words properly, we must spontaneously have a feeling for the principle of the negative (Burke, 1961, p. 18).

Burke's use of the words 'positive' and 'negative' simply indicate 'what is' and 'what is not'. There is no value judgement implied, as in 'positive' is equated with 'good' and 'negative' is 'bad'. They are also not meant to be 'polar' terms that imply logical opposites (Burke, 1961).

Like the previous analogy of the symbolized transcending the symbol, the principle of the negative requires that a distinction be made between the word 'tree' and the tree itself. Because the word 'tree' can transcend the thing 'tree', words for what the tree is not are possible. For this reason, it is only in language that the principle of the negative takes place.

As a 'peculiarly linguistic invention' (Burke, 1961, p. 20), 'the negative' allows us to understand the functions of irony or metaphors. For example, the metaphor 'bold as a lion' presumes an understanding of the negative that

such-and-such is not a lion. When it comes to words that have no empirical or natural correlation, such as the word 'God', Burke says that a translation takes place where the 'extra-symbolic' (meaning outside of the natural realm) is made 'symbolic' (meaning a word has been assigned to it) but which can only be understood in the negative (therefore, 'God' is 'immortal', 'immutable').

As a result of this principle, commands such as 'thou-shalt-not' are possible, which in turn gives rise to moral action (or the ability to distinguish its lack).

The ability to distinguish between right and wrong thus is a consequence of the concept of the negative. Without the negative implicit in language, moral action based on conceptions of right and wrong behaviour (such as law, moral and social rules and rights) would not exist (Foss et al., 2002, p. 205).

If the principle of the negative leads to moral action, then moral action leads to hierarchy because it is a 'human impulse to build society around ambition or hierarchy on the basis of commandments derived from the concept of the negative' (Foss et al., 2002, p. 206). Consider for example the connotations of social status when one is labelled 'law-abiding citizen' or 'criminal'. Inherent within those two labels is the need for those on 'higher' rungs to distinguish themselves from those who have contravened the law (hence they are criminals). Burke considers this 'hierarchic principle' inevitable, which essentially means that the 'human impulse' is ever towards the 'top of the heap', or perfection.

Fourth analogy

The fourth analogy is derived from an expansion of the preceding analogy. Using the same example of the 'tree', Burke says that wider and wider categories of trees would have to be named in order to describe all growing things in the 'positive' sense. Eventually, one would arrive at a term so

generalised as to embrace all growing things in the natural realm. Burke calls this the realm of 'The Conditioned'. Hence the negative of such a highly generalised term would be an equally generalised 'The Unconditioned'. In the realm of 'The Conditioned', things relate to one another ('tree' is related to other growing things). Therefore, 'The Unconditioned' would then be a realm of 'things-in-themselves'. What Burke wants to show is that if, in the natural, there is already an instinct to categorise the 'positives', then the same drive exists in the 'negative'. His fourth analogy asserts that when language is used, there will be a linguistic drive towards ever higher orders of generalisation, a title of titles, or 'god-term'. Burke likens this movement to Plato's dialectic, where the move towards the abstract was equated with a move towards the Divine.

The fourth analogy is also called 'the logic of perfection' (Rueckert, 1982) and it is unique to Burke. It is in this analogy that Burke contends that when language is used, it unconsciously drives itself towards an overall 'god-term' in the same way that theology 'drives' itself towards 'God'. Rueckert explains it better:

Hell is a title of titles. Law, justice, act, the Word, the State – these are all a title of titles. The point of this analogy is that language follows the logic of theology, which is a logic that ascends to what Burke elsewhere calls a 'perfect essence'. And the perfect essence of anything can be contained in one of Burke's titles, since it is the habit (the compulsion) of the human mind, using language, to follow (pursue, drive) words to the end of the line, going full circuit with them in the process of entitlement. One goes up, arrives at the title of titles (the perfect essence), and comes back down through all the levels and realms, bringing (borrowing) back what one discovered at the top, following the reversible logic that is everywhere at work in these analogies.

The point is that everything that derives from language and symbol-using (any symbol-system whatsoever) follows this logic, which is logological itself, and drives toward the perfection and completion of itself (p. 256).

Rueckert points out that paradigms function in this fashion. In fact, he calls the fourth analogy 'the logic of paradigms itself' (p. 255). However, he also warns that the 'logic of language knows no morality' (p. 256). In other words, when language drives itself towards perfection, it is not necessarily constructive but could be 'diseased, cancerous, destructive' (p. 256). Burke calls it being 'rotten with perfection' (1966, p. 16).

Similar to Aristotle's concept of entelechy, Burke's notion of perfection contends that everything tries to bring itself to completion 'according to the perfection (that is finishedness) of which that kind is capable' (Foss et al., 2002, p. 206). Like 'negativity', the principle of perfection is also inherent in language. For example, 'the mere desire to name something by its "proper" name, or to speak a language in its distinctive ways is intrinsically "perfectionist"' (Burke, in Foss et al., p. 206). Carter (1992) calls this tendency of language 'Burke's theory of linguistic entelechy: all linguistic structures tend toward the perfection of their forms' (p. 5). One observable result is the drive towards a 'Title of Titles', a 'god-term' under which other categories derive their meaning. Taking this point a little further, if the central notion of 'God' can be viewed by the various subclasses of theology, then a 'god-term' can also be discovered by its associated words. Such a term would be the 'logological centre', the place from which other 'specialisations' radiated.

Burke does not elaborate further on 'god-term' but he provides some direction by pointing to 'logos' his 'master analogy'. He starts with the theological doctrine of 'The Word' as expressed in the Gospel of John: 'In the beginning was the Word, and the Word was with God, and the Word was God' (John 1:1). He then says, 'The Word' is related to the verbal as being an 'uttered word' and hence should not be solely equated with 'reason' which is the understanding that Aristotle had in his theory of rhetoric. To be fair, the Greeks had a broader understanding of 'logos'. According to Rutgers (1999):

The term [logos] is generally used to refer to the structure of the universe, as well as to human thought and activity. Or put differently, as a cosmic principle, *logos* is applicable to human thought. Implicit is that only humans are able to know the logos and to live according to it. Therefore, *logos* can only ever be known by means of contemplation, not by calculation of the ever-changing world of material conditions. In conclusion, the Greek concept of *logos* does not simply refer to human knowledge. Rather, it has a much broader meaning: to the ancient Greeks, being ethical and being rational are interdependent (p. 21).

Going back to a translation of 'logos' (λόγος), we find that it means 'the word or outward form by which the inward thought is expressed and made known'. This was the verbal element to which Burke was referring. The translation from the Greek also acknowledges the meaning of the inward thought being 'of reason itself'. Hence, the word 'logos' suggests both the rational and the verbal (Latin *ratio* and *oratio*). When applied to 'The Word', the Greek form Ο ΛΟΓΟΣ is translated as 'GOD THE WORD' (as opposed to 'the word of God', which refers to the scriptures). The relationship between God the Father and God the Son was thus as intimate as 'the thought that leads to utterance is to the uttered word that expresses the thought' (author's emphasis, Burke, 1961, p. 13). In this sense, when '~ology' meaning 'the study of', is added to 'logos', then 'Logology' would essentially mean 'the study of GOD THE WORD'. From this understanding, when a word becomes a 'god-term', it is as far reaching as a term can be. Burke sums it up this way: 'what we say about words, in the empirical realm, will bear a notable likeness to what is said about God, in theology' (Burke, 1961, p. 14).

Returning to the notions of hierarchy and perfection, there is a sense of disparity among those in different positions on the hierarchy because 'hierarchy, while unifying its members through the perfection embodied in its ideal, also is characterized by division' (Foss et al., 2002, p. 207). As a result of the differences among individuals, be it from lack of knowledge

about others, different perspectives or ways of living, there is a gap between individuals which Burke calls 'mystery'.

Mystery is a major source of persuasion. Endow a person, an institution, a thing with the glow or resonance of the Mystical, and you have set up a motivational appeal to which people spontaneously ('instinctively', 'intuitively') respond. In this respect, an ounce of 'Mystery' is worth a ton of 'argument' (Burke, in Foss et al., p. 209).

One example Burke cites is how people will obey those they consider authoritative once they accept the 'mystery' between themselves and their authority. At the same time, mystery also allows those who 'obey' to identify and communicate with each other and with the one whom they obey. Foss likens this aspect to fans of a rock star. Although fans and the star have little in common, mystery 'cloaks their differences' to some degree such that fans are able to identify with the star by adopting the star's style of dress or singing the songs or buying products endorsed (Foss et al., 2002, p. 209).

Logology then can be seen as 'the science of unpacking words and symbol-systems' (p. 257) which Rueckert says involves more than just hermeneutics.

One must always say something about style -- about the form of the contents of the word, about the structure of the contents of the text, about the contexts of the text, and (to name but one more) about the text as a symbolic action (p. 257).

Fifth analogy

The fifth analogy deals with the relationship between a word or sentence and its meaning. Using the concepts 'time' and 'eternity', Burke shows how words and sentences are temporal whilst the meaning of the sentence transcends time. For example, he points out that 'where each syllable arises, [it] exists for a moment, and then 'dies' to make room for the next stage of the continuing process' (p. 27). Whereas, the meaning of a sentence is 'an *essence*, a kind of fixed significance or definition that is not confined to any of

the sentence's parts, but rather pervades or inspirits the sentence as a whole' (p. 27). Hence, if man is defined as a 'symbol using animal', then care has to be taken when distinguishing between a symbol and what is symbolised.

Sixth analogy

The sixth analogy examines the relationship between the symbol and the symbolised by comparing it to the Trinity. Just as 'the Father' is said to 'generate' the Son, a symbol 'generates' what is symbolised. Burke calls this state a 'correspondence' or 'communion' between that which is ('tree') and the word which names it (the word 'tree'). This 'correspondence' or 'communion' is reflected in the concept of the Holy Spirit, who is not derived from either Father or Son, but from their 'togetherness' (Burke, 1961, p. 30). Thus, when one considers symbols (e.g., books) and the names given to the symbol (e.g., knowledge), the 'correspondence' produces another entity altogether (i.e., the meaning we derive from associating books with knowledge). Burke makes up the word 'symbolicity' of the symbolic to capture this event.

Burke makes his final point on the sixth analogy by referring back to the notion of time mentioned in the fifth analogy. Just as a father must precede a son in chronological order, there is also a sense that before a son is born, a father cannot be named such until the son exists. Father and Son are thus simultaneous and reciprocal terms. By analysing the relationship between words and the things they name and the meanings derived from such relationships, Burke provides 'cues' for uncovering motives, whether they be philosophic, narrative, temporal or sequential.

These last two analogies point toward the forms that underlie 'the linguistic situation' (p. 29) and Burke wants to highlight the complexities involved between a thing and the word that names it. Not only is time and space

involved in language, but the relationship between things and words are also mysterious yet logical. As Rueckert puts it, 'language is what connects everything and mediates between everything' (p. 260). Hence, Burke's point is that the use of words and language is not a simple, straightforward matter but involves going up and down, back and forth, 'from beginnings to ends, from timeless to temporal, from temporal to logical, from natural to supernatural, from pre-verbal to extra-verbal' (Rueckert, 1982, p. 260).

To recap, the six analogies are:

1. The likeness between words about words and words about The Word.
2. Words are to non-verbal nature as Spirit is to Matter.
3. Language theory, in coming to a head in a theory of the negative, corresponds to 'negative theory'.
4. Linguistic entitlement leads to a search for the title of titles, which is technically a 'god-term'.
5. 'Time' is to 'eternity' as the particulars in the unfolding of a sentence are to the sentence's unitary meaning.
6. The relation between the name and the thing named is like the relations of the persons of the Trinity.

In summary, Burke's theory of logology begins with the assumption that theology provides a model where all the resources of language have been exhausted. Theology thus shows us the end-result of language when used rhetorically. Several principles of language are revealed through theology. Firstly, the principle of the negative allows commandments or laws to be enacted such as 'thou shalt' and 'thou shalt not'. Secondly, the principle of

hierarchy can be observed through human impulse to distinguish themselves through moral action. Following the principle of hierarchy is that of perfection, as the final goal of hierarchy is to achieve the pinnacle of perfection – each after its own kind. The same drive toward perfection is apparent in language as well. Supreme terms, such as those about God like ‘King of Kings and Lord of Lords’, reflect the need for language to achieve its ‘final destination’ after which language folds back on itself (Carter, 1992). Finally, the principle of mystery, based on the disparity inherent in hierarchy, permits both obedience and identification to occur. Belief in God as described in the Bible, for example, demands obedience to His commandments. Yet at the same time, believers can identify with God and transcend their human-ness to become more like God by emulating His characteristics such as compassion, gentleness and so on.

In essence, Burke’s main argument is that every word radiates from a logos-logical centre and because this happens, it is possible to trace the motivations underlying the use of symbols. In addition, the analogies he provides expose the linguistic design inherent in the use of language or, as Rueckert (1982) puts it, ‘a common core of principles and operations’ (p. 253). For instance, the negative is only possible in language, as are words-about-words. Burke also draws attention to the relationship between a symbol, what is symbolised and its ‘symbolicity’. In other words, Burke extends the dualistic notion of thesis and antithesis to include synthesis as part of the equation.

Applying these principles to rhetoric and the notion of audience participation in persuasion, my understanding is that the rhetor can be seen as the ‘thesis’; the temporal, physical thing. The audience is the ‘antithesis’ or ‘negative’, a counterpart who is not necessarily antagonistic. What happens as the rhetor and the audience participate in a verbal act (as Burke defines language as a ‘species of action’ or ‘symbolic action’) is then the ‘synthesis’.

As explicated in the relationship in the Trinity, neither the rhetor nor the audience can precede each other but together they produce a particular meaning to particular symbols. Burke names this process 'identification'.

Identification

According to Burke, identification happens when 'two entities are united in substance through common ideas, attitudes, material possessions or other properties' (S. K. Foss et al., 2002, p. 192). Unlike classical rhetoric, which assumes its audience is passive, 'identification' (or consubstantiality) signifies the response of the addressee (as in a speech act) or reader (when it relates to a text) in the process of persuasion. Hence, persuasion happens as a result of identification. As Burke puts it:

You persuade a man only insofar as you can talk his language by speech, gesture, tonality, order, image, attitude, idea, identifying your ways with his (Burke, 1969b, p. 55).

The underlying motive for identification comes from the principle of the negative. Burke contends that people seek identification because of division. Having individual bodies means that humans are physically separate from each other. However, in the act of consubstantiality, a person is both joined and yet still separate. Hence, 'people communicate in an attempt to eliminate division' (Foss, 2004, p. 70). Foss goes on to point out that one of the ways rhetors attempt to create identification is by naming or defining situations for audiences.

A rhetorical act or artefact provides assistance to its audience in a number of ways. It may provide a vocabulary of thoughts, actions, emotions, and attitudes for codifying and thus interpreting a situation (Foss, 2004, p. 70).

For example, when 'identification' is applied to reading texts, 'a reader who "identifies" chooses to see in the text messages that are in tune with what she

is disposed to believe and/or act on' (Monin, 2004, p. 64). In other words, the reader takes an active role in the meaning-making of a text by identifying with the perspective an author projects. This happens only through language. In this sense, rhetoric is 'the use of language as a symbolic means of inducing cooperation in beings that by nature respond to symbols' (Burke, in Gusfield, 1989, p. 188). Monin (2004) has observed that root metaphors that create and sustain a particular view are very powerful rhetorical devices and Burke suggests that this is because of the process of identification. As Andriessen (2006) has shown, the metaphors of 'knowledge as resource' and 'knowledge as capital' have had a significant impact on how knowledge is viewed in KM.

Cluster analysis

Another term that Burke introduces is that of 'terministic screens' (Burke, 1966). These are terms we use to describe our world which reflect our focus on particular aspects of reality as opposed to others. Burke posits that a rhetor's worldview can be revealed by analysing their terministic screens. In addition, these screens are unconscious because although a rhetor is 'perfectly conscious of the action of writing, conscious of selecting a certain kind of imagery to reinforce a certain kind of mood, he cannot possibly be conscious of the interrelationships among all these equations' (Burke, in Foss, 2004, p. 72). Therefore, by examining these screens and their interrelationships, we can gain insight into an unconscious worldview. Foss calls this approach 'cluster criticism':

In cluster criticism, the meanings that key symbols have for a rhetor are discovered by charting the symbols that cluster around those key symbols in an artefact ... In other words, the task of a critic using this method is to note 'what subjects cluster about other subjects (what images *b, c, d* the poet [rhetor] introduces whenever he talks with engrossment of subject *a*)' (S. K. Foss, 2004, p. 72).

According to Foss (2004), cluster criticism can be done in three steps.

Assuming a particular artefact has been selected for analysis, and this would include discursive and non-discursive artefacts, the first step would be to identify key terms in the artefact. A key term can be identified based on the frequency or intensity with which it is used and it should be significant to the overall message intended. I will elaborate on how this works in the next chapter.

The next step would be to chart the terms that cluster around the key terms. Burke refers to this as the 'what goes with what' equation where the reader locates and understands the 'identifications' that a text holds. For example, if 'knowledge' is a key term in knowledge management, then terms such as 'asset' and 'capital' that have been associated with the concept of knowledge need to be noted. Such associations can arise from proximity to the key term or from relationships (such as cause and effect) that the writer has developed or suggested. At this stage, however, Burke cautions the reader to defer their acceptance (or not) of the text as it would impede a full examination of the text.

The third step would be to make the connections between the clusters and discover explanations for their relationships. In other words, it is a search for patterns in the linkages that have been established in the text and how they reflect the intentions of their 'creator'. Foss (2004) also suggests looking at opposing terms in the search for patterns. For example, key terms that are set in contradiction to each other are noteworthy as they may represent a conflict or confusion within a writer's worldview. In my view, the search for opposing terms represents a fourth step and Rueckert (1982) provides some explanation on how it works.

According to Rueckert (1982), 'the implicit or explicit opposition of terms constitute the conflict necessary to drama' (p. 87) and he names the terms that stand in conflict as 'agons'. The concept of the agon is derived from Burke's 'negative theory' (as mentioned in the third analogy) and Burke explains it this way:

... no matter which of the three the [poet] begins with (agon, protagonist, or antagonist) he cannot give us a full drama [or poem] unless he imaginatively encompasses the other two (Burke, in Rueckert, 1982, p. 86).

In other words, 'agons' are an inherent part of linguistic expression. In addition to providing drama, Rueckert says that 'agons' also reflect the author's point of view. He gives the example of an analysis of *Madame Bovary* where the final agon is 'the artist against middle-class society' (p. 88). Rueckert, however, views the process of cluster and agon analysis as 'essentially reductive' as texts are indexed and schematised and structure is 'carefully charted' (p. 90). Nonetheless, he provides more detail than Foss (2004) on how cluster and agon analysis is carried out.

Berthold (1976) adapts Rueckert's interpretation of cluster and agon analysis and calls it 'cluster-agon analysis'. In her article, Berthold tries to clearly define the method of cluster and agon analysis and provides an example of how she carried out her analysis. As her paper is more comprehensive than Foss or Rueckert's descriptions of cluster analysis, I will focus on her method and adapt it for my research. At this point, it is difficult to explain the process of analysis I will undertake without going into the details of the method. As such, I will explain in detail the method I will apply and address some of the prevailing limitations of cluster analysis in the next chapter.

Returning to the 'steps' advocated by cluster criticism, once the relationships between clusters have been exposed and collated, a composite picture of the

rhetoric within a text can be derived (Foss, 2004). These 'steps', as we have seen, are open to interpretation and development. Hence, from 'terministic screens' (Burke) to 'cluster criticism' (Foss), 'cluster and agon analysis' (Rueckert) to 'cluster-agon analysis' (Berthold), this method of rhetorical analysis has room for development.

Chapter Four

CASTING THE LIGHT ON TEXTS: EMBEDDED CLUSTER-AGON ANALYSIS

In the previous chapter, Burke's theory of logology, his notion of 'identification' and 'terministic screens' and the basis of cluster analysis were presented. This chapter will continue with a more detailed explanation of cluster-agon analysis as presented by Berthold (1976), how it has been described and employed by others, and I will also note some of its limitations. I will address these limitations by refining the process of analysis, which I will denote as 'embedded cluster-agon' analysis in order to distinguish it from other forms of cluster analysis. Within embedded cluster-agon analysis is an approach to text analysis called 'scriptive reading' (Monin, 2004). This is a method of approaching texts at ground level which Berthold's cluster-agon analysis does not address. Finally, I will describe the process of text selection and list the texts that will be subject to the method of text analysis explicated in this chapter.

Cluster-agon analysis

Because Burke did not specify in detail how cluster criticism should be conducted, Berthold (1976) set out to develop a method of text analysis based on Rueckert's (1982) interpretation. In order to clearly define her method, she developed and applied her interpretation of cluster criticism to an analysis of presidential speeches by John F. Kennedy. She outlined the three main steps in her method as the 'selection of key terms', 'cluster analysis' and 'agon analysis' (p. 303). The term 'cluster analysis' is also used in statistics, but this other usage has no connection with the term as used by Berthold and Rueckert and as I describe it below. Furthermore, the three steps of rhetorical analysis that form the basis of the method that Berthold, following Rueckert,

employed were sometimes described by her as cluster-analysis and sometimes as cluster-agon analysis. I will describe her method as cluster-agon analysis, and my development of it as 'embedded cluster-agon analysis' which I will explain after outlining Berthold's method.

The first of the three main steps of cluster-agon analysis, the selection of key terms, is a search for terms that is based on the frequency and intensity of usage. Terms of high frequency are simply terms that are often repeated in the text selected, while terms of high intensity are those that are particularly significant in the works being studied (S. K. Foss, 2004). For instance, the intensity of terms can be detected in the verbs and adverbs that accompany the key terms.

From within the selection of key terms, 'good terms' and 'god terms' can be determined. Berthold's use of 'god term' is an adaptation of Burke's term (as explained in chapter three) and by it she means 'an ultimate term through which other terms are ranked by degrees of comparison with it' (1976, p. 303). In addition, she says 'god terms' tend to receive society's 'greatest sanction' and its highest respect. Berthold also remarks rather cryptically that 'the god term is almost certain to demand sacrifice in a material sense' (p. 303). I take this to mean that other terms had to be 'sacrificed' or left out in order for the 'god term' to take precedence. 'Good terms' are terms that are not as significant as the 'god term' but are second only in the effect they have on a particular text. In other words, 'good terms' are 'god terms' in everything except in terms of impact.

In order to determine the difference between 'god terms' and 'good terms', the weight of each term can be measured by:

the comparative intensity and frequency of use, the strength and clarity of its imagery, and the frequency with which it is linked with

other terms. The presence or absence of negative connotations or of synonyms which are used in the immediate context likewise are determinants of weight. The equations, oppositions, and varying weights establish, respectively, the clusters, agons, and hierarchy of key terms from which the critic determines the rhetoric's meaning (Berthold, 1976, p. 303).

In the above quote, Berthold describes the formation of clusters which is the second step in the process of analysis. A cluster is, thus, a group of words that are related to each other by shared meaning and this shared meaning can either be specifically established by the author or it can be implied through the use of imagery or other tropes.

The strength of cluster-agon analysis thus lies in the links that can be established between terms of significance in a text and across texts. These associations can be seen in several ways. For example, the use of a conjunction such as 'and' is one obvious way terms are linked to each other. Associations can also be established by a cause-effect relationship or through the use of imagery such as metaphors. Indirect relationships can also be found through mutual relationships to other terms. For example, in the knowledge hierarchy, data is indirectly linked to knowledge through information. However, direct links between key terms will assign more importance to the terms involved than indirect links.

In the midst of setting up associations, the context in which the terms appear must not be overlooked. As Berthold (1976) cautions:

No apparent limitation exists on the number of ways in which terms may be combined. The critic, in general, must examine each context for ways in which the key term is supported or accompanied by another term (p. 303).

In other words, the combination of terms and the number of clusters formed will vary depending on the text and the individual reading the text. This means that the process of analysis will be interpretative and not merely a

counting of words and their grammatical relationships. It also means that the process of analysis needs to be developed further in order for the context to be properly accounted for.

Berthold (1976) says cluster analysis on its own is incomplete because it 'lacks a sense of drama and conflict' (p. 303). Hence, agon analysis is offered as a partner to cluster analysis and this is the third step in the process of analysis. In agon analysis, the method is the same as cluster analysis but the focus is on terms that oppose each other. The word 'agon' is used to denote adversaries in a debate or competitors in a game. Similarly, in agon analysis, terms which compete with another indicate a potential source of conflict either within the rhetor or within the rhetoric. As Burke has pointed out, 'the primary importance in the locating of what one *is*, is the locating of what one *is against*' (Burke, 1962, p. 364, author's italics). In other words, cluster analysis tells us where the rhetor 'is', while agon analysis tells us what the rhetor is 'against'. The result is what Strother-Jordan (2002) calls the 'rhetoric of antithesis':

Simply, the most effective way to understand freedom is to illustrate what its opposite, slavery, means. If the rhetor uses his or her discourse effectively, then the negative terms become that against which the rhetor is trying to persuade the audience (p. 199).

In relation to this third step of the process, Heinz and Lee (1998) point out that in addition to looking for associations, disassociations can also be significant when 'linking terms and symbols to some meanings but not others' (p. 89). They give the example of the diamond industry that has consistently disassociated itself in the public domain from the civil war in Sierra Leone. Having said this, Strother-Jordan and Heinz and Lee and even Berthold applied agon analysis very broadly to the analysis of their texts. I believe agon analysis can be far more fruitful if given more attention.

The application of cluster-agon analysis has been varied. As mentioned, Berthold (1976) applied it to the presidential speeches of John F. Kennedy and found that the concepts of freedom, strength and security were contrasted with communism, war and fear. It was a particularly powerful rhetoric for Kennedy's time and the analysis showed how it worked. Foss (1984) has applied the method to uncovering the opposition to women priests in Episcopal churches; Heinz and Lee (1998) to meat consumption discourse in the USA, and Strother-Jordan (2002) to the development of Afrocentricity. These analyses revealed, in the first instance, that the plight of animals in the consumption of meat was deliberately omitted and, in the second instance, that 'Eurocentrism' ignored the multiplicity of culture within their borders. The variety of applications indicates that this method has been applied and accepted by researchers. Their publication in a variety of peer-reviewed journals also shows that the method is not limited to a particular field of studies.

The authors of the above studies have also found the method useful in several ways. For example, the method can be used to establish a reliable basis of comparison especially when comparing the rhetoric of different speakers (Berthold, 1976). It can also reveal the predominance of certain cultural values (Heinz & Lee, 1998). However, the main use made of it by the authors is to uncover motives. By this I mean the motives in the context of the texts they select to examine. As Heinz and Lee put it:

If one discovers the symbolic relationships structuring a text, one can trace the patterns of motives and thus begin to articulate how texts construct and support cultural values (p. 90).

As one of the objectives of my research is to discover the rhetorical basis of the concept of knowledge in KM, the cluster-agon method of analysis seems well suited to the task.

From the above examples, it is also apparent that the various authors adapted the method of cluster-agon analysis according to their research purposes as they applied it to different genres of texts. Berthold (1976) applied it to speeches, Foss (1984) to sermons, Heinz and Lee (1998) to articles published in the media and Strother-Jordan (2002) to a range of texts. I will apply this method of analysis to academic journal articles on the topic of KM theory; and will further develop it as follows.

Embedded cluster-agon analysis

The three-step approach presented by Berthold is expedient but it requires adaptation to my research purposes. The topic of knowledge in KM is a complex one and Berthold's method of 'counting' and 'weighing' key terms may circumscribe the richness of the texts selected if interpretation were reduced to numbers and measures. The lack of flexibility in this case would to some extent predetermine outcomes as well. The word 'knowledge' alone has a density of meaning (see appendix two, p. 271, for the etymology of the word 'knowledge') that will require a method that allows for its intricacies to be revealed. Hence, rather than focussing on the frequency of key terms, which is based on tallies, I will give room for the intensity of key terms to surface. This will begin in the selection of key terms.

In the selection of key terms, I will look for words that describe the concept of knowledge. These can be individual words that have literal connotations. For example, knowledge is often described as originating from the mind. The key words here would be the words 'originate' and 'mind'. The connotation of 'origin' might be 'source' or 'wellspring'. It could also mean 'basis' or 'foundation' which is quite different in relation to knowledge. Likewise, the connotations of 'mind' might indicate the physical location of the brain as a body part or it could refer to intelligence or an attitude. The context within

which these key words are used will indicate the significance or intensity of these words to the text.

Other descriptions of the concept of knowledge can be figurative. These figurative meanings are detected through the use of tropes and other forms of figurative language. For example, the metaphor of 'knowledge as an asset' is a common one as indicated in the literature review in chapter one.

Metaphors help us to understand one thing in terms of the attributes of another. Hence, metaphors connect some of the attributes of a 'source domain' with some of the attributes of the 'target domain' (Lakoff & Johnson, 1980). For example, 'knowledge as an asset' implies that the concept of knowledge (the target domain) can be likened to assets (the source domain) in terms of the attributes that assets have. Lakoff and Johnson highlight that there are other 'entailments' that accompany such connections such as the connotations of the word 'asset'. Thus, when the concept of knowledge is associated with 'asset', the meanings regularly associated with 'asset' are also transferred to 'knowledge'.

Andriessen (2006) states that 'the metaphorical mapping from the source to the target domain can be rich and complex' because 'it can transport large amounts of meaning that is familiar to us from the source domain to an abstract concept' (p. 95). These 'large amounts of meaning' add layers of complexity to metaphors but they also allow us to form clusters of associated meaning based on the connotations of words connected to 'knowledge'.

In addition to words that indicate literal and figurative meanings are words that imply something about 'knowledge'. These are usually embedded meanings that reflect what 'is not' (Burke's negative theory) or what has been left out. For instance, if knowledge originates from the mind, it implies that

knowledge is not located elsewhere in the body. These embedded meanings are particularly helpful in finding the agons of a text and in uncovering that which a text has ignored, dismissed or omitted. Hence, I will pay attention to meanings found in subtexts, a level of analysis that has not been developed in Berthold's method.

From the selection of key words, I will form clusters of associated words based on their literal and figurative as well as embedded meanings. Hence, words that have direct or indirect links or cause and effect relationships to 'knowledge as an asset', for example, form a cluster. Similarly, words related to 'knowledge as a mind' form another cluster. These two metaphors of knowledge as 'asset' and as a 'mind' share a connotation of 'knowledge' possessing physical attributes. An asset, for example, is a tangible, measurable item on an accounting sheet. The 'mind' refers to a specific part of the human body. Thus, it is likely that the clusters will overlap in terms of the physical connotations they give to the concept of knowledge. In such a case, these clusters can be combined into a cluster-group that project the image of knowledge as a physical entity. There are, of course, other ways clusters can overlap due to the multiplicity of interpretations available. The cluster-groups will be formed on the most dominant or recurrent idea of knowledge as indicated by the texts. To some extent, I will have to impose structure and make choices regarding the allocation of clusters. Nevertheless, I will aim to let the texts take the lead in forming the clusters. This will mean that each text will produce its own depth and range of clusters. In other words, the number of clusters that eventuate will be uneven as will the length of each analysis.

The final step in the cluster analysis is the 'ranking' of the clusters in terms of their significance to the text in order to determine which concept of knowledge is most important in that particular context. This is where 'god-

terms' and 'good terms' will direct the position of each cluster. If we know which aspect of knowledge is important to the author(s), it is likely that the agons will surface in that particular cluster with regard to the unspoken fears and anxieties that author(s) have about that particular aspect of knowledge. Furthermore, the agons will indicate concepts of knowledge that are deeply embedded and/or omitted. However, as Rueckert (1982) has shown, agons can also be found in the 'artist' or author of texts. This means that agons can also reside in subtexts and are, thus, not dependent only on key terms in a text.

The point to note about agons is that the terms that emerge as the 'opposition' to the 'god-terms' or 'good terms' are not negative in the sense of value judgements. Like a contest between two wrestlers, the agon represents an opponent, not 'an enemy'. Tensions and drama in texts indicate the presence of agons but the conflict in this sense is not necessarily 'bad'. However, what agons might reveal about the authors or their assumptions can potentially have value judgements placed on them. For example, if the concept of knowledge is predominantly 'positive' or 'good', it could suggest that the authors are hiding, omitting or ignoring other social or ethical aspects of knowledge. In such an instance, some value judgement will take place. Nevertheless, I want to emphasise that the agon analysis in itself is neutral.

To recap the method described so far, the first step to embedded cluster-agon analysis is to select the key words from a text that relate to a particular topic. These key words can have literal, figurative or embedded meanings. From these key words, clusters are formed from a number of contributing concepts. These concepts are often expressed in metaphorical terms (given the abstract nature of 'knowledge') which may give rise to concepts appearing in different clusters. After the clusters have been formed, the agon

analysis will take place. The focus of the agon analysis will be that which a particular cluster has ignored, omitted or marginalised. When all the clusters and agons are established, I will then form cluster-groups based on shared attributes of the concept of knowledge. These cluster-groups will be discussed in chapter seven in relation to all the texts selected so as to derive patterns and trends in the understanding of knowledge in KM.

There is, however, some further limitations to Berthold's cluster-agon method of text analysis as it has been applied, which I need to address. Firstly, cluster-agon analysis jumps straight into a text in its search for key words. Such a move implies knowledge of what a text is already about. Secondly, given the interpretive nature of associating terms with other terms and accounting for those relationships, the cluster-agon method does not call for reflexivity on the part of the researcher/critic. Thirdly, cluster-agon analysis only accounts for the particular text being examined. For example, in Heinz and Lee's (1998) study of the discourse of meat consumption, that discourse was framed within Marx's theory of 'commodity fetishism' in order to give their findings more relevance to the meat industry. In the same way, the findings of my analysis will have to be seen in the light of logology and situated within the context of KM before drawing conclusions regarding the findings. In the following section, I will address these three issues.

Scriptive reading

When it comes to analysing texts, Umberto Eco (1990) says there is a stage before critical analysis that we must account for:

Semantic interpretation is the result of the process by which an addressee, facing a Linear Text Manifestation, fills it up with a given meaning. Every response-oriented approach deals first of all with this type of interpretation, which is a natural semiotic phenomenon. Critical interpretation is, on the contrary, a metalinguistic activity – a semiotic approach – which aims at describing and explaining for

which formal reasons a given text produces a given response ... (p. 54).

To account for 'semantic interpretation' and for an approach in which to situate cluster-agon analysis, I looked to Monin's (2004) method of 'scriptive reading' as it provided a clear approach to accessing texts.

In scriptive reading, each selected text is subjected to three interpretive phases which are termed dominant, critical and reflexive. The first phase basically describes what the text is saying in line with standard interpretations. This phase of reading is seen as 'horizontal', where one begins at the first page and moves towards the conclusion. At this stage, meaning is assumed to be coherent. This may seem too obvious but one cannot assume that readers begin at the beginning and end at the end. For example, newspapers and magazines can be read for specific areas of interest and not for the whole publication. Hence, the first phase of reading takes place sequentially and the meaning that is derived from such a reading is summarised as the first phase of reading a text. At this stage, the context is provided and the text's meaning is established as the author intended.

The search for key words and the forming of clusters can then begin. This takes place during the 'critical' phase of reading. At the critical level, the aim is to discover why or how a text produces a 'given response', as Eco has indicated above. It requires a reader to look beneath a text for underlying meaning. Monin (2004) describes it as 'looking at and through' a text. This stage of my analysis will be the most thorough as the formation of clusters and agons requires a constant sifting of words and meanings. As Burke has indicated as well, interpretation is a process of going up and down, back and forth. As such, I am aware that my interpretations in the process of analysis are inherently subjective. However, critical reading is as much of an experience as it is a process of text analysis. Apart from looking at linguistic

devices such as semantics, syntax and symbols as a gauge for interpretation, the final outcome is often a combination of method and 'non-method' (Monin, 2004). Even when taking a prescribed path or method in breaking down a text, reader-response theories say that the meaning that eventuates is the one the reader creates. I take comfort that Eco believes 'there is no way to decide which interpretation is the "good" one, but it is possible to decide, on the basis of context, which one is due, not to an effort of understanding "that" text, but rather to a hallucinatory response on the part of the addressee' (Eco, 1990, p. 21).

The third phase of scriptive reading is a reflexive one and it helps to address a gap in cluster-agon analysis. Reflexivity essentially questions the reader's own interpretations, which is always a subjective process, as indicated above. However, it also brings a level of transparency to the reading/interpretive process because it provides a 'space' in which a critical reader may take stock of his or her analysis. This phase necessitates a 'looking back' but I think it also allows a movement forward because, as a reader, I would be more aware of my own assumptions before making conclusions regarding a text. Although Burke does not talk about this phase in cluster-agon analysis, his other writings emphasise the need to be constantly aware during critical analyses. Ivie (2001) sums it up this way:

Burke encourages rhetorical critics, who can never be completely "free of subjective interpretations", to use all there is to use, to show by inductive inspection and citation where the symbolic interrelationships exist in the problematic rhetoric that they have selected for critique, to expose their own propositions to examination and discussion by offering supporting evidence, to explain the limits of their critical accounts in order to avoid producing "essentialising strategies" of interpretation, and so on (p. 3).

Thus, my cluster-agon analysis will be situated within the scriptive reading process. The first phase of reading will provide an overview of the context in

which the text was first published; and then a summary of commonly agreed interpretations of it. In the second phase of my reading, I will complete a cluster analysis of the text, and the third phase will provide a reflexive response to the texts. This approach will address the two limitations of cluster-agon analysis highlighted earlier: the lack of a 'linear text manifestation' (Eco, 1990, p.54); and a necessary antidote to "essentialising strategies" (Ivie, 2001, p. 3)

One further issue relates to a wider concern of application. In order for the results of the text analysis to have meaning in the context of KM, the findings will be situated within Burke's meta-linguistic theory of logology. This means that I will return to the theory of logology only after all the texts have been analysed and discussed.

Summary of embedded cluster-agon analysis

As I mentioned earlier, previous applications of cluster-agon analysis did not focus on embedded meaning in texts. My extension of the cluster-agon method of analysis seeks to include embedded meaning in the analysis of texts so as to expose assumptions buried in texts. In other words, by applying this method of rhetorical analysis, I hope to shed light on the writing of KM texts.

The method of text analysis that I will apply is as follows. Once the texts have been selected, each text will be read at the 'dominant' level. This will be called an 'overview' of the text. With each text, I will introduce the authors and provide any relevant information regarding the text and its author(s). I will then summarise the general understanding the text ostensibly provides.

The next 'critical' level of reading will introduce the key words and clusters that are derived from the text. The key words will indicate which concepts of

knowledge are dominant in the texts and these concepts will form the clusters of meaning concerning the perception of knowledge. As concepts are often metaphorically expressed, there will be some complexity in determining which concept 'belongs' to which cluster. Where there are cross-overs in the clusters, my decision will be based on what seems to be the most significant meaning in the context of the article. In this regard, the clusters will be formed from my interpretations. In this way, I aim to make the process of interpretation as transparent as possible.

After each text has been analysed for its respective clusters, an agon analysis will also be conducted. This will involve determining which cluster is more significant to its text as well as any other indications of tension in the text. The final selection of an agon will again be based on my reading of the text and on which aspects of the text I consider the most significant. Drama and tension are after all what the 'reader' brings to the interaction. When the agon analysis is completed, the critical phase of text analysis is also concluded. The reflexive reading will then be conducted as a reflection on my process of analysis. In doing so, I hope to make plain my biases and responses to the texts and how they affect the analysis.

Having outlined my method of text analysis, the next section will look into selecting the texts for analysis.

Text selection

Returning to the research question I asked, if the rhetoric of knowledge in KM posits a particular perspective of knowledge, then what rhetorical processes enable it to do so?

To find an answer, I looked again to the literature in KM. According to Foucault, texts institutionalise forms of knowledge (Foucault in Hoy, 1986).

In other words, Foucault implies that texts² hold the collective agreement on what constitutes a field of knowledge or discipline. Academic theory, in particular, sets the tone for what is esteemed and acceptable within a discipline. Hence, a rhetorical analysis of published theory would shed light on this collective agreement.

My aim is to discover whether there is a rhetorical drive for a distinctly hierarchical concept of knowledge in KM and the processes that sustain it. As such, I am looking for texts that are representative of dominant thinking in KM, rather than texts in and of themselves. These texts will naturally be just some of the many to choose from. However, whatever rhetorical analysis lacks in scope, it makes up with in depth and insight. As Putnam (1982) has indicated:

The strength of the rhetorical methodologies, in critical interpretive and social scientific research, resides in their coherent conceptual and methodological treatments of multiple layers of symbol systems (p. 203).

Texts representing mainstream theorising in KM (published in English) would thus form the basis of my analysis. These texts would also need to be rich in rhetorical 'data' and centre on concepts of knowledge. To provide space for deep analysis of the 'data', the total number of texts selected would be small. However, these texts would cover a span of time similar to the development of KM as a field of study. This longitudinal aspect will provide a sense of how the concept of knowledge has been built up and sustained.

According to Serenko and Bontis (2004), the foundational texts in KM were authored by Nonaka and Takeuchi (1995), Davenport and Prusak (1998) and Stewart (1997). These texts have already been analysed and critiqued (see

² The definition of 'text' can be very broad (Linstead, 1999). In this case I am referring specifically to published texts.

Andriessen, 2006). I turned instead to journal articles as these articles would be peer-reviewed and reflect on-going theorising in KM.

Thus, the texts to be selected would have to be KM theory published in English in a journal that is recognised for its contribution to KM. In addition, each text selected would need to reflect mainstream theorising in KM on the topic of knowledge in KM, from a variety of perspectives. Finally, the texts would also have to cover a period similar to the development of KM, from around 1997 (Gu, 2004) to the present time of writing, that is, a period of over 10 years.

Given the above criteria, the *Journal of Knowledge Management* stood out as a possible publication from which to select texts (details of the process can be found in appendix one, p. 262). In terms of influence, it is considered one of the leading journals in the field (Serenko & Bontis, 2004). Other respected journals, such as *Knowledge Management Research & Practice*, *Knowledge Management Review* and *Journal of Intellectual Capital*, were considered but were omitted because they did not have at least 10 years worth of publications. Other well known journals, such as *Knowledge and Process Management* and *MIS Quarterly*, were also excluded because, as their names suggest, their focus was heavily on the IT side of KM.

The *Journal of Knowledge Management* covers a broader scope. In the journal's editorial objectives, we are told:

The *Journal of Knowledge Management* is a peer-reviewed publication dedicated to the exchange of the latest academic research and practical information on all aspects of managing knowledge in organisations. The journal publishes original research and case studies by academic, business and government contributors on strategies, tools, techniques and technologies for Knowledge Management. The focus of this journal is on the identification of innovative Knowledge Management strategies and the application of theoretical concepts to real-world situations.

In terms of coverage, the journal includes key issues in KM and the development of the journal tracks closely with KM as a whole. The journal was established in 1997 and has, to date, more than 54 issues and over 600 articles in its database.

From this pool of journal articles, I searched for potential articles using the following terms highlighted in the literature review: data, information, knowledge and hierarchy as well as the concepts of knowledge as 'resource' and 'capital'. The search resulted in 89 possible articles. I read the abstracts of those 89 articles and eliminated those that did not focus on the concept of knowledge and those that focussed too heavily on numbers and technical details or on management issues that had little to do with the concept of knowledge. The number of articles was reduced to 14. The 14 articles were downloaded and read again for more details such as purpose or objectives of the paper, methodology and findings. Articles that were similar in purpose and/or findings were grouped and each article was selected based on the potential richness of analysis within the article. Keeping in mind also the longitudinal coverage of the articles, the final texts selected were as follows:

Table 4: List of articles selected

Year	Author	Title
1997	Wiig, K.	Knowledge Management: An introduction
1999	Sullivan, P.	Profiting from intellectual capital
2000	Garrick, J. & Clegg, S.	Knowledge work and the new demands of learning
2003	Styhre, A.	Knowledge management beyond codification
2006	Hicks, R.C., Dattero, R. & Galup, S.D.	The five-tier knowledge management hierarchy
2008	Smedlund, A.	The knowledge system of a firm: social capital for explicit, tacit and potential knowledge

In summary, this chapter has laid out the method I will follow to answer the research question. I have described the procedure of text selection and explained the reasons for the decisions made. I have also explicated the process of cluster-agon analysis and highlighted some of its limitations. These limitations can be addressed by applying 'scriptive reading' and by situating the results of the analysis in the wider theory of logology. The next chapter will analyse the selected texts and the findings will be presented accordingly.

Chapter Five

REVEALING EMBEDDED MEANING: ANALYSIS OF SELECTED KM TEXTS

Introduction

In chapter four, I outlined my method of embedded cluster-agon analysis and listed the six texts selected for analysis. In this chapter, the six texts will be analysed and presented in chronological order. Each text will be read at the 'dominant' level and this level of reading will be presented as an overview of the commonly accepted meaning of the text. Embedded cluster-agon analysis will take place at the critical level of reading. At the critical level, the key words and clusters that are derived from the text will be delineated. At the same level, the agon analysis will be conducted with the texts after the clusters have been established. The reflexive level of reading will then be presented after the respective clusters and agons have been discussed. The formation of cluster-groups and a discussion of the analyses will take place in the subsequent chapter.

Text 1 – Wiig, K. (1997). Knowledge Management: An introduction and perspective. *Journal of Knowledge Management*, 1 (1), 6-14.

The first text to be analysed is by Karl Wiig. At the time of writing the article he was Chairman of the Knowledge Research Institute. He was one of the first to publish specifically on the topic of KM and contributes regularly to the *Journal of Knowledge Management*. The article selected for analysis was the very first item in the opening volume of the *Journal of Knowledge Management*. As an introduction to a relatively new area of academic interest, the article is

broad in its definition of KM and its application to companies, industrialised societies and countries.

Overview

This article, as indicated by its title, provides an introduction to KM. It traces the origins of KM and highlights the significance of KM to organisations at local and national levels. The article also recommends several principles and strategies for implementing KM.

Wiig's perception of knowledge is conveyed through descriptions of the role of knowledge, its characteristics and its attributes. The role of knowledge is ostensibly to generate competitive advantage for the organisation, by making it 'act intelligently' (p. 8) in order to create and deliver products and services of the highest quality to customers.

The role of knowledge is, however, not limited to the business organisation. The author extends the role of knowledge to local and national societies, which are forms of organisation as well. Wiig contends that knowledge is a 'driving force' that will help societies to position themselves for future success (p. 13). By this he implies that the management of knowledge is necessary at all levels of society.

Critical reading

As this is the first of the texts to be analysed, I will elaborate on the process of cluster-agon analysis. Cluster-agon analysis begins with locating key words within the text that highlight some aspects of a topic, such as knowledge in this case, over others. From these key words, I highlight the relationships they have with one another and form clusters based on their associations in terms of meaning. The clusters formed are not the only concepts that are

present in the text. However, they are the most prominent and reflect the concept of knowledge as conceived by the author.

After reading the article several times, I listed key words drawn from definitions of knowledge as stated in the text. These definitions include explicit ones such as 'how people work with their minds' (p. 6) and implicit definitions such as how individuals and groups arrive at decisions (p. 7). Wiig elaborates on these definitions by highlighting some of the characteristics of knowledge. For example, he says that knowledge is acquired from people, it can be transferred from generation to generation through education (p. 7) and it can be created, captured and deployed. These descriptions suggest that knowledge has finite, physical qualities that allow it to be 'packaged' and transferred.

The list of key words derived from the definitions of knowledge includes over 18 verbs. Many of the verbs refer to the physical qualities of knowledge as well. For example, the words 'transfer', 'restructure', 'deploy' and 'deliver' imply the movement of concrete objects. Other words such as 'build' and 'store' also convey the impression of 'knowledge' having physical qualities. There is also a sense of military-like efficiency in the words 'deploy' and 'deliver'. These words thus share similar connotations of the concept of knowledge.

When applied in relation to business assets and natural resources the words mentioned above are usually literal descriptions. However, in the text they are figuratively applied to the concept of knowledge. The connotations imbue 'knowledge' with the physicality and business associations that assets generally have. Unsurprisingly, the most frequently repeated description of knowledge is 'knowledge as an asset'.

So, a cluster around the concept of knowledge having asset-like qualities was formed. Defining knowledge in terms of an asset is part of a larger metaphor which Andriessen (2006) says is 'knowledge as a physical resource' (p. 98). As a result, the physical qualities of knowledge as described by the text will indicate how strongly this aspect of knowledge is embedded in the text. I will examine this term more closely in the following discussion, followed by other clusters that have been generated from this text.

Knowledge as an asset

The image of knowledge as an asset is a prevalent one in KM literature. The distinguishing feature of this image is how tangible knowledge becomes in the course of the text (Hellstrom & Raman, 2001). The assumption that knowledge can be managed like a physical resource is one that Wiig makes throughout the article. As mentioned earlier, Wiig employed over 18 different verbs and most of them indicated that knowledge is something physical. For example, in order for knowledge to be built, deployed, transferred, acquired, packaged and distributed, it implies that 'knowledge' is tangible. Hence, like a physical asset, knowledge can be stored, converted and 'leveraged' as the organisation chooses.

Knowledge is also said to be renewable and reusable which suggests that 'knowledge' has the potential for exponential growth. In addition, it does not consume other resources in the process. In the context of a profit-driven organisation, 'knowledge' is a very important resource. Not only is knowledge perceived to be tangible but it is also a valuable resource.

Since knowledge is perceived as a resource, a rate of return is expected of it. The author makes this clear when he says:

The overall purpose of KM is to maximise the enterprise's knowledge-related effectiveness and returns from its knowledge assets and to renew them constantly (p. 8).

In order to obtain 'returns' from knowledge it is implied that knowledge can be bought and sold with some form of profit coming from the exchange. This is the same sense we get when we are told that knowledge can 'create and generate value' for organisations (p. 6). Given such connections, 'value' refers to positive material outcomes. We are also told that companies must derive the 'best business value' and maximise returns from their knowledge assets (p. 8). These are direct connections between the concept of knowledge as an asset and positive material outcomes. In terms of the cluster forming around 'knowledge as an asset', the word 'value' and its connotations of profit for the organisation have a close and direct link.

The word 'value' is not limited to profit. It has additional associations such as competitiveness and 'value for money' for a consumer. For example, in his explanation of a 'knowledge society', Wiig says that:

The 'knowledge society' is based on adding competitive value to products and services by application of direct or embedded human expertise – knowledge. This is a considerable change from providing value by relying on natural resources or operational efficiency as was the case in previous eras (p. 9).

'Value' in the first instance is not just the profit that can come to the organisation but a form of advantage against other competitors. The second application of the word 'value' implies the worth of a product or service to a potential consumer. In this quote, Wiig is saying that knowledge is a higher form of resource because it adds 'competitive value' which was not the case with more traditional forms of resources. The point here is that the word 'value', which in itself has very positive meanings, is connected to knowledge. This elevates knowledge as a resource over other resources. It is indeed 'a considerable change' to the concept of knowledge which has

traditionally not been associated with profit or organisational competitiveness.

In keeping with the metaphor of knowledge as an asset, knowledge is also said to possess quality. The 'quality' of knowledge is said to be the 'content available to create and deliver acceptable products and services, often tailored to individual customers' specific needs' (p. 13). With this attribute of 'quality', knowledge can be continually made 'new and better' (p. 8). The opposite would also be applicable but the author makes no reference to old or worthless knowledge. In fact, there is no hint that the author thinks knowledge is anything but positive.

In addition to this aspect of quality is the concept of 'intellectual capital'. 'Intellectual capital' is a metaphor as well (Andriessen, 2006). For example, by combining 'intellectual' with 'capital', it could either mean that 'capital' has been personified or that 'capital' has been derived from the intellect. Either way it is a notion which is particularly appealing to business organisations because capital is usually associated with returns on investment which implies that 'value' is attached to it. Capital can also be calculated and measured which again reinforces the notion of physicality. In sum, the appeal of 'intellectual capital' combined with the superiority of knowledge as a resource increases the intensity of the 'knowledge as an asset' cluster.

The next cluster that surfaced was derived from what the text considers to be the process of managing knowledge. Wiig states that in order to be 'competitive and successful' knowledge must be managed in a 'systematic, explicit and deliberate' way (p. 6). He goes on to outline how knowledge can be managed within the organisation using flowcharts and timelines. This implies that knowledge is managed through structure which is imposed by

the organisation. Another aspect of structure is how other things can be contained within it. This is the connotation that can be derived from what Wiig refers to as 'knowledge-centred strategies' (p. 8) because the strategies he recommends contain the knowledge accumulated from KM activities. As such, I have named the next cluster 'knowledge as structure'.

Knowledge as structure

In the text, managing knowledge is visually represented in the article by two flowcharts (pp. 7 and 11). The first flowchart represents a system of managing knowledge within which sub-systems are present. Knowledge is defined in technical terms such as 'inventories' and 'ontologies' which basically refer to databases. From these systems, knowledge can be acquired, maintained and automated. These words emphasise the physical aspects of knowledge in the same way as those in the first cluster. In this respect, 'knowledge as structure' supports the cluster of 'knowledge as an asset'. It also reinforces the reification of knowledge by the text.

The second flowchart provided by the author on 'adopting KM methods, practices and technologies' (p. 11) is somewhat vague in purpose. Dates and phases are indicated but what 'productized solutions with considerable client responsiveness' as a phrase means is not explained in the chart or the main text. Nevertheless, from this flowchart we can see that 'knowledge' is still managed within a system which an organisation can impose and roll-out in timed phases.

Within the first flowchart is a category called 'knowledge infrastructure' of which the 'corporate university' is the end point. The word 'infrastructure' suggests physical structure but when combined with 'knowledge' it implies that the infrastructure is built on 'knowledge'. In this sense, knowledge is a 'container' as well as the 'contained'.

Another example of knowledge as a container is 'knowledge strategy' (p. 8) as it 'contains' organisations' 'strengths, nature of their business, inclinations and expertise of their personnel, and particularly their fundamental beliefs of what is required to succeed' (p. 9). In other words, 'strategy' is the sum of organisational knowledge. Wiig lists five 'knowledge-centred strategies'. Within each strategy he packs so many items that it appears he is trying to cram as much knowledge as possible into one idea. For example, the 'personal knowledge asset responsibility strategy' is a one-sentence paragraph that reads,

A focus on personal knowledge responsibility for knowledge-related investments, innovations and the competitive state, renewal, effective use, and availability to others of the knowledge assets within each employee's area of accountability to being able to apply the most competitive knowledge to the enterprise's work (p. 8).

The suggestion that 'strategy' is a structure within which knowledge can be stored is clear. This implies that the managing of knowledge requires the accumulation and storage of 'knowledge' in organisational strategies. These strategies become the competitive advantage organisations possess. In the context of this article, competitive advantage is an important aspect of taking on KM. Hence, 'strategy' has significance in this text.

In relation to managing knowledge, Wiig believes that only certain types of organisations can manage knowledge. He does not name any organisation but often refers to 'advanced organisations' (pp. 8 and 9), 'leading enterprises' (p. 8), 'highly successful enterprises' (p. 9), 'outstanding organisations' (p. 9) and, finally, 'advanced companies in the Americas and Europe' (p. 10). These references indicate that only the best organisations can or know how to manage knowledge. It also implies that knowledge is no ordinary resource that can be taken on lightly. In contrast to this high regard for those who can manage knowledge, the flowcharts and timelines seem

almost perfunctory. Perhaps Wiig was less interested in the 'how' of managing knowledge than in the 'who' or 'why'. Nonetheless, it tells us that Wiig is positive about the concept of knowledge because he maintains that managing knowledge increases the superiority of some organisations over others.

Thus, the clusters of 'knowledge as an asset' and 'knowledge as structure' support the observation from critical management studies that the concept of knowledge has been reified. Some of the important concepts within these clusters include the notions of 'value', 'quality', 'capital' and 'strategy'. These are topics that are common in management studies. In the next two clusters I will examine, the topics of change and competition feature strongly. When related to knowledge, these two concepts convey the sense that knowledge has an inherent power or energy that affects outcomes.

For example, towards the end of the article, Wiig refers to knowledge as a 'driving force' and the 'fuel to improve quality of life' (p. 13). These descriptions indicate that 'knowledge' contains power that generates positive outcomes. The other forces that he mentions in the text are the 'emerging competitive environment' (p. 6), 'the driving forces behind the evolution from early agrarian societies' (p. 9), the various 'revolutions' in the economy (p. 9) and the 'market-driven' demands from customers and international competition (p. 9). These are 'forces' that operate on a very broad scale but Wiig relates them to knowledge. Hence, they share meanings associated with knowledge possessing energy.

Knowledge as energy

Energy as a metaphor is somewhat nebulous in that it has a physical referent but one which we cannot see or touch. Similarly, Wiig makes use of the

image of boiling water to explain how knowledge management appeared on the world stage:

These notions [of KM] appeared in many places throughout the world – almost simultaneously in the way bubbles appear in a kettle of superheated water! (p. 6).

In other words, there is an underlying current of energy that caused knowledge and its management to become important around the world. This reference to energy suggests that knowledge is like an undercurrent which is observable only in the effects it creates.

Another concept closely associated with knowledge and energy is change. For instance, the text tells us:

Dependence on human intellectual functions in working life will change over future decades. This change is driven by the continued worldwide competitive forces with their increased reliance on personal and embedded knowledge (p. 13).

The connection between change and knowledge is direct; dependence on knowledge will cause change which in turn is driven by 'competitive forces'. The combination of the concept of change with 'competitive forces' linked together by a strong verb such as 'driven' creates the overall impression of a powerful yet invisible force at work. This 'force' according to the text is knowledge. Such connections create intensity in the concept of knowledge as the connections are immediate and specific.

'Change' is also perceived as a form of energy and not just an outcome as it causes the various revolutions of economic activities as listed on page 9 of the text. Change is implied to be the primary reason the industrial revolution occurred, followed by a product revolution, the information revolution and, finally, the knowledge revolution. It is within this changing and competitive environment that business organisations and societies need to position

themselves for success. Otherwise, the text implies that organisations and societies risk being left behind or severely disadvantaged in comparison to those who have taken on board knowledge management.

There is also a suggestion that competition and change are inevitable and relentless. Within such an environment, only the fittest organisations are said to survive. Since only 'leading' or 'advanced' organisations are capable of managing knowledge and reaping the rewards of positive material outcomes, there is a sense of danger to those who do not seriously consider managing knowledge.

Hence, competition and change are concepts that contribute to the cluster of knowledge as energy. At the same time, they also imply that knowledge evolves. With each revolution that competition and change bring about, it is implied that the 'new' revolution is an upgrade from the previous one.

Hence, knowledge evolves as society moves from one industrial revolution to the next. Wiig highlights this evolutionary power of knowledge by describing the ways in which companies and societies can 'leverage' knowledge for success. Phrases such as 'continually improved and applied knowledge' (p. 13), and 'new resource-independent areas of growth' (p. 13), suggest that knowledge is like evolution in the sense that evolution leads to development. On the other hand, evolution could also imply that the process of natural selection, as theorised by Darwin, is in effect. Both aspects of evolution are implied in the text. The theory of evolution in the literal sense is usually applied to living organisms. In this text, the association in meaning is created when 'knowledge' is personified.

Knowledge as evolution

Personification is apparent when knowledge is said to learn, create, innovate, memorise and improve (p. 8). These words suggest that 'knowledge' has the

ability to create more knowledge. Since creativity and innovation are seen as drivers of profit (pp. 8, 9), the fact that 'knowledge' possesses these attributes is a sign of its potential. From these qualities of creativity and innovation, knowledge produces outcomes that are 'new' and 'better' (p. 8). This positive perspective of knowledge highlights a belief that progress is always a good thing and that society will benefit from the development of knowledge. This reinforces the notion of knowledge as evolution.

According to Rutgers (1999), the assumption that progress is always positive is a historically embedded one. He gives the example of how 'positivism is premised on the idea that rational, scientific thought can solve all human problems and that there is a steady progress of science and society' (p. 23). In other words, development is always 'new and better' and we see this same attitude in the development of the concept of knowledge by Wiig.

Evolution, however, also has a darker side. Competing is something living organisms do, particularly in a Darwinian sense and, according to the theory, only the fittest survive. As mentioned in the cluster on 'knowledge as energy,' competition is seen as unavoidable. Hence, there is an impression of 'competing to survive' in the recurring references to competition in the text.

Very early on in the introduction, we are told that the role of knowledge is 'increasingly important in the emerging competitive environment' (p. 6) and that 'enterprise viability hinges directly on the competitive quality of the knowledge assets and their successful exploitation' (p. 6). In other words, knowledge is important for competitive reasons and, to a large extent, the survival of the organisation is at stake as implied by the word 'viability'. In most common business usage, 'viability' usually refers to something being practical or workable. In this context, however, there is a distinct sense of survival attached to it which makes it stand out from other words.

This sense of survival is again suggested when the author utilises an example of early hunters who selected their team mates to ensure the 'long-term viability of the group' (p. 7). Therefore, it is not surprising that the author says the *first* objective of KM is 'to make the enterprise act as intelligently as possible to secure its viability and overall success' (p. 8). Several aspects of knowledge are implied here. Firstly, knowledge is equated with intelligence and, secondly, an enterprise or organisation can possess such intelligence through KM. Thirdly, this intelligence ensures the continued existence and success of the organisation. By stating an objective in such Darwinian terms, an evolutionary perspective is projected. Within such a perspective, managing knowledge is tied to the survival of the organisation. This is a far more significant purpose than just making profits. In fact, the implication from the above statement is that if the organisation does not become 'intelligent', it will become irrelevant and eventually die. Recalling the importance of 'strategy' in the text, there is an indication that organisational knowledge is crucial both to the success and viability of the organisation.

With this perspective in mind, the author's description of 'competitive forces' and 'knowledge revolution' creates a drama that is not immediately apparent but is implied through the text. For example, we are told that competition is on an international scale where 'former developing nations now can compete with advanced industrial nations' depending on 'who can provide the best products and services based on relevant knowledge' (p. 10). Thus, competition is not just between companies but between countries as well. In addition, Wiig tells us that 'customer sophistication has increased' which is why the 'knowledge revolution' requires a focus on 'customer intimacy'. As a result of increasing pressure, only the fittest companies survive and they do so by 'systematic knowledge management' (p. 6). The implication for organisations not involved in KM is clearly one of eventual

demise since remaining competitive requires a focus on managing knowledge.

The same attitude is applied on a larger scale to societies and countries. Wiig states that 'knowledge should be managed to benefit the viability of the societal unit' because 'these developments are crucial to the future strength and international competitive positions of the societies involved'. Even children need to 'secure competitive positions for themselves and their countries when they grow up' (p. 12). The implication of 'compete or die' may seem unusual in the context of KM but Wiig makes the connection of managing knowledge in a business organisation to managing knowledge for the sake of society by associating it with the 'driving forces' of evolution.

Although the text does not explicitly state it, the threat of failure and demise can be detected through what is not said in the above examples. According to Kieser, the underlying threat of demise or disadvantage is a rhetorical characteristic of management fads (Kieser, 1997) and perhaps Wiig is employing such a tactic in order to establish the importance of knowledge management. However, it is unlikely that the author has done so consciously as the notions of knowledge as energy and evolution are quite deeply embedded in the text. Collectively though, these intangible aspects of knowledge are significant in the intensity with which they are projected. Compared to the clusters on knowledge as an asset and as structure which highlight the positive benefits of knowledge, the danger and potential failure of organisations emphasised in the latter two clusters certainly seem more ominous. The latter two clusters of energy and evolution also add drama and urgency to the text and highlight the importance of organisational knowledge in the managing of knowledge. In this respect, I would consider these latter two clusters more significant to the text than the first two clusters.

In summary of the first text, the concept of knowledge is shown to have tangible and intangible attributes. On the one hand, the concept of knowledge has physical and structural attributes, on the other, it has energy and evolutionary power. In terms of clusters, 'knowledge as an asset' and 'knowledge as structure' clearly build on one another. In order for knowledge to be managed, it assumes that knowledge has physical attributes which can be organised and systematised. The goal of KM is to accumulate 'knowledge assets' and store them in 'knowledge strategies' so that the organisation can profit from knowledge. The tangible aspects of knowledge as presented in the text are significant to the extent that they are dominant images based on the frequency of their occurrence. However, I would argue that the intangible aspects of knowledge are more significant because of the intensity they contribute to the overall meaning of the text.

The notion that knowledge has energy and power is not an immediately apparent concept. The description of knowledge as a driving force and fuel occurs at the end of the article and it is only in looking back on the text that its presence is noticeable. Yet, as we have seen in the analysis, this intangible aspect of knowledge adds urgency and drama to the text. It also reflects the author's unspoken assumptions about the importance of organisational knowledge.

The primal instinct for survival combined with the benefits of knowledge make the case for KM hard to ignore. From generating value for the organisation to improving the quality of life, there is no doubt about the author's belief in knowledge as the future of organisational and national success. However, the clusters show us that the positive aspects of knowledge are also accompanied by suggestions of the potential threat of failure to organisations who do not adapt to change and competition.

Consequently, we can see how cluster analysis reveals underlying meaning in the text. It also signals the presence of an agon.

Agon analysis

From the analysis, we can tell that Wiig is very positive about knowledge and its potential particularly in relation to the success of an organisation. This success is defined in terms of 'long-term viability' which can be interpreted as organisational survival. The agon to survival would thus be death or extinction. The text does not explicitly mention extinction but it is implied in references to competition, changing customer demands and the evolution of industry. These all point towards the potential demise of an organisation if it does not keep up with the times. In addition, the primal forces that propelled change and evolution are seen as inevitable and the need to adapt and adjust is implied to be just as compelling. The agon of 'extinction' can be revealed because it tells us that the underlying forces implicit in the text reflect the author's unspoken anxiety. The tension comes from what the author believes to be larger, unmanageable, forces outside of the organisation which have a direct effect on its well being. As such, Wiig believes that only the best companies can survive and they do so by managing knowledge.

Reflexive reading

As I have mentioned above, Wiig's article is very positive about KM. In very broad strokes, he paints a utopian vision of progress and development for organisations at local and national levels should they embark on the journey of KM. He highlights the important landmarks in KM such as the 'economics of ideas' which posits the unending supply of knowledge as a resource and the material returns from investing in KM. Wiig also addresses the sceptics who accuse KM of being a fad and, in return, claims that KM is far more applicable to organisations than the simplistic applications of previous

management fads. However, in his enthusiasm, he fails to show how KM is more than just another management fad.

In terms of persuasion, Wiig tries very hard to convince the reader of the merits of KM. Nevertheless, I find the claims made for KM to be overly promising and the basis of his arguments to be generalised. I recall the first time I read the article I was astounded at the grandiose claims he made of KM. It made me sceptical when it came time to analyse it but the analysis revealed aspects of it I had not initially seen and, in that sense, I was less critical of the article than I thought I would be. Moreover, the author did not insist that he was the authority on the subject which made the claims he put forward less of an issue.

This concludes the analysis of the first article according to embedded cluster-agon analysis. In the next section, I will not detail the process of cluster formation as I have in the preceding analysis. Instead, I will highlight the key terms that contribute to the clusters and what they suggest about the concept of knowledge.

Text 2 – Sullivan, P. (1999). Profiting from intellectual capital. *Journal of Knowledge Management*, 3 (2), 132-142.

A brief background is necessary for understanding the context of this article. The article mentions that the author, Patrick Sullivan, is a partner in the 'ICM Group' and later in the main text, it mentions the 'ICM Gathering'. According to the ICM Group's website, Gathering2.com

The Gathering2.0 Community builds on the legacy of the ICM Gathering, which was founded in 1995 by Pat Sullivan, Suzanne Harrison and seven Fortune 100 companies to create, define and benchmark best practices around extracting value from intangibles. A sister group, called the IP Forum was formed in 2000. These two groups are collectively referred to as Gathering1.0. Each meet three

times a year, and collectively have over 25 global companies as active members, with over 100 alumni all over the world.

Gathering1.0 members are recognized globally as pioneering current best practices for extracting value from intellectual property (IP) and non-legally protected intangibles (I-stuff). This group has provided the best practices for four of the top selling books about IP and I-stuff management (Harrison & Sullivan, 2009).

From the above description, we can see that Patrick Sullivan was a founding member of the group and contributes to KM from a practitioner point of view. He still has an active presence in the group's online discussions which is evidence that he has been theorising for quite a while and remains in the field.

Overview

This article is written as a guide for companies wishing to emulate the success of companies who have actively managed their intangible assets (p. 140). The article starts out by highlighting 'knowledge companies' such as Microsoft, 3M and Netscape. It then goes on to list other well-known international corporations that are 'successfully extracting profits from their intellectual capital' (p. 132). The listed companies form the 'ICM Gathering', as explained above. The information in this article is ostensibly based on the outcomes of discussions from this ICM Gathering. The rest of the article is a straightforward, fairly detailed set of definitions and instructions on how to manage organisation knowledge. Unlike the first article that provides a broad perspective of KM, this article is focussed on intellectual capital. However, the perspective of knowledge that emerges from the text is quite similar to the first.

Critical reading

The concept of knowledge is presented in rather concrete terms in this article. Like the article by Wiig, there is a significant cluster of terms around

knowledge as an asset in this article as well. An indication of such a perception is in the definition of intellectual capital which is 'knowledge that can be converted into profits' (p. 133). This definition signals that knowledge and intellectual capital are closely related concepts, with the main distinction being the potential for profit. According to the author, knowledge and intellectual capital are usually called 'intangible assets' but, in his view, they are better conceived as 'business assets' (p. 140), largely because knowledge can be converted into profit much like a commodity.

The word 'converted' implies a process and 'knowledge companies' are said to be the vehicle through which knowledge is converted. These are defined as 'companies that make their profits by converting knowledge into value' (p. 132). 'Value' as defined by the author is the 'measure of utility that ownership of an item brings to its owner' (p. 134) and the measure of that utility is calculated in dollar terms. Although the author acknowledges that utility may be perceived differently, he still treats the term as a measure of returns from an investment. Regardless of whether one is a designer or accountant says Sullivan, 'value' must bring some material benefit to its owner. When the author states that the whole purpose of a knowledge company is to 'create knowledge for future commercialisation and extract current profits from existing knowledge' (p. 134), we can tell that monetary return is the 'value' he expects from knowledge companies.

Since knowledge companies are the vehicle of 'conversion', the notion of conversion is linked with commercialisation as that is the process by which profits can be made (p. 132). Thus, whenever 'conversion' is mentioned, it refers to monetary exchange rather than invention, as seen in the definition of knowledge companies. In this instance, we can see that knowledge has been reified by the author. These descriptions also suggest that knowledge is

perceived as a concrete business resource. Hence, 'knowledge as an asset' is a cluster that is apparent in the text.

Knowledge as an asset

From the above descriptions, the connection between knowledge and profit is clear. Knowledge is the key to potential profit for organisations particularly 'knowledge companies' and those who aspire to do the same. Profits are defined in dollar terms but the author also refers to 'other forms of value' which can be 'harvested' from knowledge. These forms of 'value' can range from cash to collateral in negotiations and alliances. Such a utilitarian description of profit and value occurs throughout the article. Any other form of benefit, such as personal satisfaction, is not apparent. Knowledge is also described as stocks, portfolios, capital and revenue. These descriptions reinforce the image of knowledge as a business asset.

The verbs 'extract' and 'harvest' frequently occur alongside this concept. As indicated by the article's title, producing profit is the author's main concern and these two recurring verbs reflect his perspective of knowledge as a resource. 'Harvest' suggests a more benign farming metaphor but 'extract' is more aggressive as it recalls mining and its destructive potential. In the article, 'harvest' usually refers to profit that has been realised or is on its way to being realised. For example, the author highlights how companies have developed methods for 'harvesting profits' from intellectual capital (p. 132). However, in order to harvest profits, the author does not refer to sowing ideas or developing people but to mining 'human capital' which he calls 'value extraction' (p. 134). Extracting 'value' from individuals conveys a somewhat violent impression, to say the least.

Since knowledge is perceived as an asset, it is not surprising that the ownership of knowledge is clearly stated. The most obvious indication of

knowledge as property occurs when the author emphasises that whatever 'the human capital' creates in the firm's employ is the 'property of the company' (p. 133). Given that knowledge or intellectual capital is intangible, the author takes pain to highlight ways of protecting the firm from losing its 'property' through the application of legal measures. 'With this in mind', the author stresses, 'it is in the firm's best interest to encourage employees to codify their knowledge so that the firm may have more opportunities to leverage it into profits' (p. 133). This position is repeated again with the admonition that 'companies desiring to create a large portfolio of ideas need to encourage their human capital to codify knowledge and know-how; from this knowledge they can select the most promising ideas for commercialisation in the marketplace' (p. 134). Hence, codification is seen as a form of protection.

The author's focus on profits is explicit but it is also evident that he feels that knowledge needs to be codified in order for it to be of value to the company. Such an attitude is reflected in the above quote and by the many references to various forms of codified knowledge such as patents, databases, reports, policies and portfolios. The implication of such a perspective is that uncoded knowledge is of little value to the company because it cannot be commercialised. Knowledge that is or can be commercialised is defined as 'innovations' or 'technologies' and these two terms are used interchangeably. The choice of these terms indicates the author's perception of what constitutes valuable knowledge.

For example, the author's preference of technology is apparent when he says: 'For the technology companies, the building block capabilities are already in place. But for non-technology companies, they need to create all the following ...' (p. 140). Such a statement implies that non-technology companies fall short of the requirements to successfully manage knowledge

and hence need to put in place an extensive system of codification in order to manage their intellectual capital. Nevertheless, the author considers technology is second to business and management. This attitude is clear when he states:

Many technology firms try to convert technologists into business analysts on the mistaken assumption that business analysis is relatively easy if one has a scientific or analysis background. Make no mistake, business analysis requires the kind of special training found in business or economics programs at university. Anything less than this level of training is not recommended (p. 138).

This 'special training' in business is called 'capability', a term that is often repeated by the author. We are told that managing intellectual capital involves 'developing a capability that results from a logical and systematic set of activities' and 'the careful crafting of mechanisms' (p. 135). Capability is, therefore, logical and systematic and to some extent mechanical. There are different 'kinds' of capabilities (p. 136) such as 'value extraction analysis', 'licensing/joint venture/alliance capability', 'competitive assessment' and 'litigation avoidance analytical capability' (pp. 139-140). Each of these capabilities is further defined in concrete terms such as portfolios, portfolio databases and patent policies. By establishing such capabilities, companies are then able to manage their intellectual assets. From the author's point of view, the ability to manage is greater than just having the innovations or technologies at hand. As he rather condescendingly points out:

In an ideal world, businesses would only develop innovations that are in line with strategy or enable the vision. Our world is, unfortunately, less than ideal. Innovators produce what they produce and these innovations are not all necessarily on target for the vision or the strategy (p. 138).

'Innovators' are implied to be naïve geniuses and thus need to be 'managed' in the business world where strategy and vision are the guiding principles. 'Business capability', therefore, represents the pinnacle of an organisation's

management of knowledge. In some ways it is similar to Wiig's treatment of the word 'strategy' in the earlier text analysis, in that 'strategy' was the sum of an organisation's collective knowledge. 'Strategy', as employed here by Sullivan, is different and it will be discussed shortly. However, it is of note that collective knowledge is the objective of KM efforts according to both Sullivan and Wiig.

In summary, there are several main ideas associated with 'knowledge as an asset'. Firstly, there is the notion of 'value' which is defined in monetary terms. Closely related to it is 'commercialisation' which is the process through which 'value' is realised. The two most frequently used verbs, 'harvest' and 'extract', shed light on this process of commercialisation. They imply that knowledge resides in human individuals much like minerals are located in the earth. Hence, knowledge must be mined and extracted in the same way as raw materials.

Another idea associated with 'knowledge as an asset' is the concern for ownership. Knowledge is perceived as property and the author is quite anxious to establish the organisation's ownership of their employees' knowledge. The concept of codification features in this cluster as well and there is intensity in how the author feels that only codified knowledge can be owned by the organisation and exploited for profit accordingly.

Thus, the concept of knowledge as an asset emphasises the physicality and profitability of knowledge. In comparison to Wiig, Sullivan's perception of knowledge as an asset is more concrete and economic. There are also indications that Sullivan's view of managing knowledge is more aggressive than Wiig's, as suggested by the verb 'extract'. This 'aggression' is reflected in the strategies that Sullivan recommends to organisations as 'knowledge management'. Hence, 'strategy' is the key word that needs to be examined.

Knowledge as a weapon

The word 'strategy' carries several synonyms such as plan, scheme, tactics, line of attack or stratagem. In this article, the author applies it largely in relation to the competition a company faces. For instance, we are told that in KM, 'the tactical may involve the immediate or near-term conversion of assets into cash, while the strategic or long-term may involve the use of intangibles to position the firm in its external environment' (p. 140). These descriptions convey a sense of stratagems being put in place over time and are carried out in relation to a competitive external environment.

The images of competition are further emphasised when the author discusses how knowledge can be handled strategically to gain advantage. For example, intellectual capital can be used defensively by protecting and exploiting 'protected innovations' (p. 137). It can also be employed offensively to create new markets, keep out competitors or gain access to financial capital. In order to do so, portfolios need to be 'strong' in order to 'strategically position' the firm (p. 137) and to conduct 'strategic thrusts' (p. 140) on competitors. Failing which, 'strategic' negotiations and alliances are other ways in which one's intellectual capital can be leveraged against others'. Finally, companies are advised to constantly assess their competitors while protecting themselves from lawsuits. Along these lines, assets are to be defined as 'protected' and 'non-protected' (p. 139). The offensive and defensive positions an organisation can adopt imply that external competition is hostile. In fact, many of the images conjured up by the idea of competition refer to war as well.

In the midst of 'strategy' and 'competition', the concept of knowledge is projected as the tool through which strategies can be executed against competition. As such, I see the concept of knowledge as a weapon arising from the text. The aggression reflected in the strong verbs and images

mentioned earlier also becomes sharper in this cluster of meaning. By explicating how intellectual capital can be exploited 'proactively', the author is actually suggesting how knowledge can be treated as a weapon.

In Wiig's article, strategy was seen as a container of an organisation's knowledge. However, in this text, strategy is handled more as a form of influence than as a container. In addition, the word 'strategy' is also associated with 'vision' and 'future' and 'goals' (p. 141). As such, whenever 'strategy' or 'strategic' is mentioned, it is tied to a company's future and purpose which imbues the word with significance. For example, in order to manage intellectual capital, 'the very first step is to make sure that there is a long-term vision' and the next step is 'to know the company's strategy for achieving the vision' (p. 136). The 'vision' and 'strategy' then allow for 'strategic value extraction' which translate into a firm's 'long-term ability to create value for share-holders' (p. 141). Having been told that value is calculated in dollar terms, 'strategy' is thus about making lots of money.

Another point I want to highlight is the unspoken anxiety in the text. In the same way that evolution in Wiig's article implied a potential threat to survival, 'competition' in this text signals a threat to the organisation as well. The line between the organisation and its external environment is an assumed one but, in the explication of 'strategy', it is assumed to be self-evident. For example, in response to the external threat of competition, the author recommends that companies should 'strategically' manage their intellectual capital, defend the company's position and attack any potential competitor. In terms of providing a general approach to managing knowledge, Sullivan promotes a very militaristic method which reinforces the assumption that the business world is neither congenial nor collaborative. In addition, he exhorts organisations to stay alert and vigilant

by conducting regular 'competitive assessments' (pp. 138, 140). Hence, there is a detectable fear of the environment outside of the organisation.

External threats are not the only source of anxiety. There is also an unspoken discomfort with uncodified knowledge which is seen as an internal threat. For example, the author's discomfort with uncodified knowledge is apparent when he talks about the source of knowledge which is, essentially, a company's employees. The company does not own its employees but only what they produce in the employ of the company. Therefore, any move by the employee to 'walk out the door' or sever their relationship with the company is a threat to the profitability of the company. This threat is heightened in the light of KM because the success of the organisation is said to rely on the knowledge that individuals possess. There is, thus, a discernible fear about what the company cannot control.

The need to impose control is reflected in how the text collectively defines individual employees as 'human capital' (or HC as in the text). It is within these employees that the 'tacit (uncodified) knowledge the firm seeks to utilise' resides (p. 133). In order to control this 'human capital', companies are exhorted to develop 'systems to institutionalise the management of its human capital' along with 'valuations' and measurements of the 'kinds of knowledge' the firm's 'HC' generates (p. 140). Otherwise, a company's intellectual assets would remain 'unprotected' (p. 135). The reduction of an individual from employee to 'human capital' to mere 'HC' is one way of imposing control rhetorically. By reducing individuals to resources, they can justifiably be exploited for the company's profit. Such a perception is unsurprising given the association of knowledge to an asset.

In the light of the discomfort over uncodified knowledge, we can see how despite the importance of codified knowledge to the organisation, uncodified

knowledge is the ultimate goal. In the text, Sullivan ranks the most codified form of knowledge as the least important. In the section on managing intellectual property, intellectual assets and intellectual capital (p. 135), he considers managing intellectual property (which consists of codified patents, copyrights and trademarks) to be 'tactical' and short-term. In contrast, managing intellectual assets requires 'large and very sophisticated' internal resources but the most 'strategic' is managing intellectual capital because it 'defines the company's ability to harness its 'hidden value'' and is a 'powerful tool for leveraging itself into the future' (p. 135). In other words, the ability to harness the tacit/uncodified knowledge of the firm is the greatest challenge with the best reward. In ranking the different types of intellectual resources, there is a suggestion that tacit knowledge is the most significant form of knowledge for a company to manage. At the same time, it is also the hardest to define.

For example, we are told at the start of the article that intellectual capital, as defined by the ICM Gathering, is 'the sum of a firm's ideas, inventions, technologies, general knowledge, computer programs, designs, data, skills, processes, creativity and publications' (p. 133). Out of the above list, ideas, skills and creativity are not easily codified and are not dealt with in the article. Even when the author talks about 'creating knowledge' or 'creating capabilities' he applies the word 'create' to mean 'establish' rather than 'invent'. The contrast between what is 'wished for' and what is concretely available creates the 'mystery' which Burke mentions in his theory of logology. Uncodified knowledge in this text represents the desirable but unattainable aspects of knowledge and the tension this creates is discernible by examining what the text does not say about it.

In summary, this second article has two relatively large clusters of meaning related to the concept of knowledge. The first cluster supports the notion of

knowledge having physical qualities particularly as a business asset in organisations. It includes key terms on material benefit and promotes codification as the primary means of extracting knowledge. The extracted knowledge is accumulated to form business capability which is the goal of an organisation's KM efforts. In the second cluster, key words suggest that knowledge is a weapon which can be drawn on to attack competitors and defend an organisation's assets. The concept of 'strategy' features strongly in this cluster and it highlights the author's militaristic approach.

In analysing the text for clusters of meaning, it was also apparent that there were tensions in the embedded assumptions made of the concept of knowledge. Firstly, there was the assumption that the external environment was hostile and dangerous. Secondly, uncodified knowledge represented an internal threat to the organisation because it could not be controlled. However, uncodified knowledge was also noted to be desirable but unattainable. Hence, I would say that in terms of the author's perspective of knowledge, Sullivan is positive about the material benefits commercialising knowledge can bring but he also feels that managing knowledge is vulnerable to internal and external threats.

Agon analysis

The anxiety regarding external forces and the impact they can have on the organisation is indicative of an agon. Of the two key ideas of knowledge analysed, the notion of 'knowledge as a weapon' was exposed from the author's response to potential danger from external competition. The author's militaristic approach to the concept of knowledge was emphasised by the brusqueness with which knowledge can be utilised. For example, although the harvesting metaphor was rather self-consciously inserted into the text, there was no organic language such as images of growth and husbandry clustered around the notion of 'harvest' to support it. Instead the

dominant image was that of 'exploitation', yoked specifically with the militaristic rhetoric of 'strategy' and the mining metaphor of 'extraction'. The functionalist language that dominated merged easily into accounting language and as the article developed, moved on to exploitation (taking without giving) and confrontation with militaristic overtones.

The author's references to offensive and defensive tactics implied that the author perceived external competition as 'the enemy'. As such, external competition is the agon to Sullivan's strategies. This agon would also explain the author's repeated reminders to be vigilant in 'competitive assessments' and to guard one's assets. The cluster-agon relationship of 'weapon' versus 'competition' is more obvious when compared to Wiig's article. For example, like Wiig, Sullivan also believes that knowledge is the key to survival and success. However, where Wiig sees the forces of change as inevitable, Sullivan argues for more aggressive exploitation of knowledge in order to achieve success. This suggests that Sullivan perceives danger to the organisation in more immediate terms than Wiig and, thus, there is more urgency in his tone than in Wiig's.

In addition, Sullivan also perceives an internal threat to the organisation in the form of uncodified knowledge. This signals that 'uncodified knowledge' is another agon in this text. As mentioned in the cluster analysis, uncodified knowledge represents the one thing an organisation cannot own or control in the management of knowledge. Sullivan's statements on ownership of knowledge carried undertones of anxiety and unease even as he acknowledged that the organisation did not own their employees. As a result, the individual was reduced to a mere resource to be exploited by the organisation in the text as a way of imposing control on this potential danger.

Reflexive reading

I found Sullivan's article to be self-promoting and somewhat arrogant in tone. For example, Sullivan's only form of academic reference was to him and other articles mentioned in the article were for 'further reading'. However, it was the cold and calculating tone that Sullivan employed throughout the article that elicited the most reaction from me as a reader. The constant references to 'extracting knowledge' and deploying 'human resources' in very de-humanised ways for the material well-being of the organisation did not sit well with me. The ways and means of profiting from intellectual capital that Sullivan proposed were probably well established in the companies he mentioned but I could not help but think of companies like Enron who similarly 'extracted' knowledge and profits without regard to principles or ethics. Even more disturbing is that the ICM Gathering he co-founded now has an additional branch called 'Gathering 2.0'; all dedicated to 'exploiting' a company's intellectual portfolio (Harrison & Sullivan, 2009). I was not surprised at the findings in the analysis as they reflected the author's attitude which was apparent even at the dominant level of reading. Nevertheless, I had to maintain a critical distance from the text even as I examined it carefully. It seemed that as distanced as the author was from his subject, I had to equally distance myself from the reactions to the text. I could see how the text would appeal to profit organisations, and it still does it seems, but as a reader, I found the methods Sullivan suggested rather unpleasant.

Text 3 – Garrick, J. & Clegg, S. (2000). Knowledge work and the new demands of learning. *Journal of Knowledge Management*, 4 (4), 279-286.

The authors of the next article to be analysed approach KM from a very different perspective. John Garrick and Stewart Clegg are academics from

the University of Technology, Sydney, Australia. Instead of outlining ways to manage knowledge as the previous authors have done, Garrick and Clegg offer an alternative, critical 'lens' through which KM can be viewed.

Overview

In this article, the concepts of knowledge presented are quite distinct from regular notions of knowledge as 'resource' and 'asset' which tend to come from resource-based views of the firm. Instead, Garrick and Clegg focus on 'learning' and the implications surrounding the term 'working knowledge' where work is the new curriculum leading toward university qualifications (p. 283). The authors say they take 'no moral stand' regarding the tripartite relationship between organisations, universities and individual participants (p. 283). However, they are highly critical of the discourse justifying such an arrangement. As such, they take to task the discourse of knowledge management and its 'seductive' appeal to business and educational organisations. They also highlight the unequal power relations among the three parties and offer a 'Gothic spin' (p. 285) on mainstream conceptualisations of 'knowledge transfer' in order to show the 'darker side' of KM. Although the tone in the article seems playful at times, with phrases such as 'super-complex' and 'cool trope', their discussion of the balance of power between the three parties emphasises some of the issues in KM that are seldom discussed in mainstream literature. As such, I will begin the critical level of analysis with the notion of power.

Critical reading

The Latin notion of 'Ars potens est' or 'knowledge is power' is an underlying theme that can be detected in this article. The first glimpses of knowledge being associated with power can be found in the introduction under the 'projections of work and employment' (p. 279) which highlight the rise and fall of different industries. Work and remuneration associated with

knowledge are said to be on the rise while traditional industries such as manufacturing and agriculture are in decline. Within 'knowledge work' there are further distinctions. Those with access to 'educational capital and opportunities for learning' (p. 279) are at the 'core' or 'primary' labour markets. This implies that everyone else is on the periphery or 'secondary' labour markets.

Looking into this 'core' of 'knowledge work', the authors examine the interactions of three main groups: the corporate or business organisation, universities and employees. These three groups are usually expressed as single entities, partly for convenience but also as a reflection of what the KM discourse assumes.

Knowledge as power

According to the authors, the business organisation holds the most power because they direct the relationships with universities and employees. For example, many university business schools are funded by profit organisations and the authors cite two studies which show that such organisations prefer 'technical and managerial knowledge' and 'associated skills with likely productive value for the organisation' (p. 282). As a result, traditional degrees from universities are making way for a more 'pragmatic', work-based curriculum (p. 282). For the employee, the power relationship is even more unbalanced because they are 'indebted' to the organisation for employment and in a work-based curriculum they are subject to instruction and assessment by their managers (p. 285). According to the authors, power is thus perpetuated and magnified by the organisation for the organisation.

Universities, as the bastion of what constitutes knowledge, are in an uncomfortable position in this tripartite arrangement. On one hand, they are 'an essential combinative in the architecture of growth of the economy' (p.

283). On another, they have to relinquish their monopoly 'on the generation of definitions of knowledge' or face extinction that comes from irrelevance. On another front, they have to negotiate the 'terms of trade' with business organisations which 'invariably favour the corporate body' (p. 284). Finally, they have to educate students in more contemplative ways of knowing and give them the 'scope to decide what constitutes valuable learning' (p. 283). The authors emphasise this uneasiness in the text by using business discourse alongside university terms, such as 'terms of trade' and 'curriculum', but at the same time they highlight the complexities involved in such 'contracts' (p. 283). In terms of taking a position on the role of the university, Garrick and Clegg are ambiguous as they do not return to the role of the university in the conclusion.

The individual employee that enters into this arrangement stands to lose the most. As a student, this 'person' is humbled and subject to the 'rites of passage' in universities. As an employee, this person can be 'sucked dry, spat out, made redundant' (p. 285). Alternatively, one could face 'enslavement' to the corporate will and a loss of personal 'vitality' (p. 285). Nevertheless, there is some counter-power that the individual holds: 'what they know is taken seriously, codified and rewarded' (p. 284). In the sense that a 'resource' lies with the individual, organisations no longer have a monopoly on all resources which in turn affects the politics. Similarly, universities lose 'mastery of their members' because the site of knowledge has shifted from the campus to the workplace.

The authors, however, see the outcome of such negotiations and collaborations as a 'win-lose' situation. There are 'prizes' and 'rewards' for the winners (p. 284) but a much more sinister end for the losers. The final outcome is only made explicit in the conclusion. However, there are indications throughout the text of what is to come in a cluster of terms

around the concept of 'knowledge as seduction'. It is a subtle message that surfaces early in the text through the operation of irony and emerges clearly in the conclusion.

Knowledge as seduction

The authors signal their opinion of mainstream KM quite early on. Firstly, they identify KM theory as 'discourses and practices' that 'privilege technical, instrumental measurable outcomes' (p. 280). They then call it a 'shrewd move' for KM to associate itself with the 'nomenclature of capital'. These comments imply a deep suspicion of what KM expounds. Hence it can only be ironic when they follow such remarks with highly explicit, measurable and tangible descriptions of KM theory. The point of their method becomes clear when we are told that KM is a 'conceptual package' that creates 'theory and jargon – a discourse' (p. 281). This implies that KM is not as positive as it seems to be particularly if it leads to 'unwitting victims'. The irony is heaviest when the authors put together several 'buzzwords' of KM and say:

The accumulation of intellectual capital re-engineers the asset stripping of knowledge workers (p. 281).

The word 'stripped' jumps out in this sentence because of the startling juxtaposition of asset and workers. In mainstream KM theory, such a combination usually implies positive outcomes for both the organisation and the employee. However, it is employed here to suggest a complete removal of 'knowledge' from workers. In other words, the discourse of KM 're-engineers' or justifies the exploitation of an employee.

Another reason to be sceptical of KM is how capricious terms applied in KM can be. As the authors point out, the word 'intellectual' used to be 'a term of abuse' for 'pointy-headed people who do not contribute productively' (p.

281). However, with the conflation of 'intellect' to 'capital', even the most 'mundane manager' is ennobled (p. 281). This is because knowledge is equated with 'asset' which implies business utility and financial value (p. 281). Hence, with money involved even that which was negative can become positive. Such is the hype associated with KM that KM 'becomes a cult in pursuit of a new grail' and the 'knowledge worker now becomes a calling equivalent to a vocation' (p. 281).

In the same way, 'working knowledge' has been elevated to a legitimate form of knowledge. In their analysis, Garrick and Clegg observe how business knowledge that was once scorned because it was 'neither established by scientific research nor beholden to academic legitimisation' (p. 281) is now knowledge that is desired by employers and potential employees. In order to gain such 'professional knowledge', employees have to buy into the discourse of 'work-based learning' (p. 285). We are warned, however, that 'working knowledge' could be 'a fashionable description of particular elements of technological-age work' or a 'disguise for technical and financial interests' (p. 281).

So far, the authors have suggested that knowledge as constituted within KM discourse is superficial, changeable, scorned and yet desired which brings to mind similar attitudes toward prostitution. Taking this suggestion a little further, it could be argued that KM is like a prostitute who employs 'knowledge' as the lure. The text implies as much. For example, we are told:

The pleasure of learning has its price. Corporate bodies sustained through transfusion of individual vitality engage in a tantalising and, for some, materially rewarding game of seduction (p. 285).

The victim is, of course, the individual who is lured by 'the pleasure of learning' but also has to pay the 'price' for knowledge. The place of the 'corporate body' in this highly evocative passage suggests that the

corporation plays a dark role in the exchange between individuals and KM, perhaps like the pimp who only wants material benefit out of the exchange. The same is implied with a more explicit indication of the corporation's purpose in the following passage:

Seductive, shiny and bright, work-based learning as a component of knowledge management encourages a re-conceptualisation of intellectualism not so much as independence of the human spirit but as enslavement of the will to corporate purpose (p. 285).

It is apparent in the above quote that the authors consider the discourse of KM as attractive but deceptive, distracting one from the reality of corporate purpose. And that the talk surrounding 'work-based learning' is a trap one needs to be wary of.

'Knowledge as seduction' is thus a very unusual conceptualisation of knowledge but it emphasises the 'delight in surface appearance' (p. 284) that the discourse of KM seems to promote. Given that KM theory texts tend to be unreflexive, such an image of knowledge sounds a fair warning to those who are tempted by its 'seductive promises' (p. 283).

Hence, 'knowledge as power' and 'knowledge as seduction' as envisioned by the authors are perceptions of knowledge that do not adhere to mainstream concepts of knowledge but rather expose the darker side of KM theorising. From the tone and manner in which the authors express their ideas, we can tell that they do so deliberately. At the same time, we can say that these two metaphors suggest how knowledge can be manipulated as a form of influence. In this way, they are similar to Sullivan's notion of 'knowledge as a weapon'. Within the text by Garrick and Clegg, however, the concepts of knowledge as power and seduction are also a precursor to the final image of knowledge as transformation based on a transfusion of blood and other vital fluids as suggested by a Gothic context.

Knowledge as transformation

As Garrick and Clegg observe, the metaphor of transformation has a dark side 'best represented in the genre of Gothic Victorian horror' (p. 285). In KM theory, transformation is assumed to bring about positive outcomes. Garrick and Clegg, however, point out that the process of transformation cannot be assumed to be benign. In their interpretation, 'knowledge transformation' is brought about by the transfusion of vitality from the individual to the organisation and, according to this perspective, such transformation comes at the cost of exploiting the individual.

The startling image of knowledge as a transference of bodily fluids such as blood becomes clear when the authors explain the Gothic genre and its 'apogee', Count Dracula. Dracula's life depends on 'consistently replenishing vital life fluids by continually sucking and ingesting those of others' (p. 285). This notion of 'transfusion' is then connected to KM. In KM theory texts, such transfusions are known as 'knowledge transfers' and, as we have seen in the literature review and in previous articles, codification is promoted as the means to 'transfer' knowledge. Codification is a technical, mechanical description which removes any consideration of the individual as a complex human being. However, in the same way that Dracula has to suck the life out of others in order to live, KM essentially encourages organisations to 'suck' the knowledge out of their 'workers' in order to sustain the organisation. If we recall Sullivan's 'value extraction' methods, it is eerily similar in purpose.

The process of transfusion depends on Dracula's power and ability to seduce his victims. Similarly, in order to draw 'tacit knowledge' (p. 280) or uncodified knowledge from employees, organisations lure unwitting victims with the promise of salaries and talk of gaining 'working knowledge'. The authors tell us that, 'once transfused these souls join the ranks of the 'undead' – permanently committed to further transformation through an

endless round of transfusion' (p. 285). In other words, not only does KM aim to take away 'knowledge' but it also enslaves the individual in the process. As a result, employees are 'vulnerable' and caught in a vicious cycle because 'if one is not constantly transforming oneself as one simultaneously transfuses vitality into the organisation, one runs the risk of being sucked dry, spat out, made redundant' (p. 285). Seen in this light, 'codification' is actually a transgression of the individual's 'soul'.

In keeping with the Gothic genre, knowledge is also conceived as 'vitality' or 'life blood' which can be 'drawn from employees' (p. 280). From an organisation's view, this 'vitality' is defined as 'enthusiasm for work' (p. 282) which model employees are required to display. From the authors' point of view, such socialisation is merely part of the 'hidden curriculum' of the corporation (p. 285). Nonetheless, the consequence of an employee resisting such 'blood donations' is that 'they have to accept the responsibility of their own demise' (p. 281). KM is thus presented as not just work but a matter of life and death.

In addition, the exchange between employee and organisation tends to be 'one-way' which usually results in 'mortifying' consequences (p. 285). As such, the authors warn against being 'sucked in' by the 'seductive' discourse of KM because it appears to promise many rewards but underneath its 'shiny and bright' (p. 285) surface there is potential destruction. By shifting the focus on the individual's fate, the authors highlight the shadowy aspects of KM endorsed by a functionalist discourse.

The concepts of transfusion and vitality come together when 'knowledge' is transformed. In the conclusion of the article, we are told that:

At the base of the transformation of knowledge into working knowledge that can be managed is a transformation of value: from

an individually tacit asset to an organisationally explicit and measurable factor of production. Not just another factor of production but *the* factor – sustaining vitality, reproducing capital and providing competitive edge (p. 285).

From this passage, we can see how the discourse of KM has ‘transformed’ knowledge from a personal attribute to an organisation’s lifeblood. In the process the individual is exposed, exploited and enslaved. In contrast to the win/win solutions and benevolent assumptions implicit in KM theory, the authors see transformation as a dark and shadowy process. The organisation is the winner while the individual employee is the ultimate loser; losing not just their ‘knowledge’ but their very life or ‘vitality’ in exchange for a lifetime of slavery to corporate purpose. The ‘value’ of an individual is transferred to the organisation in the hope and hype preached by KM but with little or no gain to the individual. The authors only offer the hope that future researchers will look into how ‘the will to power, involved as both subject and object of the transformations, creates resistance’ (p. 285).

In summary, the three clusters above reflect the authors’ scepticism and suspicion of KM theory. Despite their negative view of KM discourse, their perspective of knowledge remains somewhat neutral. In the first cluster, knowledge is shown to empower all three parties but in differing ways. How each party wields their power is not explicated but the potential for them to do so is mentioned. In the second cluster, knowledge is again fairly neutral. It represents something desirable but the ‘blame’ for its use is pinned on the organisation. The third cluster actually portrays knowledge in a positive light because it is seen as a person’s ‘vitality’. Such a perception includes not only the content aspects of knowledge but also acknowledges the inseparable nature of knowledge and the individual. That the organisation seeks to take away the very essence of a person makes it all the more abhorrent. For this reason, I would argue that it is the discourse of KM that is

perceived negatively, but the concept of knowledge, from the authors' perspective, is generally neutral to quite positive.

The 'Gothic spin' generated by the authors is reinforced by the metaphors of knowledge as power, seduction and transformation. The inclusion of Dracula is a fine touch. It comes across as whimsical but with a serious undertone; much like how the article has been constructed. The authors even poke fun at themselves when they remark on how academics, 'through the appropriation of tacit knowledge ... can convert their explicit intellectual selves into knowledge-managers and entrepreneurial consultants' (p. 281). Compared to other authors who tend to take themselves very seriously, such reflexivity is refreshing.

Inserting moments of playfulness in the text is perhaps a counter balance to the 'dark side of the dialectic' (p. 285) that the authors seek to discuss. In places where the irony stops and the authors 'speak', they plead for 'adequate reflexivity' (p. 281) and 'appropriate balance' in the development of KM. Even though they do not provide a solution to the dark implications of KM, their analysis sheds light on unspoken assumptions and critiques the pastoral/romantic metaphors implicit in KM. In this sense, they have created resistance and liberation from mainstream concepts of knowledge.

Agon analysis

From the above analysis, it is apparent that Garrick and Clegg have a very different perspective of knowledge in KM. They highlight the power and seduction of the rhetoric of knowledge and critique the discourse of knowledge management. However, they do not actually take a stance on what knowledge is or should be, or how it should be used. As the most critical and reflexive authors, they make it clear that they oppose mainstream KM discourse but they do so through irony and a measure of playfulness. As

such, their article is probably the most ambiguous with regard to an agon. Nonetheless, the very ambivalence is an indication of the conflict within the authors.

Of all the issues that the authors discussed, the one they do not resolve is the role of the university in the tripartite relationship of business organisation, university and individual. By the end of the article, the organisation is clearly portrayed as the aggressor/transgressor and the individual as the victim. The role of the university, however, remains ambiguous. On the one hand it has the power to dictate to 'peak professional bodies' and bestow degrees on undergraduates, on the other, it is funded by profit organisations and it customises curricula to suit business rather than academic objectives. The authors themselves are aware of their complicity in this situation and offer no position on the uneasy relationship. I would say that, in this case, the agon is not a term that opposes a theme in the article but the disassociation of the authors from their topic.

Given that the authors are concerned with the outcomes of power, the notion of 'counter-power' as an agon helps shed light on the way the university is positioned in the text. It is seen as a 'gatekeeper', the 'combinative' or bridge in the 'architecture of growth'. In other words, the university stands between powerful, oppressive organisations and vulnerable, naïve individuals in the negotiation of what constitutes 'working knowledge'. It is a place which the authors perceive as uncomfortable but necessary. It is also a place where only winners and losers emerge. In other words, there is no congenial or win-win solution for all three parties in Garrick and Clegg's world of KM. Instead, there is a struggle for power with organisations having most of it, the individual having some in the form of uncodified knowledge, and the university having a measure of power to manipulate outcomes. Hence, 'counter-power' as an agon represents the on-going balancing act for the

university as well as the unbalanced power relationship between organisations and individuals. It also reflects the authors' position vis-à-vis the topic of KM. Inasmuch as they want to contribute to the discourse of KM, Garrick and Clegg also want to maintain a critical distance from it. The agon of 'counter-power' aptly captures the tension in doing so. Hence, the fear of uncodified knowledge in Wiig and Sullivan is, in the eyes of Garrick and Clegg, a form of counter-power for the individual rather than a potential threat to the organisation.

Reflexive reading

Garrick and Clegg's article was a delight to read in comparison to the previous articles. It was intelligent in the irony employed, provocative in the Gothic spin it suggested and insightful in the arguments it made regarding the discourse of KM. I identified with the authors' critical perspective and I am aware it influenced my reading of their article. At the same time, I was glad that some critical commentary was present in the theorising of knowledge in KM. The only disappointment I had with this article was the lack of alternative positions on the issue of KM discourse. Nonetheless, in the midst of the many articles I had read on the topic, I felt that this particular one was an oasis of sensibility in the desert of mainstream theorising.

Text 4 – Styhre, A. (2003). Knowledge Management beyond codification: Knowing as practice/concept. *Journal of Knowledge Management*, 7(5), 32-40.

In this article by Alexander Styhre, liberation is a theme that is emphasised. Like Garrick and Clegg, Styhre is also an academic from the Chalmers University of Technology, Göteborg, Sweden, and he also takes a critical stance towards the theorising of knowledge in KM. He has published a book titled *Understanding Knowledge Management: Critical and postmodern*

perspectives (Styhre, 2003a) which indicates the approach he takes in the following article.

Overview

This article begins with an introduction to organisation theory and some of the theoretical roots of KM. In outlining the different sources of KM theory, Styhre highlights the inconsistencies underlying theoretical concepts of knowledge. For example, he says that 'knowledge' is often conceived as a 'stable and somewhat fixed entity based on a number of epistemological assumptions' (p. 33) which KM theory does not address. In doing so, other perspectives, such as a processual view of knowledge, are sidelined because the concept of knowledge is limited only to concrete applications. His article, therefore, offers a different conceptualisation of knowledge in order to address this limitation.

Critical reading

This article is distinct from many other articles on KM because it deliberately challenges not just the theories of mainstream authors but more fundamentally, their concepts of knowledge. Styhre's argument is that the dominant image of knowledge in KM theory is reductionist and limited. He proposes an alternative view that highlights the intangible qualities of knowledge but does not dismiss the more tangible aspects of it either. As his paper opposes mainstream concepts of knowledge, Styhre spends more time refuting these traditional concepts than elaborating on his framework. Even as he questions the assumptions of mainstream KM theory, Styhre's own opinion of knowledge is apparent in the arguments he expresses. In many instances, Styhre personifies knowledge and these instances generate the key ideas presented in this article.

Knowledge as a person

In this article, 'knowledge' takes on the qualities of a person and its complexities. For example, the author says knowledge has a 'body' (p. 33) and it can 'see', 'say', 'write' and 'do' (p. 37). Moreover, knowledge is an enabler as it 'enables us to do things' (p. 37) by interacting in social practices (p. 34). In addition, action can be taken against knowledge such as being 'captured' or 'reduced'. In response to such aggression, 'knowledge actively transgresses' its restraints (p. 33) and is 'always in conflict with managerial objectives' (p. 35). From my perspective, these descriptions of knowledge are behavioural and as such point to a concept of knowledge that is more complex than fairly static metaphors such as 'knowledge as an asset'.

The above descriptions also imply a tension between 'knowledge as a person' and 'managerial objectives'. This tension, in my view, plays out on two levels. Firstly, it reflects the vigorous argument the author is making against mainstream KM theory and its emphasis on codification. Secondly, the author feels that knowledge has been imprisoned by traditional conceptions of knowledge and wishes to 'free' knowledge from its confines. That is why there are repeated appeals for liberation and resistance from the author for the cause of 'knowledge'.

This sense of 'knowledge as a prisoner' is most apparent when the author declares that 'knowledge needs to be freed from its conceptualisation as being a linear succession from data and information' (p. 38). Other indications that such a perspective is present include exhortations to 'break with the logocentric images of knowledge' because it presents knowledge as 'some clearly bounded and manageable resource' (p. 34). Such images are like psychic prisons because 'we cannot easily think outside of its boundaries' (p. 37). The verbs mentioned earlier such as 'captured' and 'reduced' also add to this sense of knowledge being a prisoner. The word

‘reduced’ in particular is drawn on quite frequently with reference to knowledge being reduced to data and information (p. 33). The implication is that knowledge is far more superior and complex than data and information (in the sense of codification) much like an individual is more than just ‘human resource’. Moreover, ‘if knowledge is regarded as a functionalist resource, then many other aspects of knowledge are overlooked and neglected’ (p. 37). The same would apply to limited understandings of humans as resources rather than complex beings. Thus, knowledge must not only be ‘freed’ but we must ‘seek to overcome incumbent theories and justified beliefs’ (p. 38) in order to establish a more holistic view of knowledge.

This call to liberation and resistance is substantiated by references to well-known authors such as Latour, Deleuze, Foucault and Knorr Cetina who provide a backdrop to the author’s alternative conception of knowledge. In the various quotes that Styhre selects, the overall argument is that knowledge is neither concrete nor static. Instead Styhre offers a concept of knowledge that is ‘fluid and moving’ (p. 35). However, before moving into Styhre’s main idea, there is another cluster of terms closely associated with ‘knowledge as a person’ and it pertains to the social aspects of knowledge in its personified form.

Knowledge as a process

Knowledge as a process emphasises the dynamic nature of knowledge. It is also related to ‘knowledge as action’ (Andriessen, 2006, p. 99) because a process implies action towards an end, or a purpose. For example, in the text knowledge is said to integrate ‘praxis and lexis’ (p. 33) and it ‘bridges seeing and saying’ (p. 36). These are purposes toward which ‘knowledge’ is active.

Styhre refers to Whitehead's (1978) concept of 'an event' to explain the process-based view of knowledge. From my reading of the text, 'an event' is theorised as neither static nor fixed but as a 'route' made up of a series of encounters. In other words, it is a process. Such a view according to the author is a 'radical critique of the Cartesian-Newtonian ontology of separated bodies and its mechanistic worldview' (p. 36) because a Cartesian perspective assumes knowledge is a fixed or static entity. Given Styhre's opinion of functionalist assumptions, it is unsurprising that he recommends an alternative that undermines a mechanistic worldview.

Returning to Whitehead's concept of the 'event, in the context of an organisation the 'event' of knowledge is 'what is pragmatically being used in organisations in the course of action' (p. 34). The word 'action' refers to social practices; the interaction between various 'actors, departments and sites' (p. 34). Styhre argues that knowledge is a social process because social settings and a shared 'signifying' language give rise to shared meaning (p. 36) and hence to collective knowledge. As he later points out, 'mainstream knowledge management theorists overlook the fact that both data and information are complex social constructs and not brute facts detached from human understanding' (p. 38). Thus, he says, knowledge is an 'enactment' rather than an entity which, therefore, overturns mechanistic ideas of knowledge.

This cluster of terms around the concept of knowledge as a process form part of the arguments that Styhre makes against mainstream concepts of knowledge. They are not particularly significant as a cluster but support the notion of 'knowledge as a person' and lend credence to Styhre's main concept of knowledge which will be discussed in the following section.

Knowledge as fluidity

The term 'fluid' has several meanings. It could mean 'liquid' as opposed to 'solid'; 'watery' as in having the qualities of water, 'flowing' referring to movement and 'adaptable' or flexible. Styhre refers to all of these connotations in his proposed conception of knowledge. He explains, 'what is fluid is moving, changing, uncontrollable and amorphous' (p. 35). In addition, 'knowledge is fluid and emergent, not fixed and stable' (p. 34), which implies a consistency which is liquid in contrast to something solid and, therefore, fixed. These descriptions cover all four connotations of the word 'fluid' and perhaps he has done so deliberately because he believes the concept of knowledge is just as open.

For example, Styhre says 'knowledge is always indeterminate and fluid because it is immanent in a multiplicity of undertakings and changing language games' (p. 32). Here knowledge is not only seen as continually changing but also as part of the cause for change as implied by the word 'immanent'. This same sense of knowledge being both the cause and outcome is again present when Styhre declares 'we need to think of knowledge as what is fluid and becoming' (p. 35) and that 'knowledge is [thus] fluid and moving, embedded in social relationships and emerges in the practices and use of concepts' (p. 36).

The words 'embedded' and 'emerges' imply that knowledge is somehow hidden. Not in the sense of waiting to be discovered, but waiting to be called upon (p. 33). For example, 'knowledge is manifested and brought into action through practices but is simultaneously given expression through the concepts being invoked' (p. 33). There is an impression of mystery and magic through the word 'invoke'. Coupled with the metaphor of knowledge as fluidity, there is a sense of knowledge being mysterious and elusive; 'like

open drawers filled with folders extending indefinitely into the depth of the dark closet' (p. 35).

To give his conceptualisation of knowledge a point of reference, Styhre makes use of Deleuze and Guattari's example of a rhizome. We are told 'a rhizome has no beginning or end; it is always in the middle, between things, intermezzo' (Deleuze & Guattari, in Styhre, 2003b, p. 36). This indeterminacy makes the rhizome 'an analytical model capable of capturing a fluid image of knowledge' (p. 36). Such a link between knowledge and what is, essentially, a plant or a root (such as ginger) is odd to say the least. A biological referent adapted by philosophy and now adopted to explain management theory is quite a leap in thinking. In some respects, it reflects the author's own difficulty in expressing such a 'fluid' concept. He tries to overcome this difficulty by acceding that knowledge is both tangible and intangible. He says 'knowledge is thus both what is being used in practice but is equally what is translated into documents, models and concepts' (p. 35). As a result, 'what is known must always be given a stable name: a concept, a model, a symbol. Such a concept or name serves to capture what is fluid and moving' (p. 35). In other words, knowledge has to be expressed through language which gives form to its formlessness.

Echoing traditional semiotics, Styhre highlights how language is a 'signifying system' (p. 35), a 'linguistic and semiotic framework' (p. 33), a 'conceptual framework' (p. 33) within which knowledge can be 'fixed' (p. 35). Even as knowledge is 'fluid', it exists within the construct of language. Hence, on the one hand the author prefers knowledge to be unconfined but, on the other hand, he needs to 'capture' knowledge in a language of different terms in order to free it from established ones. There is clearly a tension in these descriptions which suggests there is a conflict within the author regarding his concept of knowledge. Another indication of such tension is apparent

when he dismisses the notion of a knowledge hierarchy as 'uncomplicated' (p. 33) in its theorising of knowledge moving smoothly between data and information. Styhre feels that this is an unjustified assumption. Yet, if we recall the connotations of knowledge as fluidity, there is an underlying assumption that knowledge moves smoothly from point to point.

Furthermore, the author argues against knowledge being fixed in time and space (p. 34). Yet, he conceives of knowledge as 'constituted on a single plane or surface wherein practices and concepts are entangled' (p. 32). In other words, knowledge occupies a particular place or landscape. Within this place, the movement of knowledge is neither smooth nor linear as implied by the knowledge hierarchy, but includes 'bifurcations, ruptures, crises, digressions and unanticipated passages' (p. 33). This is an image of harsh territory and potential danger and stands in marked contrast to the 'fluid' descriptions of knowledge. The only other reference made to 'place' is when the author talks about 'new emerging organisational landscapes' (p. 38). Perhaps the implication is that 'old' mainstream ideas of knowledge are no longer relevant in new, unexplored, harsh organisational landscapes. In the context of finding less positive notions of knowledge, this is one potential indication. Nonetheless, there is still an inherent contradiction in his position on knowledge.

Looking back, the overall perspective of knowledge by the author is largely positive. Firstly, the author makes a clear distinction between 'knowledge' and 'images of knowledge' (p. 32). In his arguments against established KM theory, he levels his criticism only against the conceptions of knowledge. In the contrasts Styhre makes between his concept of knowledge and traditional ones, even though he considers the 'entitative', 'realist', 'functionalist', 'reductionist' views as 'conceptually crude' (p. 32), his own perspective does not portray knowledge negatively either. In fact, he alludes to knowledge as

being the 'mastery' held by a medical doctor and the 'social accomplishment' of knowledge, its gifts and endowments. Even when knowledge is said to change in indeterminate ways, it is usually turned into something 'new', or is 'further refined' (p. 35) as opposed to degenerating. Therefore, these are very positive perceptions of the concept of knowledge.

In summary, we have seen how the complexity of knowledge has been highlighted through the metaphors of 'knowledge is a person' and 'knowledge is fluidity'. These metaphors are imbued with a strong sense of activity and motion which characterises the notion of 'knowledge as a process'. In the analysis of the text, we have also seen how the author contends with mainstream ideas of knowledge and offers alternative views in order to 'de-familiarise the belief' in knowledge as a mere organisational resource.

In the first metaphor of 'knowledge as a person', the idea that knowledge has been imprisoned by functionalist thinking is apparent. We then saw how the notion of 'knowledge as fluidity' provides liberation and resistance to established concepts because 'the fluid and inherently indeterminate nature of knowledge does not really fit into the will to manage and control knowledge expressed by mainstream knowledge management theorists' (p. 37). The author's offer of 'an event' and the rhizome as alternative conceptions of knowledge further undermine the entitative view of knowledge. Indeed, when the author finally mentions the 'new, emerging organisational landscapes' such as networks, virtual organisations and e-businesses (p. 38), mainstream KM theory seems old, inflexible and irrelevant.

The text, however, is not without tension. In proposing abstract perspectives of knowledge, the author is aware that unless the concept of knowledge is

somehow named, it cannot be expressed. As such, he places conceptual frameworks and linguistic systems around 'knowledge' and visualises 'knowledge' on a surface or 'route' that extends indefinitely. Even so, the 'route' is fraught with 'ruptures' and 'unanticipated passages'. And so, to some extent, the author struggles with his own perspective of knowledge.

I would suggest that the author's struggle lies in the contradiction of his arguments. For example, Styhre argues against entitative views of knowledge but, at the same time, assumes that knowledge can be 'captured'. He does so by providing definitions, which on the surface stand in contrast to logocentric views. Nevertheless, definitions still function as a form of 'pinning down' that support entitative purposes. In addition, he omits the role of the reader which is essential to the constructionist worldview that he is trying to promote. He cites Latour and Knorr Centina who point out how unstable naming is, yet he proceeds to 'name' concepts of knowledge. In many ways, he has an unacknowledged debt to the entitative theorists he would eschew.

If we consider how the clusters relate to each other, we can see that 'knowledge as a person' assumes some physicality in that it can be captured and imprisoned. Similarly, 'knowledge as a process' implies that there is some form of object that moves from one occurrence to another. In contrast, 'knowledge as fluidity' is decidedly indeterminate, unpredictable and potentially disruptive. The author attempts to resolve this contrast by suggesting that a 'fluid' concept would liberate the imprisoned concept of knowledge from mainstream theorising. However, he does not resolve the underlying tensions in his concept of knowledge and, thus, has not been very successful in establishing his notion of knowledge or liberating existing ones. To his credit, however, Styhre has raised some very valid points about the concept of knowledge which KM theorists cannot ignore.

Agon analysis

As we have seen, Styhre enters the debate on knowledge directly and offers alternative concepts of knowledge. His approach can be said to be constructionist but as I have suggested in the cluster analysis, Styhre is not very reflexive of his own text. This creates quite a bit of tension in the text as the author struggles to define knowledge but not in reified or logocentric terms. The term that I think captures this struggle, or agon, is the word 'rupture'. Styhre's main concept of knowledge is fluid, smooth and indeterminate. Yet he conceptualises this 'fluid knowledge' on a harsh, bifurcated landscape. As a consequence, there is a clash of concepts as seen in the naming and defining of knowledge while he argues that knowledge is like an ever extending rhizome. In attempting 'epistemological breaks' with reductionist views of knowledge, Styhre's concept of knowledge causes a rupture within his own arguments and lines him up on the side he wishes to break from.

On the surface, this cluster-agon relationship is a reflection of the argument Styhre is making against mainstream concepts of knowledge in KM. At a deeper level, it is reflective of his arguments opposing each other. In this regard, much of his rhetorical momentum is curtailed towards the end of his article as he does not resolve the inherent tensions in the text.

Reflexive reading

Styhre's article promised to be just as interesting a read as Garrick and Clegg's article but it soon proved to be otherwise. I agreed with many of the initial arguments he made regarding the fixed and static nature of knowledge in mainstream KM. I was also intrigued by his examples of the rhizome and the 'event' as mentioned in the analysis. His references to Deleuze, Foucault and Knorr Cetina suggested that philosophical notions of knowledge, so absent in KM, might be given voice in his article.

Unfortunately, Styhre did not manage to 'contain' all his ideas and eventually he also attempted to define knowledge and link it to organisational outcomes. Hence, at the dominant level, I identified with the text but at the critical level, I struggled to find coherence in the concepts that Styhre presented.

Text 5 – Hicks, R. C., Dattero, R., & Galup, S. D. (2006). The five-tier knowledge management hierarchy. *Journal of Knowledge Management*, 10 (1), 19-31.

Based on this article, it would seem that the points Styhre raised have been ignored. The concept of knowledge and the process of KM are presented in the very terms Styhre resists: reductionist and functional. Given the technical background of the three authors of the article, it is perhaps unsurprising that their view of knowledge is influenced by technology.

Hicks, Dattero and Galup have a common background in information technology and computer information systems. The article they co-wrote was based on a paper presented at a conference for the Decision Sciences Institute. There is, thus, a strong focus on the deployment of technology in their article.

Overview

This article by Hicks, Dattero and Galup is about delineating a new set of terminology for what is commonly known in KM as the 'knowledge hierarchy' so as to 'provide guidance to managers involved in KM efforts' (p. 19). The first half of the article is devoted to establishing the five-tier KM hierarchy (5TKMH) and explaining the various levels of it. The rest of the article proposes how this hierarchy can be applied in KM with tables and figures to illustrate their approach.

By way of introduction, the debate over the definition of knowledge is presented. The authors argue that the basic hierarchy of data, information and knowledge is limited because no agreement exists over their definitions. As such, they want to develop new terminologies 'in order to reach consensus between the various viewpoints and still arrive at a clearly distinguishable set of definitions' (p. 22).

Critical reading

In this article, familiar concepts of knowledge are referred to and they include knowledge as an asset, as a mind, and as a computerised system. As with the other articles that have been analysed, the notion of knowledge as an asset is established through descriptions of knowledge as a physical entity. The connection of knowledge with the mind is also a common one but, in this article, the authors go beyond recognising the mind as a source of knowledge to attributing 'the mind' with transformative and innovative power. As for the connection between knowledge and systems, the focus on technology and computers suggest that KM is about the categorising of knowledge.

Knowledge as an asset

In this article, knowledge is specifically named as an asset at several points but it is in its description that the image is fully developed. For example, knowledge has 'units' and 'adds value to the enterprise' (p. 20) which immediately suggests it is like a commodity that can be bartered for profit. There is also a 'weighty-ness' to knowledge as it can be codified, stored, transferred and delivered, particularly through computer systems. By way of the 5TKMH, knowledge is reified and exploited for organisational gains much like a product that is put through the manufacturing process. In this sense, knowledge is a material good, a resource that can be utilised for financial gain.

Strongly associated with the word 'asset' are the notions of quantity and quality. For example, we are told that the 5TKMH is an indicator of the 'volume of KM assets' (p. 27) within an organisation. The word 'volume' suggests that a great quantity of knowledge is to be managed, so much so that it is measured by volume rather than as individual entities. The individual tier of the 5TKMH is also said to contain 'the largest volume of knowledge as it contains all of the knowledge in all of the workers' minds' (p. 27). There is, thus, a link between knowledge as an asset, the quantity of knowledge and the 'workers' minds'. I will return to this link when discussing the next cluster.

In addition to quantity, knowledge is also attributed with quality. In the text, for example, we are told 'the quality of the knowledge [in a KM system] is based on the overall quality of the knowledge residing in the five tiers' (p. 28). The word 'quality' as it relates to business refers to a measure of worth based on the characteristics of the product or service. Hence the word 'quality' is usually moderated by attributes such as 'superior' or 'inferior'. This same sense of the word 'quality' is implied in the text. When applied to KM as a whole, it suggests that knowledge adds value to an organisation and, as we shall see later, this value is usually equated with positive material outcomes.

In saying that knowledge is an asset, there is an assumption that knowledge is owned and subject to 'owners'. Although the article does not state explicitly who 'owns knowledge', the 5TKMH suggests that the organisation managing knowledge from the bottom to the top tiers owns the knowledge that is derived from the entire process. The article also specifically addresses Chief Knowledge Officers (CKOs) which indicates that top management is in charge of the process. The processing of knowledge, through the 5TKMH, enables the organisation greater control over this asset. For example,

'knowledge inventories' and 'knowledge dictionaries' keep track of who and where knowledge is stored. Greater control also means the organisation has the power to maximise the 'performance of KM assets' (p. 28), much like a company managing its financial assets. Such an expression is indicative of a managerial mindset.

The emphasis on 'knowledge as an asset' is the positive material outcome that knowledge provides. By describing knowledge in tangible terms and ascribing volume and quality to it, the organisation or the managers within the organisation, can control it. The reason for doing so is to make knowledge applicable to organisational challenges. In the example of Visa provided by the authors, we are told that fraud losses were reduced by over sixteen percent with the application of network-based knowledge. This example equates the utilisation of knowledge with material outcome. We are also told that when knowledge is collated as 'best practice', it provides a 'complete solution desired by the company' (p. 24). In other words, knowledge brings desirable results to the company which is again a positive material outcome. Thus, there is a clear relationship within this cluster between knowledge and material outcomes.

Knowledge as a mind

While 'knowledge as an asset' emphasises the materially profitable aspects of knowledge, 'knowledge as a mind' highlights the notion of human capital which is another form of potential profit. In this cluster, the dominant image is that of the mind where 'the workers' minds' are considered the source of all knowledge as indicated earlier. Other similar descriptions in the article that create the associations include 'individual worker's heads' (p. 19), 'in the human mind' (p. 20), 'mind of the expert' (p. 21) and 'the mind of each individual' (p. 23). The consistent reference to 'the mind' implies a Cartesian notion of knowledge where objectivity and rationality are emphasised

(Rutgers, 1999). It also elevates the mind over other aspects of an individual but, at the same time, reduces the individual to just a brain.

The 'mind' is also a specific entity, meaning it has physicality. Although it is possible to have a physical brain but no conscious thought, the location of 'the source of knowledge' in time and space is an important assumption as it reinforces the tangible aspects of knowledge. In contrast to theory on organisational knowledge where collective knowledge is assumed, the authors in this article attribute the source of knowledge only to individuals which means it is easier to pinpoint and manage.

The knowledge that is in an individual's mind is called 'human capital' of which 'intellectual agility' and 'competence' are sub-divisions. The notion of 'human capital' is particularly strong in the literature on intellectual capital. Andriessen (2006) has noted that 'the word "capital" resonates with chief financial officers, CEOs, and other members of the financial community' (p. 105). In addition, within that community it is assumed that 'capital is important, more capital is better, and capital needs to be measured and managed' (p. 105). The same desire for more capital is exemplified in this text by the various diagrams illustrating how to extract and exploit knowledge from an individual's mind.

The sub-divisions of competence and intellectual agility extend the meaning of 'human capital' to include skills and the deployment of skills. For example, we are told competence is composed of 'knowledge and skills' (p. 25), and intellectual agility is 'the ability to use the knowledge and skills ...' (p. 25). These descriptions suggest that there is a distinction between knowledge and skills and the use of these skills. In other words, the mind contains more than just codifiable knowledge, it also houses skill and expertise which are useful to the organisation. In the examples of 'The Virgin

Group' and 'Philip Morris', we are told that diversification was successful because of 'intellectual agility' (p. 25). These examples tell us that when knowledge and skills are combined there is a positive outcome for the organisation. The emphasis on organisational gain comes across clearly in this cluster as well.

The perspective that emerges from the analysis so far indicates it is managerial. The phrase 'individual worker's head' (p. 19) is indicative of a top-down perspective as is the desire for material gain. In addition, management is also concerned most with how resources are utilised which means controlling specific, tangible assets. Such a perspective means that knowledge is valued according to its usefulness to the organisation.

Such a perspective also explains why there are occasions where 'some knowledge is not worth capturing' (p. 27). Recalling the notion of quality mentioned earlier, it would suggest that irrelevant knowledge is of 'low quality' to the organisation. In contrast, the authors classify relevant knowledge under 'codified knowledge' because it provides the organisation with 'higher effectiveness, higher efficiency, and lowered costs' (p. 22). This implies that from an organisational point of view, only knowledge that can be captured, 'measured' and exploited for organisational gain is valuable.

In contrast to codified knowledge, there is tacit knowledge that also resides in 'the mind'. It is called 'personal knowledge'; under which wisdom, understanding, reflective and integrative thought are classified. In essence, all philosophical thought regarding knowledge is classed under one term. Unsurprisingly, there is little elaboration on tacit knowledge except broad generalisations such as 'personal knowledge is half the foundation of KM and is in some way the source of all codified data, information and knowledge' (p. 21). Such statements stand in contrast to the great detail

provided on explicit or codified knowledge. Hence, personal knowledge comes across as 'elusive' (p. 21) and somewhat mysterious as this form of knowledge is 'not available for inspection' (p. 21) and sometimes 'cannot be captured' (p. 27). There is also an implication that such knowledge is not useful to the organisation because it is capable of 'walking out the door at night' (p. 25).

Hence, there is a link between knowledge as an asset and what is presumed to be in the mind. For instance, the knowledge that is found in the mind and attributed to the individual is implied to be rational and objective. It can then be codified, stored and shared. If knowledge stays in the mind, then it is a mysterious entity which cannot be examined or shared via computer systems. The mind is also a physical, identifiable source from which an organisation derives 'capital' which, therefore, makes 'the mind' an asset. All these 'minds' can then be classified through listings on 'knowledge inventories' and 'delivered' to 'knowledge-seekers'. The association of human mind to business asset is apparent, which translates to potential profit for the organisation.

Knowledge as transformative thought is another cluster of terms that reinforce the image of knowledge as a mind. Where the previous cluster highlighted the profitability of knowledge in material terms, this cluster emphasises the adaptability of knowledge for different uses and its role in innovation. The overriding theme within this cluster and the following one on innovation, is that the 5TKMH is *the* vehicle through which knowledge is transformed into a positive outcome for the organisation. As observed earlier, the authors present the 5TKMH as a concrete mechanism through which knowledge can be managed. Hence, given an organisation's focus on deriving material value from its assets, transformation is a critical part of the process.

The concept of transformation is not new to KM. The original knowledge hierarchy indicated that data is transformed into information which, in turn, is transformed into knowledge. It was assumed that knowledge was at the top of the hierarchy. In the 5TKMH, these transformations are still taking place with the help of computer systems. However, these transformations are not necessarily linear, as supposed by the traditional hierarchy, because 'the 5TKMH supports transformations directly between any of the tiers' (p. 25). The implication about knowledge from this assertion is that it is flexible, adaptable and easily applicable. This implication is further emphasised when we realise that 'these transformations are not mutually exclusive' (p. 21) which suggests there are myriads of permutations knowledge can go through. If knowledge can be endlessly transformed, its potential would also be limitless. Even to the general public, such an asset would be priceless.

Knowledge seen in the light of transformation also acts as a portal through which other forms of knowledge evolve. For example, 'knowledge becomes information when it is stored in a computer, but then becomes knowledge again when it is transferred to another human' (p. 20). Hence, knowledge is not only adaptable but it is also the linchpin on which other forms of knowledge depend. However, in order for these transformations to add value to the organisation, innovation must take place. The point I wish to highlight before moving on is that transformation as discussed in this article is highly positive. There are other authors in the KM literature (such as Garrick & Clegg, 2000) who view transformation as Gothic and sinister. The authors in this article are decidedly positivist in this regard.

The significance of knowledge to the organisation is amplified through a set of terms associating innovation with the mind. As this is where the application of knowledge for organisational gain is most prominent, it is a term of high intensity. As the top tier of the 5TKMH, innovation is presented

as the pinnacle of KM efforts. In contrast to the other levels of 'individual', 'facts', 'influences' and 'solutions' (p. 22), innovation is the level where knowledge is 'the most actionable' (p. 28) but also the 'most rare' (p. 21). Putting knowledge to use (and reuse) is a pivotal concern and whenever 'action' occurs in the text, it is usually in tandem with innovation. Two other terms that add to the importance of innovation are 'creation' and 'strategy'. For example, the creation of strategy is usually found in the context of the innovation tier. When knowledge is combined with strategy, innovation occurs and a whole host of opportunities are possible to the organisation such as 'process re-engineering', corporate efficiency and effectiveness, or knowledge-based goods and services (p. 24). The creation of new knowledge is also said to underpin the 5TKMH (p. 28).

In fact, the whole 5TKMH is set up with the purpose of achieving innovation as it is said to bring the most material benefit to the company. Rhetorically, this is the dénouement of the authors' argument. By way of the 5TKMH, they show how the connection between knowledge and innovation is also a connection between achieving the goals of KM and making profit. It is not hard to fathom why 'innovation' is *the* buzzword in the managerial world.

The concept of knowledge as a mind is thus a significant one in this article. However, there is one more cluster of terms that needs to be mentioned as it provides the context within which 'knowledge as a mind' is utilised. This cluster highlights the procedures and structures that the authors claim are necessary in managing knowledge.

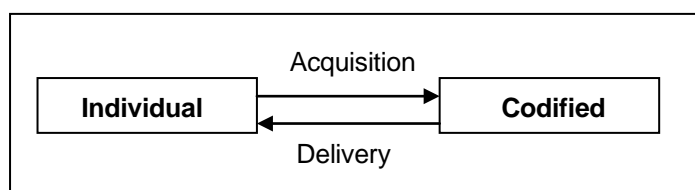
Knowledge as a system

The word 'system' implies a structure or framework that is placed around certain procedures. It can also refer to processes in administration and management. There are many references to the word 'system' and its plural

form 'systems'. Together they appear over 50 times in the article. Closely related to 'system' is the word 'codified'. The net result of 'codified' and 'systems' being clustered around 'knowledge' was an overwhelming sense that knowledge needed to be categorised. There were numerous references to containing, storing and codifying knowledge, especially in systematised forms such as 'yellow pages' or 'knowledge dictionaries'.

In explaining their new 5TKMH, the authors say that the individual tier at level one, forms the foundation of the 5TKMH as 'it is a necessary pre-condition for the other tiers' (p. 23) and they define it in the same terms as personal knowledge. They also direct the reader to a figure on 'acquisition and delivery systems' which is replicated in Figure 5.

Figure 5: Acquisition and delivery systems.



Source: Adapted from Hicks, Dattero and Galup (2006), p.23.

This figure is designed to show how individual knowledge is a 'necessary pre-condition' for the other levels of the 5-tier hierarchy. As a reader, the figure suggests that there is a system which 'acquires' knowledge from an individual, codifies it and delivers it back to the individual. If the implication is that the system cannot operate without an individual as a source from which to 'acquire', then perhaps it could be said that individual knowledge is the foundation of the 5TKMH.

The five-tier hierarchy itself is emblematic of this drive to classify knowledge. Despite re-naming the various levels within the hierarchy, the

original data-information-knowledge classification is still apparent. For example, 'facts' still refer to data, and 'influences' to information, given the numerous 'systems' listed within that particular tier. In their explanation of this five-tier hierarchy, the authors go to great lengths to spell out how each tier is coded because 'a codified KM system is only as effective as the knowledge that it obtains from the knowledge holder and that can be delivered to the knowledge seeker' (p. 23). By adding two more tiers to the original hierarchy, the authors are not enlarging the hierarchy but refining the categories within the original hierarchy. In other words, the five-tiers are not really 'new' (as the authors claim) but a more detailed exposition of the original 3-level hierarchy.

The emphasis on codes and systems suggests that the authors prefer explicit forms of knowledge so as to manage it better. Their five-tier KM hierarchy can be seen as an elaboration of the traditional three-tier model and, in re-naming the various tiers, they have not substantially expanded the concept of knowledge but rather defined it more narrowly than the previous model.

At a deeper level, the relationship between the terms 'knowledge' and 'codified systems' suggests a mechanised perspective that views individuals and their knowledge as resources to be exploited for corporate gains. As reflected in their pictorial representation of a KM system, there are no real persons, only computers, sources, clients, repositories and directories.

In summary, knowledge is presented in a positive light as a tangible, valuable resource which is derived from individual minds. The potential volume of retrievable knowledge is unknown but also unlimited. In addition to its material value, knowledge is also important to an organisation because it is flexible, adaptable and central to transforming data and information into something useful. Finally, the role of knowledge in innovation, strategy and

the creation of new knowledge is a significant one as it is the final step towards material gain. Hence, the organisation seeks to maximise it.

Having traced the concept of knowledge through clusters and associations, an underlying theme is apparent. There is a desire for a positive material outcome whether it is expressed as 'value', 'benefit', 'quality' or 'strategy' and managing knowledge will bring about such an outcome. The rhetorical appeal of such a message to organisations is hard to resist especially when accompanied by a mechanism through which knowledge can be concretely managed. The clusters reveal a fascination with the mind as a source of knowledge and the mind's ability to transform and create new knowledge. This 'intellectual agility' is also attributed to the organisation at the level of innovation. This implies that collective knowledge generates innovation which elevates it above individual knowledge. Such a sentiment can be traced back to Wiig and Sullivan and may be indicative of an embedded assumption about KM. I will return to this positive belief in collective knowledge in the later chapters.

Agon analysis

The five-tier KM hierarchy reflects mainstream views of knowledge and focuses on codifying the knowledge from 'workers' minds'. Since only codified knowledge can be processed through the 5TKMH, the one thing that stands in opposition to that happening is 'knowledge that walks out the door every night'. The agon for this particular article is again uncoded knowledge. The image of knowledge walking out the door is prevalent in KM literature and this article provides some clue to its ubiquity.

Of the clusters discussed in the 5TKMH, 'the mind' cluster had the most references to it such as 'transformation' and 'innovation'. In many ways, 'the mind' is a physical representation of an 'intangible asset'. It was observed in

the analysis that such a concept of knowledge is Cartesian and, as a consequence, very narrow and limited. At the same time, it indicated an almost obsessive focus on controlling 'knowledge assets'. Uncodified knowledge thus represents that which is outside the control of the organisation, and the image of precious assets 'walking out' strikes fear. Sullivan's article reflects the same anxiety when he observed how employees may in many ways 'sever their working relationship with the firm' (p. 133). He thus encouraged codifying as much 'knowledge' as possible before such a situation occurs.

In addition to a loss of control, uncodified knowledge also represents a loss of material benefit. In the cluster analysis of 'knowledge as an asset', the correlation between knowledge and profit was direct and clear. So, knowledge that is not in some way 'captured' means that the organisation is not maximising its economic returns. According to Wiig's article, such an organisation would not survive in the 'new knowledge economy'. Therefore, it is unsurprising that so much effort is directed towards codifying knowledge.

Thus, prior to knowledge being conceived as an asset or individuals being seen as inexhaustible reservoirs of knowledge, it was probably considered far too obvious to observe that people generally left their place of work every night. However, given the admonitions of demise, competition and opposition (i.e., fear) and the seductive appeal of success, profit and power (i.e., greed), any potential loss of knowledge is regarded with fear and anxiety. Such anxiety is reflected in the cluster-agon relationship and explains in part its continual presence in KM literature.

Reflexive reading

I found the article on the five-tier KM hierarchy to be a very frustrating read. Aside from the grand claims made on behalf of the 5TKMH it was basic writing errors that bothered me more than I expected. For example, there were simple spelling errors like 'stragegy', missing prepositions in sentences, inaccurate grammar and inconsistent referencing. Many of the technical terms used lacked explanation and direct quotes were inserted without apparent connections. The writing was also uneven and lurched from paragraph to paragraph with the ideas deteriorating towards a list rather than paragraph form. In addition, I reacted to the high-handed tone of the text and as a result found the perspective presented of KM to be odious. The text recommended a de-personalisation of individuals and replacing them with computers. There was also an assumption that organisations could do so with impunity. Compared to the reactions I had to the other articles, this text probably received the least sympathy from me in terms of persuasion.

Text 6 – Smedlund, A. (2008). The knowledge system of a firm: social capital for explicit, tacit and potential knowledge. *Journal of Knowledge Management*, 12 (1), 63-77.

The final article for analysis is by Anssi Smedlund who, at the time of writing the article, was a PhD candidate at the Helsinki University of Technology, Espoo, Finland. He has published with other authors quite regularly in the field of intellectual capital. In his article, he adds the concept of social capital to the theorising of knowledge in KM.

Overview

This article by Anssi Smedlund echoes many of the mainstream ideas of knowledge and knowledge management. His contribution is incorporating the notion of 'social capital' into what he calls the 'knowledge system of a

firm'. In order to do so, Smedlund assumes that certain KM systems are already in place such as databases and communities of practice. He also assumes that jargon such as 'value creation logics', 'competencies', 'knowledge exchange' and so forth are part of the reader's vocabulary.

Critical reading

This article is highly theoretical but the author organises his ideas in a very structured format which makes it easy to track his argument. The author's perception of knowledge is also fairly obvious as he reiterates his points quite often. There is also a clear hierarchical progression from the concept of knowledge as a physical resource to the notion of knowledge as a competency that brings innovation and 'increasing returns'. As such, the cluster 'knowledge as a physical resource' will be discussed first which includes the key words that point to a reified view of knowledge.

Knowledge as a physical resource

The perception of 'knowledge as a physical resource' comes across through several clusters of metaphors. Unlike earlier articles where the tangible qualities of knowledge are sometimes implied rather than stated, most of the terms associated with this cluster are explicitly mentioned. For example, the concepts of knowledge as an asset or resource are referred to as a given, such as when knowledge is defined as 'the key resource and the dominant source of competitive advantage' (p. 63). Such a statement implies that 'knowledge as a resource' is a buried assumption and that the physical aspects of knowledge are self-apparent.

The characteristics of knowledge as an asset which have been discussed previously are no different in this text. As an asset, knowledge can be shared, transferred, codified and managed to bring profit to the organisation. It can also be accumulated, renewed and converted (p. 66) and there are 'vast

amounts of information' from which to do so (p. 73). There is also 'value' associated with knowledge but the author does not explicitly describe the value in terms of quality or quantity. However, it is implied that value refers to 'economic value' which means material returns such as dollars (p. 66). This is reinforced in the text when the author says: 'IC (intellectual capital) resources form the knowledge that gives the firm its value and accordingly, the firm uses this knowledge to make a profit' (p. 73). From this statement, we can see that the author associates intellectual capital with knowledge. It also tells us that ideas related to 'knowledge as an asset' from the time of Wiig's article have become commonplace because Smedlund speaks of it as an established fact.

As a matter of fact, the connotations of 'asset' such as benefit or advantage are no longer implied in Smedlund's treatment of the word. For example, when he refers to 'knowledge assets', he qualifies them as 'codified explicit knowledge assets' (p. 64) which refer to items such as customer databases. In this instance, he applies the word 'asset' interchangeably with 'resource' which suggests that the word 'asset' has become subsumed within the discourse of KM to signify a type of resource. In a later example, these 'knowledge assets' are shown to have the least importance among other types of knowledge. Rhetorically, such a reduction indicates that the word 'asset' as used in KM, has reached a saturation point and is now relegated to start again at the bottom rung of the logological ladder.

Another indication that knowledge is considered a resource is its comparison to traditional resources. Although knowledge is seen as a higher form of production in relation to resources such as land, labour and capital (p. 63), it is still categorised with traditional resources. For example, the comparison of knowledge as a resource to other organisational resources is shown as a contrast between 'old' and 'new'. Knowledge represents the 'new economy'

(p. 66), new ideas, innovations, technology and so forth. The industrial economy is comparatively 'old' and 'traditional'. By drawing such parallels, it can be said that the author perceives knowledge to be a resource except that the 'knowledge resource' is superior to old industrial ones.

As was mentioned earlier, another familiar association made by Smedlund is between knowledge and intellectual capital. Following the attributes of capital, knowledge can be utilised, leveraged and invested for increased returns (p. 64). As the author highlights in his description of the 'capital metaphor', it is the 'transformative ability of capital' that is important. This is because transformation upgrades 'knowledge assets' to become 'competencies' which in turn produce 'value'. Such a progression is visually represented in text by Figure 1 on page 67 and reiterated in the text. For example, knowledge can transform 'intangible assets' into 'competencies' which, in turn, become 'value that impacts the bottom line' (p. 63). Such transformation happens through 'conversion' and 'transference' (p. 64). The author explains it this way:

Codified explicit knowledge assets, such as customer databases, can be turned into value by efficiently implementing them in production. Tacit knowledge assets, such as the professional knowledge embedded in employees, can be turned into value by transferring them and sharing them with others to create learning benefits and increase the efficiency of a firm. Finally, "potential" knowledge assets, such as the reception of a new technology inside or outside the company, or the business nose of innovative individuals, can be converted into value by creating the right infrastructures to utilize these "emerging" bits and pieces of knowledge, in order to form the grounds for new successful innovations (p. 64).

There is a suggestion that 'codified explicit knowledge assets' are like a starting point from which a firm moves to tacit knowledge and then to 'potential' knowledge. While codified and tacit knowledge improve the efficiency and effectiveness of the firm, it is 'potential knowledge' that brings

about 'new successful innovations'. We are later told that 'at the innovation level', meaning the highest level, 'a potential and emerging type of knowledge is dominant' and that 'potential knowledge is more important in new innovations than codified knowledge' (p. 66). In other words, the author sees 'potential knowledge' as a higher, more desirable form of knowledge. Such a perspective recalls the knowledge hierarchy where one form of knowledge is privileged over another.

However, 'potential knowledge' is not the goal but 'competencies' are. According to the author, 'competencies further produce value from knowledge resources' (p. 73). In order to develop competencies, social network structures need to be in place. The author's emphasis on structure is quite strong and I will return to it. The point I wish to highlight here is the notion of competency being even 'higher' than 'potential knowledge' or innovation. In the article on the five-tier KM hierarchy, innovation represented the peak of KM processes. Here another level has been added implicitly and it refers to an organisation's competency, not the individual. There is again an indication that the efforts of the collective are greater than those of the individual.

The term 'competency' is not defined by the author. Garrick and Clegg (2000) have commented that competency-based standards are 'technical' and 'instrumental' (p. 280) and Smedlund suggests the same. At the start of the article he states that 'through competencies, the intangible resources that are invisible on a balance sheet can be turned into value that impacts the bottom line' (p. 63). I take this to mean that through competencies, intangible knowledge becomes tangible or real. In other words, competency is a measurable form of knowledge. Given the progression from codified knowledge, competency is, essentially, the highest form of knowledge one can measure.

In sum, the various clusters point to a reified view of knowledge. Whether it is described as an asset, resource, capital, transformation or competency, knowledge is a positive 'thing' to possess and the material benefits it brings make it desirable. For instance, knowledge assets have 'endless replication possibilities' which means 'increasing returns' (p. 63) to the organisation. Moreover, knowledge assets do not require physical maintenance and are not subject to 'a predictable rate of depreciation' (p. 65). In addition, it has a 'future flow of benefits' and, in economic terms, such benefit refers to material profit. The author concludes that in comparison to traditional resources that 'wear out' at some point and decrease profitability, 'the knowledge resources of a firm' are 'valuable, rare, inimitable and non-substitutable' (p. 66).

From this basis, the author introduces the notion of 'social capital' as the means through which knowledge can be transformed into competencies. As with most abstract concepts, he relies heavily on metaphors to express his ideas. These metaphors cluster around the next two: 'knowledge as structure' and 'knowledge as a process'.

Knowledge as structure

Structure can be expressed as a framework or construction and as a container. In this article, structure is reflected very strongly in the text and in the illustrations provided. In terms of content, the author refers to norms, beliefs, trust and networks (p. 65) as 'social structures' within which knowledge takes place. The firm or organisation is also pictured as a container within which these 'knowledge systems' reside. Collectively, they form a 'knowledge environment' (p. 64). A 'right' environment would consist of the 'right infrastructure' (p. 64), 'institutions' (p. 65) and basic management systems. The importance of structure is emphasised because 'the right structures' would 'shape knowledge into competencies' (p. 66). As

we have seen in the preceding discussion, competencies are the highest form of measurable knowledge and, therefore, the most desirable.

We are also told that social capital 'can be understood as equivalent to the concept of 'informal organisation'; a social structure that lies behind the formal hierarchy of a firm' (p. 65). In other words, social capital is another form of structure but a more tacit one. It is also one that is more controlling. In explaining the workings of social capital and networks, the author highlights the rewards and sanctions on those participating in the networks. Whether the network is 'decentralized', 'distributed' or 'centralized', social rules are self-enforced. These rules are based on beliefs, norms and trust. As an observation on how society governs itself, such a description is expected. However, when it is translated to being 'components of social capital' (p. 68), the implications are much darker.

The scenario becomes bleaker when one realises these networks aim toward self-centered benefits and rewards. These 'benefits' and 'rewards' are further explained in monetary terms such as 'currency', 'economic exchange', 'transactions' and 'debt' (p. 71). Even the author acknowledges that in some networks, other 'actors' are seen as 'resources that can be exploited for short-term information gains' (p. 70). Unfortunately, such insight quickly gives way to finding the 'optimal' structure for maximising organisational gains.

The most structured network, a 'centralised' one, is portrayed as the most controlling. For example, an employee is considered as 'part of the machinery and can be hired, fired or outsourced at virtually any time' (p. 72). It is also the network that is associated with 'explicit knowledge', the 'lowest' level of knowledge for the organisation. In contrast, the 'decentralised' network emphasises innovation and 'freedom to try things' (p. 69). Yet it is also the one where exploitation is most likely to occur. The 'distributed'

network would seem the most secure as it promotes 'lifelong learning' and 'personal growth'. However, it can also be the most manipulative as it relies on social sanctions and 'enforceable trust' (p. 70).

Thus 'knowledge as structure' is twofold. As an environment, knowledge has borders defined by the type of knowledge it is and the 'environment' provides a frame within which different social networks reside. In terms of social capital, knowledge is seen to be contained in the networks of relationships. Hence, knowledge is both a framework and a container. Within this framework, terms associated with activity coalesce around the concept of knowledge as a process.

Knowledge as a process

In explaining the components of social capital, the author describes social capital as 'emergent' and 'systemic' (p. 67). He repeats these two ideas frequently and as we have seen above, 'systems' and structure are clearly indicated in the text. The word 'emergent' suggests a process and this word and its extensions appear over 13 times throughout the article. Closely related to this sense of something happening over time is the word 'gradual' which is repeated just as frequently. The author's argument is that tacit and potential knowledge 'emerge' through social networks and this process is 'gradual'. Hence, in terms of KM, the 'optimal' social structures that support such knowledge appearing are the 'decentralised' and 'distributed' ones (p. 72).

Underlying the notion of process is that of action towards a purpose. The author sees knowledge as 'dynamic' (p. 64) and locates the action in 'the relations between actors' (p. 65). The purpose of such action is, on the one hand, to produce 'economic wealth' and on the other, to be a 'value driver' (p. 65). In fact, the author calls social capital the 'critical value driver in

knowledge-based businesses' (p. 65). This is because social capital creates 'the right competencies to ensure the commercial success of a firm' (p. 66). Hence, knowledge is like a driving force that brings about commercial success.

The motif of 'emergence' and action come together in the author's expression of 'ideas for new innovations' being 'born' in the social networks of a firm (p. 72). The collective images of birth and newness being attached to innovation and ideas suggest a very positive, organic view of knowledge. However, we are told the 'newborn' idea is quickly 'transferred' to the firm's 'production function' to serve the purpose of commercial success. Lest the reader misconstrues the whole reason for giving birth to new ideas, a visual representation of how quickly 'innovation ideas' are subsumed by the organisation is provided on page 73. Given the importance of structure, it is unlikely that any new idea is allowed to 'run wild' or 'roam free'; notions usually associated with creativity. For this reason as well, the cluster of terms underlining the concept of knowledge as a process are subject to the larger concern for structure and management.

From the above analysis, structure is an important aspect in the management of knowledge. What I did not expect, however, was the extent to which structure was important to the overall expression of the text as well.

From a macro perspective, the mathematical precision with which the author sets out his ideas is apparent. For example, out of the many terms and phrases that the author uses, the numeral 'three' is mentioned frequently; 27 times to be precise. There are 'three phases' in KM literature, 'three categories' of knowledge and 'three types' of networks. These selections are deliberate choices of the author based on the literature available. These sets of three are then set out as a grid in Figure 1 on page 67. In most instances,

doing so simplifies a complex topic and allows for a straightforward illustration. However, the author takes the same grid-like structure and applies it to the rest of the text as well. As a result, there is constant repetition as the author takes pain to explicate each 'box' of the grid on the horizontal and vertical axes. In terms of cluster analysis where frequency of terms is carefully observed, the repetition of content in this case did not add to the general effectiveness of the article.

In fact, the content overlapped at several junctures which affected the reading of the article as a whole. In the example below, much of the content seems to be saying the same thing in a different way. For example:

The fundamental management challenge of a firm results in the firm having to handle three different modes of operation simultaneously. First, existing businesses have mainly to be managed by using well-specified, explicit and codified knowledge to improve efficiency. Second, gradual improvements to existing businesses have to be done by gathering experience-based knowledge from inside the firm and from different interest groups, and by then applying this to existing business processes. In gradual development, tacit forms of knowledge are thus highlighted. Thirdly, in the innovative mode of a firm, new business is developed by using bits and pieces of information from many different sources and then condensing this information into a new, innovative idea (p. 66).

The same equation of 'codified knowledge' with efficiency, 'tacit knowledge' with 'gradual development' and 'potential knowledge' with innovation is repeated on pages 64, 72, 74 and 75 with perhaps the addition of the three networks.

Even the writing repeats itself with minimum variation. For instance, we are told, 'the knowledge system is based on three types of social networks: a network for potential knowledge, a network for tacit knowledge and a network for explicit knowledge' (p. 72). This statement is made *after* having explained all three networks and their applications quite extensively.

Given the mathematical inclination of the author, I returned to the text and observed words such as 'corresponding' and 'equivalent' and other equations referred to in the text. For example, in the author's argument about social capital there is an equation between different types of knowledge and their corresponding types of social capital (p. 66). Further on, social capital is 'equivalent' to 'informal organisation' structures (p. 65) and the addition of social capital to knowledge assets 'equals' economic wealth. In the light of the author's preference for structure to the point of mathematical precision, 'knowledge as structure' in this article is more significant than the other clusters. As a reader, I felt that the rigidity imposed on the article left no room for drama or urgency. There was hardly any emotion in the text. This initially bothered me but in hindsight it drew my attention to what this lack of emotion implied. Considering the lengths the author had gone to in order to impose structure on the content, the absence of emotion could imply a fear of things going out of control. In other words, any potential form of disorder is eliminated by rigidity and precision. In this respect, tension in the text is only noticeable based on what is 'not there'. In this case, I would say that disorder is clearly not allowed in this text.

In summary, the cluster analysis of this article shows that mainstream ideas of knowledge are still prevalent but with some distinctions. The author sees knowledge as a physical asset that can be managed but the term 'asset' no longer connotes benefit. Instead, 'knowledge assets' are just another resource albeit a superior one. The benefit of knowledge and its management is seen in developing 'competencies' which represent the pinnacle of an organisation's KM efforts. 'Competencies' also symbolise the collective ability of an organisation to generate profit from knowledge. Compared to the 5TKMH, 'competencies' are considered even more important than innovation. Nonetheless, the belief in the collective knowledge of the

organisation as superior and desirable is similar to other authors such as Wiig, Sullivan and Hicks, Dattero and Galup.

The overall purpose of these KM efforts is material benefit and the author believes there are 'best ways' to achieve them. He offers the concept of social capital as the mechanism through which knowledge can become organisational competencies which, in turn, bring about 'value'. For each type of knowledge, there is a corresponding 'optimal' social network and they all work together for the profit of the organisation.

Knowledge as perceived through the above clusters is distinctly positive. The focus is on the 'increasing returns' knowledge as a resource can bring. This stands in contrast to traditional resources that depreciate whilst knowledge has 'endless replication possibilities'. The idea of 'new knowledge' or innovation is also presented in a positive light as it is described as dynamic. The only indication of a negative view is the possibility of 'negative social capital' (p. 65) but this concept is only mentioned in passing.

Finally, the composition of this article suggests that structure and precision are important to the author. This was also reflected in his static concept of knowledge which could be categorised, added or equated with other concepts. There was even a hierarchy in the types of knowledge which meant that knowledge can be sorted horizontally and vertically. The author's concern for exactitude, however, removed many basic elements of persuasion such as emotion within the text. Hence, despite the author's assertion that social capital was new to KM, the overall impression was that the concept of knowledge had not changed significantly since Wiig's introduction of KM in 1997.

Agon analysis

In this last article, the drive to codify knowledge is extended beyond 'the mind' to the social relationships between individuals. What the author proposes is, essentially, another means of codifying knowledge. We saw earlier that the 5TKMH sought to capture knowledge from 'workers' minds'. In the same way, the 'knowledge system of the firm' seeks to capture knowledge from workers' relationships with other workers. Smedlund's concept of knowledge in social relations is not what Styhre calls a 'social accomplishment'. The terms he utilises when speaking of social knowledge indicate that Smedlund regards it as a form of measurable capital which contributes to the firm's overall profitability.

Smedlund's assumptions about knowledge are very much in the mainstream which implies that the anxieties regarding the accumulation and exploitation of knowledge for profit are present in his article as well. However, there is no indication from the analysis that Smedlund is particularly worried about uncoded knowledge. His text does not even mention the term 'uncoded' as part of his theorising. This is probably because he feels that the knowledge system of the firm will effectively capture all relevant knowledge. As a result, Smedlund has an unproblematic concept of knowledge and thus does not project any anxiety regarding it. In fact, there is hardly any emotion reflected in the text.

In the search for agons, absence is a significant indication of an author's unspoken perspective. In essence, the absence of emotion in the text suggests that the author's worldview is fixed and stable. Thus, any form of tension or conflict within the text has been omitted. There is, however, tension for the reader. As the article is largely prescriptive, I am left with little to consider or debate. Consequently, I find the text particularly dry and void of any argument of real interest. The struggle to find some identification with the

text or with the author is difficult because there is little emotional appeal. The prescriptive nature of the text provides some appeal to logic but, apart from that, there is little else to suggest that it is a topic the author cares about. The most emotion the text elicited from my reader's perspective was the totalitarian suggestion of capturing 'knowledge' from social interactions as well as 'the mind'. The holistic intent of KM from Smedlund's article is disturbing in its implications for the individual.

Aside from that, I was left with the impression that any potential form of disorder had been 'structured out' of the text. In sum, I would say that the agon for Smedlund's article is 'disorder' as it stands in opposition to the order and structure in the article.

Reflexive reading

This final article by Smedlund was by far the most tedious and repetitive of the six articles analysed. In some ways, it was tedious because the subject matter had become familiar and the theories were customary. I had hoped that the notion of 'social capital' would capture some of the social aspects of knowledge that had so far been neglected in the literature but it turned out to be more of the same thinking packaged slightly differently. The article echoed conventional theory about knowledge and reduced it even further by narrowing knowledge to just three 'types', which were then conveniently attached to three types of networks. I felt it was too contrived to have sets of three for virtually every theory he mentioned whether they were from sociology or management theory. It meant that the content was manipulated to fit the structure of the text rather than the other way around. The rigidity imposed on the content essentially meant that any form of complexity or counter-argument had no place in the article. A lack of alternatives for the reader to consider led to my conclusion that it was a very dry and dull article. However, it was the lack of emotive appeal that signalled the

presence of an agon and it was only upon reflection that it became apparent to me. A reflexive reading is hence a necessary part of the process of embedded cluster-agon analysis.

Reflection on process of analysis

In sum, the analysis of the six articles had high points and low points. As I sifted through the clusters and agons, I was conscious of my attitudes towards the articles particularly those that triggered strong reactions. Such reactions meant that there were elements in the text that required closer examination. Hence, there was always a tension between maintaining a critical distance and staying close to the text in order to 'feel' it while dissecting it. The reflexive readings of the six articles expressed here are a collection of the different reactions each time I read and re-read the articles. As such, they are a reflection of the process of interpretation that accompanied my analyses of the texts.

The decisions I made regarding the clusters and agons were, as far as I was able, consciously driven by the text and the context in which it was written. To some extent, the expression of the clusters in simile was imposed to give consistency to the structure of the chapter. However, the similes were largely inspired by descriptions employed by the authors. The agons were a challenge because they were often deeply embedded. Nevertheless, they showed a pattern of assumptions that 'knowledge' is always good; such as implied by the words 'asset' and 'capital'. An inference from this pattern is that the authors might be 'hiding', from themselves and their readers, the possibility that 'knowledge' could be 'bad', forbidden or destructive. These possibilities will require a closer look at the clusters and agons and I will do so in the following chapter.

Summary of chapter five

To close this chapter, I return to its beginning. In this portion of the research process, six texts selected from the *Journal of Knowledge Management* were analysed and presented in chronological order. Each text was read at the 'dominant' level and was presented as an overview of the text. At the critical level, key words and clusters were derived from each of the texts. The clusters included literal, figurative and embedded meanings associated with the concept of knowledge. The agon analysis was then conducted alongside the cluster analysis. A reflexive level of reading was also presented to help make the process of analysis more transparent.

From the overall analysis, 18 clusters and seven agons were derived from the texts. The clusters and agons are reflected in Table 5.

Table 5: Summary of clusters and agons.

Year	Author	Title	Clusters & agons
1997	Wiig, K.	Knowledge Management: An introduction	Asset Structure Energy Evolution Agon: Extinction
1999	Sullivan, P.	Profiting from intellectual capital	Asset Weapon Agons: Competition Uncodified knowledge
2000	Garrick, J. & Clegg, S.	Knowledge work and the new demands of learning	Power Seduction Transformation

			Agon: Counter-power
2003	Styhre, A.	Knowledge management beyond codification	Person / prisoner Process Fluidity Agon: Rupture
2006	Hicks, R.C., Dattero, R. & Galup, S.D.	The five-tier knowledge management hierarchy	Asset Mind System Agon: Uncodified knowledge
2008	Smedlund, A.	The knowledge system of a firm: social capital for explicit, tacit and potential knowledge	Physical resource Structure Process Agon: Disorder

In the next chapter, the clusters and agons will be examined again in order to trace patterns and themes across the texts. I will begin the chapter by highlighting the shared concepts of knowledge as indicated by the clusters. These shared concepts, such as the physical nature of knowledge, will then be noted across all the texts. Following the discussion of the clusters, the agons will be similarly related to the six texts and discussed.

Chapter Six

GLIMPSES OF PERFECTION IN THE CONCEPTS OF KNOWLEDGE: DISCUSSION OF CLUSTER-GROUPS

Introduction

In the previous chapter, I analysed six journal articles and arrived at a total of 18 clusters and seven agons through a process of analysis called embedded cluster-agon analysis. There were three levels of reading conducted to reveal embedded meanings in the texts. These levels were described as dominant, critical and reflexive. At the end of chapter five, I mentioned my intention to examine the clusters and agons again across all six articles in order to trace emerging themes and patterns. I also mentioned the formation of cluster-groups based on the associations some of the attributes of the clusters share. Hence, I will first explain what ‘cluster-groups’ are and how they add another level of analysis to the texts. I will then assess these ‘cluster-groups’ in relation to the texts. The agons will be similarly appraised.

To recap, the clusters and agons derived from the six texts are:

Table 6: List of clusters and agons (in italics) according to authors.

Authors, year*	Clusters & Agons
Wiig, 1997	Asset
	Structure
	Energy
	Evolution
	<i>Extinction</i>

* As I will be referring to the authors and their articles frequently throughout the discussion, I will avoid citing the author and year repeatedly unless the citation refers to another source entirely. Page numbers of the original text will still be cited.

Sullivan, 1999	Asset
	Weapon
	<i>Uncodified knowledge</i>
	<i>Competition</i>
Garrick & Clegg, 2000	Power
	Seduction
	Transformation
	<i>Counter-power</i>
Styhre, 2003	Person (prisoner)
	Process
	Fluid
	<i>Rupture</i>
Hicks, Dattero & Galup, 2006	Asset
	Mind
	System
	<i>Uncodified knowledge</i>
Smedlund, 2008	Physical resource
	Structure
	Process
	<i>Disorder</i>

Cluster-groups

Cluster-groups can be formed from the existing clusters based on their collective concept of knowledge. For example, from the list (in Table 6) of 18 clusters, it is apparent that the concept of knowledge as an asset is shared by several authors. These clusters can thus be grouped together. Even though the authors portray their interpretation of 'asset' in different terms, they had a joint assumption that 'knowledge' possessed physical qualities. In the analyses (in chapter four), it was noted the concept of 'asset' emphasised the physical attributes of 'knowledge' which the cluster 'knowledge as a physical resource' also shares. Hence, based on this shared attribute of physicality, I would group 'knowledge as an asset' with 'knowledge as a physical resource'. In addition, it was noted that the cluster that supported this physical concept of knowledge was 'knowledge as structure'. Therefore, I

have put together the cluster of 'knowledge as structure' with the clusters of 'knowledge as an asset' and 'knowledge as a physical resource' based on their mutual assumption that knowledge has physical qualities.

Another cluster that associates 'knowledge' with a physical presence is that of knowledge as a person or prisoner in the text by Styhre. In order for knowledge to be 'freed' it has first to be 'bound' and, although Styhre was arguing for the concept of knowledge to be liberated from reductionist concepts, the connotation is still one of a physical restraint. Hence, this cluster also projects a physical aspect of knowledge and I will group it with the clusters mentioned above.

The notion of knowledge as a mind is another cluster that suggests knowledge has a physical referent. The concept of knowledge as constituted in the mind implies it is situated in time and space like other objects. Hicks, Dattero & Galup also refer to 'the mind' as a physical thing from which knowledge can be sourced. Thus, the cluster of knowledge as a mind can also be grouped with the other clusters that highlight the physicality of knowledge.

In the text by Smedlund, concrete conceptualisations of knowledge formed the cluster of 'knowledge as a physical entity'. As the term 'physical entity' nicely captures the shared meaning of the clusters I have mentioned so far, I will label the cluster-group that emphasises the physical aspects of knowledge as the 'knowledge as a physical entity' cluster-group. Within this cluster-group are the clusters: 'knowledge as an asset', 'knowledge as structure', 'knowledge as a person (or prisoner)' and 'knowledge as a mind'.

The next group of clusters with similar notions of knowledge refers to more tacit conceptions of knowledge. The concepts of knowledge as energy and

evolution indicate that knowledge has an underlying force. Energy implies knowledge is dynamic and evolution signals progress and development. A third cluster that indicates a drive to action is 'knowledge as a process'. As discussed in chapter five, 'process' denotes actions towards a purpose. These actions, however, are implied rather than stated. Hence, the concept of 'knowledge as a process' functions much like an underlying force. Collectively, the above three notions of knowledge project a sense of vigour and vitality as well as action. Hence, I will label this cluster-group 'knowledge as an underlying force'.

The clusters of knowledge as 'transformation', 'fluidity' and 'system' share the assumption of knowledge being a kind of force or drive like the above set of clusters. The difference is that while the above clusters suggest action toward some end point, these three imply movement but not necessarily a destination. We tend to think of a system as being fairly fixed and routine. A system also allows things to happen within it, which makes it distinct from infrastructure which is static. The 'system', however, does not dictate purpose. Similarly, transformation has a start and end point and some dynamism in between. Yet it also merely indicates that there is motion and not necessarily purpose. Finally, fluidity emphasises the effortless movement from point to point; a seamlessness of motion which is also assumed of systems and transformations. As motion is a shared concept, I will label this cluster-group 'knowledge as movement'.

The remaining clusters of knowledge as weapon (Sullivan), power and seduction (Garrick & Clegg) share the assumption that knowledge has a force but it is specifically directed toward influence and control. As these clusters imply that knowledge has the power to influence behaviour and outcomes, I will label this cluster-group 'knowledge as influence'.

By grouping the clusters with similar concepts of knowledge, I have reduced the list of 18 clusters to four cluster-groups as reflected in Table 7. In the same order that the analyses were conducted, I will discuss the cluster-groups first and then their respective agons.

Table 7: Clusters grouped as congruent notions of knowledge and their agons.

Cluster-groups	Physical entity	Underlying force	Movement	Influence
Clusters	Asset	Energy	Transformation	Weapon
	Structure	Evolution	Fluidity	Power
	Person (prisoner)	Process	System	Seduction
	Mind			
Agons	<i>Uncodified knowledge Disorder</i>	<i>Extinction</i>	<i>Rupture</i>	<i>Counter-power Competition</i>

Based on Table 7, it seems to suggest that clusters can be easily categorised and that each group is distinct from another. This is not the case as, within the clusters, there are overlaps in the attributes of knowledge. For example, the notion of knowledge as seduction carries a physical implication and that cluster could have been grouped under 'knowledge as a physical entity'.

However, its place in the text was more strongly associated with the influence 'knowledge' was deemed to have. Hence, the cluster of knowledge as seduction was grouped under 'knowledge as influence'. Similarly, the agon of uncodified knowledge can be seen in texts other than those I have identified but it was more intensely signalled in the identified texts than in the others. In other words, I am aware that the cluster-groups are imposed to some extent. However, by grouping similar concepts of knowledge, it allows another level of analysis to take place and for comparisons across texts to be conducted. Moreover, it allows me to re-examine the clusters and

agons in the light of all the texts and reinforce the findings from the initial analyses.

In the following section, I will examine each cluster-group and agons in relation to all six texts and discuss the findings with a summary of each cluster-group.

Knowledge as a physical entity

This first cluster-group brings together the clusters that predominantly 'see' knowledge as possessing an inherent physical nature. Such a conceptualisation is common in KM as several authors have noted (Andriessen, 2006; Hellstrom & Raman, 2001; Styhre, 2003a). As a result, knowledge as an asset is a common metaphor found in KM theory. Such a view is apparently the result of resource-based theories of the firm. Thus looking at the connections between knowledge and resource would give us a better understanding of how knowledge as an asset has come to be so established.

Asset

The connection of resources to knowledge is not a difficult one to make. Resources such as land, capital, labour and machinery have physical referents and adding knowledge to the list does not require a great leap of imagination. The point here, however, is that such a definition of resource is an economic one. Wiig relies on this easy transition in putting forward a case for KM at a time when it was just gaining ground. In his article, he makes a point of explaining what 'knowledge asset' means: it means 'adding competitive value to products and services by application of direct or embedded human expertise – knowledge' (p. 9). He immediately compares it to 'natural resources' to demonstrate the connection. This suggests that Wiig does not take the concept of knowledge as an asset for granted. It also

implies that Wiig sees knowledge as a 'higher form' of resource because it can 'add value' to products and services.

Sullivan takes the notion of knowledge as a resource far more literally and continues to promote the economic perspective attached to the notion. The recurrent use of 'harvest' and 'extract' are a direct reference to resources such as land and minerals. In the author's opinion, knowledge is an asset only if it can be codified and accumulated and later converted to profit for the company. In order to track the profit potential of knowledge, Sullivan introduces the use of accounting language and the categories developed to account for a company's worth, such as intellectual property, intellectual assets and intellectual capital. These categories are further ranked with property being the 'lowest' and 'capital' being the highest. This implies that 'asset' is perceived as 'higher' than property, which is similar to Wiig's opinion. At the same time, 'asset' is 'lower' than 'capital' which is a broader definition of a company's knowledge. In other words, the notion of knowledge as a resource and as an asset has become embedded in the conceptualisation of knowledge as 'intellectual capital'. Hence, intellectual capital can be presented as a 'higher form' of knowledge.

In Garrick and Clegg's article, references to knowledge as an asset or resource are used ironically. The authors deliberately use business language such as 'terms of trade' alongside the description of individuals as 'tacit assets' to highlight how cold and calculating the discourse of KM can be. I did not detect any assumption or promotion of the concept of knowledge as a physical resource throughout their article. As the analysis of their article showed, the authors are more inclined towards tacit notions of knowledge.

In the same way, Styhre does not favour static or concrete concepts of knowledge. However, he still considers knowledge a resource for the

organisation albeit an intangible one. For example, he lists data, information and knowledge as 'intellectual resources' (p. 37) which suggests that he has not quite moved away from the concept of knowledge as a resource even though he argues against such a conception.

Hicks, Dattero and Galup have no qualms when applying physical characteristics to knowledge. In fact, they expand on such an assumption by emphasising the quality and quantity of knowledge that can be managed. They also make knowledge as tangible as possible through the process of codification. Codified knowledge is seen as 'knowledge-based resources', or physical reserves, that the organisation can exploit. 'Knowledge assets' are described in the same terms which suggests that, unlike Wiig who sees 'assets' as holding more value than resources, Hicks et al. see 'assets' as equivalent to resources. In this way, I would suggest that the notion of knowledge as an asset has become even more embedded in the concept of knowledge.

When it comes to Smedlund's concept of knowledge, the reification of knowledge is assumed to be well-established and self-apparent. He presents knowledge as the 'key economic resource' and the 'dominant source of competitive advantage' as a given, and proceeds to suggest ways in which knowledge can be accumulated and utilised for economic gain. Although he acknowledges that knowledge is largely intangible, he makes knowledge tangible by assigning 'types' to knowledge. Hence, it is possible to have codified, tacit and potential knowledge which are yoked to corresponding social networks. It was also noted in the analysis that, in Smedlund's article, the word 'asset' had lost its connotations of benefit or advantage. By this we can surmise that Smedlund prefers the concept of resource to asset. He uses the term 'intangible assets' only in reference to tacit knowledge 'embedded in the human resources of a firm' (p. 66). In other words, assets are not as

tangible as resources which are easier to control and structure. Like the early authors, the economic perspective of resources and the accounting language of 'increasing returns' are also apparent in Smedlund's perspective of knowledge.

Based on the above discussion, we can see that the notion of knowledge as a resource and as an asset is an established one. The metaphorical link of knowledge to physical resources in economic terms is embedded in the literature and the use of economic theory, accounting and business language are prevalent in the theorising of knowledge. The predominantly monetary value attached to the concept of knowledge by way of specific types of language imbues it with significance and prominence in KM literature. It also creates its own anxieties as the agons suggest. To give a sense of the strength of the rhetoric portraying the positive aspects of knowledge, I will briefly track the concept of value as presented in the selected articles.

Returning to Wiig, the first mention of value is given in relation to creating and generating value from 'knowledge assets' (p. 6). These assets are crucial for the organisation's 'viability' or survival as we have seen in the cluster-agon analysis. To generate value is also to 'realise the best value' or to 'derive the best business value' (p. 8) from knowledge. These are basically different ways of saying 'make a profit' and the way to do it is through exploitation and leverage. The 'value discipline model' that Wiig suggests reinforces the focus on profits as each area of 'value' is tied to the bottom line. As Wiig explains, the choice of which 'value discipline' to adopt is a matter of strategy. The last reference of 'value' in profit terms is the notion of adding 'competitive value' to products and services and this is contrasted with merely 'providing value' based on natural resources (p. 9). Collectively, the impression that is conveyed is that knowledge has 'value' and by strategically focussing on areas of profit, 'knowledge assets' can be 'realised'

as material returns. The converse would also apply: if knowledge is not realised, then there would be no profit and the survival of the organisation would be threatened. Hence, knowledge in and of itself, is of no worth unless profit is derived from it which means that the notion of value is important to promoting the concept of knowledge as an asset.

Rhetorically, Wiig paints a purely positive picture for organisations to take up knowledge management. The benefits to the organisation are clear and there are few obstacles to harnessing what is already resident in the organisation. The term 'value' is narrowly defined but doing so makes it simple and applicable to any profit-driven organisation. The application of strategy to organisational survival justifies the actions taken to derive value. Thus, in terms of persuasion, 'value' gives lustre to the concept of 'knowledge as an asset'.

Sullivan has the same focus on profit and strategy but in contrast to Wiig, Sullivan is far more specific about the definition and application of 'value' to knowledge. 'Extraction' is the main idea associated with 'value' and, in keeping with the mining metaphor, Sullivan offers means and ways of hauling out the 'value' located in 'human resources'. In order to 'extract value' from knowledge, it implies that there must be 'value' in knowledge. The possibility of not finding anything which can be converted to profit is not alluded to. Hence there is 'value creation' but not 'value destruction' though there is knowledge that could destroy a company, as evident in scandals. Therefore, this is another instance where the notion of 'value' is directly related to the rhetorical 'value' of knowledge.

Sullivan defines value in dollar terms via economic theory which make it tangible and measurable and immediately comprehensible. This is again very appealing to profit-driven organisations. He also refers to the firm's

‘values and culture’ (p. 138) which is distinct from dollars and cents. But given the overall drive of his article, it is likely he assumes a business organisation would ‘value’ profit and embed it within the culture of the organisation.

Just as Sullivan makes ‘value’ tangible, he also specifies the outworking of strategy. The militaristic, almost emotionless tone he uses allows Sullivan to move easily between business and economic terms as well as accounting and legal terms. These terms provide the basis for strategy and justify the Machiavellian approach to operating in a business environment. Such attitudes are still prevalent today and Sullivan’s article would strike a chord with mainstream KM theorists. Added to this is the ostensible success and prominence of the ICM Gathering Group and his role as a partner in the group. Together they give the article’s content prestige and credibility, such that references to research or documentation are secondary.

From just two of the six articles, it is apparent that the concept of value elevates the concept of knowledge. If, for example, knowledge was theorised as evil or malevolent or even plain worthless, there would be far less excitement over the economic returns of knowledge. Hence, there is a rhetorical force generated from the combination of ‘knowledge as an asset’, accounting language and ‘value’. The strong association of knowledge with monetary returns or profit, however, ignores other forms of value such as relationships or scholarship. In this regard, we can say there is a very particular perspective of knowledge presented in KM theory.

There is a parallel move in the language used by the authors which reinforces the above point. For example, we noted how the language of economics was present in Wiig, through Sullivan to Hicks et al. and then to Smedlund. Along the way, the language of business and accounting,

particularly surrounding the concept of 'intellectual capital', was added to the discourse of KM. By the time we get to the conceptual framework that Smedlund proposes, the language is almost mathematically precise. The structure recalls the same precision with which the 5TKMH was constructed and even the mathematical equation of innovation being 'innovation = (reuse + invention) x exploitation' (Hicks et al., p. 24). In terms of language, mathematics is probably the least ambiguous and most scientific. If this is the direction in which mainstream KM theorising is heading, then it is probably as far as it can go rhetorically.

Structure

The image of knowledge as structure relies on the reification of knowledge. At the physical level, knowledge can be contained in tangible infrastructure such as computers, databases and other documented processes. Wiig, Hicks et al. and Smedlund talk of knowledge in such terms and can correspondingly provide visual representations of their ideas. This tells us that the presence of charts and graphs and other pictorial forms of representation are indicative of an assumption of knowledge as structure. It also reinforces the concept of knowledge as a physical resource as these representations often specify how knowledge can be stored, distributed, transferred and so forth.

Structure can also be imposed on a conceptual level. For example, knowledge is perceived as contained in 'strategy' (Wiig), 'business capability' (Sullivan), 'curriculum' (Garrick & Clegg), 'frameworks' (Styhre), the 5TKMH (Hicks et al.) and 'competencies' (Smedlund). These concepts are interesting because they refer to where collective knowledge is held. Considering the basis of KM is the management of organisational knowledge, these 'sites' of collective knowledge are important. Thus, it is unsurprising that in many of the articles, these concepts are the focus of

attention. Although the terms used are quite different from each other, there is still a sense that each term has a special significance within their contexts. For example, 'strategy' and 'business capability' are usually quite separate from 'curriculum' which tends to be related to educational institutions. However, within the respective articles, 'strategy', 'business capability' or 'curriculum' are considered the zenith of an organisation's knowledge.

The 5TKMH spells out the privileging of one form of knowledge over another more explicitly. For instance, innovation is considered the highest, most important form of knowledge for the organisation. The individual, in contrast, is right at the bottom of the hierarchy. Similarly, Smedlund shows how 'competencies', being the sum of all 'physical' and social forms of knowledge within a firm, are the end goal of KM efforts. The individual in Smedlund's vision of KM is merely a node on the various social networks. Hence, 'knowledge as structure' on a conceptual level is an important cluster as it signals the importance of collective or organisational knowledge to the authors. At the same time, it also indicates the privileging of collective knowledge over individual knowledge. From the agon analysis, we can tell that individual knowledge which is 'uncodified' is a source of anxiety for KM efforts. In the light of the significance of collective knowledge, any 'knowledge' that the individual retains would, essentially, undermine the collective. The corporate agenda to enslave employees to the organisation as suggested by Garrick and Clegg is given intensity by this need to constantly feed and enlarge the organisation's collective knowledge. Not only has it developed over time, the importance of the collective as represented by the organisation, has become an established one as reflected in the last two articles.

Person (prisoner)

I will briefly discuss the concept of knowledge as a prisoner as this cluster came up only in Styhre's article and is not a perspective shared by the other authors. From a reader's point of view, one could agree with Styhre's argument that rigidly structured articles such as Smedlund's 'knowledge system of the firm' do indeed 'imprison' the concept of knowledge within very clear boundaries. However, in terms of looking for patterns and trends in the literature, this cluster is relatively undeveloped. Nonetheless, Styhre's perspective as the concept of knowledge as a person or prisoner supports the overall impression of knowledge having a physical presence much like an individual. However, a closer look at the implication of knowledge as a mind suggests that it is the individual who limits the expansion of knowledge and it is the job of KM to overcome such a limitation.

Mind

Returning to the notion of knowledge as a physical entity, 'knowledge as a mind' focuses on the individual and highlights the Cartesian perception that the brain is the locus of knowledge. Cognitive science also says that the mind is inherently embodied (Lakoff & Johnson, 1980). 'The mind' thus functions as a container of knowledge that is physically situated in time and space. In some ways, conceiving of knowledge as a mind is a physical limitation because, if knowledge is located only in individuals, it makes moving vast amounts of knowledge unfeasible.

The mind, however, is still a popular concept when talking about knowledge. Wiig states that the best kept secret is 'how people work (with their minds)' (p. 6). Sullivan refers to 'brain power' as intellectual capital. The whole notion of 'intellect' as in intellectual capital points to the mind as well. Given the consistency with which knowledge is associated with the mind,

one would think it is an obvious connection. However, the division of mind, body and soul is distinctly 'Western' (in a very general sense) whereas 'Asian' conceptions of knowledge are far more holistic (Nisbett, 2003). Nonetheless, all six authors agree that the individual contains or is a source of knowledge but they differ on what constitutes knowledge in the individual.

Wiig, for example, certainly believes that humans contain the knowledge to make products and services more valuable. Such knowledge is considered 'expertise'. It does seem strange that Wiig makes a point to mention something quite so obvious because how else are products and services produced but by and through humans? Nevertheless, he does not go into specifics as to what 'expertise' consists of which leaves us with a generic definition of the term.

Sullivan provides a few more terms in addition to 'expertise'. He classifies 'skills, abilities and know-how' as part of the knowledge an individual possesses. He also recommends that 'human resources' be situated where they are most relevant. This is again rather self-apparent but it implies that Sullivan believes that knowledge only resides in individuals, hence the need to move the individual to where he/she is most required.

As long as knowledge was perceived to exist only in individuals, the focus was on how to move and 'apply' the individuals. Hicks et al. overcome this limitation by explicating how knowledge from 'the mind' can be removed from the individual, stored in technological 'minds' which then could be exploited accordingly. It also meant that large volumes of knowledge could be shifted around quite easily. Thus, the application of technology in KM can be interpreted as 'freeing' knowledge from the confines of the individual. Yet

given that collective knowledge is the desired outcome, it is more likely that the individual is considered an obstacle rather than a receptacle.

On the other hand, Garrick and Clegg, and Styhre point out there are other sources of knowledge apart from individuals such as knowledge constituted in social conditions. Although theorised to some extent, 'social knowledge' has usually been classified under tacit knowledge and left largely unexplained. In Smedlund's article, this knowledge is captured and harnessed to KM through the concept of social capital. As Garrick and Clegg have observed, 'tying discussions to the nomenclature of capital is, in many ways, a shrewd move' (p. 280) because such a connection makes social relationships a more concrete concept, much like the effect of 'asset' on knowledge. Hence, reifying 'social capital' has the result of moving knowledge from an unclassified domain to a conceptual framework where it can theoretically generate more profit. The collective knowledge desired by other authors is here given distinction and applicability. Since the physical aspects of knowledge are already assumed to be fixed, the social aspects of knowledge can be attached to these physical 'types of knowledge'. Together they mean more knowledge for the organisation and potentially more profit.

In summary, examining knowledge as a physical entity highlights the deepening assumption of knowledge as a physical resource, the entrenched use of economic and business related languages, the importance of collective knowledge to KM and the significance of conceptual structures of knowledge in KM. All of these assumptions contribute to the codification of knowledge as crucial to the management of knowledge. Therefore, it is unsurprising that there is tension in the relationship between codified and uncoded knowledge.

Uncodified knowledge

Looking at uncodified knowledge a little more closely, we can see that it stands against the efforts of reifying knowledge. For instance, uncodified knowledge is neither tangible, fixed nor collectable. It cannot be amassed within an organisation and certainly cannot be used to make profit. The point to note is that uncodified knowledge is assumed to be self-explanatory in the articles by Hicks, Dattero & Galup and Sullivan. In essence, uncodified knowledge represents everything codified knowledge is not.

Furthermore, uncodified knowledge is said to reside in individuals and social relationships but it cannot be captured or contained within an organisation's control. Hence, uncodified knowledge is again used as a stark contrast to codified knowledge but little is done to explain its phenomena.

As mentioned in the agon analysis, the very notion of 'knowledge walking out the door' sends shivers down the organisational spine. Such an anxiety is somewhat unfounded as uncodified knowledge is also conceptual. What was once referred to as 'what we know but cannot tell' has, in the course and the discourse of KM, become the bogeyman of KM efforts. In this sense, the rhetorical elevation of codification has generated its own antithesis because uncodified knowledge is as much of a rhetorical construct as codified knowledge is. Given the anxiety over uncodified knowledge, it would seem that explicit notions of knowledge would prevail in KM and to some extent they have. As the other agons will show, much of KM theory is premised on explicit concepts of knowledge. Hence, any other concepts that undermine the fixed and stable concepts of knowledge tend to be ignored or omitted.

Disorder

The agon of disorder observed in the article by Smedlund points to the lack of complexity in the concept of knowledge in KM. The historical

development of the word 'knowledge', its philosophical grounding and epistemological implications tend to be omitted from definitions of knowledge. Perhaps it is because the concept of knowledge has so much meaning embedded in it that theorists feel a need to impose order.

For example, Wiig and Sullivan recommended deliberate and systematic methods to manage knowledge and they demonstrated it by applying a concrete, measurable concept of knowledge. In Hicks, Dattero & Galup and Smedlund's articles, the systems are expanded and applied in greater detail throughout the organisation. In the process, the concept of knowledge is reified to the point of being equivalent to a physical resource. Hence, any other less concrete conception of knowledge has no room because most of the systems of KM are premised upon static notions of knowledge.

Styhre, in particular, reacts to these static concepts of knowledge and offers more complex considerations of knowledge. The concepts of knowledge as a rhizome or as 'an event' are just as viable as the concept of knowledge as an asset. It would, however, be unlikely that Styhre's ideas are adopted in mainstream theories given what has been established in KM literature. Nonetheless, the agon of disorder reveals the unwillingness of KM theory to deal with more complex aspects of the concept of knowledge.

In terms of the management of knowledge, the agon of disorder stands in opposition to the tidy and stable environment in which KM is theorised. In Wiig and Sullivan, disorder is perceived to be outside of the organisation. This implies that the organisation itself is in order and that KM can be carried out systematically in such an environment. Hicks, Dattero & Galup as well as Smedlund assume the same of the organisation. There is no indication in their texts that conflict or instability is present in the organisations they refer to. As such, the agon of disorder emphasises the

absence of complexity in the organisations that manage knowledge as projected in KM theory.

Summary of first cluster-group

Recalling the discussion under 'knowledge as a physical entity', we saw that the assumption of knowledge as a physical resource was well-established, the presence of economic and business related terms were prevalent and that collective knowledge was very important in the theorising of knowledge in KM. These observations suggest that the codification of knowledge is crucial to the management of knowledge because if codification does not take place then the organisation has no 'asset' to speak of nor collective knowledge to 'exploit'. Therefore, the tension between codified and uncoded knowledge is not hard to detect.

Having looked at the tangible characteristics of knowledge as discovered in the physical entity cluster-group, I will move on in the next section to the intangible aspects of knowledge, beginning with 'knowledge as an underlying force'.

Knowledge as an underlying force

According to Gladstone and Megginson (1999), one popular notion of knowledge is 'knowledge flow'. From this concept comes the metaphor of 'knowledge wave' (Andriessen, 2006) which was the theme of a major New Zealand conference in 2003. The clusters of knowledge as energy, evolution and process indicate that such a perspective of knowledge is common in KM literature as well. Alternatively, one could say that KM theorising has impacted popular conceptions of knowledge. Regardless, the assumption that knowledge has an inherent energy which generates action is widely held.

Energy

The concept of energy introduced by Wiig speaks of knowledge as a driving force and as fuel to improve the quality of life. He also refers to various industrial revolutions and competitive forces in the international marketplace as examples of this driving force. From the cluster analysis, we observed that change was an important factor and that Wiig perceived change as constant and inevitable. In terms of what this implies, these descriptions suggest that knowledge is like an undercurrent; invisible but discernible in outcomes. By latching onto this driving force, by way of KM, the organisation will benefit from increased profits and long term survival. From the extension explanation given in the text, we can say that 'knowledge as energy' is not a buried assumption as Wiig has to make a case for it.

In Sullivan's case, knowledge as a dynamic force is not expressed as frequently. There is some indication of knowledge being a driver of organisational outcomes in the vision and strategy that Sullivan recommends. According to him, every organisational activity needs to be enabled by vision and strategy in order to achieve goals more quickly and efficiently. This suggests there is an energy or force that propels the organisation towards the attainment of goals. However, there is little else in the text to suggest that this aspect of knowledge is important to Sullivan.

Garrick and Clegg, like Wiig, perceive the inherent 'force' in knowledge. They express this dynamic aspect of knowledge as 'vitality'. The word 'vitality' connotes energy, life, vigour and strength; elements which Garrick and Clegg weave into their Gothic spin on KM. Together these words suggest that knowledge has a life force or rather *is* a form of energy that sustains life. Hence, when 'vital fluids' are sucked from individuals by organisations in order to give life to the organisations, there is an immediate association of 'knowledge' with energy. There is also an implication that

knowledge is vital or important to the individual. Thus, the 'transfusion' of knowledge is actually a transgression not a transaction.

In Styhre's text, the dynamism of knowledge is emphasised by images of knowledge continually changing and becoming. In the same way that running water implies there is a force causing it to move, such as gravity, Styhre assumes that knowledge has an inherent energy that keeps it moving. This is quite different from his concept of knowledge as a fluid. In fact, knowledge as an underlying force has to first be present before the fluid notion of knowledge can be expressed. Even the concepts of knowledge being like a rhizome or 'an event' assume that knowledge has an inherent force that keeps it growing and moving from one 'occurrence' to another. This suggests that such a perspective of knowledge is quite deeply embedded in his thinking about knowledge.

When it comes to Hicks et al., the authors do not even seem aware that they are expressing a belief that knowledge is an underlying force. They simply state that knowledge hierarchies transform one form of knowledge to another and that 'transformations' between levels can happen as well. What causes the 'transformations' to take place is taken for granted. From the analysis, we know that it is knowledge that the authors are referring to because they perceive it to be a portal through which lower levels of knowledge are upgraded. Hence, 'knowledge' is the underlying force that converts different types of knowledge. Garrick and Clegg also talk about transformation but they do not see it as something that 'knowledge' does. Instead they say that the real 'transformation' is what happens in KM discourse because an individual can be transformed into a 'measurable factor of production'. Their perspective highlights the deeply embedded assumption Hicks et al. make about knowledge and its transformative qualities.

As we have seen in Smedlund's article, knowledge is conceptualised as a resource even though he calls it an asset. Smedlund's overall perception of knowledge as a physical and static entity was also noted. These observations imply that he probably does not perceive knowledge to have an inherent energy but instead attributes dynamism to 'social capital' by calling it the 'critical value driver of knowledge-based business' (p. 65). Recalling how Wiig started out by presenting knowledge as a driving force, it seems that knowledge has been replaced by 'social capital' as the new driving force. It would have been a logical progression since the concept of knowledge is fully fixed from Smedlund's point of view. From a rhetorical point of view, however, this replacement of knowledge with social capital indicates that a concept has come full circle and it implies how completely an idea has been subsumed within its discourse. Like the 'high points' noted above regarding the privileging of collective knowledge and the use of language, the replacement of knowledge is a significant occurrence.

Evolution

The concept of 'knowledge as evolution' is closely related to 'energy' in the first article by Wiig in that he considers the 'evolutionary force' behind changes in agrarian and industrial society to be the same force that is driving the knowledge economy. He develops the idea by explaining how knowledge can evolve to become 'new and better' and how this leads to the 'viability' of an organisation. Ordinarily, 'viability' refers to how practical or feasible something is. However, it was observed in the analysis that 'viability' implied 'survival' which meant that 'knowledge as evolution' also had an implicit reference to the theory of evolution, particularly in terms of competition. The 'natural selection' of only the best and 'most advanced' organisations to manage knowledge would imply that most organisations would die. Compared to the other authors, Wiig is the only one who makes

the connection between evolution, competition and survival and he does so almost cheerily in his promotion of KM. The other authors focus on the more positive assumption that evolution is progression and Wiig says the same. Nonetheless, the fear of competition is still present as we saw in the agon analysis.

In Sullivan's article, competition is seen as an external force and given his wary vigilance, the competition is considered hostile. Garrick and Clegg see competition in terms of a balance of power, in which the organisation has the upper hand. By the time it gets to Hicks et al., competition is not an issue as management is in complete control. As they state in the opening of their article, the 5TKMH can among other things 'plan and manage the evolution of knowledge assets in the firm' (p. 19). This represents quite a shift from Wiig's perspective where some things were acknowledged as outside of the organisation's control. In Smedlund's article, competition is not an enemy or some unseen force but a benchmark against which successful 'knowledge companies' compare themselves to other companies. The concept of knowledge originally linked to survival becomes the 'key economic resource and the dominant source of competitive advantage' (p. 63). In other words, competition is no longer an issue.

In addition to competition, another aspect of 'evolution' that was observed in Wiig's article was the Positivist assumption that evolution implied progress and development. In other words, the concept of knowledge is conceived to have only positive qualities and outcomes for organisations and societies. The knowledge hierarchy is perhaps the most concrete representation of this assumption that knowledge 'evolves' on an upward scale. As we have seen in the analyses, the concept of knowledge developing is apparent in most of the articles whether it be through 'transformations', 'revolutions', transactions or social interactions.

For example, Wiig believes knowledge can become 'new and better' (p. 8). Sullivan says that knowledge which can be converted into profit becomes 'intellectual capital' (p. 133). Garrick and Clegg show how knowledge imbues its 'owner' with bargaining power. Styhre writes that even as knowledge changes, it is 'further refined' and can become something 'new' (p. 35). Hicks et al. explicate how knowledge changes as it moves through the 5TKMH and Smedlund argues that once knowledge evolves to become competencies, the organisation is in an unassailable position. These examples indicate that assumptions regarding the evolution of knowledge are prevalent and powerful. It also explains in part the mainly positive perception of 'knowledge' in KM.

Process

Before concluding this section, there is one more aspect of knowledge as a force that needs to be surfaced and that is the concept of knowledge as a process. It is a concept usually associated with systems as they share the suggestion of procedures being carried out. Process, however, only indicates a move towards action but does not necessarily provide direction. In most of the articles, knowledge is predominantly seen as a means, or the process to a profitable end. Hence, the following discussion will consider how the articles project the view of knowledge being a process of commercialisation towards the 'end' of realising profit.

Out of the six articles, Wiig's stance on commercialisation is the least overt. To him, 'knowledge processes' are part of the operational aspects of KM. He assumes that at the end of KM efforts, some profit will be made and is more concerned about making a case for the management of knowledge. In contrast, Sullivan says that KM is all about converting knowledge into 'value', specifically in dollar terms. He shows quite deliberately how to go about making profit from 'intellectual capital' but in essence assumes that

knowledge must have a purpose which is tied to the organisation's goals. In other words, pursuing knowledge for the sake of knowledge is not considered to be relevant to KM. Sullivan also says that 'knowledge companies' are the mechanism through which knowledge can be converted into value. Such a statement again implies that knowledge is a process housed within these 'knowledge companies' that leads to material benefit for the organisation.

The latter two articles on the 5TKMH and the 'knowledge system of the firm' also make the same assumption about knowledge as a process. The difference is the mechanism through which knowledge is processed. According to Hicks et al., the 5TKMH is the way to derive profit from knowledge while Smedlund says that the 'knowledge system of the firm' is the best way to combine existing and social knowledge for even more returns. Nevertheless, there is an unspoken supposition that knowledge will lead to action and the outcome will be profit. Hicks et al. even provide the term 'actionability' for such a process. Its meaning in the text is somewhat vague and I think the authors are trying to say that knowledge has the capacity to be put into action. Regardless, the unusual term called attention to the notion of knowledge as a process.

Of all the authors, only Garrick and Clegg discuss the process of learning as being part of knowledge. However, they are also aware that much of the literature in KM only focusses on profit for the organisation. Hence, they point out the complicity of all those involved in managing knowledge. For example, the organisation gains knowledge from its workers to make profits. In return, the individual gains 'working knowledge' which gives them the leverage to bid for higher salaries. The university is also implicated in the process as they are funded by the organisations on the one hand and the students on the other. In other words, there is no moral high ground for

anyone to take as everyone is in it for 'the money'. Even so, the concept of knowledge as a process is evident in Garrick and Clegg's text and even though they highlight the complexity and complicity of each party's role, they do not provide an alternative position on profiting from knowledge.

Styhre probably comes closest to examining the word 'process' and how knowledge is a process. He provides the example of an 'event' which has no start or end or any particular direction but is a series of 'occurrences'. What the other authors take for granted, Styhre tries to explain and apply to KM. We can tell that it is a difficult concept to clarify as Styhre struggles to put it into words. This could also imply that the concept of knowledge as a process is far more intuitive and embedded in assumptions about knowledge than words can express. Just as Polanyi has pointed out how difficult it is for most of us to describe how we learned to ride a bicycle, the process inherent in knowledge and knowing could be the same. We 'know' it is there but we do not quite know how.

Collectively, the notion of knowledge as a process as portrayed in the articles selected indicates a trend towards conceptualising 'process' as 'commercialisation' with the end goal of material returns. This process is usually one-way and tends to be exploitative. Therefore, to a large extent, the notion of knowledge as a process is profoundly embedded in the texts analysed. Even Styhre's attempt to elucidate the concept proved too complex to express. Considering how entrenched the notion of knowledge as a process is in the literature, it will be difficult to fully elucidate its implications.

Extinction

The agon of extinction also highlights the assumption made by KM theorists about the stability of the organisation. This agon points to the possible

'death' of organisations which fail to adapt to changing times. Such an eventuality is perhaps too taboo to mention, much less theorise about. Yet, at the time of writing this discussion, an economic crisis has seen the closure of many organisations. The fear of job losses and rapidly deteriorating economies in industrialised countries is almost palpable in the stream of news that is broadcasted daily. Yet this agon featured only in Wiig's article (and hinted at in Garrick & Clegg) and most of the subsequent articles carried no indication of this potential outcome. This can be explained in part by the belief that evolution only moves forward and upwards. As we saw earlier, such a belief is deep-seated and it is likely that most authors do not think otherwise. Moreover, speaking of impending doom and demise would hardly help the cause of establishing KM. Hence, the effect of the agon 'extinction' on KM is that it highlights the assumed invincibility of the organisation as theorised in KM. Such an assumption would undergird the power and authority the organisation is purported to possess. Thus, to include the notion of 'extinction' in KM theory would challenge the indomitable position of the organisation.

As an agon to the cluster-group of knowledge as an underlying force, 'extinction' essentially negates the dynamism and vitality that the cluster-group implies. If the underlying premise of knowledge having its own drive is removed from KM theorising, we would have a concept of knowledge that is 'dead' and dry and not very appealing. Hence, the agon 'extinction' brings into relief the dominant assumptions regarding the dynamism of knowledge. It also reflects the boundaries set around 'matters of life and death' in KM.

Summary of second cluster-group

In summary, 'knowledge as an underlying force' is truly one that 'lies under' theories of knowledge in KM. Knowledge is perceived to have an inherent energy that leads to action through the process of commercialisation. There is

also a deep-seated belief that knowledge grows and develops and this progress will propel the advancement of the organisation. As Garrick and Clegg have noted, future studies will have to consider 'forms of resistance' to such embedded conceptions of knowledge. However, before going on to examining power and influence, one other aspect of knowledge needs to be considered and that is how seamlessly knowledge is construed.

Knowledge as movement

In KM theory, a 'system' of managing knowledge is the medium through which knowledge is transferred and through which knowledge is also transformed (Garrick & Clegg, 2000). The traditional mechanisms for such 'transfers' were social and educational institutions but with the rise of KM, the organisation became the focus of systematically moving knowledge (Wiig, 1997). As one of the most basic concepts in KM is that knowledge can be systematically transferred, I will discuss the cluster of knowledge as a system first followed by the clusters of 'transformation' and 'fluidity'.

In the following discussion, I will track the conceptualisation of the movement of knowledge from the individual to the organisation and back again. From the analyses, the movement of knowledge is suggested to be smooth and efficient. I will thus examine how prevalent such a conceptualisation is. If there are no obstacles or complications when 'transferring' or 'transforming' knowledge as theorised in KM, it will indicate that there is an embedded assumption of order and tranquillity in the movement of knowledge.

System

The concept of knowledge as a system basically organises the theory of 'knowledge transfer'. Prior to such a concept being established, knowledge was simply 'there'. In a 'system', knowledge is assumed to be in motion and

moving towards some end goal. For example, Wiig's promotion of 'systematic, deliberate and explicit' (p. 6) methods of putting knowledge to work was, essentially, a re-naming of organisational flowcharts. In the flowcharts he supplies, knowledge is transferred by following the pathways laid out for it in a coherent and systematic fashion. There is, firstly, an assumption that knowledge will flow accordingly and, secondly, that as with all other organisational resources, people involved know what to do with it. In fact, a 'system' in management theory implies regularity and orderliness (Rutgers, 1999) and Wiig transfers the same belief into his system as there are no contingencies for resistance on the part of employees or recourse for irrelevant knowledge or any other possibility of things going awry.

In the same way, Sullivan takes it for granted that knowledge from 'human resources' will become 'intellectual assets' and that these assets will naturally segue into 'intellectual capital' and portfolios, and so on. His 'system' also presumes co-operation and co-ordination from those within the organisation. He considers his ideas a 'logical, systematic set of activities' (p. 135) which again highlights the belief in rationality as the prevailing principle of organisation. There is, thus, an underlying premise in management thought that systems are seamless which means that transferring 'knowledge' in a similar fashion is just as efficient.

Rationality, systems, efficiencies and seamless transactions are all neatly captured in the image of the 5TKMH. In a way, the 5TKMH represents the apex of systematic processes in KM theory. Knowledge is mechanically 'extracted', coded, stored and distributed effectively through technological means. For practical purposes, the human individual is removed from the system where possible. For example, in the pictorial flowchart that Hicks et al. provide of 'KM system architecture', the individual does not feature at all. The 'client' and the 'knowledge source' are both visualised as computers. By

taking away the one potential obstacle to efficient knowledge 'management', technology is elevated over the individual. As mentioned earlier, collective knowledge is also valued over individual knowledge. Hence, in the 5TKMH, 'the collective' is represented by technology and the organisation is but part of the overall machinery.

As a result, the notion of knowledge *as* a system is so embedded in KM that Smedlund posits knowledge *is* a system. Although he does not specifically refer to technology, neither does he acknowledge the individual as a complex, whole being. Instead, the individual is a node on the various social networks which is subsumed in the greater 'knowledge system' of the firm. The movement of knowledge from node to node and network to network is again seamless and efficient. The disturbing implication of this system as compared to the 5TKMH is that while the 5TKMH is technologically exploitative, the 'knowledge system of the firm' is socially manipulative. This is a point I will return to in the section on power, but I wanted to highlight it as a consequence of the concept of knowledge as a system.

Even Garrick and Clegg, who maintain a critical distance from their text, reflect the premise that knowledge moves within a system. They do not present a graphic image of a system but indicate there is one between the organisation, the individual and the university. Knowledge 'moves' within and among these three parties and despite the Gothic allusions, there is still no sense that the flow is anything but smooth. Even when an individual's 'vitality' is given over to the organisation there is a surprising lack of resistance. This one-way traffic is also present in Sullivan's 'extraction' from 'human resources', the 5TKMH and the 'knowledge system of the firm'. Whether knowledge moves from one tier to another or in between tiers, or in and about social networks, the organisation's collective knowledge is its final

destination and the implication is that technology is the overriding framework in which all this happens.

Transformation

Even as 'knowledge systems' help to transfer knowledge, they are also said to 'transform' knowledge. As was discussed under 'knowledge as an underlying force', the concept of knowledge transforming is under girded by the assumption that knowledge evolves. Such an assumption was also observed to be deeply embedded. We can see the extent to which this assumption is buried by the inability of the various authors to actually describe what happens during 'transformation'.

For instance, in the 5TKMH, knowledge is said to be transformed from lower level 'types' of knowledge to become 'innovations'. In Smedlund's 'knowledge system', 'types' of knowledge transform to become innovative ideas. How these transformations actually occur is not explained by either of the authors. In the 5TKMH, knowledge moves around the various tiers until it reaches the innovation tier and innovation simply happens when 'combined with strategy' (p. 24). In the same vague way, knowledge in Smedlund's theory is shared in social networks and innovative ideas are somehow 'born' from these interactions. This inability to specify 'knowledge transformation' suggests that it is an organisational desire but not necessarily an organisational reality in spite of how systematically knowledge is managed. It is ironic that the two authors who are most explicit on how to manage knowledge are the least able to explain the process of innovation. They certainly mention it innumerable times and consider it the goal of their KM efforts.

Garrick and Clegg regard these 'transformations of value' as a language game where a mere manager can become a 'Chief Knowledge Officer' or

where academics can become 'entrepreneurial consultants' (p. 281). They also highlight the rhetorical implications of combining 'intellectual' and 'capital' which construct employees in very specific financial terms. They imply that it is by far easier to effect transformations through language than through actual systems such as databases and neural networks. In many ways, I agree with them. The concept of knowledge has been highly theorised yet it still lacks credibility. In a survey of KM in New Zealand (McCullough et al., 2004), the conclusion states:

While the findings suggest the existence of a knowledge management culture in New Zealand, there are still a number of contradictory elements, perhaps indicating a lack of maturity in the implementation of knowledge management. The lack of a clear connection between KM and innovation (new products and services) is an area requiring further analysis. Findings from this survey indicate that innovation is not a key activity in New Zealand. The seemingly unbalanced focus on information systems and technology is also an area requiring further investigation (p. 39).

It is unsurprising that the 'implementation' of KM lacks maturity since theory does not seem to provide any specifics. This lack of details in turn creates a reliance on information systems and technology because it produces tangible results. In the view of these two findings, the lack of connection between KM and innovation is probably due to a lack of concrete outcomes based on KM theory. Thus, what happens in theory does not necessarily translate to organisational reality which, in turn, suggests that much of KM theorising is rhetorical (Scarbrough & Swan, 2001).

Moving on to the next point of discussion, it is not so much what Styhre's concept of fluidity says about knowledge but more about what it says with regard to the concepts of knowledge presented by other authors.

Fluidity

Looking at the articles from Wiig to Smedlund in chronological order, Styhre's concept of knowledge as a fluid sits in the middle and provides a point of reference to the concepts of knowledge preceding it as well as those that follow. As we have seen in the above discussion, knowledge is assumed to move from point to point without obstruction or resistance. This assumption is supported by an underlying belief that a stable, rational organisational environment underscores KM efforts. These efforts are expressed as uncomplicated and almost effortless since there are no barriers or potential potholes on the road to innovation. Styhre challenges this perspective by highlighting the potential 'ruptures' and 'bifurcations' that occur in the organisational landscape. Studies have shown that organisations are sites of conflict and complexities (McKinlay, 2002; H. Scarbrough, 1999; Willmott, 1997). Hence, it is unlikely that the organisational environment for KM is any different. By drawing attention to the complications involved in managing knowledge, Styhre exposes the simplistic assumptions that lie beneath notions of knowledge transfers, hierarchies and the numerous systems and mechanisms promoted to 'move' knowledge.

In terms of transformation, Styhre argues that because knowledge is continually becoming, the point at which it becomes one thing or another is almost impossible to determine. Even naming, which Garrick and Clegg say has the power to transform, is fraught with inconsistencies as observed by Knorr Cetina (in Styhre, 2003b). This could explain why authors tend not to delve into the mechanics of 'knowledge transformation' or perhaps why they cannot, even if they tried.

From a wider perspective, Styhre's concept of knowledge as a fluid brings to mind the notion of work flows. Some commentators have suggested that assumptions in organisation studies about movement are a reflection of the

assumptions about organisational efficiency, timing and flows of organized action (Cunha, 2008). If so, the expression of knowledge as movement contributes to the wider trend in organisation studies.

Rupture

The agon of 'rupture' set in the midst of theorising that sees knowledge as a smooth, uninterrupted flow of movement is a startling one. The word 'rupture' itself connotes movement but not of the sort that is generally associated with the concept of knowledge in KM. Instead, it shatters the serene and calm landscape within which KM is assumed to occur. This tells us that mainstream KM theorising has yet to fully acknowledge the reality of organisations being sites of conflict and contestation, and accounting for theory within such a context.

Like the agon of 'disorder', the presence of rupture in the theories of 'knowledge transfers' and 'knowledge transformations' would undermine the efforts of KM as portrayed in mainstream KM theory. For example, the 5TKMH would not function should there be 'rupture' within its tiers. Similarly and more acutely, Sullivan's knowledge system would fail in the event of 'rupture' within the social networks. The potential for conflict in organisations is magnified with every individual added to it. Yet Smedlund's theory of multiple networks refuses to acknowledge the probability of such ruptures. Hence, any theory that is premised on knowledge moving in harmony and tranquillity among and across individuals is seriously limited in its omission of possible 'rupture'. The whole notion of Communities of Practice, for example, assumes that knowledge will move without restriction or resistance. The agon of 'rupture' thus exposes a fundamental limitation of this theory. The lack of consideration for potential 'disorderly' behaviour on the part of individuals can also be seen in the next agon.

Summary of third cluster-group

In summary, knowledge as movement emphasises two aspects of knowledge that are largely taken for granted. Firstly, knowledge is perceived to move or flow from one point to another. Secondly, such a flow is orderly and seamless. The theories of 'knowledge transfer' and 'knowledge transformation' are based on these perceptions which are supported by a fixed and stable worldview. Much like 'knowledge as an underlying force', this group of concepts is entrenched in KM theory and they surface only under careful scrutiny. What they reveal, however, are potential reasons why KM theory is unable to articulate more concrete methods of implementation and why it suffers from a lack of credibility. The elevated position of technology was also noted in this cluster-group.

The next set of clusters considers the influence of knowledge in the articles analysed. Although it is not a common theme in mainstream theorising, it is a significant one for critical management studies as it reveals the attitudes of the authors toward power and control in the context of KM. As there is a range of attitudes possible towards power, rather than discussing it the way Garrick and Clegg have, I will discuss the attitudes of the various authors as reflected in their perception of the influence of knowledge.

Knowledge as influence

The word 'influence' implies a range of effects on human behaviour (Fineman, Sims, & Gabriel, 2006). At one end of the scale, influence such as 'encouragement' could bring about some change in behaviour but the decision lies with the individual. At the other end, influence in the form of domination would impact behaviour more strongly but with little or no consideration for individual choice. The clusters of knowledge as weapon, power and seduction are situated along this range of outcomes. The cluster of knowledge as seduction suggests that there is a perception of knowledge

possessing an allure. In contrast, the cluster of knowledge as a weapon implies that knowledge is also conceptualised as having the power to attack and defend. On a scale of one to ten, where 'one' represents liberty and 'ten' represents domination, the clusters of weapon, power and seduction fall in reverse order.

Hence, I will begin the discussion of this cluster-group from the 'front' end of this hypothetical 'influence scale' which will mean discussing the clusters in reverse order (seduction, power, weapon). It will also mean that the six articles may not be discussed in chronological order as I have done so far. My intent is to situate the various perspectives along this 'scale' in order to determine the range of attitudes present in the six texts analysed.

Seduction

In terms of seduction, all six texts express the attraction the concept of knowledge holds in a variety of ways. In Wiig, knowledge represents a new, unexplored area of unlimited growth and economic potential for the organisation. His enthusiasm is palpable as he describes the 'economics of ideas' (p. 7) and the many ways of harnessing this seemingly inexhaustible resource. He also emphasises how 'new' this area of management is, which implies that there are many opportunities for organisations to seize. In addition, he argues strongly against the suspicion that KM is a management fad, making a case instead for the 'broad, multi-dimensional' (p. 13) scope of KM. Rhetorically, Wiig is setting up a platform for the case of KM and he appeals broadly to all levels of society by highlighting the positive aspects of knowledge. His message is transparent and brightly encouraging which places him at the 'front' end of the scale. From a reader's perspective, it appears that Wiig believes in his own rhetoric and seems truly excited at the prospect of KM. As the analysis of his article revealed, Wiig is ardently

positive about knowledge and, to a large extent, he believes in the potential of knowledge and KM.

Sullivan is just as convinced that knowledge is 'the next big thing' for organisations. He alludes to the success of organisations that are in the forefront of KM and the 'real' profits that they have derived from it. In the same way that Wiig speaks of KM as a little-known secret, Sullivan talks about the 'hidden value' (p. 135) of knowledge which suggests he believes in the allure knowledge holds. However, Sullivan's real focus is on the simple lure of lucre. His position with regard to using knowledge also becomes more aggressive. Hence, I will return to Sullivan in the discussion of knowledge as a weapon.

Garrick and Clegg are keenly aware of the allure of 'knowledge' as presented in KM discourse. They bring it to life by representing 'knowledge' in the form of Count Dracula who first seduces his victims in order to suck the life from them. In the same way, Garrick and Clegg are suggesting that the discourse of KM seduces individuals by luring them with the promise of 'knowledge' but the intent is to suck the 'vitality' out of these individuals for the purposes of the organisation. Hence, they caution against believing in the 'shiny and bright' promises of KM. In terms of their attitude towards the seductive appeal of 'knowledge', Garrick and Clegg maintain a critical distance where they acknowledge the desire for knowledge on the one hand, but also warn of the inherent dangers of accepting the discourse of KM uncritically.

Styhre does not focus on the desire for knowledge as much as the inherent qualities of knowledge that make it desirable. To him knowledge is a mystery that ebbs and flows and emerges only when 'invoked'. There is a sense of wonder and magic in his conception of knowledge as fluidity, and

he sees its influence in the way knowledge continually evolves through social connections. He also perceives knowledge to have power through 'mastery' such as the doctor who 'practises' medicine. These descriptions indicate that Styhre himself is somewhat besotted with the concept of knowledge and, to some extent, has been seduced by his own ideas. His attitude towards 'knowledge' is a benevolent one as he seeks to liberate the concept of knowledge from its functionalist confines and to give it the freedom to move and evolve as it chooses. In essence, he champions the philosophical aspects of knowledge which he sees as absent from existing concepts of knowledge in KM.

The position of Hicks, Dattero & Galup and Smedlund on knowledge as seduction is harder to detect. The authors refer to the benefits of managing knowledge as a given. In other words, they no longer see the need to persuade their perceived audience on the advantages or qualities of knowledge. Instead, they work on the assumption that knowledge is desirable, hence the organisation needs to accumulate as much of it as possible. Therefore, it is not the influence that knowledge can have which they emphasise but the control management can have over 'knowledge'. In this respect, the last two texts analysed suggest a darker aspect of knowledge as power.

Power

In the text on the 5TKMH, individuals are replaced by computers and technology. Through the application of technology the 'minds' of workers are easily codified and transferred to the larger 'mind' of the organisation. This process of codification carries disturbing overtones. For example, in the cluster 'knowledge as a mind', knowledge is not a philosophical ideal but a source from which to accumulate 'knowledge assets'. When connected to the concept of 'knowledge as an asset', there is a sense that the 'mind of an

individual' is merely fodder for the organisation. Once codified, an individual's knowledge leaves the realm of the intangible to become an exploitable resource.

The individual is further diminished in how the tiers of the 5TKMH are conceptualised. The innovation tier is classed as 'personal knowledge' which is, in essence, the same as the individual. At the same time, the innovation tier 'exploits all classes of knowledge' (p. 28) collected from the ascending tiers of the KM hierarchy. The authors argue that any transformation derived from knowledge in a company should be attributed to 'innovation' rather than the individual because it is the organisation that exploits the collective knowledge. Thus, on the one hand, the top and bottom tiers of the 5TKMH are said to derive from the same source, but whatever happens at the bottom tier, the individual, must be ascribed to the top, the organisation. Recalling the analysis in chapter six, the authors' imply that only knowledge that has been drawn out from the individual and codified is of valuable to the organisation. In this way, the individual is of little value once the organisation has collected the relevant knowledge. The subtext here is that the individual is subject to the organisation for the organisation. Garrick and Clegg's prediction that the individual will be sucked dry and spat out is certainly accurate in this instance.

The power and authority of the organisation to 'manage knowledge' is implied to be unquestionable as the individual is given no voice throughout the entire transaction. In other words, the individual is subjugated by the organisation through the reification of knowledge. The use of technical language, as seen in the cluster-group discussion of knowledge as a physical entity, dehumanises the individual and allows the discourse of KM to justifiably speak of 'exploitation'. Such a stance recalls Sullivan's exhortation to 'extract' knowledge and to codify as much of it as possible.

Smedlund's proposition of social networks as a form of management has, as I signalled earlier, signs of manipulation embedded in the theory as well. Smedlund does not have to make the same case as Wiig for knowledge or KM since it is already accepted as the 'key resource' and 'dominant competitive advantage'. Instead, he makes a case for the rewards of social networks by highlighting the need to belong and the prestige and benefits certain networks bring to the individual. The distributed network, for example, values 'lifelong learning and personal growth' (p. 70) and the stability and endurance of such a network offers security and personal worth. The appeal to the individual is thus couched in very positive terms. However, this network is also the most controlling. It runs on 'unwritten rules', 'reciprocity', 'social sanctions' and 'enforceable trust' (p. 70). In other words, an individual's security and worth is at stake should the individual 'break the rules'. The controller of 'rules' we find out later, is the manager who can impose 'hard and instant sanctions' (p. 72). Even in the decentralised network which has ostensibly no punishment for failure, the individual runs the risk of being 'exploited for short-term information benefits' (p. 70). As a node in any or all three networks, the individual holds very little power and is still subject to the organisation's goals. Smedlund's vision of organisational power is by far the most totalitarian and subversive of all the authors. Not only is an individual's explicit, tacit and potential knowledge 'harnessed' (p. 65) to the organisation, the individual's social relationships and connected self-worth are also subsumed by the larger 'knowledge system of the firm'. The importance of structure in the text shows how deeply held these assumptions are on the part of the author and how unproblematic they are for him.

Weapon

Returning to Sullivan, the overall tone of his article and the sharp image of 'knowledge as a weapon' says that Sullivan's perspective of the influence of knowledge leans more heavily towards domination and control. Knowledge is attractive not only for its profit potential but also its 'strategic' purpose. Through the use of knowledge, organisations can control markets, conduct negotiations and, essentially, hold other organisations to ransom. The case of Enron holding the entire state of California hostage to 'rolling blackouts' (Gibney, 2006) comes to mind in this scenario, which goes to show how much power an organisation can wield. On reflection, the documentary on Enron also illustrated how in terms of KM theory, Enron was doing much of what Sullivan proposed in his article. The aggression and manoeuvring to derive maximum profit, among other things, eventually led to its collapse. As a lesson of hubris, greed and fear, Enron also stands as an emblem of the darker side of knowledge and its management. Sullivan's article was written for his time but hindsight gives us a clear view of how compelling the sorts of arguments he was making were and the effects they could have on justifying organisational behaviour.

Hicks et al. and Smedlund also share Sullivan's view that knowledge should be used for the benefit of the organisation. Their attitude is less aggressive but no less holistic in the totality of control KM should impose for the objectives of the organisation. Perhaps, because control is complete in their theories of KM, these authors do not see the need to be aggressive. Garrick and Clegg say that the construction of these relationships between the individual and the organisation are usually justified by 'pastoral and romantic' (p. 285) assumptions. Nevertheless, there is no indication in the texts that these assumptions are present. In fact, given the militaristic tone of

Sullivan and the technological preference of Hicks et al., I would say that benevolence is not one of their management assumptions.

In their article, Garrick and Clegg conclude:

While pastoral/romantic metaphors stress mutual reciprocity and care of the self as implicit in knowledge-management, by contrast the Gothic perspective sees such transformations as unequal exchanges whose consequences are eventually mortifying, where such transformations are associated with one-way exchanges rather than the creation of a plurality of opportunities for organisational reciprocity (p. 285).

As we have seen in the above discussion, Garrick and Clegg's observations are accurate. There is a seductive but deadly appeal to acquiring knowledge in the theorising of knowledge in KM, and the manipulation and exploitation of the individual is justified in the process of codification. The organisation is not a site of opportunities but a system of control and domination couched in the underlying belief that collective knowledge is the ultimate goal of KM efforts.

Counter-power

In the discussion on 'knowledge as influence', a range of attitudes towards the concept of knowledge was identified. It was noted that power leaned heavily towards the organisation leaving the individual to be portrayed as a pawn, a serf or a node in a network. In this regard, the agon of counter-power stands as a reminder of the power of the individual. For example, the individual still retains the power to leave an organisation, resist or avoid efforts to 'codify' knowledge. An individual can also, in the methods recommended by Sullivan, patent and protect one's intellectual property and use it as a bargaining tool with organisations. These options are not unknown to organisations or theorists, as we have seen in the analyses and discussion. Instead, the individual is sidelined or removed from the process

of KM as quickly as possible or reduced and silenced. Only Garrick and Clegg give 'voice' to the individual but, even so, they did not perceive the individual to have been heard.

The agon of 'uncodified knowledge' also tells us that counter-power, particularly from within the organisation is a source of anxiety for the organisation. Sullivan was particularly aware of the counter-power of the individual and his aggressive approach to KM highlights how keenly he felt about the danger individuals posed. Given the importance of collective knowledge to KM efforts, the disruption an individual could cause by merely withholding knowledge is not acceptable. Hence, the individual has to be 'codified', 'ordered' and controlled, if not in actuality, then at least in theory.

The agon of counter-power thus lies at the margins of KM theory. On the one hand, KM theory begins with the individual but on the other strives towards collective knowledge. Hence, even as theory accounts for the role of the individual, the 'management of knowledge' subjugates the individual to the rule of the organisation. Like the agon of counter-power, the final agon for discussion highlights another danger to the organisation.

Competition

From the discussion on 'disorder', it was shown how the organisation is assumed to be all powerful. However, the agon of competition highlights the vulnerability of organisations to external forces, hostile opposition and other 'knowledge institutions' such as universities. Perhaps in response to such uncontrollable external conditions, the scope of KM as perceived by the authors, progressively becomes more limited over the years. For example, in Wiig's article his perspective is broad and the objectives of KM range from business organisations to national governments. In Sullivan, the perspective

is geared only toward international corporations. Hicks, Dattero & Galup reduce it further to general organisations and, in Smedlund's paper, the focus is on just one firm and the 'knowledge system' within it. As a result, the 'knowledge system of the firm' can be a highly controlled environment but only because competition and other 'dangers' have been removed from it.

Hence, the agon of 'competition' has not been ignored so much as it has been sidelined in the development of KM theory. As the agon of 'disorder' has shown, the desire for order restricts any other disruptive notions from entering the discourse of KM. Because 'competition' as an agon emphasises the vulnerability of an organisation, KM theory cannot accommodate the complexity it represents if it wants to sustain the systematic and structured theories already in existence. Therefore, the 'boundaries' of KM theory are apparent when seen in the light of agons.

Summary of fourth cluster-group

In summary, knowledge as influence can be seen as a spectrum of power. At one end, authors like Wiig appealed to the broad and positive qualities of knowledge in the hope that readers would agree to his ideas. At the other end of the scale, authors such as Sullivan, Smedlund and Hicks et al., conceive of knowledge as a tool for controlling individuals. Styhre takes the middle ground, citing both the mystery and mastery that knowledge can offer. Garrick and Clegg take no position on this spectrum but instead establish the range of attitudes towards power in KM theorising. In doing so, they indict the authors who unconsciously promote subjugation and exploitation of individuals by organisations in the name of managing knowledge.

Summary of discussion on agons

In chapter five, the agons were exposed and observed at a fairly micro level. In this chapter the perspective was widened to examine the effect of the agons across the texts and what it reveals about theorising in KM. In many ways, the agons point to aspects of knowledge that KM has either ignored or omitted. In this sense, they highlight the limitations of KM theory. At the same time, the agons also emphasise the boundaries surrounding the theorisation of knowledge and its management. Inasmuch as the clusters reveal the different perspectives of knowledge and KM, the agons expose areas which KM has excluded from mainstream theorising. This allows us to probe for potential reasons for such exclusions.

For example, from the discussion of agons, we saw that uncodified knowledge was a source of anxiety because it was perceived to be outside the control of the organisation. The fear of knowledge that 'walks out the door' could mean that the organisation has not been able to resolve the place 'personal knowledge' has within the organisation. In the same vein, the 'counter-power' agon showed that personal knowledge gave the individual some power in relation to the organisation. Together, the agons of 'uncodified knowledge' and 'counter-power' challenge the invincibility of the organisation as portrayed in KM texts. Hence it is unsurprising that these aspects of knowledge have been excluded. In fact, I see the attention given in KM towards codification and 'exploitation' of the individual as a way of avoiding the acknowledgement that some things are outside the control of the organisation.

The agons of 'disorder' and 'rupture' also stand in opposition to the stable and harmonious assumptions of organisational landscapes. They reflect how KM theory has kept away from more complex concepts of knowledge as well as the complications of organisational life. Instead, KM theory has

increasingly imposed order and structure to the concept of knowledge and the management of it. From my perspective, theorising in KM will have to include more complex notions of knowledge in order for it to continue and develop. The order and structure observed in the texts reflect managerialist assumptions of rationality to some extent but it also point to an increasingly static concept of knowledge. Developing theory around a static concept is unlikely to be productive in the long run.

The agons of 'extinction' and 'competition' highlight the risks organisations inherently face. Yet KM theory, as reflected in the texts, has progressively sidelined these dangers to the organisation. In the light of the preceding agons, these agons undermine the stability and power of the organisation by emphasising its vulnerabilities. Hence, as more 'order' is placed upon the theorisation of knowledge and KM, concepts and issues that oppose such order are kept out. The inability of theory to address organisational issues in a period of economic downturn is testament to the void that exists but which the agons bring to light. In addition to ignoring the unruliness of individual knowledge and disregarding the complexities of organisational life, overlooking potential danger to the organisation is as fruitful as believing organisations will live forever.

The agon analysis in this study reveals a 'dark side' in KM theory. It is 'dark' in the sense of an absence of light, or a lack of attention to aspects of knowledge that need to be considered in the development of theory. It is also 'dark' in the sense of a lack of concern for individuals. A critical reading of the texts has shown that the individual is regarded as a resource to be exploited, pawns in organisational strategies, victims of unbalanced power relationships and anonymous nodes on networks. This suggests that moral or ethical principles of 'managing knowledge' are largely absent from theory. In my view, KM needs to be practised with the acknowledgement that such

considerations are lacking. To this end, I hope that my findings contribute towards what Alvesson and Deetz (2000) have called a 'transformative redefinition' (cf. pp. 54-55 of chapter 2) by offering an alternative perspective to dominant understandings of 'knowledge' and KM.

Summary of chapter six

The discussion on agons is thus complete and, together with the discussion of the cluster-groups, several perspectives of knowledge and KM have surfaced.

In the cluster-group 'knowledge as a physical entity', the importance of collective knowledge to KM and the significance of conceptual structures of knowledge in KM were revealed. In the second cluster-group, 'knowledge as an underlying force', a deep-seated belief that knowledge has life which will propel the development of the organisation was uncovered. The third cluster-group of 'knowledge as movement' showed how knowledge is perceived to move or flow from one point to another in an orderly and seamless way. The importance of technology to KM was also noted in this cluster-group. Finally, the last cluster-group of 'knowledge as influence' highlighted how the texts promoted the subjugation and exploitation of individuals by organisations in the name of managing knowledge.

The agon discussion reinforced the findings from the cluster-groups. The agons of uncodified knowledge and disorder showed how anxious the authors of the texts were to 'collect knowledge' and establish order. The agon of extinction reflected how the potential death of an organisation is considered a taboo subject. The agon of rupture highlighted the organisational utopia projected by KM. The agon of counter-power gave weight to the pattern of subjugation observed in the cluster-groups and the agon of competition exposed the vulnerability of the organisation to external

forces. There is, thus, a pattern of assumption across the six articles that the concept of knowledge is inherently 'good' and that the 'darker' side of knowledge has been deliberately omitted from KM texts. These findings will be considered in the light of logology in the next chapter as I bring together the various elements of rhetoric and its effect on KM theory.

Feedforward

Looking back on the research process so far, I have analysed six journal articles from the *Journal of Knowledge Management* spanning a period of slightly over a decade. These articles were read at a dominant, critical and reflexive level and the embedded cluster-agon method of analysis was applied, particularly at the critical level. The clusters were then grouped according to shared attributes of the concept of knowledge and examined across all six articles. Doing this allowed patterns of sense-making to emerge from the analyses for discussion.

The agons were also considered in relation to the texts and they pointed to absences in KM theory. The concept of knowledge in KM was shown to be limited to concrete and easily applicable notions whereas more complex ideas were ignored. Similarly, the organisational context within which KM is theorised was also shown to be static and stable because the agons highlighted the potential disruptions that were omitted from theory. In other words, agons help to indicate the boundaries KM theory has established regarding the concept of knowledge and the management of knowledge by reflecting that which lies outside KM theorising. They also point to the 'dark side' of KM theory.

In the next chapter, Burke's theory of logology will be applied to the findings in order to further explore the research question: Does the rhetoric of

knowledge in KM posit a particular perspective of knowledge? If so, what rhetorical processes enable it to do so?

There were three objectives that came out of this research question. Firstly, to find the rhetorical motivation behind the hierarchical depiction of 'knowledge'. Secondly, to identify whether or not rhetorical processes have made the concept of knowledge a positive one and, thirdly, to uncover what has been left unsaid about the concept of knowledge in KM. The following chapter will seek to address these objectives as well as offer some insights into the rhetoric of knowledge in KM.

Chapter Seven

ROTTEN WITH PERFECTION? INSIGHTS FROM THE RHETORIC OF KNOWLEDGE & KNOWLEDGE MANAGEMENT

Introduction

Arriving at this chapter is in some ways exciting because the groundwork has been established and the final pieces can be put together. Chapters one to three created the framework, chapter four laid out the process of analysis, chapters five and six 'operationalised' the process and discussed the findings that resulted from the analysis. One distinctive theme that emerged from the findings was the positive image of knowledge as attested by the clusters. Conversely, the agon analysis revealed a pattern of assumptions that less desirable aspects of knowledge had been omitted from KM theory. Taking in what has been said so far, this chapter will cast a logological perspective on the findings and seek to uncover the rhetorical processes underlying these themes and patterns. In line with the logological principles explicated in chapter three, I will also explore the potential presence of a 'god-term' in the texts that I have analysed.

Logological principles

Recalling briefly some of the theories from chapter three, there is the entelechial principle that says the use of language will move ideas towards 'perfection' in a hierarchical sense. I also covered 'negative theory' which is a theory of what 'is not', or antithesis. I explained that 'negative theory' can only take place in language because that which something 'is not' has no physical referent. Finally and broadly, I explicated the process of identification, or consubstantiality, through which the rhetor and audience establish common motives or understandings. I will move through these

basic principles to show how the concept of knowledge in KM has been 'perfected' through language and yet, at the same time, it is 'rotten with perfection' because of the limits of such a conceptualisation. 'Perfection' in the logological sense also implies the presence of a 'god-term'. In the following discussion, I will track through the findings from chapters five and six and relate them to the literature review in order to see if patterns of 'perfection' emerge from the analysis.

Sensing the presence of a 'god-term'

The entelechial principle, or 'perfection', can be perceived in the concept of knowledge as projected by the articles analysed. One of the key terms that surfaced in the analysis was the concept of knowledge as a physical entity. This concept was primarily expressed in relation to assets and resources and, by tracing the rise and fall of the metaphor 'knowledge as an asset', how the entelechial principle functions is apparent.

The metaphor, 'knowledge as an asset', was first established through economic theory to exemplify how this new, inexhaustible, profit-generating resource called 'knowledge' could be exploited by organisations. The benefit of technology added impetus to tangible conceptions of knowledge because 'knowledge' could be defined in explicit terms. As we saw in the literature review, this led to the establishment of the data-information-knowledge hierarchy. In addition, the connection of 'knowledge' to notions of 'value' and 'quality', particularly in terms of monetary gain, implied that 'knowledge' was not only a superior resource but ultimately the 'key economic resource' and the dominant source of competitive advantage. Hence, the importance of 'knowledge' to organisations especially profit-oriented ones was unquestioned. The notions of 'value' and 'quality' and the importance of technology were terms that added significance to this main idea.

However, through the course of the analyses, we also saw how the connotations of benefit and advantage, originally associated with the word 'asset', gradually lost their connection and 'knowledge asset' became just another resource. In logological terms, the concept of 'knowledge as an asset' had reached its peak or saturation point and because it could go no further rhetorically, it had to 'come down'. This move downwards was most apparent in Smedlund's article where the term 'knowledge asset' was utilised to mean 'resource'.

The 'types' of language used in the texts seemed to parallel this logological movement as well. The concept of asset was closely related to economics and business, and the notion of intellectual capital brought in the language of accounting. Such a move suggested that 'knowledge' could be itemised and accounted for. Translated to technological terms, accounting became codification and that was what the 5TKMH sought to do. Accounting for 'knowledge assets' then became a mathematical equation as we saw in an example provided by Hicks, Dattero & Galup (2006) on innovation. This move towards technical precision finally culminated in the mathematical rigidity of Smedlund's (2008) 'knowledge system'. In terms of reifying the concept of knowledge, the application of mathematical structure is probably as concrete a form of expression that is available. Hence, in both concept and language, the reification of the concept of knowledge as a physical entity had reached an 'end-point'. This indicates that the concept of 'knowledge as an asset' was a god-term. Logologically it would explain the prevalence of the concept of knowledge as a physical entity in KM theory.

However, the analyses signalled that tacit notions of knowledge seemed more significant than explicit ones. For example, out of the four cluster-groups only one referred to the physical aspects of knowledge while the other three focussed on less explicit notions of knowledge. Hence, I

suspected that the entelechial principle could have shifted to another aspect of knowledge. This was because if 'knowledge as an asset' was a god-term, it was rhetorically perfect. But like an exquisitely crafted porcelain statue, it was also theoretically static. In order for the entelechial drive to continue and for KM theory to develop, other aspects of knowledge were likely to have 'taken over' the importance originally associated with a reified concept of knowledge. The analyses suggested that 'collective knowledge', as reflected in the cluster of 'knowledge as structure', was a potential candidate.

Collective knowledge

The importance attached to collective knowledge was reflected in the articles by references to structures that conceptually held this knowledge such as 'strategy' (Wiig), 'capability' (Sullivan), 'curriculum' (Garrick & Clegg), 'frameworks' (Styhre), 'innovation' (Hicks et al.) and 'competencies' (Smedlund). These concepts are imbued with prestige and merit in their respective texts, symbolising the pinnacle of achievement in the management of knowledge. Such attribution of significance signals a move towards 'perfection'. Although the concept of 'knowledge as structure' relies on reified notions of knowledge, it is under girded by a belief in collective knowledge. Whether by means of codification, transactions or social systems, the aim was to gather 'knowledge' in the organisation, for the organisation. This belief in the collective is deeply embedded and the analysis of cluster-groups supports this perspective.

For example, in the cluster-group 'knowledge as an underlying force' the dynamic qualities of 'knowledge' envision 'knowledge' as a form of business utopia. For instance, the perception that knowledge has an inherent life or energy is a dynamic image filled with drive and ambition. In the examination of the metaphor of knowledge as a process, it was noted that there was also a pattern of thought that linked KM processes with pathways

of commercialisation. The basic assumption was that managing knowledge would definitely lead to profit. Hence, amassing as much of this dynamic, profit-generating entity was naturally the goal of KM.

Moreover, these processes were theorised as seamless, uninterrupted transactions that took place in stable, well-organised companies. For example, in the cluster-group 'knowledge as movement', the transfer and transformation of knowledge from individuals to the organisation, or 'the collective', were taken for granted. Such ease reinforces the vision of business efficacy because it assumes there is compliance and unity between individuals and their organisations and that everything operates perfectly.

In addition, there was also the assumption that the knowledge collected by organisations was essentially faultless. It did not degenerate or lose 'value' along the way but improved with time. In fact, the whole notion of knowledge evolving was based on a belief that progress and development was the natural outcome of learning and other 'knowledge processes'. A flawless, endless resource in a predictable, stable environment is surely a business utopia. Hence, the cluster-groups that reflected deeply held notions of knowledge indicated that positive perceptions of knowledge had moved even closer to 'perfection'. It seemed to me, therefore, that 'collective knowledge' had taken on the significance originally attributed to reified concepts of knowledge. In addition, the terms surrounding it such as 'innovation', 'creativity', 'transformation' and 'strategy' which have their own sets of very positive connotations, added intensity and significance to the concept of collective knowledge. The concept of collective knowledge was indeed ideally placed to be the next 'god-term'.

However, the concept of collective knowledge is not new to KM. Theories on organisational knowledge, communities of practice and situated learning are

based on the assumption that 'knowledge' can exist in a collective form. What the analyses suggest is that there is a rhetorical force behind this concept such that other terms derive their meaning from this key term. (Burke, 1961; Rueckert, 1982). For example, the terms 'strategy', 'capability', 'curriculum', 'frameworks', 'innovation' and 'competencies' may have little to do with each other outside of KM. However, when placed in relation to 'collective knowledge', they make sense in KM.

There is also a 'mystery' that accompanies the notion of collective knowledge. As I mentioned in the discussion of Hicks et al. and Smedlund's articles, 'innovation' and 'competencies' are said to be the goal of KM efforts yet the authors do not explain in any detail what they are or how to achieve the goal. Styhre (2003b) called collective knowledge a 'social accomplishment' but he, too, could not explicate what it really means. As Burke (1961) has said, in terms of persuasion, one ounce of 'mystery' is worth a ton of argument.

At a deeper level, the importance of 'collective knowledge' is so embedded in KM that even the critical scholars within the field have yet to question it. In the literature review, it was mostly the reified, commodified views of knowledge that have been problematised. Critical management scholars showed how knowledge was fragmented, political, fragile, ambiguous and ambivalent. Yet, there was no commentary on the fundamentals of organisational knowledge. Even Garrick and Clegg (2000) and Styhre (2003b), who are critical in their approach to KM, reflect a similar position with regard to collective knowledge in their texts. Thus, I find it significant that the critical community has not noticed this aspect of theorising in KM.

Nevertheless, before 'collective knowledge' can be named a 'god-term', other logological aspects have to be evident. For instance, the logological

'somersault' that was exemplified by the metaphor 'knowledge as an asset' needs to be apparent. Other indications include the drive towards perfection and order, identification and the presence of 'the negative'. I will discuss these aspects in the following section and suggest another potential candidate for the 'god-term' which was not mentioned in the texts selected but was signalled in the literature review.

Perfection and order

In his study of logology, Henderson (1989) shows how logology reveals motivations by indicating the human tendency in language towards order. He explains that this drive for perfection is motivated by a need for order. He also highlights how the perfection of such order undermines itself.

Logology is not merely a means of demystifying religious and theological texts. It also reveals how central the motivating principles of such texts are to human order in general. In accordance with the entelechial motive displayed so saliently in religious and theological discourse, Burke observes that human beings and human languages are 'goaded by a spirit of hierarchy', 'moved by a sense of order', and 'rotten with perfection'. The impulse towards perfection is a mixed blessing, and the phrase 'rotten with perfection' nicely captures the ambivalence. We are all too familiar with the obscenity of final solutions to view perfectionism from an exclusively positive standpoint (pp. 36-37).

In other words, when texts reveal a move towards hierarchy and perfection, it implies that the underlying motive is for 'order' and, by extension, 'control' to be established. 'Order', according to Henderson (1989), can apply to the natural realm in general in laws such as physics, biology and chemistry, and to the civil realm as well in terms of how humans organise themselves socially and politically by class, gender and occupations. In texts, order is reflected in diagrams, illustrations and even frameworks imposed on the writing of texts.

In the literature review, it was noted that the knowledge hierarchy is an unquestioned theoretical construct that continues to develop despite studies that show it is fundamentally unsound. Rhetorically, the knowledge hierarchy is an important aspect of KM theory development because it creates order and a point of reference for the multiple concepts of knowledge. The drive towards perfection in KM is probably best represented by this knowledge hierarchy. The very nature of a hierarchy implies that upper levels are 'higher' and nearer perfection than lower levels. A hierarchy also suggests that there is order in the rankings. Hence, where collective knowledge is situated on the knowledge hierarchy indicates how close to 'perfection' it is as a concept. The analysis of the six articles indicates that collective knowledge is close to the pinnacle of the knowledge hierarchy but it is not necessarily the 'god-term'.

Another indication that 'order' is taking place is when naming occurs. Lake (1984) says that 'naming creates classes ... and because each class is related to the others at least in the respect that it is not these others, there must be order among them' (p. 427). Hence if the texts reflect a regular pattern of definitions and categorisation, it would suggest that 'order' is an important motivation in KM theorising. Smedlund's article for example, named several different types of knowledge with tacit forms of knowledge elevated over explicit ones. At the top of his 'hierarchy' was 'competencies' which was related to collective knowledge. The same was observed in the 5TKMH. According to the texts analysed, it would seem that collective knowledge is the 'god-term'. However, there is still another concept to consider which is wisdom.

In the literature review, knowledge hierarchies espoused by Tuomi (1999) and Pór (2001) placed 'wisdom' at the top of their hierarchies. The nascent body of literature on the topic of 'wisdom management' seems to suggest

that 'wisdom' is the next logical progression of the knowledge hierarchy. Rueckert (1982) says that such 'logic' is typical of the entelechial drive but only in the rhetorical, not theoretical, sense. Moreover, the conceptualisation of 'wisdom' in the context of KM assumes that 'wisdom' is collective; otherwise the notion of 'wisdom management' would be moot. So 'wisdom' could be the next focus of the entelechial drive and there are compelling reasons for it to be the pinnacle of the knowledge hierarchy.

Firstly, as I have mentioned, the concept of wisdom is featured in KM literature as the next level of theorisation in the quest to manage knowledge. The impulse towards 'wisdom management' seems self-evident as many of the authors reflected in the literature review do not provide rationale for 'wisdom' being a higher form of knowledge. As a 'bridge' between the concepts of knowledge and wisdom, Tuomi (1999) and Pór (2001) offer the notion of 'intelligence'. They do not go into detail on the distinctions between these concepts but the implication is that 'wisdom' is associated with knowledge and intelligence. Perhaps the assumption that 'wisdom' is a self-evident, logical progression from knowledge is because the concept itself is imbued with multiple meanings, most of which are related to desirable human qualities.

For example, the definition of wisdom as a noun includes

1. sageness, sagacity, cleverness, intelligence, erudition, learning, education, knowledge, enlightenment, reason, philosophy, discernment, perception, insight. 2. sense, common sense, prudence, judiciousness, judgment, shrewdness, astuteness, smartness, circumspection, strategy, foresight, reasonableness, rationality, logic, soundness, saneness (opposites: folly; stupidity). (Lindberg, 1999)

In addition to these lofty qualities, the concept of wisdom is also closely related to the divine. According to one dictionary (Bowker, 2000), 'wisdom' refers to 'an ethical and religious quality of life as advocated by the Hebrew scriptures'. The scriptures in this case are the books of Proverbs, Job and Ecclesiastes. The book of Proverbs in particular personifies 'wisdom' as a woman and as divine presence in the creation of the world. In other words, the distinction between God and wisdom in the book of Proverbs is not clear-cut. With such supernatural backing, and without irony, the concept of wisdom could easily claim the status of a 'god-term'. Yet I hesitate to proclaim it as such.

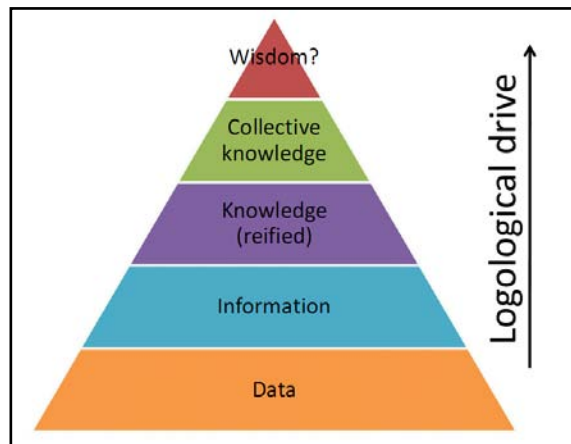
McKenna and Rooney (2005) have cautioned, KM lacks 'theoretical completeness in relation to knowledge' therefore it is premature to include the concept of wisdom into KM as there is 'a lack of knowledge about wisdom' (p. 24). In analysing just a sample of texts, I have found that the term 'knowledge' as featured on the knowledge hierarchy can be further refined and as I have argued, collective knowledge is believed to be more significant than 'knowledge as an asset'. In other words, there could potentially be more distinctions within the concept of knowledge before 'wisdom' is considered. Tuomi (1999) and Pór (2001) recommend 'intelligence' and Beckman (in Liebowitz & Beckman, 1998) mentions 'expertise' and 'capability'. If these concepts were fully developed, theories in KM could head in a different direction. Alternatively, if 'wisdom' is the future of KM theorising, and those theories were rhetorically analysed, it could turn out to be another level towards an even larger 'god-term' such as omniscience. Such ambition are not uncommon as attested by the biblical story of the Tower of Babel and the cautionary tale of Icarus. What if the instinct towards 'wisdom' is not rhetorical at all? As I have noted earlier, biblical traditions have already established 'wisdom' as a divine entity. In

such a case, the 'logic' of 'wisdom' being the next level after 'knowledge' could be historical not rhetorical. For these reasons I believe it is premature to name 'wisdom' as the 'god-term'.

Moreover, even as instinctive as the move towards 'wisdom' is, as a critical reader who is aware of the rhetorical drive for 'perfection', I want to resist the assumptions that can easily be made of 'wisdom'. In fact I hope my research adds weight to existing calls for more critical conceptions of knowledge in KM. The concept of wisdom requires far more careful regard than what has been proposed so far. Future research will have to develop this intriguing concept further but at this point, it may be beyond the scope of this thesis to ascertain the place of 'wisdom' in KM.

Thus, in terms of 'perfection', there is a clear escalation of the concept of knowledge. In figure 6, I reflect the logological drive that has emerged so far. I propose that collective knowledge has gained more significance than reified concepts of knowledge such that it is considered a 'higher level' form of knowledge. I also acknowledge the inherent drive towards 'wisdom' and its potential to be a 'god-term'. However, without more study and consideration, I am unwilling to name it as such. Perhaps 'wisdom' could prove to be the turning point, the 'somersault' that indicates the presence of a 'god-term' but for now, I will leave its place in question.

Figure 6: Knowledge hierarchy according to logology.



In summary, although there were indications of perfection and order in the concepts of collective knowledge and 'wisdom', they were not sufficient to make a decision regarding the status of a 'god-term'. I will explore two other aspects of logology to see what other signs might emerge regarding the presence of a 'god-term'.

Identification

Returning to the consideration of order, Lake (1984) observes that if there is 'order', then there must also be agreement. In this regard he says:

Order is maintained by Covenants between those on different rungs of the hierarchical ladder of social interaction. Covenants create proprieties and improprieties in human action. Assent to a Covenant, or Obedience, observes the proprieties and maintains Order; Dissent, or Disobedience, on the other hand, introduces improprieties on the side of Disorder (p. 427).

Relating this to the knowledge hierarchy, we can detect 'covenants' in the underlying assumptions made of the concept of knowledge. Consciously or not, KM theorists have a common conceptualisation of knowledge particularly in the unspoken assumptions about the concept. Raub and Rauling (2001) have suggested that this 'agreement' indicates a community forming within KM. In terms of logology, such agreement implies that

'covenants' have been established, identification has taken place which, in turn, sustains a particular perspective of knowledge.

According to Cheney (1983), identification allows two things to happen simultaneously. Firstly, there is a 'congregation' of those with similar ideas and with such a congregation, 'segregation' from those who hold different ideas takes place as well (p. 146). The desire to congregate and segregate becomes a common motive for 'members' to act together to sustain their 'community'. In relation to KM, it would seem that there is rhetorical accord on the concept of knowledge and it is sustained in part by the KM 'community' to maintain a positive image of knowledge.

This is but the outcome of identification. According to Burke's analogies, identification takes place because of the associations we make between a symbol and what it symbolises. This 'symbolicity' happens when we, the reader, connect the symbols and in the making of meaning, agree to what it symbolises. We can remain unconscious of such choices until we examine the connections we have made (Burke, 1969a). As a set of theories, organisational knowledge is a 'symbol' in the Burkean sense of what is present in the natural world. In the entelechial drive towards perfection, this 'symbol' gains a host of associations which is symbolised as 'collective knowledge' in the texts analysed. Hence, in relation to the concept of knowledge, the 'symbolicity' of collective knowledge is generated by the association with terms such as 'innovation', 'strategy' and 'competencies'. As a result, there is a strong rhetorical 'agreement' or 'collusion' regarding the concept of knowledge in KM.

However, as Henderson (1989) and Lake (1984) have both highlighted, perfection and order in the wider frame of logology, must mean that imperfection and disorder are also present. This is also true of the concept of

knowledge in KM. As Burke has observed in the theory of 'the negative', the more highly generalised or 'perfect' a term is, its 'negative' is equally so. The findings from the agon analysis bear this out.

'Negative' theory

As some authors have argued, 'knowledge' is not necessarily desirable in all circumstances (Contu, Grey, & Ortenblad, 2003). In fact, a particularised image of knowledge severely limits theory. For example, the complex, independent nature of the individual is not acknowledged nor is the contested, conflicted landscape of organisations accounted for in KM theory. This is because a 'perfected' concept of knowledge does not allow for such 'dissentions'. This sense of a boundary, of what is allowed or not, in KM comes across most clearly in the agon analysis.

In the previous chapters, I have put forward that collective knowledge is highly prized and in the light of what 'collective knowledge' entails, individual knowledge as reflected in the 'uncodified knowledge' agon would be its 'negative'. As we saw in the agon analysis, uncodified knowledge is an unspoken fear that recurs in the literature. This fear is also reflected in the potential counter-power an individual holds, especially when the source of knowledge is theorised to be derived from the individual. However, unlike a potential 'god-term' which is elevated and central to the rhetoric of that particular term, the corresponding agon is 'sacrificed' in order for the 'god-term' to have precedence (Berthold, 1976).

The implication of this sacrifice is the reduction of the individual in KM. As we have seen in the discussion on 'knowledge as influence', most of the authors leaned more heavily toward power and control of the individual for the sake of the organisation. The 'exploitation' of minds and the transfusion of 'vitality' are justified in the discourse of KM because the interests of the

individual can be subsumed by the interests of the collective. Similarly, the presence of 'counter-power' is a threat to 'collective knowledge' which, again, means it has to be sacrificed in order for 'collective knowledge' to be 'perfected'. Moreover, the agons as reflected in the notions of 'extinction', 'uncodified knowledge', 'rupture' and 'opposition' reveal a fear of 'disorder' and, in the logic of 'perfection', such notions have to be eliminated.

Thus, by sheer contrast, agons tell us that KM theory is not willing to discuss the 'darker' side of knowledge. As such, there are no allusions to hidden or forbidden knowledge (Machlup, 1982) and the closest indication of a potentially disruptive concept of knowledge in the literature review was 'sticky knowledge' (Szulanski, 2003). This signals a very strong 'covenant', on the one hand, among KM theorists to maintain a positive image of knowledge and adds weight to Raub and Rauling's (2001) suggestion of collusion in the KM community. On the other hand, those not so agreeable are 'kept in line' by a fear of 'disorder'. Hence, as Alvesson (1999) has observed, the rhetoric associated with knowledge is far stronger than we give it credit for.

Hence, in the perfecting of the concept of knowledge, order and agreement are established. However, it also means that dissension and disorder have to be eliminated. In KM theory, this translates into a justification of exploitation of individuals and an omission of less positive aspects of knowledge. In this respect, Burke has commented that in the pursuit to 'perfect' our ideas, we end up 'rotten with perfection' (1966, p. 16). It also shows how 'diseased, cancerous, destructive' (Rueckert, 1982, p. 256) the entelechial drive can be. As Rueckert has added, the 'logic of language knows no morality' (p. 256). The implication of such an outcome is that moral concerns in the management of knowledge are largely absent. According to Bowles (1991), moral and ethical concerns that are ignored form a 'shadow' and

organisations develop 'shadows' when they deny the lack of ethical concerns in their management of organisational members. Bowles says that 'the shadow is repressed, and, as unconscious content, is projected onto others, often those who are incapable of resisting it' (p. 387). The agon analysis, which gave expression to the 'dark side' of knowledge, indicates the same propensity to suppress and repress ethical concerns. Bowles also highlights the potentially grave consequences of ignoring such a shadow and, in the same light, there are also grave consequences of 'managing knowledge' uncritically. The 'dark side' of knowledge is a significant aspect of KM that needs to be addressed, both in theory and in practice. My hope is that this study has given expression to this 'dark side' and contributes to more reflective managerial practices.

In summary, the logological drive towards perfecting the concept of knowledge indicates there is an overwhelmingly positive perception of knowledge in KM. In answer to the research question, the rhetoric of knowledge in KM does indeed posit a particular perspective of knowledge. It is a perspective that emphasises the positive aspects of knowledge, predominantly for the material benefit of the profit-oriented organisation. This perspective is sustained on the one hand by the logological drive to 'perfect' the concept of knowledge and, on the other, by the 'consubstantiality' of the KM community. Together they indicate the rhetorical 'boundaries' of KM discourse and suggest that KM theory has established its own concept of knowledge. However, in terms of generating good theory, there is much that KM has left unaccounted for (McKenna & Rooney, 2005). Moreover, the predominantly uncritical treatment of power and relationships in KM theory indicates there is much left unsaid to which voice should be given.

Inasmuch as my research question is addressed, the uncertainty of a 'god-term' remains. On the one hand, the entelechial drive is clearly present and the 'collusion' regarding positive aspects of knowledge is formidable. There is also a strong corresponding impetus to omit or ignore less positive facets of knowledge. These findings suggest that a 'god-term' is likely to be present and I proposed that 'collective knowledge' and 'wisdom' were the most probable candidates. However, there was no 'somersault' evident in the analysis of 'collective knowledge' and even less in the discussion on 'wisdom'. Hence, the search for a 'god-term' continues and as much as I want to, it is not one I can conclude in this thesis.

Nevertheless, I can conclude this chapter. In the next section, I will consider the implications and applications of my findings to KM by tracking the process that led me to this point.

Implications and applications to KM

In chapter one, I started with an overview of two foundational theories in KM: the resource-based theory of the firm and organisational knowledge. I also covered the critical perspectives of KM that came out of critical management studies.

From the resource-based theory of the firm, a knowledge-based theory was derived which conceptualised knowledge as a physical resource. This resource was best utilised by the firm, because economic theory had proven that the firm was the most efficient mechanism for the production of goods and services. At the same time, the management of knowledge was aided by technology and knowledge management systems came to be relied on for KM efforts. The concept of knowledge was further reified with the addition of technology, as explicit definitions of knowledge were implemented so that codification could take place.

From the perspective of organisational knowledge theory, interaction between organisational members was seen as the source of 'new' knowledge and the management of knowledge was the management of such interactions. Theories of situated learning contributed to this school of thought and the concept of communities of practice became a place where technology and theories of organisational knowledge could be combined. Notions of tacit knowledge were also theorised in relation to KM under this approach to KM.

The six articles analysed reflect the same foundations in theory. In fact, they have not significantly moved away from the two fundamental notions of knowledge as a resource and collective knowledge. The critical approach to KM has questioned the reification of knowledge but it stopped short of questioning collective knowledge. For example, despite reflecting the ambiguous and elusive nature of the concept of knowledge, critical scholars have yet to consider 'knowledge' as undesirable, dangerous or forbidden.

Some authors have argued that the lack of development of the concept of knowledge in the KM literature review is due to the lack of agreement on the definition of knowledge, the definition of KM and what constitutes a practical KM framework (Metaxiotis et al., 2005). Others like Styhre (2003a) say it is because of the ambiguity inherent in a term like 'knowledge management'. As he points out:

Just as knowledge is an epistemologically complex and diverse concept, the notion of management comprises a great number of techniques, practices, beliefs, and so forth. Taken together, this makes the aggregate concept of *knowledge management* a highly elusive concept seeking to capture attempts to make strategic, practical use of an organisation or firm's intellectual resources (Styhre, 2003a, p. 79).

Hazlett, McAdam & Gallagher (2005) say that the conflicting paradigms within KM inhibit its development, while Foss (1996) contends that using an economic based theory in a relationally-managed field of studies undermines its usefulness. Hellstrom & Raman (2001) offer a different explanation for this apparent disagreement.

In their article, Hellstrom & Raman (2001) show how KM developed historically from knowledge engineering and organisational learning perspectives. In their overview of KM, they observed how KM seemed to accommodate almost every approach and method within it.

What *seems* contradictory at first is that KM clearly recognizes that knowledge is embedded in context and that formal expert systems do not represent the complexity of experiential learning and tacit knowledge, yet, it simultaneously applies models of 'analytical discrimination' to 'capture' and formalize the knowledge that underlies existing practices (p. 148).

For example, they noted how knowledge engineering was premised on control, while, in contrast, organisational learning is based on being open to learning and change. These are very different approaches yet they both exist within KM.

They believe that KM is able to do this because of its managerial underpinnings (see also Boisot & MacMillan, 2004). From a management perspective, collective action is the goal. Hence, a compounding of epistemologically different frameworks that allows collective action to take place is just 'business as usual' (p. 149). As a result, KM tends to be pragmatic in nature. They explain:

It [KM] is pragmatist in the sense that it recognizes that organisations and firms have goals and that they need to solve problems, and that in this process knowledge is a necessary resource. It is constructivist in the sense that it acknowledges the transformative capacities of interaction on knowledge and that this bracketing of means–ends

thinking has positive long-term effects on any knowledge intensive enterprise (not least on motivation). At the same time, it displays a more explicit recognition of the primacy of corporate agendas than either knowledge engineering or learning organisation seemed to do. In this respect, KM is much more intellectually eclectic than its precursors, and in the vein of 'means justifying ends', its commodification practices in management consulting have become more elaborated and seemingly unrestricted by disciplinary boundaries and diverging assumptions (Hellstrom & Raman, 2001, p. 150).

Instead of pragmatism, I offer the suggestion that the concept of knowledge has not developed further because of its drive towards 'perfection'. There is a rhetoric uniting the KM community and regardless of methodological frameworks, perspectives and academic backgrounds, a belief in the efficacy of collective knowledge is commonly held. Perhaps, as Hellstrom and Raman have indicated, it is a managerial concern for collective action that unites the literature. However, I would say such a concern merely adds to what is already a deep-seated, collective assumption about the concept of knowledge.

Hence, it is difficult to question assumptions that are deeply embedded, which in turn limits developing the concept of knowledge in KM. In over a decade of theorising, the concept of knowledge in KM has not moved significantly beyond positive conceptualisations. In this regard, it is static and as we have seen in the agons, it is also flawed by its 'perfection'. Unless theorising in KM develops more reflexivity and a move towards other unacknowledged aspects of 'knowledge' is initiated, I anticipate theory will revolve around what has already been established.

Even the potential trend towards 'wisdom management' may not stray far from mainstream theory because its foundations are based on the existing knowledge hierarchy. The knowledge hierarchy is an outcome of 'order' which implies that even if 'wisdom' is exhorted to be the next rung on the

knowledge hierarchy and the future of KM theory, the impulse to do so would be rhetorical, not theoretical. It is an impulse I wish to consciously resist.

CONCLUSION

Research contributions

In terms of providing a conclusion to this research, the previous chapter has in some way covered what is traditionally said in the last section of a thesis. It pulled together the various components of the thesis and offered a possible answer to the research question. This having been done, I will take this opportunity to reflect on the research as a whole and its contribution to 'new knowledge'. I thus submit my conclusions from a reflective perspective as follows.

A 'knowledge' contribution

The literature in KM is broad and can seem incoherent to those unfamiliar with its development. Rather than accounting for every piece of research related to the topic of KM in the literature review, I looked instead for its foundational theories and tracked their influence on the development of KM theory. In this respect, I put forward the resource-based theory from the field of economics and theories of organisational knowledge from organisational studies as the two main streams of influence in KM. I also highlighted critical perspectives on KM as part of the literature review as they were also a significant voice in the development of KM. I am aware that these broad classifications are to some extent imposed and that the distinctions between one set of theories and another are arguable. Nevertheless, the literature review was organised to reflect mainstream ideas about the concept of knowledge and the critical commentary offered alongside.

From this literature review, I derived my research question and explicated three main research objectives. I wanted to find out if there was a particular perspective of knowledge in KM and the rhetorical processes that

underpinned it. Specifically, I wanted to find the rhetorical motivation for the 'knowledge hierarchy' and the possible aspects of knowledge that were ignored or omitted in KM theory. As such, I turned to rhetoric and rhetorical criticism for a methodological way forward.

I briefly traced the history of rhetoric and the place of Kenneth Burke in rhetorical studies. I explained Burke's theory of logology and outlined the principles that contribute to 'cluster analysis'. Other important principles such as perfection and order, identification and 'negative' theory were also highlighted in chapter three. In chapter four, I adapted and expanded the approach to cluster analysis and named it 'embedded cluster-agon analysis'. I also noted some of the limitations of Berthold's (1976) 'cluster-agon' approach and adapted 'scriptive reading' to help address some of the limitations. I then delineated the process of text selection and listed the six articles that were to be analysed.

The analysis was carried out in chronological order and each text was subject to three levels of reading as indicated in the method chapter. The point of focus was the concept of knowledge as portrayed by the various authors. As the concept of knowledge is abstract, metaphors were often used to describe 'knowledge'. These metaphors were 'clustered' according to their figurative meanings and examined for links and connotations. An agon analysis was conducted in relation to the clusters, after which a reflexive reading was presented as well. From the analyses, 18 clusters and seven agons were derived. These clusters and agons were then compared and contrasted with each other across the six articles and further analysed according to 'cluster-groups'. The findings were then examined in the light of logology and its main tenets.

The logological approach to textual analysis revealed several important aspects of KM theory. Firstly, it showed that the concept of knowledge as a physical entity had been rhetorically 'perfected' and the notion of collective knowledge had taken its place. The importance of collective knowledge to KM theory was revealed to be under girded by a deep-seated belief in the efficacy of collective knowledge. This belief unites and sustains the predominantly positive view of knowledge presented in KM theory. However, in order for such a perspective to be maintained, less positive aspects of knowledge had been ignored and omitted from KM theorising.

In the process of maintaining positive perceptions of 'knowledge', the individual, as portrayed in the literature, was reduced to an exploitable entity in the drive to manage knowledge. The reification of knowledge and the de-personification (Jackson & Carter, 2007) of individuals to a 'resource' moved towards justifying the mechanical and technological methods promoted by KM. Such a finding suggests that KM theory has to a large extent avoided moral and ethical concerns in the management of knowledge. The consequence of uncritically applying established methods of knowledge management result in what Garrick and Clegg (2000) have already observed: oppression, manipulation and exploitation. Hence, the 'dark side' of knowledge needs to be accounted for in theory and practice and, to that end, I concur with Bowles (1991) that dealing with 'shadows' is something which must be addressed. However, I am also conscious that the rhetorical impulse to 'perfect' knowledge is difficult to resist. In this regard, I hope my research has offered some means to move away from the established path.

A methodological contribution

The method of 'embedded cluster-agon' analysis is a unique method of text analysis in management studies and I believe it can be applicable across disciplines as all texts are essentially rhetorical (Carter & Jackson, 2004). It

was particularly useful for revealing embedded assumptions which previous applications of the method did not cover. I also adapted Monin's (2004) method of scriptive reading to enable a broader reading of the texts. Together they present a clear method of text analysis that accounts for dominant and underlying meaning in texts. It also puts into operation the principles of logology in a substantive way.

Embedded cluster-agon analysis starts from ground zero. It does not assume that the reader has some previous knowledge of the text and allows the reader to approach separate texts with a consistent method. The three levels of reading provided by 'scriptive reading' supply a framework for the cluster and agon analyses, and the reflexive reading in particular adds another layer of transparency to the process of text analysis. This approach to reading is just one among many approaches that have already been established but it was selected to complement the method that I sought to develop.

In embedded cluster-agon analysis, the formation of clusters based on literal, figurative *and* embedded meaning takes it beyond the reductive counting of images and schemes (Rueckert, 1982) that limited earlier applications of 'cluster-agon' analysis (Berthold, 1976). The significance of agons is also given more attention in my method of analysis as subtexts are emphasised. I am aware that the method relies on interpretive approaches to texts and I have endeavoured to make the process transparent so that anyone who wishes to do the same can derive their own interpretations. In this regard, I follow the poststructuralist argument that the construction of order or meaning by people is what finally 'makes sense' and becomes 'real'. Hence, my method of rhetorical analysis acknowledges the subjectivity we bring to the writing of texts and offers a way of shedding light on the embedded assumptions inherent in texts.

This 'light' I proffer is by no means a powerful beam or a bonfire. It is but a spark I have ignited on one aspect of the body of learning that is KM and this thesis is the methodology's first trial. Yet any measure of light is intensified by its surrounding darkness and I hope that the methodology I have laid out kindles some reflection on the darker aspects of KM.

A rhetorical contribution

Finally, I turn to rhetoric. In common usage, the word 'rhetoric' often means 'false' or 'without substance'. Despite the pejorative sense which it has acquired in popular usage, there is, I believe, an intuitive awareness that rhetoric possesses a power to affect behaviour. Burke (1969), for example, says that rhetoric is 'the use of words by human agents to form attitudes or to induce actions in other human agents' (in Foss, Foss & Trapp, 2002, p. 191).

It is this power through words to induce actions that often raises the accusation of manipulation and deceit. Yet, as Aristotle has pointed out, it is not rhetoric that is manipulative or deceitful but humans who use or abuse it. Fish (1995) adds that 'properly used, rhetoric is heuristic, helping us not to distort the facts but to discover them; the setting forth of contrary views of a matter will have the beneficial effect of showing us which of those views most accords with the truth' (p. 125). In revealing what KM theory has ignored in terms of the concept of knowledge, rhetoric has helped us discover the extent of KM's 'omission' and the ethical concerns that have been suppressed along with it. As a consequence, we are made more aware of the choices before us as organisations attempt to 'manage knowledge'. Where other critical studies have prompted more reflective managerial practices (Reynolds, 1998), I hope that my study will, in part, encourage the same in KM.

Burke (1969b, p. 50) reiterates the importance of choice. He says that 'persuasion involves choice, will; it is directed to a man only insofar as he is *free*' (author's emphasis). In other words, if rhetoric is manipulative and deceitful, it is only because man (or the addressed) has allowed himself to be so. In the same way, man can respond by not resisting the dominant 'message'. However, he can only do so if the choices are apparent and rhetorical analysis allows us to be aware of the choices we make.

In this regard, Foss, Foss and Trapp (2002) liken rhetoric to 'equipment for living' because 'rhetoric is a rhetor's solution to perceived problems' (p. 194). Hence, like a chart, formula, map or manual, rhetoric provides an audience with something they can consult before deciding on a course of action. Perhaps more fundamentally, if truth for the individual is negotiated and experienced in context, then the expression of that truth is often rhetorical. As McCloskey (1985) has demonstrated, even when individuals (economists in McCloskey's case) do not consider themselves rhetorical, their use of language is rhetorical because language is not neutral (Fish, 1995). Hence, rhetorical strategies need to be detected and critiqued.

Rhetorical theory, for example, 'examines and lays bare for critique the expectations or prejudices of a discursively constituted audience' (Charland, 1999, p. 467). In addition, rhetorical criticism has 'contributed a wealth of concrete and very specific analyses of the workings of the discourses of 'good reasons' that have marshalled or undermined consent at particular historical moments (p. 471). Thus, rhetorical theory looks at language-in-action: its creation, deployment and its effects. As we have seen in KM, rhetoric has a very strong effect in sustaining a particular view of knowledge. Without a rhetorical perspective, the processes maintaining such 'collusion' would have remained invisible.

The rhetorical perspective that I have endeavoured to present in this thesis is naturally limited. The six texts that have been analysed represent only a slice of the literature available on KM. Nevertheless, they present a snapshot of the various perspectives of the concept of knowledge in KM. The interpretation of the texts is naturally subjective but as the methodology and method have outlined, I have endeavoured to make the process clear and transparent. Even as I have sought to answer my research question, I know it is not the only answer possible. Instead, I hope it opens up other areas of research in KM and rhetorical studies and the interesting places in between.

Future directions

As CMS has advocated:

Critical management research should expose the constructed and political nature of taken-for-granted knowledge and practices promoted by dominant groups in organisations as well as in mainstream management research. In order to do so, it should uncover hidden assumptions and give voice to marginalised groups (Fournier, 2002, p.176).

It is within this critical context that I have sought to uncover the hidden assumptions in KM and highlight the unexplored concepts of knowledge. In this respect, there is scope for theories that could account for less positive aspects of knowledge in KM. Given that mainstream management theory already acknowledges the presence of deviant behaviour, resistance to change and even violence in organisations (Robbins & Judge, 2008), theorising the 'dark side' of knowledge has a place in the wider scope of management theory. The various notions associated with 'knowledge' are also worth further consideration. For example, the concept of 'value' and its definition in monetary terms can and should be contested. Similarly, the place of collective knowledge in the wider literature of KM can also be further explored as well as its place in other disciplines and discourses.

Another concept alluded to in the literature review that is associated with collective knowledge is learning. The research surrounding organisational learning in management studies is another possible area for critical research. The article by Contu, Grey & Ortenblad (2003; Contu & Willmott, 2003) has problematised the concept of learning and a rhetorical analysis of 'learning' would surface more unspoken assumptions about the efficacy of learning. In terms of 'knowledge' reaching 'perfection', the extent to which learning and knowledge is connected in KM theory would be an indication of how much closer it is to reaching its entelechial end.

Having mentioned an 'entelechial end', I am reminded of the unresolved search for a 'god-term' and the prospect of 'wisdom'. In the article by Bierly, Kessler & Christensen (2000), the authors consider learning, knowledge and wisdom in the organisation. They argue that 'wisdom management' is the way of the future and the combination of these three lofty, desirable concepts is simply the way forward. Such unproblematic renderings of complex concepts trouble me and although I have posited a possible explanation via rhetoric, I also recognise that the quest to define 'perfection' in 'god-terms' is complicated by its inherent 'rotteness'. As Rueckert has mentioned, in reaching for perfection, there is no 'logic of morality' (1982, p. 256); just the rhetorical drive to arrive at its logological 'end'. If 'wisdom management' takes a similar trek to that which the concept of knowledge has taken in KM, what would be its 'negative' and how would it be sacrificed? If 'wisdom' is a 'god-term', at which point would it turn? If not, what could it potentially point towards? These are questions that I continue to wrestle with and I anticipate no easy answers.

Finally, the embedded cluster-agon method of analysis is probably the area I want to refine and apply to other topics in management in the near future. It is a method that allows me to cross disciplines in a consistent and coherent

manner and the opportunities this presents are both terrifying and exciting. Out of the many theories that Burke has published, only dramatism is possibly well known in management studies. Even for those who have read his theories closely, such as Rueckert and Berthold, Burke's writing is considered ambiguous and vague. Nonetheless, I find Burke's arguments thought provoking and his methods unique. Perhaps it was never his aim to provide concrete solutions but to incite exploration and discovery. To that end I am inclined to proceed.

With this in mind, I bring this particular piece of research to a close. As those who have gone before me have said, the critical endeavour is ultimately worthwhile (Fournier & Grey, 2000; Walsh & Weber, 2002) and I look forward to that which is ahead.

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APPENDICES

APPENDIX ONE

Selection of texts

As I mentioned in chapter two (pp. 94-97), I was looking for texts that represented dominant thinking in KM. In addition, I wanted texts that were focussed on the concept of knowledge as they would potentially provide rich rhetorical 'data'. The longitudinal positioning of the texts was also important as logology is concerned with patterns and themes that emerge over time. In many ways I was searching for texts that would be sufficiently robust to accommodate the intense analysis they would be subjected to. Thus the process of text selection I am about to detail was not a linear sequence of decision-making. For instance, even as I searched online databases, I was also combing through books borrowed from the library. The account given in the following section is my attempt to make transparent the decisions I made with regards to text selection and my reasons for making them. The final selection of six texts from one journal and was not pre-empted or predicted and I intend to explain it as follows.

According to Serenko and Bontis (2004), the foundational texts in KM were authored by Nonaka and Takeuchi (1995), Davenport and Prusak (1998) and Stewart (1997). However, these texts only represent a brief, albeit seminal, period of KM theorising. Moreover, these texts have been closely analysed by other scholars (Andriessen, 2006; Jorgensen, 2006; Li & Gao, 2003) and I did not wish to replicate their study but rather build on their findings, particularly the work of Andriessen on the common metaphors found in the seminal texts. In addition, I had a few concerns analysing these texts for academic purposes. Firstly, given the depth of analysis I wanted to conduct, the length of each book would have made the task daunting. It would also have severely limited the number of texts I could analyse. Secondly, books

are not necessarily reviewed or as rigorously examined as material published in accredited academic journals (for example). As the texts I selected would form the basis of my analysis, I wanted texts which would not be dismissed by members of the academic community for lack of credibility. Thirdly, popular books usually emphasise practice and not theory which was my focus. Having said that, apart from Stewart who was from a journalist background, the other four authors are active in research and publication. Nevertheless, I decided to move away from books and looked to other forms of publication of KM theory. One of the options was to select texts from established academic journals.

As Gu (2004) has indicated, the most prolific sources of theory that have been published can be found in academic journals. Within the range of journals available, Information Technology (IT) and management studies were shown to be the highest producers of articles on KM (Hazlett, McAdam, & Gallagher, 2005). Any journals not published in English were not considered as I could not determine their content.

As my thesis was to be located within the field of management studies, I started a search in management related journals. There were many journals to choose from so I began with the rankings provided by Tahai and Meyer (1999) and Werner (2002). Tahai and Meyer produced a list of 65 top journals in management based on the proportion of citations these journals accounted for. I compared their list to Werner's list of the top 20 journals in management. Unsurprisingly, many of the journals were similar. For example, the *Academy of Management Journal*, the *Academy of Management Review* and the *Administrative Science Quarterly* were the top three journals on both lists. Other similar titles had slightly different rankings and where they differed, I leaned on Werner's rankings as it was more recent. Journal titles

that were not on both lists were omitted as I wanted a list that was generally in agreement. The outcome was as follows:

1. *Academy of Management Journal*
2. *Academy of Management Review*
3. *Administrative Science Quarterly*
4. *Human Relations*
5. *Industrial and Labour Relations Review*
6. *Industrial Relations*
7. *Journal of International Business Studies*
8. *Journal of Management Studies*
9. *Organizational Behaviour and Human Decision Processes*
10. *Strategic Management Journal*

The above titles were ostensibly journals in the field of management and I assumed that KM would feature in their articles. Utilising three major electronic databases, ISI Web of Science, EBSCO Business Source Premier and Proquest 5000, I did a search based on the following delimiters: all text 'Knowledge Management', full text articles, January 1997 – December 2006. The results were far smaller than I anticipated. For example, *the Academy of Management Journal* had 50 articles of which only 4 were potentially suitable because they had the keywords 'Knowledge Management' in their abstract. These 4 articles commented on KM but not the concept of knowledge.

Similarly, the *Academy of Management Review* had 33 hits of which only 3 were close to my criteria. Upon closer reading, even these articles proved to be unsuitable because they were not concerned with the concept of knowledge. Furthermore, journals such as *Industrial Relations Review* and *Industrial Relations* did not even broach the topic of KM.

Therefore it seemed that relying on ranked journals would not produce a wide selection of articles. Moreover, I noticed that many of the ranked journals were published from the United States of America. I felt this was somewhat unbalanced in terms of perspective and wanted to avoid selecting articles from a narrow geographic region. Hence I increased the search range to include all management and IT journals accessible to me on the databases that were available, but with a more specific focus on the concept of knowledge.

There were many terms that were associated with the concept of knowledge under which I could have searched such as 'tacit knowledge', 'explicit knowledge', 'data', 'information' and so on. It proved to be rather unwieldy to search on those terms as different databases allowed for specific ways of searching (Google scholar was not operational at that time). I sought to narrow down the number of terms that I could use such that it would not matter which database was being utilised. In this respect, I turned to the knowledge hierarchy as a possible focus.

According to Rowley (2006), the knowledge hierarchy is a central model in KM that brings together the multiple definitions of knowledge in KM. She says that this hierarchy can be expressed explicitly in the form of a pyramid or implicitly in the definitions that various authors provide. If so, articles that examine this hierarchy would most likely be most conscious of the concept of knowledge. I then conducted a search based on terms such as the

‘knowledge hierarchy’, ‘information hierarchy’, the ‘knowledge pyramid’ or the ‘DIKW hierarchy’ (i.e. data, information, knowledge, wisdom). The results were as follows:

Database	Search terms	Category
Web of Science Hits: 26	Knowledge hierarchy or Information hierarchy or Knowledge pyramid or DIKW	In: Topic Timespan: All years
Business source premier Hits: 107	As above	In: All text, journal articles only
Proquest 5000 Hits: 30	As above	In citations and abstracts, journal articles only

Sifting through the hits, the following articles were selected as potential texts to be analysed as they were narrative-rich and seemed to provide a chronological account of the knowledge hierarchy. Texts that were heavily quantitative were omitted as there is a limit to what can be derived from a text analysis of graphs, charts and equations. Hopeful that I had finally found a range of articles I could work with, I compiled the following list.

Year	Author, Title	Source
2007	Rowley, J The wisdom hierarchy: representations of the DIKW hierarchy	Journal of Information Science
2006	Hicks, R., Dattero, R. & Galup, S. The five-tier knowledge management hierarchy	Journal of Knowledge Management
2004	Braganza, A Rethinking the date- information-knowledge hierarchy: Towards a case- based model.	International Journal of Information Management
4 year gap		
2000	Bierly, P. E., Kessler, E. H., & Christensen, E. W.	Journal of Organizational Change Management

	Organizational learning, knowledge and wisdom.	
1999	Tuomi, I Data is more than knowledge: Implications of the reversed knowledge hierarchy for knowledge management and organizational memory.	Journal of Management Information Systems
10 year gap		
1989	Ackoff, R From data to wisdom	Journal of Applied Systems Analysis
1987	Zeleny, M Management support systems: Towards integrated knowledge management	Human Systems Management

Several points of discussion were raised in consultation. Firstly, the focus on the knowledge hierarchy meant that other potential concepts of knowledge not associated with the hierarchy would be missed. Secondly, the chronological span of the articles had problematic gaps such as the gap of about 10 years between the earliest published references to the knowledge hierarchy and the next available article and a 4-year gap further on. A logological analysis required a far more consistent range in terms of longitude. There was also a concern that the journals seemed to favour an IT rather than management perspective.

I turned therefore to consider journals that related more directly to KM such as the *Journal of Intellectual Capital* or the *Journal of Knowledge Management*. At this point I determined that searching within one journal would provide the consistency over time, and that the more I searched, the more that became increasingly significant to my developing methodology. I returned to the other journals mentioned in Tahai and Meyer (1999), Werner (2002) and Serenko and Bontis (2004) since their lists implied that the journals were academically acknowledged. I looked up journals such as *Knowledge*

Management Research & Practice, Knowledge and Process Management, MIS Quarterly and *Knowledge Management Review* in addition to the two mentioned above. Most of the journals did not have at least 10 years of publication partly because KM as field is still in development. However, it was important to have a similar time span so as to parallel the growth of KM theory. Those journals which did have a sufficient length of time, such as *MIS Quarterly*, had a more technical focus. After much consideration, I settled with the *Journal of Knowledge Management*. It is a ranked journal with ISI Thomson and one of the best on KM according to Serenko and Bontis (2004). It was thus appropriate for the analysis I wished to carry out.

I was aware that one journal did not represent the shape and scope of KM. It was not my intention to generalise my findings to the entire field of KM but to examine in detail the complexity of the concept of knowledge and to pilot the method of rhetorical analysis I was developing. In this respect, what I required was a microcosm of the field of KM. The *Journal of Knowledge Management* reflected the development of KM over 10 years (Gu, 2000) and it contained the diversity of theories and opinions that Serenko & Bontis (2004) had observed. In addition, the journal did not seem to have any dominant group of contributors from any particular geographic region and it encouraged theoretical, practical and technical papers. It was in essence a snapshot of the dialogue in the wider KM community which the literature review covered.

Having selected the *Journal of Knowledge Management*, I went through the process of sifting through each issue in the journal the details of which are mentioned on p. 96. The initial list that I arrived at contained 7 articles which were:

1.	1997 Wiig, K	Knowledge Management: An introduction
2.	1999 Beijerse, R	Questions in knowledge management
3.	2000 Garrick & Clegg	Knowledge work and the new demands of learning
4.	2003 Styhre, A	Knowledge management beyond codification
5.	2006 Hicks, Dattero & Galup	The 5-tier KM hierarchy
6.	2007 Hicks, Dattero & Galup	A metaphor for KM
7.	2008 Smedlund, A	The knowledge system of a firm

The note that I made to myself was that since articles 5 and 6 had the same authors and the same focus, I intended to read the articles as a one larger piece. However, after reading the two articles very closely, there were so many similarities (such as the introduction being repeated in both articles) that I decided to just analyse one. I choose the 5-tier KM hierarchy largely because the knowledge hierarchy was a point of interest that had surfaced in the literature review.

Another potential problem cropped up when I read through the second article by Berjerse. Firstly, the article had hints of being a translation. For example, quite a few of the references were listed in Dutch and some of the sentence constructions were awkward in English. I did not think that Burke's methodology was particularly suited to texts other than those written in English. I needed to select an article that was not a translation. Thus, I went back to the journal and looked at articles within the same year and which

were a fit with the conditions that I mentioned earlier and narrowed down the replacement to an article by Patrick Sullivan from USA titled 'Profiting from intellectual capital'.

In summary, the final list of six articles from one journal was the result of a search for narrative-rich text that reflected the discussion of theory of the concept of knowledge in KM. The process of selection was more of a balancing act than a linear task of collection and elimination. The search considered a range of KM texts published in English and was consequently limited to peer-reviewed journals. Searching within highly ranked journals in the field of management did not produce many potential texts for analysis. The range of journals was thus widened. Search terms also had to be expanded and limited in order fulfil the requirement for sufficient texts across a 10-year period. Even when the search was limited to one journal, adjustments had to be made to prevent potential pitfalls in the analysis of the texts. Nevertheless, I believe the six articles finally selected provided a snapshot of theorising in KM particularly around the concept of knowledge.

APPENDIX TWO

The etymology of knowledge

Knowledge as it is currently defined in its noun form contains two distinct elements. Firstly, as it pertains to an individual, it refers to the 'information and skills acquired through experience or education' (The Concise Oxford English Dictionary, 2004). Secondly, it refers to 'the sum of what is known' such as learning, scholarship or as indicated in philosophy, that which is 'true, justified belief, as opposed to opinion' (The Oxford American Dictionary of Current English, 1999). The word 'knowledge', however, did not start out as a noun but as a verb.

According to The Concise Oxford Dictionary of English Etymology, the earliest recorded use of 'knowledge' (Knaulage) occurred in the 13th century and it held the meaning of 'confession; fact of knowing, acquaintance' (1996). The general use *knowleche* was probably formed on the Old English use of *cnaaw* which was used as a verb form, as in 'to acknowledge' or 'recognise'. Hence to be 'knowledgeable' grew out of know (*cnaawan*) + can (*læ*) which meant 'recognizable' in the 17th century and only later did it take on the meaning of 'well informed'. This verb form of knowledge, though less used nowadays, is still significant in KM. But before moving on, other historical influences on the word 'knowledge' need to be mentioned as well.

In the fourth to fifth century B.C., Saint Jerome translated the Bible into Latin (A Dictionary of the Bible, 1997). The Old Testament, which was in Hebrew, and the New Testament, which was in Greek, became one document and it gave the impression that the Bible was a seamless account of prophecies and events. The translated word 'knowledge' therefore carried with it the Hebrew and Greek, as well as the Latin connotations.

For example, the Old English use of the word 'knowledge' (as a verb) and its link to 'confession' was probably influenced by the Bible. 'Confession' in essence meant the acknowledgement of guilt or faith (ibid.). Furthermore,

in the Bible knowledge is not merely intellectual apprehension. It includes the emotions and personal relationships. Israel has a knowledge of God denied to other nations (Jer. 10: 25; Isa. 37: 20), and Moses is said even to know God face to face (Deut. 34: 10). Among human beings sexual relations are spoken of as 'knowing' each other (Gen. 4: 1; Luke 1: 34, AV, NJB) and Hosea uses this language of intimacy to describe God's feelings for Israel (Hos. 4: 1–2) (A Dictionary of the Bible, 1997).

In Hebrew, knowledge is translated from *daat*. Closely associated to it are two other words, *hokhmah* and *binah*, which refer to wisdom and understanding respectively. Wisdom is often considered the greatest of the three.

In Hebrew, the word *hokhmah*, usually translated as 'wisdom', is used in Jewish literature, in a variety of ways, to denote mental processes and intellectual attitudes. In the Bible the word often means 'skill'.

In everyday Jewish use *hokhmah* denotes wisdom of a deeper quality than mere cleverness. The *hakham* is not a clever know-all but a man capable of penetrating into the depths of the human situation and of seeing things as a whole (A Concise Companion to the Jewish Religion, 1999).

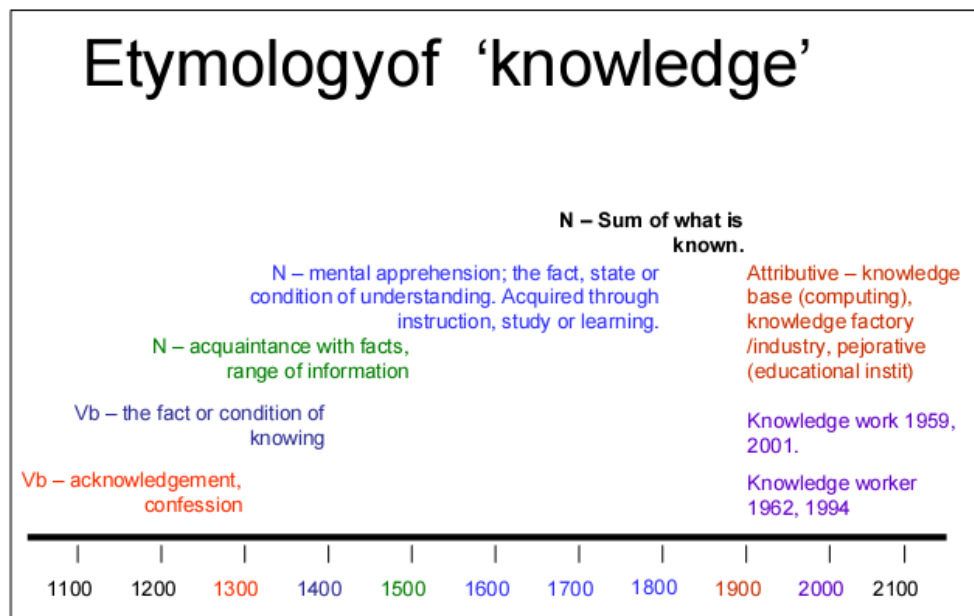
Similarly in the Greek, wisdom as in *noesis* is the highest type of knowledge. According to Plato, this wisdom is acquired only by those who understand the nature of knowledge, justice or goodness (The Oxford Dictionary of Philosophy, 1996). Other forms of knowledge were *gnosis*, spiritual knowledge, *dianoia*, technical knowledge, and *epistme*, theoretical knowledge.

As with the Greek and Hebrew languages, 'knowledge' was also divided up into different types in Latin. The highest form was *noscere*, which means 'to come to know (someone)' and connotes emotional and relational intimacy. Knowledge gained from learning was *scientia* or *experientia*, and *gnarus*

referred to ‘being knowledgeable’ (The Concise Oxford Dictionary of English Etymology, 1996).

Hence by the time the earliest use of ‘knowledge’ was recorded in English in the 13th century, other languages had already influenced its meaning. The verb form was certainly the first recorded use, but its move to a noun form is still unclear as to when and how (ibid.). By the 15th century, the noun form was beginning to take precedence and with the age of enlightenment, knowledge became ‘the sum of what is known’. From there, attributes were derived such as ‘knowledge base’, ‘knowledge industry’, ‘knowledge work’ and ‘knowledge worker’ (Oxford English Dictionary Online, 1989). Figure 7 below summarises the etymology of knowledge.

Figure 7: Timeline by centuries showing the etymology of knowledge.



The etymology of knowledge thus highlights the dual nature of the word knowledge. When applied to the literature in KM, it helps to explain some of the assumptions about knowledge. For example, the influence of Greek,

Hebrew and Latin provides a clue to how the knowledge hierarchy has been formed. How or why wisdom has been deemed 'higher' than knowledge is not recorded in KM, but etymology has shed some light upon it. Etymology however does not account for why the hierarchy was developed in the first place.

One can also see how an understanding of knowledge as data and information happens when the noun form of 'knowledge' is used. Similarly, using the verb form of knowledge lends itself to the perspective of 'knowledge as a process' or learning.

From the verb form of knowledge comes a perspective of knowledge as tacit and process driven. The nature of knowledge as well as the social context within which knowledge is made meaningful is also a part of the literature in KM.

The verb form of knowledge is more prevalent in theories related to individual and organisational learning. The notion of 'process' is a strong focus as well as the social groups that make such learning happen. From this perspective, knowledge is seen to be better managed through communities rather than just technological systems. Thus, like two sides of a coin, both noun and verb forms of knowledge exist within KM.

APPENDIX THREE

Guru of gurus: Peter Drucker, logology and the ultimate leader

The following pages are a reprint of the article titled above from the *Journal of Management Inquiry*.