Metaphors as Cognitive Devices in Communities of Practice

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INTRODUCTION

The role of language for knowledge creation in communities of practice (CoPs) and innovation teams has been stressed by the accounts of storytelling (Orr, 1996; Nonaka & Takeuchi, 1995). Stories work as metaphors connecting new problem situations with prior problem situations. They guide CoP members to arrive at new connections of prior unconnected knowledge domains within cognitive maps. Cognitive maps contain causal and temporal relations between cognitive concepts: “[Cognitive] maps portray causality, predicate logic, or sequences, all capture temporal relations: if this (in the now), then that (in the future)” (Weick, 1990, p. 1). New connections of knowledge domains brought about by metaphorical reasoning enable innovative problem solutions and serve as a ‘platform’ for new knowledge creation in the future. Thus, investigating metaphorical language usage promises to add value to the understanding of knowledge creation in CoPs.

BACKGROUND

Traditionally, the study of metaphors belongs within the study of rhetoric, linguistics, literature, cognitive psychology, and philosophy. Metaphors are “the outcome of a cognitive process that is in constant use—a process in which the literal meaning to a phrase or word is applied to a new context in a figurative sense” (Grant & Oswick, 1996, p. 1).

Metaphors are more than linguistic tools. Lackoff and Johnson (1980, pp. 5-7) state that metaphor is pervasive in everyday life, not just in language, but also in thought and action: “The essence of metaphor is understanding and experiencing one kind of thing in terms of another” (Lackoff & Johnson, 1980, p. 5). To speak metaphorically is to relate two entities (or terms) through the verb “to be” (or the copula “is”)—for instance, ‘an organization is a machine’ (Coyne, 1995). The consequences of such metaphorical utterances are of cognitive nature—metaphor is implicated in perception. During word processing for example, we actually see the computer screen as a sheet of paper. “Seeing as” is a fundamental act of perception (Goodman, 1978).

Accordingly, we are constantly engaged in metaphorical projections: we project one term, concept, or situation onto another (Coyne, 1995). A metaphor includes a primary and a secondary subject. In the metaphor ‘producing an integrated circuit (IC) by using chemical vapor deposition (CVD) is building a complex labyrinth by using Lego toys’, the primary subject is the ‘CVD-Method’ and the secondary subject is ‘Lego toys.’ The secondary subject is a whole system or a whole domain of elements in a cognitive map. Therefore, by relating a secondary subject domain to a primary subject domain, multiple comparisons, differences, and paradoxes can be discovered. However, it is important to stress that often the meaning of the secondary subject changes too. Thus, the knowledge subjects really interact in a sense that both concepts are given new or enriched meanings depending on context (Black, 1962).

FUTURE DEVELOPMENT AND CONCLUSION

Metaphor is a complex cognitive phenomenon that alters cognitive maps and therefore future action on the ground of a specific context. Metaphors are an “invitation to see the world anew” (Barret & Cooperrider, 1990, p. 219). Thus by using figurative speech in metaphorical statements, CoP members may generate knowledge that helps solve problems in actual practice.

Knowledge creation by further developing cognitive maps involves arriving at new classifications:
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