METAPHOR AND THE DYNAMICS OF KNOWLEDGE IN ORGANIZATION STUDIES: A CASE STUDY OF THE LEARNING ORGANIZATION

Theme: The Nature of Learning and Knowledge

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Abstract

The 'learning organization' metaphor has swept through the academic and professional discourses, and has come to be seen by many as ushering in something of a paradigm shift in organizational life. Yet, despite increased acceptance as a critical concept within organization studies, surprisingly little research has been conducted on the 'learning organization' as a metaphor and its subsequent career throughout scientific and extra-scientific discourses within the organizational field. Very little is known about the semantic and pragmatic changes that this metaphor has brought with it in both scientific and extra-scientific realms. This paper contributes to our understanding of the dynamics of knowledge in organization studies by (1) outlining the discursive role of metaphor in organization studies, and (2) critically reviewing through discourse analysis the genealogy of the 'learning organization' metaphor in scientific and professional discourses.

Introduction

In recent years, a number of academic commentaries (e.g. Easterby-Smith, 1997) have clearly located the emergence and appeal of the 'learning organization' (LO) metaphor in observations of the post-modern organizational landscape where material factors (i.e. structure, size, technology) have given way to ideational factors (i.e. culture, knowledge, learning) as purportedly driving the dynamics of contemporary organizational life (e.g. Reed, 1996). Ideational concepts as 'corporate culture', 'organizational identity', 'knowledge management' and indeed the LO have steeped within this Zeitgeist (see Barley & Kunda, 1992) indeed moved center stage within contemporary organizational thought and discourse. In the case of the LO, whilst a significant body of work has evolved in recent years (e.g. Easterby-Smith, 1997; Driver, 2002), little if any attention has been given to the nature of the LO *as a metaphor within and across discourses* (Argyris, 1999: 7). Very little is known about the semantic and pragmatic changes that this metaphor has brought with it in both scientific and extra-scientific realms, which is even more remarkable given the considerable interest in metaphor, discourse and narrative within academic research in recent years (e.g. DiMaggio, 1995; Elsbach, Sutton & Whetten, 1999).

For the purposes of this study, we therefore draw on published academic and practitioner interpretations of the LO metaphor and perform a discourse analysis with the intent of offering a comprehensive and operational account of the knowledge dynamics of this concept within and across academic and practitioner discourses. Given the importance attributed to the LO (and related concepts) by professionals and academic researchers alike, this paper aims to provide an enriched understanding of the way in which this concept is constituted and charged with meaning within scientific and extra-scientific discourses. This analysis contributes to our understanding of the role of metaphor as a 'messenger of meaning' within and between discourses; and illustrates how this discursive and linking role between discourses can be analyzed and studied. As such, the paper extends prevailing accounts of metaphor that only consider its theory-constituting role (Tsoukas, 1991; Oswick, Keenoy & Grant, 2002; Cornelissen, 2002), and, crucial from a theoretical perspective, outlines the differences and connections between both perspectives on metaphor. Moreover, the analysis provides a genealogy of the LO metaphor, eliciting its meaning within the academic and practitioner communities, in turn providing a conceptual foundation from where theory can be cultivated and research into this specific area can be guided. Third, in examining the

linkages between academic and practitioner discourses concerning one particular metaphor, the study explicitly examines the heavily debated yet hardly researched science-practice interface in organization studies (see British Journal of Management, 2001). In this regard, the paper examines the uses of the LO metaphor in different (intra- and extra-scientific) discourses that may be heterogeneous (i.e. discourse-specific), yet interconnected (i.e. semantically and pragmatically coupled) at the same time. Our analysis is not concerned with eliciting 'appropriate' applications of the LO metaphor, but rather focuses on the variety of applications within *and* outside the academic community. Instead of lamenting over supposed non-serious and ill-defined applications and extensions of the LO, or the 'commodification' of its scientific knowledge base[1], the paper adopts the position that one should seek to understand the ways in which the LO (or any other metaphor for that matter) has swept in an all-pervasive yet heterogeneous manner through scientific and extra-scientific discourses.

The analysis in the paper unfolds by firstly, providing an overview of the central perspectives on metaphor in organization studies. For the purposes of our inquiry we focus on the discursive role of metaphor as a 'messenger of meaning'. The discussion that follows shows the discursive landscape of the LO and its spread throughout intra- and extra-scientific discourses. Through a discourse analysis we review and scrutinize its meaning and coverage, as well as the mechanisms of meaning production within individual discourses and we map the intra- and extra-discursive links to explore the interactions between academics, consultants and practitioners. The discussion section brings together the insights from the analysis and reflects critically on this newly elaborated discursive role of metaphor and the methods and analytical steps proposed in understanding the ways in which academic and practitioner discourses converse. The paper concludes with a reflection on the status and meaning of the LO metaphor within scientific and extra-scientific discourses.

The Role of Metaphor in Organizational Discourses

Early discussions and debates on the role and use of metaphor within organization studies (Morgan, 1980, 1983; Pinder & Bourgeois, 1982) paralleled the vigorous debates upon metaphor and discourse within the philosophy of language and linguistics (e.g. Ortony, 1979; Lakoff & Johnson, 1980; Davidson, 1978). Equally, polarized positions were adopted within the organizational field, where departing from distinct ideological positions - that is, 'constructivism' versus 'non-constructivism' or 'realism' (see Ortony, 1979) – writers initially adopted distinct views of the underlying epistemology on which the explanatory account of metaphor is constructed. The guiding idea here was that 'non-constructivist' or 'realist' accounts call for and are reinforced by the assumption that language is a transparent medium transmitting ideas directly from one mind to another (whereby a positivist model, as a particular strand of 'realism', produces and is produced by attempts to formalize language into theory and observation components); in the case of which metaphor should thus be dispensed with as it is a distracting embellishment for what could otherwise be framed in

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[1] The image of concepts in the sciences that when used in other contexts should retain their original meaning, or at least should be translated carefully, rests on the assumptions that (1) there is a hierarchical order of knowledge, and that (2) there are clearly demarcated discourses in the sciences and 'below' them (as well as boundaries between science and non-science). Such a perspective of the organization of knowledge and the predominant role of the sciences therein has indeed been heavily criticised within the larger social scientific community. The sociologist Bryant (1991: 178-179), for instance, has taken issue with its implication of "science speaks and practice listens", where "the sociologist [scientist] brings light to the benighted – and the conceit – the sociologist [scientist] announces and the world responds".

literal, less ambivalent and generally more explicit theoretical terms (Pinder & Bourgeois, 1982). A 'constructivist' model, in contrast, was in these debates associated with a non-referential view of language that sees language operating through relations of sameness and difference (Morgan, 1980), and where because of its non-referential nature every metaphor is in a relativistic sense considered as good as the next one (Tinker, 1986). These initial heated debates on the workings of metaphor for (re)presenting organizational life were, however, to some extent stopped short by the influential works of Tsoukas (1991, 1993) who based upon insights from cognitive science outlined that there is a single cognitive process of metaphoric understanding that underlies both the 'realist' and 'constructivist' accounts. In his work, Tsoukas (1991) suggested that a metaphor consists of the drawing of a comparison between two ('constructed' or 'real') domains, where sameness is emphasized in the drawing of commonplaces, while dissimilar attributes of the referents of both domains are identified to produce semantic anomaly (see also MacCormac, 1985). These dissimilar attributes, however, while being semantically anomalous or grammatically deviant when taken literally, might, as Tsoukas (1991) outlined, nevertheless provide for fresh, and previously non-existent, insights into the reality of organizational life by offering a further suggestion of the less obvious, but deeper, more structural similarities between the two domains involved.

Subsequent research within the organizational field (e.g. Thietart & Forgues, 1995; Cornelissen, 2002) has started to apply these insights of how metaphor works for evaluating the heuristic value of particular metaphors such as 'chaos' or 'organizational identity' in theorizing and research. From this perspective, the role of metaphor is seen as rather *methodological* as a specific research strategy for the accommodation of language with the purpose of eventually revealing as yet undiscovered features and dynamics of the organizational world (see Oswick, Keenoy & Grant, 2002; Cornelissen, 2002). In this tradition, it has been stressed that metaphors need to be consciously "chosen for their aptness in capturing an as yet un-specifiable range of interconnections among potential features of the empirical world which observations lead us to believe exist" (Bono, 1990: 65), and that their use and heuristic value needs to be explicated and assessed on a continuous basis (Boyd, 1979: 362). This 'theory-constitutive' role of metaphor has and continues to be a fruitful perspective on metaphors and the mapping of knowledge in the organizational field, yet is, we believe, however insufficient an account of metaphor for capturing how metaphors actually emerge in and cross between scientific *and* extra-scientific realms, and how, from a discursive perspective, semantics of a discourse change as a result of importing a particular metaphor.

The account of metaphor that we therefore develop and elaborate upon in this paper involves its role as a 'messenger of meaning' (Maasen & Weingart, 1995). From this perspective, a metaphor acts as a linkage between various discourses. In highlighting and incorporating the novel or reorganizing the familiar within an importing discourse, it elaborates and communicates new and/or existing knowledge. This *discursive* perspective of metaphor has so far been uncharted territory within organization studies, yet as the analysis in this paper outlines deserves sustained interest and further detailed examination. Therefore, before entering into our case study of the LO metaphor, we first need to describe some of the elements of this role of metaphor as a 'messenger of meaning' and how it works.

First, the genealogy and discursive role of metaphor is considered in the context of both the scientific domain as well as the practitioner realm and the discourse uttered there. Central in this regard are questions concerning the way in which a metaphor follows a 'career' outside

its primary context (in which it originally emerged), the way in which science is influenced by professional discourses, and the changes in meaning that metaphors go through should they cross boundaries more than once. In effect, little doubt or disagreement exists that metaphors do transfer between various discourses (cf. Lakoff & Johnson, 1980), including organization science and practice (Astley & Zammuto, 1992), yet there has been little in the way of analyzing (as proposed here) how applications (and hence the semantics and pragmatics) of a particular metaphor differ within and between domains.

Second, and related to the previous point, the characteristic features of metaphors to be possibly linked up with many different discourses is owed, on the linguistic level, to their polysemy, as well as their figurative nature. From the discourse-analytic perspective, this polysemy or interpretive viability allows for a metaphor's rapid and wide distribution whenever it links up with other meanings in existing discourses and whenever it provides a sounding board that resonates. Astley & Zammuto (1992) suggest in this regard that many metaphors (and other conceptual devices such as typologies and categorizations) that were originally defined within the confines of the academic world have transferred to consultant and practitioner discourses. This happens, Astley & Zammuto (1992) explain, because metaphors offer considerable scope for conceptual use within practitioner settings, where their polysemy gives great latitude to practitioners in selecting, redefining, altering, combining and generally reinterpreting scientific concepts and the largely declarative knowledge that they contain to fit a wide variety of circumstances and purposes. The figurative nature of a metaphor (e.g. an organization as learning system) accounts for the appeal of a metaphor through the novel and fresh images that it provokes and the creative wordplay involved. This is what Bethanis (1995: 191) calls 'generative metaphors'[2] in that they are a spark for new meanings to emerge.

Third, on an epistemic and semantic level, the metaphor view of knowledge dynamics advanced here may help to account for knowledge dynamics (i.e. the career and meaning of a term or concept throughout various discourses), and to assess individual types of application without, as mentioned, any reference to a prior hierarchy of knowledge. Steeped in a tradition of research that considers theories and concepts upon their narrative value (DiMaggio, 1995, Van Maanen, 1995), the focus here is on the 'career' of a metaphor across discourses and the different functions and meanings that it has acquired throughout these discourses at the same time. As the effect of metaphor is to highlight and incorporate the novel or to reorganize the familiar within an importing discourse (Draaisma, 2000), metaphors "play a decisive role in the (re)ordering of knowledge and thus serve as prime targets and tools of analyses in the realm of knowledge dynamics. Their transferability and their linkage function, in particular, allow study of the (at times) inconspicuous mechanisms of knowledge production" (Maasen & Weingart, 2000: 37). In this line of reasoning, the processing of metaphors can be regarded as a principle of the arrangement and diffusion of knowledge, and ultimately, of the reorganization of the dominant worldview within a discourse (and the community involved). Metaphors therefore, particularly generative metaphors have the capacity to "make the familiar strange" (Bethanis, 1995: 191) and it could be argued that they can operate as a generative learning process (Senge, 1990). In this sense, supporting conversation and

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[2] Bethanis (1995: 190) distinguishes between 'root', 'bridging' and 'generative' metaphors, which she argues come forth in conversations. "Metaphors emerge as: 1) thoughts and assumptions (root metaphors) 2) communication for mutual understanding (bridging metaphors); and creativity for new meanings (generative metaphors).

dialogue (as mechanisms of knowledge exchange) is at the core of metaphors' capacity to transfer meanings across discourses in ways that potentially challenge basic assumptions and provide new frames for 'seeing' the world (Antonacopoulou, 2003)

The preceding section has provided a general outline of two central perspectives on metaphor in organization studies, and has signposted its discursive role more specifically for the purposes of our inquiry. Translating the above conceptualization of metaphor's role as a 'messenger of meaning' into a series of analytical steps and a research strategy (for analyzing the LO metaphor) we propose that three stages are followed: First, demarcating the discursive landscape of the LO and the calendar of its spread throughout intra- and extra-scientific discourses through bibliometric analyses; second, reviewing and scrutinizing its meaning and coverage, as well as the mechanisms of meaning production within individual discourses through discourse analysis[3]; and, third, mapping the intra- and extra-discursive links so as to answer questions regarding the interactions between academic and practitioner discourses. We apply these three steps in our analysis of the LO metaphor as a 'messenger of meaning'. We begin by providing a brief overview of the 'career' of the concept in terms of the way in which it has unfolded over time.

The Learning organization: Discursive Map and Calendar

In recent years, a number of commentaries (e.g. Romme & Dillen, 1997, Easterby-Smith, 1997, Örtenblad, 2002a) have started to shed light upon the emergence and appeal of the LO metaphor within the academic, consultant and practitioner communities, and have also started to deconstruct the concept's extensions and coverage. Although such analyses and retrospective works are insightful in themselves, they are however too sketchy to be informative as to the scope of disciplines and discourses using the LO metaphor and the chronology of its spread among them. Approximating its scope and chronology, however, would seem to be a first crucial step if we are to assess the reception of this particular metaphor in any single discipline or its diffusion in extra-scientific realms. Recognizing this gap in our understanding we sought to built and extend previous attempts to map the development of this and associated concepts (Organization Learning, Knowledge Management - see Östenbald, 2002b; Crossant & Quatto, 1999; Romme & Dillen, 1997; Scarborough & Swan, 2001; Raub & Rüling, 2001). Notwithstanding the methodological challenges presented to efforts to trace the development of a concept be it a management fashion or not (see Benders and van Veen, 2001 for a critique) we undertook a rigorous and systematic bibliometric analysis on the basis of the Social Science Citation Index (SSCI), Science Citation Index (SCI) and ABI-INFORM databases covering the last twenty years (1982-2002), which we would argue have witnessed the most significant explosion of the development of the LO concept. The findings reveal at least four interesting aspects:

1. The number of articles on the LO has increased considerably: from 1 in 1987, to 112 in 1995 and 82 in 2001. After Cangelosi and Dill's first mention of the concept in 1965 and Dery's article in 1982, the interest in and mention of the LO has thus been steadily

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[3] As outlined above, the method of discourse analysis adopted here follows in a sociology of knowledge tradition, involving the observing and scrutinizing of metaphors in scientific and extra-scientific discourses. A metaphor reorganizes reality and thus changes the discourse, and is therefore, within the order of discourse, a key element for analyzing the development and interplay of knowledge (Foucault, 1972, Draaisma, 2000).

growing (see Figure 1) when considering the academic (SSCI, SCI) and practitioner (ABI-INFORM) communities as a whole.

2. The LO metaphor has found its way into both the social science and science communities. Yet, while growth rates for the SSCI and SCI may be similar (see Figure 2), they differ in absolute numbers by roughly a factor of 3,5. On a closer look, this observation appears to indicate that the notion of a LO has, perhaps not surprisingly, found more resonance with 'softer', more discursively grounded business and management disciplines (captured in the SSCI database) than the 'harder' natural and engineering disciplines (SCI). In other words, the diffusion of the LO concept takes place at the same time in the social sciences and sciences, but on different levels of magnitude.

3. Looking at the reception of the LO within the practitioner discourse (Figure 3), we find that there has been a sustained increase in articles on the subject after 1990. That is, after the popularization of the LO by Senge (1990) the concept has made considerable headway into the practitioner journals (that are included next to peer reviewed academic journals within the ABI-INFORM database).

4. Comparing the academic (SSCI, SCI) and practitioner (ABI-INFORM) databases, we find that despite similar growth rates (Figure 4) and a parallel in adoption rates (which may suggest interaction between academics and practitioners), absolute numbers significantly differ. Figure 4 further shows that there has been a markedly rash uptake of the concept in practitioner circles throughout the early 1990s, with, it can be observed, the academic discourse lagging behind before it adopted and started discussing the term more generally (because of lead times of journals and, perhaps, the more skeptical attitude of academics). These data thus support Miner and Mezias' (1996: 94) suggestion that in the early 1990s practitioner interest exceeded the scholarly development and research base upon the subject of organizational learning in general and the LO in specific, but, as Figure 4 shows, academic interest has since caught on.

A number of questions are lurking behind these figures. One such question is why the LO metaphor has spread like wildfire across the organizational and managerial discourses, and whether this particular metaphor is on the verge of becoming a discursive link in a broad, heterogeneously structured arena of scientific and extra-scientific organizational discourses. Has the learning organization metaphor acted as a 'bridging' metaphor between heterogeneous discourses and has it actually allowed and facilitated different discourses (and their associated communities – academics and practitioners) to converse with one another? Moreover, has this metaphor generated new meanings and understanding of the issues that it has sought to address? And finally, has this metaphor shifted the dominant assumptions within each discourse?

These questions are central to our analysis of the LO as an illustration of the discursive role of metaphors. In the analysis that follows we would like to demonstrate that the uses of the LO in different (intra- and extra-scientific) discourses are heterogeneous (i.e. discourse-specific), yet interconnected (i.e. semantically and pragmatically coupled) at the same time. This claim does not require us to look at appropriate applications of the LO concept, but rather allows us to look for the variety of applications. On this view, nugatory uses cannot be found. On the contrary, interacting in a complex manner, the LO and the importing discourses may have influenced each other with different, more or less meaningful, albeit

never foreseeable, results, which are always dependent on initial conditions set by the importing discourse and the surrounding discursive network.

Figure 1: Frequency of articles on the Learning Organization (SSCI, SCI and ABI-INFORM)
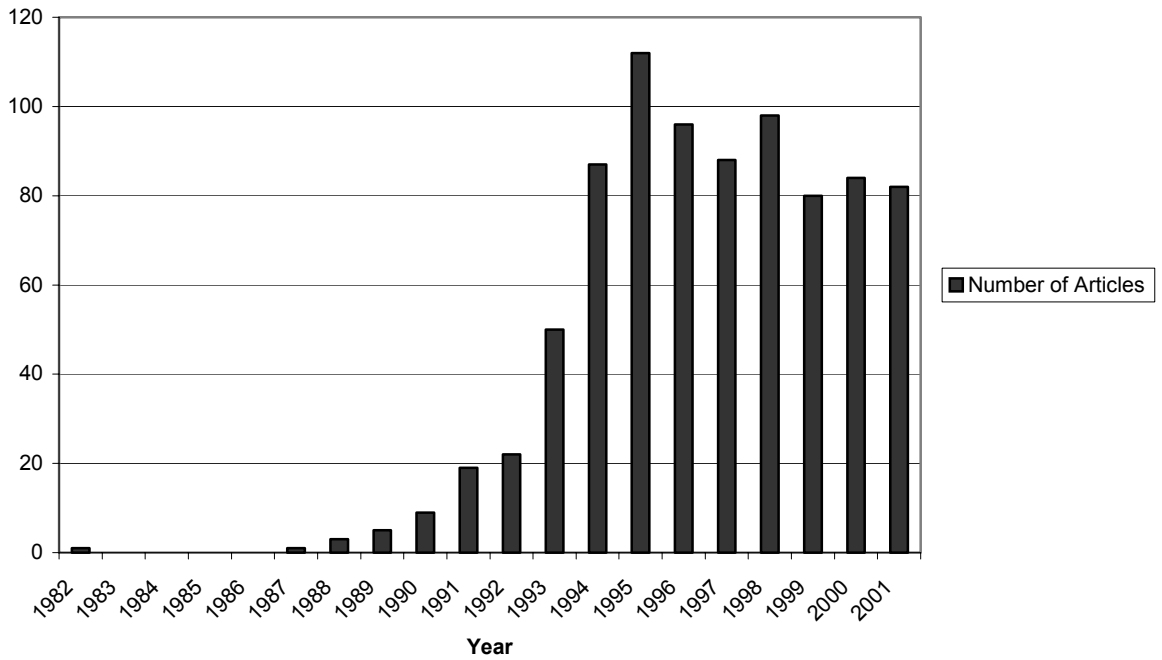
Note: The citation scores are based on mention of the LO in the title, abstract or keywords of the article, and are filtered for overlap between the three databases (SSCI, SCI and ABI-INFORM).

Figure 2: Frequency of articles on the Learning Organization in academic discourse (SSCI, SCI)
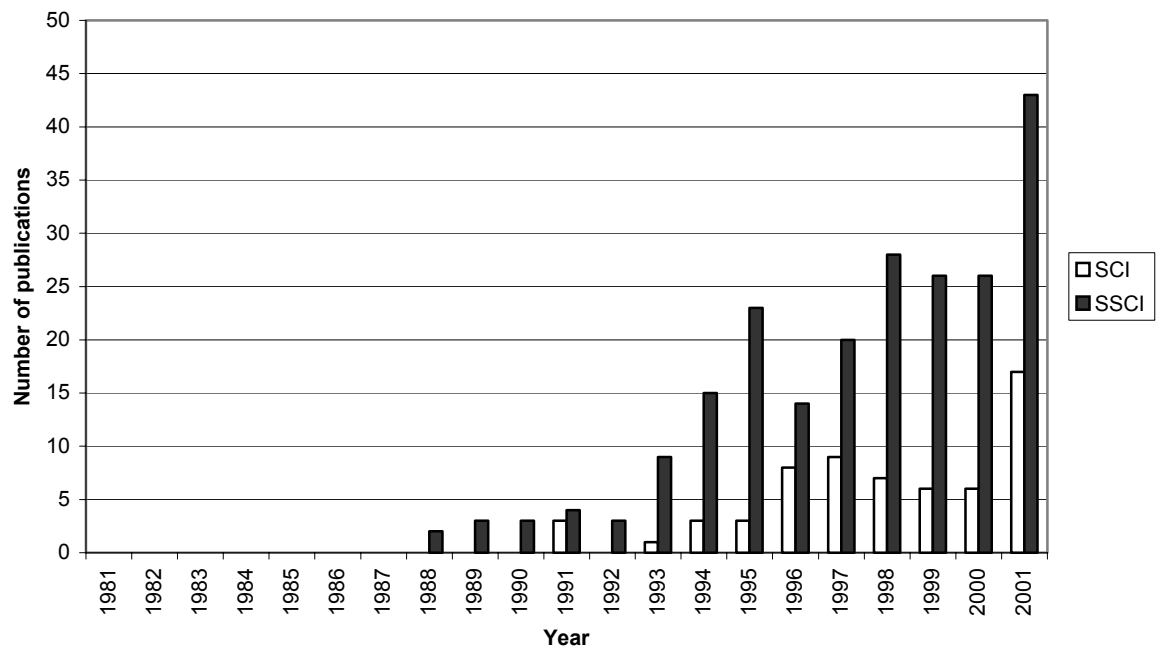
Note: The citation scores are based upon mention of the LO in the title, abstract or keywords of the article, and are not filtered for overlap between the two SCI and SSCI databases. The SSCI and SCI databases, which

exclude certain sets of peer reviewed ('academic') journals, are thus taken as a viable surrogate indicator for the uptake of the LO metaphor within the academic discourse at large.

Figure 3: Frequency of articles on the Learning Organization in practitioner discourse (ABI-INFORM)
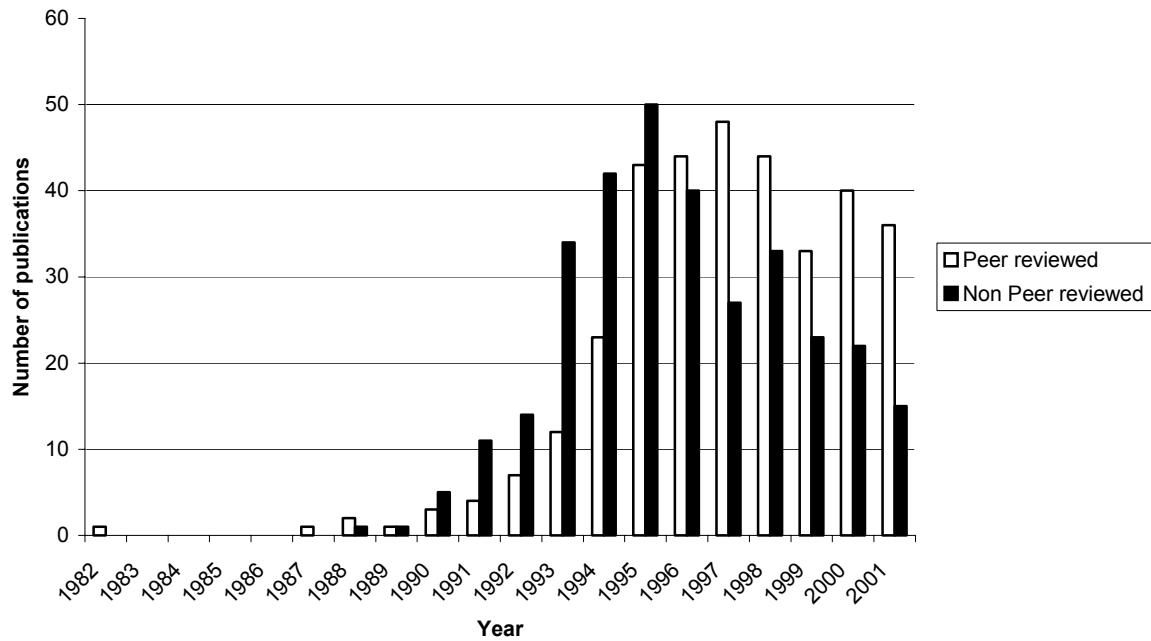
Note: The practitioner journals (i.e. non peer reviewed) have been filtered out in the ABI-INFORM database and these non-peer reviewed journals are taken as the surrogate indicator for the uptake of the LO metaphor within the practitioner discourse at large.

Figure 4: Comparison of articles on the Learning Organization in academic (SSCI, SCI) and practitioner (non-peer reviewed ABI-INFORM) discourses
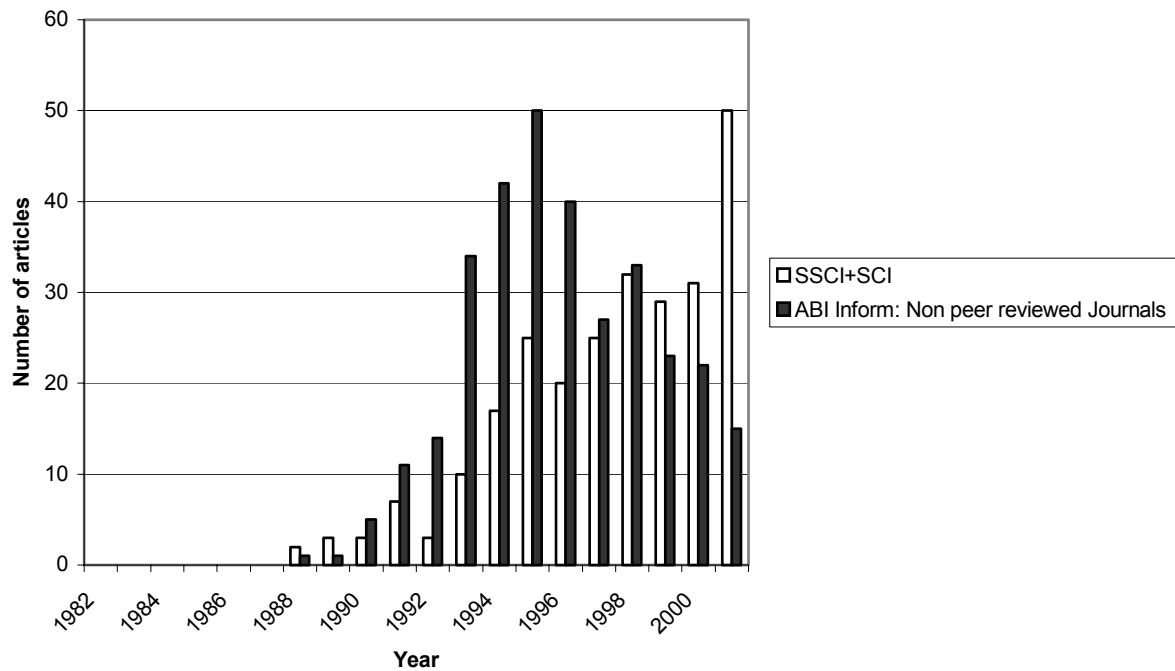

The Learning Organization within Academic and Practitioner Discourses

The socio-historical privilege that became attached to the LO metaphor (over and beyond related metaphors as Quinn's (1992) 'intelligent enterprise', Nonaka & Takeuchi's (1995) 'knowledge creating company' or Choo's (1998) the 'knowing organization') in both the academic and practitioner discourses (see Figures 1-4) is the result not just of some intellectual game, but of a competition of existing and institutionally established strands of discourse that select for or against the import of a particular foreign construct, for a metaphor (i.e. the construct of an extraneous discourse) bears the stamp of the latter and, in relation to the importing academic discourse, brings as mentioned a battery of implications with it. Figure 5 shows the implications that the LO metaphor has projected (by conjoining the domains of 'organization' and '(individual) learning'), and with which both the scientific or academic and extra-scientific or practitioner discourses resonated, yet importantly each with certain aspects of it. The latter observation might, at a linguistic level, be explained by referring to the mentioned polysemy of the LO metaphor (Ulrich et al., 1993; Armstrong, 2000; Örtenblad, 2002b), but, significantly, it also points at a semantic level to the very different motives and conditions set by both the academic and practitioner discourses for importing the metaphor.

In other words, with each metaphor, participants of an importing discourse choose as to which elements of knowledge associated with a metaphor are to be imported after first being 'tested' as metaphors: whether they 'make sense' against the background of the already established horizon of meaning or might make sense after certain adjustment procedures (see

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Figure 5 below). Our discourse analysis (of the extant literature on the LO) shows in this respect that while the academic discourse initially imported the metaphor as an alternative concept for capturing and talking about learning and cognition at the organizational level, a recurrent theme within organizational learning research (e.g. Walsh, 1995; Easterby-Smith, 1997; Argyris, 1999), practitioners adopted the metaphor for more functionalist and instrumental reasons as a perspective and/or tool for facilitating the learning of organizational members towards corporate objectives (e.g. Marquadt & Reynolds, 1994; Keep & Rainbird, 2000; Antonacopoulou, 2000, 2002).

Figure 5: The Learning Organization metaphor as a 'messenger of meaning'
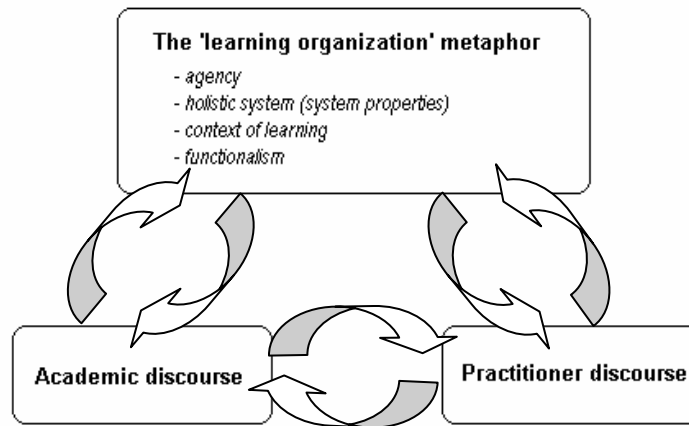
1. Import of the metaphor - 2. Discursive interactions: testing of the implications that a metaphor brings with it – 3. Adoption and transformation: mapping and (re)ordering of knowledge

To contextualize this general difference between the academic and practitioner discourses, it is important to note that within the academic discourse, there was indeed throughout the 1980s a central problematic in the existing discourse and knowledge on cognition and learning in organizations that led to the appeal of the metaphor for the academic community, and that has virtually provoked its take-off into the academic discourse. This problematic concerned the inability of academics to talk about, describe and explain from within established analytical traditions of organizational learning about individuals and small groups in traditional organizations, how learning and cognition at the collective and organizational level takes place in the post-modern landscape where organizations are characterized by distributed 'learning sites' (see Walsh, 1995; Schneider & Angelmar, 1993; Kim, 1993; Dibella et al., 1996; Easterby-Smith, 1997; Fiol & Lyles, 1985). There was basically not yet, as Weick & Roberts (1993: 357) suggested, a "language of organizational mind that enables us to describe collective mental processes in organizations". Some discussion of how cognition and learning takes place at the collective and organizational levels (Hedberg, 1981; Sandelands & Stablein, 1987) had emerged but, prior to the more wide-spread uptake of the LO metaphor into the academic discourse after the popularizing appeal was set by Senge (1990), there had been little in the way of conceptual and discursive machinery to express, articulate, map and reference these processes. This is not to say that the LO metaphor has uniquely catered for this problematic, and has indeed been unquestionably useful for academics in their theorizing and research about organizational learning, yet it does highlight the conditions for its adoption and spread within the academic discourse and provided the ground for the subsequent transformative effect that it has had within it.

Much academic research has subsequently been primarily concerned with the implications of 'agency' and 'holistic system' that suggest models and terms for describing and mapping cognition and learning at the collective and organizational levels "that [goes] beyond anything we could infer simply by observing learning processes in isolated individuals" (Simon, 1991: 126). The projection and suggestion that there is a unified *agency* capable of reflecting and deciding upon its learning abilities and performance at the collective and organizational levels (Argyris, 1999; DiBella et al., 1996; Jankowicz, 2000; Hendry, 1996; Jones, 1993; see also Argyris & Schön, 1978), for instance, has, upon closer examination, indeed rearranged the academic discourse around knowledge and learning at the organizational level as essentially an actively constituted process in itself and not merely as an aggregation of the cognition of its individual members (Jones, 1993; Tsang, 1997; Kim, 1993). In other words, while accepting that as with any metaphor the notion of 'agency' cannot be taken superficially and literally – which would mean that collective learning becomes reified at the structural level as an independent entity – the implication has suggested that a distinct higher-order pattern of interrelated behavioural activities and cognition emerges at the collective level, which while being grounded in and related to cognitions at the individual level (Weick & Roberts, 1993: 374), can and should be considered upon its own. Equal to Sandelands & Stablein's (1987) and Weick & Roberts (1993) analysis where collective learning is to be found in *shared behaviours* rather than in the linking or aggregating of individual knowledge, these behaviours when taken together at the organizational level are seen to appropriate learning (Simonin, 1997; Jankowicz, 2000). Huber (1991) for instance suggested in this respect that "an entity [i.e. organization] learns if, through its processing of information, the range of potential behaviours is changed" (Huber, 1991), and Levitt & March (1988) discussed, triggered by the agency implication, how an organization can become 'adaptive' through all the connected behaviours and activities that it professes with respect to its environment. The implication of 'agency' has thus (re)iterated and (re)arranged the discourse and knowledge of organizational learning towards changes in the behaviour of an organization with respect to its environment rather than simply changes in individual or organizational self-awareness and mental maps.

The second implication of a holistic system (see Senge, 1990) has equally provided an alternative model to the academic discourse for capturing and understanding cognition and learning at the organizational level (see also Walsh, 1995). The implication departs from a structural or systems perspective where an organization is seen as having the utility of a system, and where collective or shared learning is taken as an individual system of its own (i.e. a single LO) (Jackson, 1995). As such, the holistic system implication has (re)iterated the point that knowledge and cognition can be captured and laid down in systemic properties of an organization including, for instance, routines that govern behaviour, decision making, systematized organizational information processing patterns, values and norms (Edmondson & Moingeon, 1998; Ulrich et al., 1993; Harris & Gokcekus, 2000). From this perspective, collective cognition or learning can be defined in terms of the "ability to acquire, store, transform and utilize knowledge" at the organization or 'system' level so that cognition and learning can be abstracted from "the specific physical and biological systems in which these abilities are supposedly embodied" (Schneider & Angelmar, 1993). Fiol & Lyles (1985) discussing the concept of organizational learning had already outlined how knowledge becomes stored in the 'memory of an organization', through routines, dialogue, symbols, and the systematization of knowledge into practices, procedures and processes. In their analysis, organizational learning is "not simply the sum of each member's learning", as "organizations, unlike individuals, develop and maintain learning systems that not only influence their

immediate members, but are then transformed to others by way of organization histories and norms" (Fiol & Lyles, 1985: 804). The LO metaphor through the implication of a holistic system has thus equally highlighted that organizational knowledge is stored and preserved over time in certain routines, norms and values, and other collective residuals such as organizational artifacts and symbols, codes of practice and ways of working (Walsh & Ungson, 1991, Kim, 1993; Nonaka, 1994; Nonaka & Takeuchi, 1995; Crossan et al., 1999).

In sum, when scrutinizing the emergence and usage of the LO metaphor within the academic discourse, it appears that the metaphor has altered and transformed academic accounts of learning processes at the organizational level. At one end, the metaphor has provided novel perspectives in highlighting the connected behaviours at the organizational level as encompassing learning, the organizational artifacts, systems and processes in which knowledge is laid down, and the organizational context in which learning processes take place. As such, the metaphor can thus be seen to have been "helpful in accounting for various aspects of organizational behaviour that would be otherwise difficult to explain in terms of individualistic rational choice" (Jones, 1993: 71). And as with metaphors in general, the use of the LO metaphor is akin to calling an organization a learning system which is not only saying that its parts interact like parts of a system but is also to say that the organization has the utility of a system. In other words, as Lehner (2002:11) reminds us, drawing on Black (1962), this reflects the *interaction* view of a metaphor. Unlike a *substitution* (metaphor as a substitute for another concept) or *comparison* (a special case of the substitution view) view of metaphors, the interaction view of metaphors signals how the metaphor gives and derives meaning from the situation in which it is applied. This leads to a selection of some, but not all the characteristics of the situation. This selective view of the metaphor, as evident in the case of the LO metaphor, creates both new meanings and images of organizations not all of which find expression in all aspects of organizational 'reality'. This implies that the LO metaphor applies in some but not all aspects of organizations, thus inadvertently privileging those parts of the organization that fit into the image of the learning system and excluding those that may not fit in the way the metaphor is applied. This observation is reflected in the current literature, which has yet to resolve the way the relationship between individual learning and organizational learning is negotiated (see Antonacopoulou 2001; 2002). The privileging of the cognitive and behavioral aspects of learning in organizations have evidently created a gap in our understanding about the role of the emotional aspects of learning (see Antonacopoulou, 1998; Antonacopoulou & Gabriel, 2001). These observations remind us that metaphors are by definition value-laden even when this is unintentional.

It is not surprising therefore, to note that the LO metaphor is only partially representing organizational reality as far as learning is concerned. This to some extent justifiably explains why contrary to established academic traditions on organizational learning a return to 'functionalist' accounts of organizational learning has been unavoidable. Functionalist accounts of organizational learning emphasize a managerial perspective on motivating and guiding employees towards shared frames of reference and mindsets that are conducive towards achieving corporate objectives.

While such a 'functionalist' account might indeed not fare well with some academic traditions of organizational learning, and the way in which they have been developing, it is central to the practitioner discourse on the LO. That is, when looking at practitioner works (i.e. non-peer reviewed articles in the ABI-INFORM database), it appears that although the interest in the LO has taken various forms, two more general inter-related strands run through

it: a 'contextual' account, placing emphasis on the organizational context, initiatives and tools through which people learn, as a recurrent concern, and an evaluative argument, which portrays and reiterates the 'functionalist' premise that within a LO individual's learning cannot be considered as an end in itself but is intricately linked with certain corporate ends. As Bell et al. (2002: 162) for instance illustrate, within the practitioner discourse, "the concept of the LO places emphasis on the social context in which learning takes place by taking cultural integration to be the goal that is suggested to be achievable through collective, systemic organizational learning". The practitioner discourse on the LO is thus not concerned with understanding the psychological processes underlying learning at the individual and groups levels per se, as, within the LO model, learning is taken as an integral, rather than an optional, aspect of organizational development (Garvin, 1993; Marquadt & Reynolds, 1994; Senge, 1990; Pedler et al., 1991; c.f. Keep & Rainbird, 2000; Antonacopoulou, 2000). This view portrays learning as an integral part of successful organizational functioning and suggests it is a means of ensuring the organization's survival. As such, the practitioner discourse is characterized by an emphasis on the provision of formalized and prescriptive learning in the workplace, under the consideration that it is legitimate to control and promote only such learning as is defined in the organization's interests, even more so as organizational learning is now seen by many practitioners as "the only sustainable competitive advantage" (Miner & Mezias, 1996: 90). On the basis of this perceived competitive and managerial potential of learning, the bulk of the practitioner discourse has subsequently focused on the 'building blocks' or 'formulae' towards 'becoming' a LO, as well as on the 'financial returns' and 'commercial benefits' that it supposedly will deliver (see Dilworth, 1995; Guns, 1995).

The Inter-discursive Perspective: Interactions between Academics and Practitioners

We already signaled above that a metaphor like the LO may be imported and accepted by an existing discourse for either linguistic (the figurative and thus appealing nature of the metaphor) or more semantic reasons (the insights offered by some of its implications), yet as an initially foreign construct to the importing discourse, importing it also poses the 'risk' of 'swallowing' a whole cluster of epistemic as well as political and moral implications (Gouldner, 1970; Stepan, 1986). In the case of the LO metaphor, which carries a clear functionalist slant that at least in part is infused by and carried over from the practitioner discourse on organizational learning (see also Figure 5), academics have also imported a particular managerial and instrumental perspective upon organizational learning that at least some of them had not searched for and anticipated in the first instance.

This functionalist perspective, which is not so much concerned with how people learn at an organizational level, but as long as they learn in a manner conducive to the organization has indeed been taken over and further deliberated upon by a considerable group of academics (Easterby-Smith, 1990; Ulrich et al, 1993; Jackson, 1995; Miner & Mezias, 1996; Harris & Gokcekus, 2000; Elkjaer, 2000; Edmondson & Moingeon, 1998; Simonin, 1997; Hendry, 1996; Elkjaer, 2001; DiBella et al., 1996). Academics as Miner & Mezias (1996: 97) for instance, adopting the 'functionalist' perspective upon organizational learning and reflecting upon the relevance of the LO concept for corporations, have argued that "as an approach to practice, or normative theory, learning offers an image of management that is more realistic than traditional planning and control models, yet avoids cynical assumptions of total

managerial impotence". Yet, importantly, a significant group of academics have also heavily criticized the 'functionalist' stance of the LO that had been imported into their discourse as "in contrast with the established tradition [of organizational learning]" (Easterby-Smith, 1997: 1086), as offering little more than an "ideal type" (Easterby-Smith, 1997: 1086), as reducing the academic discourse to a more "applied area of organizational learning" (Easterby-Smith, 1997: 1103) and as emphasizing a managerial perspective on collective learning where experiential learning is ignored (Jones & Hendry, 1994) and where the LO metaphor is used as a rhetorical and political device to steer people towards certain corporate ends (Dovey, 1997; Coopey, 1995; Tsang, 1997; Gherardi, 1999; Armstrong, 2000; Snell, 2001; Driver, 2002).

Jones & Hendry (1994) for instance, point out that within the LO emphasis is laid on formalized and prescriptive learning in the workplace rather than on experiential or unorganized forms of learning that can lead to the construction of shared meaning. They warn that "if learning is limited to training and self-development simply to fulfill organizational goals then the soft learning, through which individuals make sense of their world, is not utilized" (Jones & Hendry, 1994: 159). Antonacopoulou (2001) has equally shown that an in practice an over-emphasis on formal and prescribed forms of learning actually ignores and hampers individuals' potential for learning. Yet, as the above analysis shows, even though, as mentioned, the academic discourse and the established traditions on organizational learning might indeed be seen to have moved beyond 'functionalist' perspectives and epistemologies towards more constructivist and discursive accounts of individual and collective cognition processes (Easterby-Smith, 1997; Tsang, 1997; Easterby-Smith & Araujo, 1999), the LO metaphor has nonetheless and in part based upon the practitioner discourse (re)introduced functionalism into the academic discourse on organizational learning. It appears that 'functionalism' remains fundamentally the main mode by which the legitimacy of the meanings conveyed by a metaphor (such as that of LO) can be communicated. Not only that, but given the value-laden nature of metaphors, the political values they convey are ways of legitimizing the choice of issues that they address.

Another implication where the academic and practitioner discourses converge on, in their adoption and interpretation of the LO metaphor involves the issue of the 'context' of learning. Within the practitioner discourse, 'context' is then largely a correlate of the functionalist perspective, and is concerned with the organizational 'infrastructure' in terms of structures, initiatives and tools that facilitate 'functional' learning (Garvin, 1993; Marquadt & Reynolds, 1994; Senge, 1990; Pedler et al., 1991). Senge (1990) for instance points here to 'flatter' organizations that are characterized by a movement away from hierarchy and an empowerment of small groups at decentralized levels within the organization. As Senge (1990) puts it, a LO "will, increasingly, be 'localized' organizations extending the maximum degree of authority and power as far from the 'top' or corporate center as possible" (Senge, 1990: 287). The academic discourse has through the LO metaphor also shown a preoccupation with the 'context' of organizational learning, in a rather technical sense, where equal to the practitioner discourse the focus is on organizational structures that facilitate the learning of individuals (Tsang, 1997; Harvey & Denton, 1999; Fisher & White, 2000; Örtenblad, 2002a), as well as in a more social and constructionist sense as a community of practice in which individuals and small groups learn (e.g. Brown & Duguid, 1991; Wenger, 1998; Gherardi, 1999; Gherardi & Nicolini, 2002).

It follows from these observations of convergence of the academic and practitioner discourses on 'functionalism' and 'context' that both discourses are characterized by specific, yet at the same time related, ways in which each has experimented with the LO metaphor, and how, moreover, through their interaction, a discursive network has been woven between them with some apparent opposite notions within it. More specific, we have illustrated that through its transferability and linkage function, the LO metaphor has attained a global significance across a range of discourses, its local differences between them notwithstanding. And in doing so, the analysis shows how through the import of a metaphor each of these individual discourses and their associated paradigms are gradually transformed, yet how at the same time they converge on a general *dispositif* (Foucault, 1972).

Underlying our analysis and this claim is, as noted earlier, a sociology of knowledge tradition (Foucault, 1972), where 'knowledge' of organizational learning (and indeed of all organizational thought) is seen as a cultural project – that is, it is produced at a multiplicity of discursive sites, interspersed with practices and technologies of different kinds (see also Hassard & Kelemen, 2002). From this perspective, 'knowledge transfer', as we have shown, consists of a structured, yet unpredictable, process based on the import and export of terms (including metaphors), concepts or methods. And this process is thus likely to be a non-linear one: locally specific processing of metaphors for instance will interact in unforeseeable ways, and the convergence of separate discourses on a general *dispositif* (Foucault, 1972) can also therefore not be reconstructed as a causal mechanism. Maasen & Weingart (1995: 14) point out in this regard that the diffusion of a metaphor (its reproductive success) and the knowledge dynamics involved cannot be predicted, but only explained in a *post hoc* manner:

> "…it cannot be to explain the emergence of knowledge and its content causally in the sense of a law, and in this way to predict it. Popper's statement concerning the logical impossibility of such an aim is still valid: the explanation would be identical with prediction. The aim can only be to analyze correlations and co-variations between scientific and other societal discourses during a given period" (Maasen & Weingart, 1995: 14).

In our case study of the LO metaphor, we have indeed shown *post hoc* (reviewing the career of the concept over a twenty year period) how the academic discourse in particular has been heavily influenced by the LO metaphor and its practical, 'functionalist' interpretation of it – perhaps affirming Galbraith's (1980) thesis that academic research is behind, rather than ahead of, organizational practice (as practice sets the agenda). Yet, despite the convergence of both the academic and practitioner discourses, the study also emphasized that because of the discourse-specific nature of the LO metaphor, not only have disciplinary boundaries been left unaffected, but also the borders between the academic and practitioner discourses have been reinforced. That is, while the metaphor has been inclusive in its influence, the boundaries between the different academic and practitioner realms have remained largely untouched, as discourse-specific processing (i.e. integration of the LO metaphor into a specific language game) seems to reinforce the reenactment of discursive boundaries.

Therefore, the LO may have acted to some extent as a 'generative' metaphor sparking new meanings but it has not been a 'bridging' metaphor between the academic and practitioner discourses, because its conversational value has been restricted to a selection of issues, which have helped reinforce the current functionalistic 'root' metaphor that dominates organizational debates. The LO metaphor has therefore, not allowed academic and

practitioner communities to learn sufficiently from each other partly it could be argued because their basic epistemological positions have not been critically reflected upon. Inadvertently, therefore, the discursive map of the LO metaphor suggests that as a messenger of meaning it has introduced new perspectives but in a vague way which is why it is possible to note the inherent confusion within and across discourses relying on the functionalist interpretations as the main source of clarity in the light of the multiple assumptions that constitute the body of knowledge that underpins the metaphor.

Reflections on Metaphor Analysis and the Learning Organization

Prior research has elaborated upon the theory-constitutive role of metaphor within organization studies, where metaphor is used methodologically to guide academic inquiry towards a particular phenomenon (Tsoukas, 1991; Cornelissen, 2002). Yet, in doing so, it has fallen conspicuously short of offering an account of how metaphors actually emerge in and cross between scientific *and* extra-scientific realms, and how, from a discursive perspective, semantics of a discourse change as a result of importing a particular metaphor. This paper has sought to bridge this gap and contribute to our understanding by outlining how the discursive role of metaphor works, and illustrating this with a discourse analysis of the LO metaphor within the academic and practitioner discourses.

More specifically, the analysis in this paper has shown the specific, yet related ways, in which the individual academic and practitioner discourses have experimented with the LO metaphor, and therefore, how on the basis of this particular metaphor, a discursive network has been woven between the two. In doing so, we have, firstly, accounted, at a linguistic level, for the linkage function of metaphor by pointing to the discourse-specific, yet (at times) related, processing of metaphor within different scientific and extra-scientific realms. As diverse as these scientific and extra-scientific discourses are, they resonate with the LO metaphor (because of the linguistic appeal and interpretive viability of the metaphor), albeit each with certain aspects of it based on the varied background of their discourses and the communities involved. Secondly, at a semantic level, the analysis has elaborated upon the transformative potential of a metaphor in that it may drastically alter the discourse and the associated knowledge on a particular subject (e.g. within the academic discourse, the LO metaphor has changed knowledge of how cognition and learning is constituted at an organizational level). Approaching metaphor in this discursive manner and reflecting upon the paradigmatic shifts that it might have triggered within both the academic and practitioner communities is, we believe, a useful approach towards studying and understanding the knowledge dynamics within the organizational field (Barley & Kunda, 1992; Hassard & Kelemen, 2002).

> It [i.e. metaphor analysis] looks for both the locally specific processings of metaphors and the ways in which they – gradually – produce (heterogeneous sets of) meanings across (various types of) discourses for a given period of time. Admittedly, the goal of metaphor analysis is not a modest one. It attempts to surface nothing less than the anatomy of the grand phenomena in the changing world of knowledge, be it paradigm shifts, the emergence of a new Zeitgeist, or the rise and fall of general worldviews" (Maasen & Weingart, 2000: 4).

Therefore, the suggestion made here is to move beyond approaches within some areas of organization studies where metaphor (as an organizational concept) within and across the academic and practitioner discourses is taken at a nominal level, and largely uncritically. In such studies, as Abrahamson's (1996) research of management fashion for instance outlines, concepts including metaphors are just seen as randomly chosen terms that, as far as their rhetorical value is concerned, may just as well be replaced by alternative terms. Yet, as our study has shown, such 'nominal' accounts fail to account for the underlying knowledge dynamics that *do* come into play with the choice for and subsequent adoption of particular concepts and metaphors such as the LO. In the case of the LO metaphor, the knowledge of organizational learning underlying the discourse has indeed been drastically altered within both the academic and practitioner communities. And tracing such knowledge dynamics through the suggested method of metaphor analysis (see also below) is indeed, we believe, quintessential to any (academic or professional) discipline in taking stock of its knowledge base and also to become more conscious in picking up new metaphors. And, thirdly, from an organization studies perspective, our study of metaphor as a vehicle between the academic and practitioner discourses has explicitly examined the still heavily debated science-practice interface in management and organization studies.

The analysis developed in this paper suggests that the interaction between the academic and practitioner discourses is largely played at the linguistic or symbolic level, as well as the semantic or conceptual level, as such allying with and affirming the theoretical presuppositions of Astley & Zammuto (1992) and Mauws & Phillips (1995) amongst others. The study indeed empirically confirms that, firstly, if there is any influence of academic theory and concepts (including metaphors) upon practice this is not direct and instrumental but primarily conceptual, where theories serve in opening up new mental avenues for practitioners (as theories and concepts provide them with new ideas and interpretative schemes as a set of intellectual tools for understanding and anticipating real-world problems), as well as symbolic, where theories and concepts are used for their symbolic or rhetorical value (e.g. the superficial usurpation of a metaphor as the LO or, equally, 'business process reengineering', as a *'façon de parler'*) to legitimate courses of action and bring about change. Secondly, our case study also highlights that instead of just focusing in a linear manner on the impact of theory upon practice (and lamenting the little instrumental relevance and use of theories from such a perspective) (see British Journal of Management, 2001; Cohen et al., 2002), the science-practice interface can more usefully be framed as a dynamic interaction between academic and practitioner discourses, where the impact of the one discourse on the other is diffuse, multi-faceted and at least in part discursive.

Thirdly, we show that metaphors may be messengers of meanings which may facilitate the conversation between discourses however, conversations need to open up to question the root metaphors that have sustained the current discourses. Unless and until epistemological issues form part of the bridging metaphors created it is very unlikely that metaphors can be generative in the sense that they can invoke new meanings by allowing discourses to learn in a reciprocal fashion. Our analysis agrees with Scarborough's (2001) observation in relation to Knowledge Management, that recent concepts (like learning organization and knowledge management) may highlight the salience of epistemological questions within the discourse they create which may be evidence of a new mode of knowledge production – mode 2[4] (as

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[4] Gibbons et al (1994) has been among the most influential work in terms of the arguments it has raised about the emergence of a new model of knowledge production which is shifting away from 'Mode 1' described as

per Gibbons et al., 1994), however its fashionization reinforces the commodification of knowledge. Consequently the LO metaphor is associated more with the displacement of employee learning than with new opportunities for supporting organization-wide learning.

On the basis of these contributions, there is, we believe, sufficient ground for further research into the discursive role of pivotal metaphors such as for instance 'corporate culture' and 'organizational identity' to consider the discursive links between the academic and practitioner discourses, as well as the paradigm shifts or changed worldviews that these metaphors have brought. The analytical research strategy that we have followed seems to have particular mileage in this respect; and consists of four steps:

1. An individual metaphor is picked after a first consideration of its status (as a key concept within the field) and its spread throughout scientific and extra-scientific discourses. The chosen metaphor is thus considered as a 'unit' of knowledge whose circulation and shifts in meaning can be observed by looking at the various modes of reception in particular discourses.

2. With the aid of bibliometric techniques, the chosen metaphor is tracked through all scientific and extra-scientific or professional discourses in which it appears to provide a first approximation of its emergence and the calendar of its spread. In other words, through bibliometric analyses, the dynamics of knowledge become represented in quantitative terms; revealing both the increasing or decreasing occurrence of a certain concept over time and discourses.

3. After the occurrences of a certain metaphor have been established and are available, a set of discourses is selected to deconstruct through in-depth discourse analysis the specific interaction that each discourse has had with the term chosen. The guiding premise here is that the meaning of terms and concepts including imported metaphors are deeply connected to the order of any particular discourse, and that such a discourse thus needs to be deconstructed in order to disentangle the semantic effect that a metaphor has had.

4. While step three focuses on the locally specific interactions with a certain metaphor, the last step shifts to the question whether or not these specific shades of meaning are converging on a, if heterogeneous, topic. Reflecting upon the carried out deconstructions of metaphor in particular discourses in the previous step, the objective here is to account for the 'mechanisms' or discursive interactions that can be found to be responsible for the dynamics of knowledge within and across the domains surveyed.

Conclusion

This paper contributes to current debates of the relationship between management research and practice by demonstrating the discursive role of metaphor as a 'messenger of meaning'. Using the metaphor of the Learning Organisation, as a case in point, a discourse analysis throughout scientific and extra-scientific discourses within the organizational field has

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University-based and science push) to a 'Mode 2' where knowledge is produced at the point of application. Therefore, while Mode 1 would be problem defined by the academic community, would be based on disciplinary knowledge and would assume hierarchical and stable organisations, Mode 2 would be based on trans-disciplinary knowledge, heterogeneous skills and knowledge sites, and heterarchical and transient organizations.

revealed important insights about the discursive nature of metaphors and the main values and themes that underpin them. Therefore, we show the dynamics of knowledge within and between discourses and provide a framework and methodology for the execution, refinement and extension of this task within the organizational field. The analysis has implications for both academics and practitioners with an interest in considering and knowing how knowledge is developed within both the scientific and extra-scientific realms and the particular role that metaphor plays therein.

Bibliography

Abrahamson, E. (1996) Management fashion. *Academy of Management Review*, 21, 254-286.

Antonacopoulou, E.P. (1998) Developing Learning Managers within Learning Organisations, Chapter in M. Easterby-Smith, L. Araujo and J. Burgoyne (Eds.) *Organisational Learning and the Learning Organisation: Developments in Theory and Practice*, 214-242, Sage, UK.

Antonacopoulou, E.P. (2000) Employee Development through Self-development in three Retail Banks, *Personnel Review*, Special Issue on 'New Employee Development: Successful Innovations or Token Gestures?' 29, (4). 491-508.

Antonacopoulou, E.P. (2001) The paradoxical nature of the relationship between training and learning, *Journal of Management Studies*, 38, (3), 327-350.

Antonacopoulou, E.P. (2002) Revisiting the What, How and Why of Managerial Learning: Some New Evidence, Manchester Business School Research Paper series, No. 442.

Antonacopoulou, E.P. (2003) 'The Persistence of Memory', *Organisation Studies*, Special Issue on 'Time and Reflexivity in Organisation Studies', 26(3): v-ix.

Antonacopoulou, E.P. and Gabriel, Y., (2001) Emotion, Learning and Organisational Change: Towards and Integration of Psychoanalytic and other perspectives*, Journal of Organisational Change Management*, Special Issue on 'Organisational Change and Psychodynamics', 14, (5), 435-451.

Argryis, C. & Schön, D.A. (1978) Organizational *learning*. Reading, MA: Addison-Wesley.

Argyris, C. (1999) *On organizational learning*. Oxford: Blackwell Publishers, second edition.

Armstrong, H. (2000) The Learning Organization: Changed means to an unchanged end. *Organization*, 7, 355-361.

Astley, W.G., & Zammuto, R.F. (1992) Organization science, managers, and language games. *Organization Science*, 3, 443-460.

Barley, S.R., & Kunda, G. (1992) Design and devotion: Surges of rational and normative ideologies of control in managerial discourse. *Administrative Science Quarterly*, 37, 363-400.

Bell, E., Taylor, S., & Thorpe, R. (2002) A step in the right direction? Investors in people and the LO. *British Journal of Management*, 13, 161-171.

Benders, J. & Van Keen, K. (2001) What's in a Fashion? Interpretative Viability and Management Fashions, *Organisation,* 8 (1):33-54

Bethanis, S.J. (1995) Language as Action: Linking Metaphors with Organizational Transformation. In S. Chawla, and J. Renesch, (Eds) *Learning Organizations: Developing Cultures for Tomorrow's Workplace*, Productivity Press: Portland, USA

Black, M. (1962). *Models and Metaphors.* New York: Cornell University Press.

Bono, J.J. (1990) Science, discourse and literature: The role/rule of metaphor in science. In: Peterfreund S. (ed.), *Literature and science*, pp.59-89. Northeastern University Press.

Boyd, R. (1979) Metaphor and theory change. In Ortony A. (ed.), *Metaphor and thought*, pp.356-408. Cambridge University Press, Cambridge.

British Journal of Management, (2001) Special issue on the relevance of management research; 12.

Brown, J.S., & Duguid, P. (1991) Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovating. *Organization Science*, 2, 40-58.

Bryant, C.G.A. (1991) The dialogical model of applied sociology. In Bryant, C.G.E., & Jary, D. (eds.), *Giddens' theory of structuration*. London: Routledge & Kegan Paul.

Choo, C.W. (1998) *The knowing organization: How organizations use information to construct meaning, create knowledge, and make decisions*. New York: Oxford University Press.

Cohen, W.M., Nelson, R.R., & Walsh, J.P. (2002) Links and impacts: The influence of public research on industrial R&D. *Management Science*, 48, 1-23.

Coopey, J. (1995) The Learning Organisation: Power, politics and ideology. *Management Learning;* 26, 193-213.

Cornelissen, J.P. (2002) On the organizational identity metaphor. *British Journal of Management*, 13.

Crossan, K.R., Lane, H.W., & White, R.E. (1999) An organizational learning framework: From intuition to institution. *Academy of Management Review*, 24, 522-537.

Crossan, M. & Guatto, T. (1996). Organizational Learning Research Profile. *Journal of Organizational Change Management.* 9(1): 107-112.

Davidson, D. (1978) What metaphors mean. *Critical Inquiry*, 5, 31-48.

Dery, D. (1982) Erring and learning: An organizational analysis. *Accounting, Organizations and Society*. 7(3): 217-223

Dibella, A.J., Nevis, E.C., & Gould, J.M. (1996) Understanding organizational learning capability. *Journal of Management Studies*, 33, 361-379.

Dilworth, R. (1995) The DNA of the Learning Organization. In S. Chawla, and J. Renesch, (Eds) *Learning Organizations: Developing Cultures for Tomorrow's Workplace*, Productivity Press: Portland, USA

Dimaggio, P.J. (1995) Comments on 'What theory is not'. *Administrative Science Quarterly*, 40, 391-398.

Dovey, K. (1997) The LO and the organization of learning – Power, transformation and the search for form in LOs. *Management Learning*, 28, 331-349.

Draaisma, D. (2000) *Metaphors of memory: A history of ideas about the mind*. Cambridge: Cambridge University Press.

Driver, M. (2002) The Learning Organization: Foucauldian gloom or Utopian sunshine?. *Human Relations*, 55, 33-54.

Easterby-Smith, M. (1990) Creating a Learning Organization. *Personnel Review*, 19, 24-28.

Easterby-Smith, M. (1997) Disciplines of organizational learning. *Human Relations*, 50, 1085-1113.

Easterby-Smith, M., & Araujo, L. (1999) Organizational learning: Current debates and opportunities. In Easterby-Smith, M., Burgoyne, J. & Araujo, L (eds.) *Organizational learning and the Learning Organization: Developments in theory and practice*, pp.1-21. London: Sage.

Edmondson, A., & Moingeon, B. (1998) From organizational learning to the LO. *Management Learning*, 29, 5-20.

Elkjaer, B. (2000) A concise guide to the Learning Organization. *Management Learning*, 31, 128-131.

Elkjaer, B. (2001) The Learning Organization: An undelivered promise. *Management Learning,* 32, 437-452.

Elsbach, K.D., Sutton, R.I., & Whetten, D. (1999) Perspectives on developing management theory, circa 1999: Moving from shrill monologues to (relatively) tame dialogues. *Academy of Management Review*, 24, 627-634.

Fiol, C.M., & Lyles, M.A. (1985) Organizational learning. *Academy of Management Review*, 10, 803-814.

Fisher, S.R., & White, M.A. (2000) Downsizing in a LO: Are there hidden costs. *Academy of Management Review*, 25, 244-251.

Foucault, M. (1972) *The archaeology of knowledge*. London: Tavistock Publications.

Galbraith, J.R. (1980) Applying theory to the management of organizations. In Evan W. M. (ed.), *Frontiers in organization and management*, pp. 151-167. New York: Praeger

Garvin, D.A. (1993) Building a Learning Organisation. *Harvard Business Review*, 71, 78-91.

Gherardi, S. (1999) Learning as problem-driven or learning in the face of mistery?. *Organization Studies*, 20, 101-123.

Gherardi, S., & Nicolini, D. (2002) Learning in a constellation of interconnected practices: Canon or dissonance?. *Journal of Management Studies*, 39, 419-436.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., and Trow, M. (1994): *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*, London, Sage.

Gouldner, A. (1970) *The coming crisis of Western sociology*. Basic Books, New York.

Guns B. (1995) The Faster Learning Organization (FLO). In S. Chawla, and J. Renesch, (Eds) *Learning Organizations: Developing Cultures for Tomorrow's Workplace*, Productivity Press: Portland, USA

Harris, C, & Gokcekus, O. (2000) Learning in action: A guide to putting the LO to work. *Academy of Management Executive*, 14, 145-146.

Harvey, C., & Denton, J. (1999) The coming of age: The antecedents of organizational learning. *Journal of Management Studies*, 36, 897-918.

Hassard, J.S., & Kelemen, M.L. (2002) Production and consumption in organizational knowledge: The case of the 'paradigms debate'. *Organization,* 9, 331-355.

Hedberg, B. (1981) How organizations learn and unlearn?. In Nystrom, P.C. & Starbuck, W.H. (eds.) *Handbook of organizational design*, pp. 8-27. London: Oxford University.

Hendry, C. (1996) Understanding and creating whole organizational change through learning theory. *Human Relations*, 49, 621-641.

Huber, G.P. (1991) Organizational learning: The contributing processes and the literatures. *Organization Science*, 2, 88-106.

Jackson, M.C. (1995) Beyond the fads – Systems thinking for managers. *Systems Research*, 12, 25-42.

Jankowicz, D. (2000) From LO to 'Adaptive Organization'. *Management Learning*, 31, 470-490.

Jones, A.M., & Hendry, C. (1994) The LO: Adult learning and organizational transformation. *British Journal of Management* 5, 153-162.

Jones, M. (1990) Organizational learning: Collective mind or cognitivist metaphor?. *Accounting, Management and Information Technology*, 5, 61-77.

Keep, E., & Rainbird, H. (2000) Toward the Learning Organization?. In Bach, S., & Sisson, K. (eds.), *Personnel Management*. Oxford: Blackwell.

Kim, D.H. (1993) The link between individual and organizational learning. *Sloan Management Review*; 35, 37-50.

Lakoff, G., & Johnson, M. (1980) *Metaphors we live by*. University of Chicago Press, Chicago.

Lehner, J. M. (2002). Metaphors, Stories, Models: A Unified Account of Decisions - Part 2: What Managers Do. *Reason in Practice,* 2(2), 33-44.

Levitt, B. & March, J.G. (1988) Organizational learning. *Annual Review of Sociology*; 14, 319-340.

Maasen, S., & Weingart, P. (1995) Metaphors – messengers of meaning. A contribution to an evolutionary sociology of science. *Science Communication*, 17, 9-31.

Maasen, S., & Weingart, P. (2000) *Metaphors and the dynamics of knowledge*. London: Routledge.

MacCormac, E.R. (1985) *A cognitive theory of metaphor*. MIT Press, Cambridge, Mass.

Marquadt, M., & Reynolds, A. (1994) *The global Learning Organisation: Gaining competitive advantage through continuous learning*. Illinois: Irwin.

Mauws, M.K., & Phillips, N. (1995) Understanding language games. *Organization Science*, 6, 322-335. Ungson

Miner, A.S., & Mezias, S.J. (1996) Ugly duckling no more: Pasts and futures of organizational learning research. *Organization Science*, 7, 88-99.

Morgan, G. (1980) Paradigms, metaphors and puzzle solving in organizational theory. *Administrative Science Quarterly*, 25, 605-622.

Morgan, G. (1983) More on metaphor: why we cannot control tropes in administrative science. *Administrative Science Quarterly*, 28, 601-607.

Nonaka, I. & Takeuchi, H. (1995) *The knowledge-creating company*. New York: Oxford University Press.

Nonaka, I. (1994) A dynamic theory of organizational knowledge creation. *Organization Science*, 5, 14-38.

Örtenblad, A. (2002a) Organizational learning: A radical perspective. *International Journal of Management Reviews*, 4, 71-86.

Örtenblad, A. (2002b). A Typology of the Idea of the Learning Organization. *Management Learning.* 33(2): 213-230.

Ortony, A. (ed.) (1979*) Metaphor and thought*. Cambridge University Press, Cambridge.

Oswick, C., Keenoy, T., & Grant, D. (2002) Metaphor and analogical reasoning in organization theory: Beyond orthodoxy. *Academy of Management Review*, 27, 294-304.

Pedler, M., Burgoyne, J. & Boydell, T. (1991) *The learning company*. Maidenhead: Mc Graw-Hill.

Pinder, C., & Bourgeois, V.W. (1982) Controlling tropes in administrative science. *Administrative Science Quarterly*, 27, 641-652. Bourgeois

Quinn, J.B. (1992) *Intelligent enterprise: A knowledge and service based paradigm for industry*. New York: Free Press.

Raub, S.and Rüling, C. (2001), The knowledge management tussle - speech communities and rhetorical strategies in the development of knowledge management, *Journal of Information Technology*, 16, 113- 130.

Reed, M. (1996) Organizational theorizing: A historically contested terrain. In Clegg, S.R., & Hardy, C.H. (eds.) *Studying organization: Theory and method*, pp.25-50. London: Sage.

Romme, G. & Dillen, R. (1997) Mapping the landscape of organizational learning. *European Management Journal*: 15, 68-79.

Sandelands, L.E. & Stablein, R.E. (1987) The concept of organization mind. In Bacharach, S. & DiTomaso, N. (eds.) *Research in the sociology of organizations*, pp.135-161. Greenwich, CT: JAI Press.

Scarbrough and Swan, J., (2001) Explaining the Diffusion of Knowledge Management: The Role of Fashion, *British Journal of Management*, 12(1): 3-12

Scarbrough, H. (2001) Knowledge à la mode: The Rise of Knowledge Management and its implications for vies of knowledge Production, *Social Epistemology*, 15(3): 2001-213.

Schneider, S.C., & Angelmar, R. (1993) Cognition in organizational analysis: Who's minding the store?, *Organization Studies*, 14, 347-75.

Senge, P. (1990) *The fifth discipline: The art and practice of the LO*. London: Century Business.

Simon, H.A. (1991) Bounded rationality and organizational learning. *Organization Science*, 2, 125-134.

Simonin, B.L. (1997) The importance of collaborative know-how: An empirical test of the LO. *Academy of Management Journal*, 40, 115-1174.

Snell, R.S. (2001) Moral foundations of the Learning Organization. *Human Relations*; 54, 319-342.

Stepan, N.L. (1986) *Race and gender: The role of analogy in science.* Isis, 77, 261-277.

Thietart, R.A., & Forgues, B. (1995) Chaos theory and organizations. *Organization Science*, 6, 19-42.

Tinker, T. (1986) Metaphor or reification: Are radical humanists really libertarian anarchists?. *Journal of Management Studies*, 23, 363-385.

Tsang, E.W.K. (1997) Organizational learning and the LO: A dichotomy between descriptive and prescriptive research. *Human Relations*, 50, 73-90.

Tsoukas, H. (1991) The missing link: A transformational view of metaphors in organizational science. *Academy of Management Review*, 16, 566-585.

Tsoukas, H. (1993) Analogical reasoning and knowledge generation in organization theory. *Organization Studies*, 14, 323-346.

Ulrich, D. Jick, T., & Von Glinow, M. (1993) High-impact learning: Building and diffusing learning capability. *Organizational Dynamics*, 22, 52-67.

Van Maanen, J. (1995) Style as theory. *Organization Science*, 133-143.

Walsh, J. P., & Ungson, G. R. (1991) Organizational memory. *Academy of Management Review*: 16, 57-91. Ungson

Walsh, J.P. (1995) Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6, 280-321.

Weick, K., & Roberts, K.H. (1993) Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly*, 38, 357-382.

Wenger, E. (1998) *Communities of practice: Learning, meaning and identity. Cambridge*: Cambridge University Press.