

# Metaphor use in Knowledge Management

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## INTRODUCTION

Knowledge management is about the management of knowledge. Therefore many texts on knowledge management (KM) start with trying to explain or define what knowledge is (Nonaka & Takeuchi, 1995; Krogh, Ichijo, & Nonaka, 2000; McKenzie & Van Winkelen, 2004). As the history of epistemology shows, this debate is over 2000 years old. Some claim the debate is crucial for knowledge management, and they make a clear distinction between data, information and knowledge (Butler, 2006). Others state that it is “not essential to the fundamental mission of knowledge management” (Schwartz, 2006, p. 10). This article argues that for KM it is not important how knowledge is defined but how it is conceptualized.

The way we think and talk about knowledge when practicing knowledge management is determined by the conceptual structure we have in our brain for the idea of knowledge. Following Lakoff and Johnson (1999), we argue that this conceptual structure is formed by metaphor. The metaphors we choose for knowledge in our KM endeavors determine what we identify in organizations as knowledge related problems and what we see as solutions. For example, many knowledge management approaches advice companies to “acquire” knowledge, make an “inventory” of it, “store” it, and “distribute” it. What is important to see is that knowledge is not literally acquired and stored. After all, you cannot see it and you cannot grab it and put it in a container. A knowledge inventory is not literally an inventory like the inventory of a warehouse. And distributing knowledge is not literally distributing it like you would distribute food or supplies. These words are all used metaphorically and they make sense to us because they are based on the Knowledge As A Resource metaphor. Resource metaphors are very common in human thought. We use the Time As A Resource metaphor often, for example when we say 'I got plenty of time ', 'that took three hours', 'he wasted my time' or 'this will save time'.

The choice of knowledge metaphor is often not a conscious decision. Metaphors are part of the conceptual systems in, what Lakoff and Johnson refer to as, our ‘cognitive unconscious’. “Most of our thought is unconscious, not in the Freudian sense of being repressed, but in the sense that it operates beneath a level of cognitive awareness, inaccessible to consciousness and operating too quickly to be focused on” (Lakoff & Johnson, 1999, p.10). However, for KM practitioners and scholars it is important to become aware of the metaphors they use for knowledge because these knowledge metaphors are like a search light highlighting certain aspects of organizational reality and hiding others. When we are aware of our knowledge metaphors we can begin to deliberately vary the metaphors in order to broaden our view, see new things, and discover new solutions.

This article first describes the role of metaphor in human conceptualization and then provides an overview of knowledge metaphors found in KM literature. It concludes with suggestions for future use of metaphor in KM practice and research.

## BACKGROUND

Metaphors play an important role in theorizing about organizations (Grant & Osrick, 1996). Some authors argue that metaphors should be avoided in organizational theory (Bourgeois & Pinder, 1983; Tinker, 1986). Others see metaphors as valuable creative tools for developing new theories and insights (Weick, 1989). Morgan (1997) has shown that many theories about organizations can be

"reordered" (Keenoy, Oswick, & Grant, 2003) into a particular metaphorical view of organizations, showing the metaphorical bases of organizational theorizing. Lakoff and Johnson (1980; 1999) go even further, presenting evidence from cognitive science indicating that metaphors are inescapable because they are the basis for abstract reasoning. Metaphors are conceptual by nature and feed and structure abstract thought (Lakoff & Johnson, 2003). For example, as such the concept of "knowledge" is empty. It is by unconsciously applying the metaphor of Knowledge As Resource that it makes sense to talk about knowledge as being "valuable", "scarce", or as something that can be shared, stored or distributed, or that can be put in a "warehouse". These attributes (valuable, scarce), verbs (to share, to store or to distribute), and nouns (knowledge warehouse) aren't used literally, yet they make sense because the underlying conceptual metaphor of Knowledge As Resource is familiar to us. At the same time we use other metaphors to conceptualise knowledge, such as Knowledge As An Organism. This metaphor enables us to conceptualize knowledge as something that can "grow" or needs to be "nourished".

Lakoff and Johnson (1999) introduce the idea of *primary metaphors* that help to conceptualise subjective experiences using mental imagery from the sensor and motor functions of our body. For example, we use the sensorimotor experience of affection as warmth (the warm body of our affectionate mother in our childhood) as the source domain when we conceptualise the subjective experience of a relationship (the target domain) as a "warm" relationship. Lakoff and Johnson claim that we do not first decide what characteristic of a phenomenon to highlight and then pick our metaphor, but that the metaphor allows us to bracket (Weick, 1995), or highlight, certain characteristics that would not be possible without metaphor. Primary metaphors go before language and help to conceptualise our experiences. The use of primary metaphors is part of the unconscious mental operations concerned with conceptual systems, meaning, inference, and, in the end, language. This leads Goatly (Goatly, 2007) to conclude that metaphors reflect hidden ideologies and unconsciously "wash our brain". How is our brain washed by metaphors in knowledge management?

## **METAPHORS FOR KNOWLEDGE**

We can recognize the unconscious and conceptual use of metaphor in knowledge management because it shows itself in the non-literal use of certain nouns, verbs and adjectives related to the core concept of KM theory: knowledge. Therefore, the conceptual use of metaphor in knowledge management can be analysed looking at KM texts. In KM, many different source domains are used to conceptualize knowledge through metaphor. Andriessen (2006) identified 22 different metaphors for knowledge. Three of those are dominant in Western KM literature: The Knowledge As A Resource, Knowledge As Assets, and Knowledge As Property.

### **Knowledge As A Resource**

The Knowledge As A Resource metaphor uses the source domain of resources to help us reason about knowledge. Many attributes of resources are used to reason about knowledge. Knowledge is used in production, it is adding to the production process, it can be stored and shared. One can talk about "an amount of knowledge", and the metaphor allows knowledge to be placed in a view that considers organizations as an input/output (logistical) system. In the English language, some characteristics of resources in the source domain are not used in the target domain of knowledge, like the "size" or "weight" of knowledge. At the same time some characteristics of knowledge are not covered by the resource metaphor, like the non-rivalry and non-additiveness of knowledge (Lev, 2001) and the tacitness of knowledge. To highlight these characteristics of knowledge we need other metaphors. The use of this a resource knowledge metaphor is not without consequences. Through the Knowledge As Resource metaphor, knowledge becomes part of a logistic discourse about organizations, which is often dominated by people in organisations focussing on ICT, on processes optimization, or quality management. The resource metaphor endorses a particular view on knowledge in which knowledge

related problems are often seen as problems related distribution (the knowledge is not at the right place at the right time). This view highlights solutions that often have to do with storing, sharing and distributing knowledge, often with the help of ICT.

### **Knowledge As Assets**

The Knowledge As Assets metaphor uses the source domains of assets to help us reason about knowledge. Several attributes of this accounting term are used including that knowledge can be controlled by the enterprise, generates future economic benefits that flow to enterprise, is identifiable, that its costs can be measured, that it is used in production, and deserves a place in the reporting system of the enterprise. Through the Knowledge As Assets metaphor, knowledge becomes part of an accounting discourse about organizations, which is often dominated by people in the organization that are concerned with management information, planning & control, and reporting. The assets metaphor endorses a particular view on knowledge in which knowledge related problems are often seen as problems related to a lack of control and of management attention (knowledge is not identified in the regular management information and therefore does not receive the attention from management that it deserves). This view highlights solutions that have to do with measurement, often based on the reasoning that “what can be measured can be managed”. The intellectual capital movement that was started in the mid-1990’s by people like Sveiby (1997), Edvinsson (Edvinsson & Malone, 1997) and Stewart (1997) advocates the inclusion of knowledge in measurement systems of organization and is in part inspired by the Knowledge As Assets metaphor.

### **Knowledge As Property**

The Knowledge As Property metaphor makes it possible to use knowledge in the legal discourse in organizations, often dominated by the legal department of an organization. This metaphor allows us to reason about the ownership, value and exclusiveness of knowledge. It highlights the legal rights aspects of knowledge, its transferability and the options to commercialise it. The property metaphor endorses a particular view on knowledge in which knowledge related problems have to do with appropriating and legally protecting knowledge. This view highlights solutions that are often based on Intellectual Property Rights (IPR), including the licensing of knowledge.

### **Non-reification metaphors**

These three metaphors for knowledge can be seen as reification metaphors as they are all based on source domains that are concrete “stuff”. Knowledge is conceptualized as a thing (Zhu, 2004) or a substance. This ‘thingification’ (Gustavsson, 2001) or ‘reification’ (Petrovic, 1983) is not uncommon in management thinking. Gustavsson (2001) shows that terms like ‘organization’, ‘globalization’, and ‘technology’ are also examples of phenomena that are ‘thingified’. Thingification makes it possible to treat a phenomenon as something objective outside of human beings and to manipulate and control it. In contrast with reification metaphors are non-reification metaphors for knowledge. An example is the Knowledge As Thoughts And Feelings metaphor. This metaphor implies that knowledge is not like a substance that can be easily manipulated and controlled. Instead, knowledge is ‘tacit’ and resides in people’s heads and bodies. Hansen et al. (1999) use this metaphor in their person-to-person knowledge management strategy. According to Andriessen (2006) this metaphor is also dominant in the work of the Japanese authors Nonaka and Takeuchi (Nonaka, 1994; Nonaka & Takeuchi, 1995). This metaphor highlights that knowledge is not an object that exist inside or even outside the heads of knowers. This view of knowledge is propagated by people like Carl Bereiter (2002) who objects the idea of knowledge as the contents of a metal filing cabinet, or of Tom Butler (2006), who opposes a “foundational” view on knowledge in which knowledge can be represented objectively in documents and repositories. If knowledge is like feelings, then these feelings can be talked about but can never be

fully expressed in words. When they are made “explicit” the explication loses the experience of the feeling itself. In addition, a feeling is also more a process than a thing, which is in line with the formal definition for knowledge from Nonaka and Takeuchi (1995) who define knowledge as “*a dynamic human process of justifying personal belief toward the ‘truth’.*” (p. 58). They state that in the Japanese culture there is a strong emphasis on the tacit nature of knowledge, which is different from the Western view. The emphasis on tacit knowledge is the result of the Japanese philosophical tradition, in which the Cartesian split between subject and object has not been as deeply rooted as in Western philosophy. Another non-reification metaphor for knowledge is Knowledge As Light. It is common for us to relate knowing to seeing (“I see what you mean”) and therefore to conceptualize knowledge as light. For example, Plato’s idealist epistemology, reflected in his famous Allegory of the Cave, is based on this metaphor. The movement from ignorance to knowledge is depicted metaphorically as an ascent from darkness to light (Lakoff & Johnson, 1999). Related to this metaphor is the Knowledge As Wave metaphor that gives meaning to expressions like to generate, amplify, transmit or diffuse knowledge.

## FUTURE TRENDS

The more we become aware of the role metaphors play in the way we conceptualize knowledge in knowledge management theory, the more we need to research the impact this has on our KM approaches. The use of non-reification metaphors for knowledge will lead to a different view on knowledge-related problems in organizations from reification metaphors. Andriessen (Andriessen, 2007) reports about an experiment where a group of people was asked to diagnose their organization in terms of knowledge management. However, they were to do this using two different metaphors for knowledge: the Knowledge As Water metaphor (a reification metaphor) and the Knowledge As Love metaphor (a non-reification metaphor). The Knowledge As Water metaphor led to conversations that focussed on the lack of knowledge sharing within the organization and between the organization and the outside world. Using this metaphor, knowledge was seen as something objective, as a thing, that was not always at the right place at the right time, but locked up in people, departments, or the organization as a whole. With the Knowledge As Love metaphor, the conversation shifted quite drastically from knowledge to the quality of the relationships between members of the organization and between the organization and the outside world. The participants started to talk about relationships as a basis for their knowledge-intensive work. Using this metaphor, most statements referred to lack of personal attention, good-fellowship, the number and quality of relationships, and passion and enthusiasm in work. These are all important prerequisites for successful knowledge-intensive organizations. So, when the participants used a non-reification metaphor, the conversation moved from the topic of knowledge itself to the underlying preconditions for good knowledge work. A similar thing happened when the groups started to talk about possible solutions. The solutions that were proposed had to do with improving the quality of the collaboration within the organisation and the working conditions of the knowledge worker.

If the impact of knowledge metaphors on KM is this big, we may want to start a search for new metaphors that highlight knowledge characteristics that reification metaphors hide. For example, Bratianu and Andriessen (2008) propose the Knowledge As Energy metaphor, which highlights that knowledge is a field: “Knowledge is not anymore a set of puzzle pieces a student acquires during his studies, but an inner field of experiences, images, symbols, information, values, thoughts and feelings which is open toward the external spiritual field” (p. 2). Andriessen and Van den Boom (Forthcoming) suggest the Knowledge As A journey metaphor to highlight the process characteristics of knowledge as well as the importance of experiencing new horizons when creating new knowledge.

When we adopt non-reification metaphors in our discourse on knowledge management, knowledge is no longer a static “thing” but a continues process. Then we may even need to stop using the noun “knowledge” since a noun automatically refers to something static, while we want to emphasize the process. Mark Johnson (2008) puts it like this: “But if we reduce meaning to words and sentences (or

to concepts and propositions), we miss or leave out where meaning really comes from. We end up intellectualizing human experience, understanding, and thinking, and we turn process into static entities or properties” (p. 11). For the same reason Savage (1996) prefers to speak about “knowledging” instead of “knowledge”.

## CONCLUSION

The metaphors we use in knowledge management theory and practice to conceptualize knowledge have a huge impact on how we diagnose the knowledge management situation in organizations and what we propose as solutions or improvements. As KM theorists and practitioners we need to become aware of the conceptual metaphors we use when reasoning about knowledge. We need to study the impact these metaphors have on the way we view the KM world, and we need to search for alternative metaphors that can help us see new knowledge related phenomena, problems and solutions in organizations.

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## **KEY TERMS AND DEFINITIONS**

### **Conceptual metaphor**

The cognitive mechanism that allows us to use conventional mental imagery from sensorimotor domains to be used for domains of subjective experience.

### **Entailment**

A characteristic of the source domain of the metaphor that is used in the target domain.

### **Knowledge metaphor**

A metaphor that maps characteristics of a particular source domain to the target domain of knowledge.

### **Source domain**

The domain that is used literal by the metaphor from which characteristics are mapped onto the target domain.

### **Target domain**

The abstract phenomenon that is structured and is given meaning by the metaphor.