

■ Case Study

Gendering Knowledge: The Practices of Knowledge Management in the Pharmaceutical Industry

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Knowledge and knowledge management have become two of the latest buzzwords in the management literature. However, the literature presents primarily normative, undersocialized models of how knowledge could be administrated and developed as an organizational resource, and does not sufficiently recognize the social, political and emotional aspects of knowledge. In general, the knowledge of knowledge management is not *situational*. For instance, in what respect does the notion of knowledge take gender issues into account? This paper presents a study of clinical research activities in a major multinational pharmaceutical company and it suggests that the processes of knowing are always embedded in existing social and political, *gendered* assumptions and beliefs. Therefore, knowledge management need to be further developed to avoid general problematic positions. Copyright © 2001 John Wiley & Sons, Ltd.

INTRODUCTION

One of the main tendencies in organization studies and the strategic management literature have been an increased emphasis on the firm's ability to manage various forms of knowledge and other intellectual capabilities and resources (Nonaka and Takeushi, 1995; Spender, 1996; Liebeskind, 1996). Knowledge has been operationalized in various ways and various contributors talk of learning (Easterby-Smith, Burgoyne and Araujo, 1999), competence (Gherardi, 1998, Henderson and Cockburn, 1994), knowing (Choo, 1998, Von Krogh, Roos and Kleine, 1999), knowing–doing (Pfeffer and Sutton, 1999), or knowledge as such (Kogut, 2000; Blackler, 1995). In the knowledge discourse, organizations do not merely reduce transaction costs problems or provide adequate solutions to

agency problems (Berle and Means, 1934), but also serve as a basis for the exploitation, dissemination, and development of various organizational resources (Kogut and Zander, 1992; McEvily, Das and McCabe, 2000). Knowledge management thus represents a new perspective on organizations that acknowledges, in the same vein as strategic resource-based view literature (see e.g. Mahoney and Pandian, 1992; Peteraf, 1993), the firm's internal processes, capabilities, and resources (Gherardi, 2000). To date, knowledge management theorists have been primarily concerned with the classification of various forms of knowledge that are used in organizations. For instance, it is common to point out the problems in making use of tacit knowledge and other forms of knowledge that cannot easily be transcribed, codified, stored, and disseminated (Nonaka, 1994; Baumard, 1999). The knowledge management literature has shown very limited interest in the political, ideological, and emotional aspects derived from the project of managing knowledge as if it were any kind of tangible organizational resource (Fahey and

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Prusak, 1998). Managing knowledge implies a need to construct substantial social, psychological, and emotional commitments and contracts between organizational employees and management. It is simply not possible to manage knowledge in the same manner as tangible resources, because knowledge is, to use Donna Haraway's concept (1991, 1997), *situational*, embedded in social practices and worldviews.

The aim of this paper is to discuss knowledge management from a feminist, gender-based perspective. The paper presents an ethnography of a pharmaceutical company and it suggests that the practices that derive from a knowledge management program are gendered, i.e. they are determined by a socio-cultural and economic framework that tends to favour certain (primarily male) perspectives and objectives. Rather than thinking of knowledge management as being detached from societal ideologies, worldviews and various actors' agendas, it should be examined as being a discursively produced body of activities and practices that is based on assumptions that are in most cases badly articulated or concealed. To manage knowledge is therefore, like any management activity, subject to various influences. The paper is structured as follows. First, knowledge management is examined in terms of being removed from social influences and the issue of gender. Second, a feminist view of organization is discussed, Third, the study of the clinical research activities of a pharmaceutical industry is presented. Finally, some implications and conclusions are discussed.

KNOWLEDGE MANAGEMENT: TO MANAGE KNOWLEDGE AS AN ORGANIZATIONAL ASSET

Knowledge has been depicted as one of the most important resources for organizations (Nonaka, 1994; Nonaka and Takeuchi, 1995; Spender, 1996). Knowledge is, to put it briefly, a *complex* notion (Blackler, 1995). It serves as an overarching heading for the totality of skills, experience, know-how, and capabilities that are put into practice on both the individual and organizational level; 'organizational knowing combines sensing, knowing, and doing into continuous cycles of interpretation, innovation, and initiating action' (Choo, 1998, p. 224). Grant (1996, p. 375) argues that 'the primary role of the firm, and the essence of organizational capability, is the integration of knowledge' Powell (1998, p. 228) says that 'rather than viewing firms as vehicles for processing information, making

decisions, and solving problems, the core capabilities of organizations are based increasingly on knowledge-seeking and knowledge-creation' In addition, Teece (1998, p. 75) claims that 'the essence of the firm is its ability to create, transfer, assemble, integrate, and exploit knowledge assets. Knowledge assets underpin competencies, and competencies in turn underpin the firm's product and service offerings to the market.' The *raison d'être* of the firm is therefore not only to reduce costs in the procurement, coordination, and use of a set of resources, but equally to enable the development, creation, and extension of an existing body of knowledge. In the words of Kogut and Zander (1992, p. 384), 'firms exist because they provide a social community of voluntaristic action structured by organizing principles that are not reducible to individuals'. Firms serve as an arena within which knowledge is differentiated, intertwined, and reconfigured. The development of knowledge internally to the firm rests on what Kogut and Zander (1992) refer to as the firm's 'combinative capabilities': 'New learning, such as innovations, are products of a firm's capability to generate new applications from existing knowledge' (Kogut and Zander, 1992, p. 391). Choo (1998, p. 105) writes that 'while most of the organization's knowledge is rooted in the expertise and experience of its individual members, the organization provides a physical, social, and cultural context so that the exercise and growth of this knowledge takes on meaning and purpose', pointing out that organizations have an important role in providing 'social and technical structures to promote the internal sharing of expertise' within the organization.

The knowledge management perspective implies that knowledge is used as a tangible resource that could be employed in specific situations. This perspective implies a rationalistic view on knowledge. For instance, Fahey and Prusak (1998) argue that much knowledge management literature takes an 'information technology approach' to knowledge wherein information is used as a stock that can be captured, stored, retrieved, and transmitted between organizations, organization units, and between individuals (cf. Liebeskind *et al.*, 1996; Hargadon, 1998; Hargadon and Sutton, 1997). According to the knowledge management literature, knowledge is (1) an organizational resource that should be managed like any tangible production factor, (2) is created within social settings such as communities of practice or work groups, and (3) is embedded in local practices and arenas. However, it is somewhat unclear what the two latter points mean in practice. The existing knowledge management

literature has been focused on the implications of the first point, i.e. knowledge *vis-à-vis* other organizational resources and capabilities. What is of particular interest in this paper is that the latter two points can be taken to imply that knowledge is gendered.

THE GENDERED ORGANIZATION

The feminist view on organizational practices can be seen as a general departure from conclusive meta-narratives where all organizational members share objectives, goals, and ambitions. Rather than studying organizations as being homogeneous social formations, feminist, post-colonial, or queer, theory perspectives on organizations emphasize heterogeneity; there is no one single, widely shared view on how an organization should operate, but there is an multiplicity of *petit récits*, small stories that are local, contextual, and idiosyncratic (Lyotard, 1979). The contributions of feminism to organization studies are numerous. First, feminism has problematized the notion of the body (Butler, 1993; Braidotti, 1997; Lykke and Braidotti, 1996) as being the nexus between the private and the public, a line of demarcation between male and female, normal and pathological, and the site for various forms of operations, modifications and discipline (Trethewey, 1999; Hassard, Holliday and Willmott, 2000). Second, feminism has shed further light on emotional management in organizations (Hochschild, 1983; Mumby and Putnam, 1992). For instance, Martin, Knopoff and Bergman (1998) claim that 'some emotions, such as anger and competitiveness, are generally condoned in bureaucratic organizations, while others such as sadness, fear, some forms of sexual attraction, and vulnerability are taboo' (p. 434). In general, feelings that are conceived of as being feminine are less legitimate in organizations; emotional management is thus gendered: male feelings and emotional responses to various stimuli are legitimately expressed while female emotions are rejected. Third, feminist studies have examined the use of language and communicative practices in organizations (Sotirin and Gottfried, 1999). Other feminist approaches to organizational activities include the distribution of career opportunities (Fondas, 1999; Daily, Certo and Dalton, 1999), work pressure (Cavendish, 1982), the experience of psycho-social responses such as stress and burnout (Meyerson, 1994, 1998). In general, as Kerfoot and Knights (1998) point out, the very idea of management is based upon certain objectives and assumptions that derive

from a phallogocentric (Irigaray, 1996), i.e. a male-biased, mode of thinking and acting. In brief, feminism aims at unconcealing and articulating the assumptions that are innate to management activities and objectives. In terms of knowledge management, one of the latest buzzwords of the managerialistic vocabulary, the very idea of knowledge is often used as if knowledge had an essence, an inherent, stable number of qualities or characteristics *per se*, that can be used as an organizational resource. Feminism, as well as most post-structuralist theory, is most hostile towards the idea of essences (Butler and Scott, 1992); there are very few entities or events *as such*, but they are primarily constructed, inscribed, and modified by various operations and processes (cf. Latour, 1987). Taking a post-structuralist view on knowledge, the question is whether knowledge is gendered or not. Is there knowledge *per se* in organizations or is the construction of knowledge (i.e. the development, dissemination, and reproduction of various forms of valid knowledge) determined or affected by certain worldviews, perspectives, and favoured modes of thinking that define what legitimate and useful knowledge is. The assumption of the remainder of this paper is that knowledge and the processes of knowledge management—the activities aimed at managing knowledge as an organizational asset—are based upon certain ideas and assumptions that demarcate not just between knowledge and non-knowledge (i.e. myths, rumours, pseudo-science, etc.) but also between legitimate knowledge (i.e. primarily male knowledge) and non-legitimate (or at least more peripheral knowledge which is female knowledge). Knowledge management is based on the asset knowledge which we think of as a *stock* or skills and know-how that can be applied to cases. Since knowledge always makes sense in practice, knowledge management is entangled in numerous social activities—there is no knowledge management outside of the social life in organizations. As a consequence, the relationships, attitudes, and beliefs among organizational members will become a component of all knowledge management practices. Thus, there is neither knowledge, nor knowledge management *per se*: they are always embedded in social practices and beliefs.

MANAGING KNOWLEDGE IN THE PHARMACEUTICAL INDUSTRY

This paper presents a study of the clinical research activities in Alpha, a major multinational pharma-

ceutical company. This section is structured as follows. First, methodological issues are addressed. Second, the qualities of clinical research in the pharmaceutical industry are sketched. Third, the study is presented.

Methodology

The methodology of this study is the somewhat original combination of action research (Eden and Huxham, 1996; Chein, Cook and Harding, 1948; Foster, 1973; Reason, 1994) and ethnography (Atkinson and Hammersly, 1994; Putnam *et al.*, 1993; Olesen, 1994). Action research is aimed at not only describing or analyzing phenomena, but also at contributing to organizational changes (Chein, Cook and Harding, 1948). Much criticism has been directed towards action research in terms of its being normative, naïve, de-politicized, unreflexive, or simply not good (Reason, 1994). However, there are no constructions as such between an action research project and qualified research; action research primarily means that knowledge produced from the research activities are used as input for organizational change. In this project, the development, dissemination, and re-production of knowledge in clinical research activities in pharmaceutical industry was studied with the explicit objective of enhancing the sharing of knowledge and experiences within the company. The study was undertaken through (1) conducting interviews with employees at the clinical research division, (2) observation and participation at meetings, seminars, and training courses, and (3) studies of internal documents. In addition, tentative findings and conclusions were presented to the interviewees to promote an open-ended discussion on the findings. The objectives of these discussions were twofold. First, we wanted to integrate the interviewees into the research process to make them feel that they were contributing to the research project.

Organizing seminars where the findings were discussed provided the interviewees with an opportunity to reject or question the analysis of the empirical material at an early stage. In addition, the contributions of the interviewees further reinforced the quality of the empirical material as we could not only gather first-hand information but also receive the comments and reflections of all the interviewees on the statements and suggestions from individual interviewees. Besides the discussions with the interviewees, we participated in top management meetings and at a two-day seminar aimed at discussing potential improvements of the existing clinical research

activities. In summary, the action research methodology enhanced the dedication of employees and was a better method for addressing the empirical material.

The ethnographic approach is a useful methodology when studying complex phenomena or processes that are not familiar (Czarniawska-Joerges, 1992). Ethnographies provides opportunities for formulating what Geertz (1973) calls *thick descriptions* of what could be characterized as heteroglot phenomena (Bakhtin, 1994), i.e. complex, multiple or seemingly contradictory events or processes. Ethnographies have been used to study manufacturing companies (Burawoy, 1979; Graham, 1995), knowledge-intensive industries such as engineering companies (Kunda, 1992), service industries (Hochschild, 1983), or entire social communities (Whyte, 1993).

The pharmaceutical industry operates as a nexus between applied academic research, the health care sector, and the service sector. The industry is based on advanced, specialized knowledge in various medical and biochemical fields of research such as cardiovascular or gastrointestinal medicine, but make use of a wide variety of competencies. In its day-to-day activities, a pharmaceutical company reminds one of a combination of a university and a hospital. Since pharmaceutical companies make use of specialized, expert knowledge, an ethnographic study of clinical research in a pharmaceutical company enables the department of a detailed understanding of the activities that take place in the company.

Clinical research in the pharmaceutical industry

The pharmaceutical industry is characterized by substantial entry barriers, large initial investments in product development, great financial effects from registered new drugs, long new product development processes, and a considerable degree of institutional and governmental interaction (Yeoh and Roth, 1999; Roberts, 1999; Koretz and Lee, 1998; Cool, Röller and Leleux, 1999). This study is specifically focused on clinical research activities. The aim of these activities is to turn a specific compound, a 'substance', derived from laboratory research, into a registered product that can be launched in the market. Laboratory research produces a compound that has desirable effects on the human body. Pre-clinical research tests the new drug on laboratory animals and human volunteers, for instance students or inmates. If the new drug produces desirable health effects, and if it does not have too severe side-effects, it is subsequently tested in a popula-

tion of patients to prove its health effects. Clinical research often includes 5000–6000 patients distributed in up to 30 countries and could last for a number of years. Consequently, clinical research is very expensive and therefore constitutes a major component of the final product's production cost. Therefore, the compression of time to market and the reduction of new product development costs are crucial strategic objectives in the pharmaceutical industry. In addition, the entire new product process is heavily determined by various rules, regulations, and standards in terms of clinical practices. For example, the *Good Clinical Practice* standard is an international agreement that specifies, albeit in general terms, how clinical research activities should be undertaken.

Clinical research and earlier phases of new drug development

Clinical research activities are based on a number of skills, know-how, and capabilities that are employed throughout the clinical phase. The ability to initiate, start up, administrate and organize, and finally to submit a new drug application to the medical authorities such as the FDA (the American Food and Drug Administration) requires the orchestration of a multiplicity of skills and experiences (Henderson and Cockburn, 1994). The ability to fine-tune, transfer, and further develop these skills is of pivotal interest to companies and critical to their long-term survival. Thus, a research project on the topic was initiated jointly with Alpha. The new product development process includes laboratory research, pre-clinical studies, and clinical research. These three phases comprised various different expert skills and types of knowledge, for instance medical expertise, data management capabilities, administrative routines, and leadership experience. In general, the most prestigious groups at Alpha were the medical doctors and biochemists who worked in laboratory settings to produce new drugs subject to clinical studies. The further one proceeds from the laboratory setting, the less prestigious at the positions. Thus, the clinical research activities, no matter that they constitute a very significant part of the total new drug development budget, were the least favoured activity, indeed, at times these activities were thought of as merely aimed at delivering credible evidence that the new drug provided the desirable effects. To laboratory technician, clinical research involved very little creative work; it consisted primarily of the tedious processing of information that had already been collected.

Competencies within clinical research

Clinical research was organized around individual new drugs. Each new drug subject to clinical research was administrated by a research team called a *study work team* (mostly referred to by the acronym SWT). Each SWT consisted of a project leader, one or a few clinical research leaders, clinical research administrators, study administrators, data management personnel, and safety personnel who were responsible for the so-called *adverse events*, i.e. events reported where the patient's health was substantially affected for various reasons that might be related to the use of the tested drug. Most of the clinical research division were women. Several were recruited from the healthcare sector and had made careers within hospitals. Even though the SWT worked closely together over fairly long period, and therefore had to share their know-how and experience within the group, there was a clear division of labour within the SWT. Project leaders, clinical project leaders, data management, etc. had their own specific skills and capabilities.

In Alpha, the majority of top management were men even though a majority of the employees were women. In the clinical research division, the managing director was a man in his late forties but the four department managers were women in their forties and fifties. The workforce of the clinical research division consisted of approximately 150 people. The organizational tenure among the employees differed from only a few weeks to 30 years.

Articulating knowledge management

During the interviews, several of the interviewees formulated their views on how the SWTs worked in terms of sharing know-how, skills, and experience among SWT members. Most of the interviewees explicitly pointed out the importance of nourishing an open, helpful, even caring attitude towards one another to promote knowledge transfer within the group. Unless the members of the SWTs were able to jointly share their insights and information, the clinical research trials would take substantially longer time to complete. Therefore, the knowledge of the SWT was primarily *relational*; Knowledge became useful when it is shared in practice. This concept of knowledge is inherently different from a stock perspective. Knowledge is not there, ready to be used, but is continuously produced in the process of knowing. However, the interviewees did refer to knowledge as being a fixed entity or stable configuration when they were

referring to the expert knowledge of medicine that the laboratory staff mastered. Formal training and official exams were seen as evidence of possessing a certain form of scientific knowledge. Since most of the personnel at the clinical research division did not have PhDs in medicine or biochemistry, expert knowledge was thought of being something fundamentally removed from the relational knowledge used in the SWTs. In summary, expert knowledge, the knowledge of the other, was seen as being a stock that could be used, while the knowledge of the SWTs, familiar knowledge, was seen as distributed, shared, and relational.

In the clinical research division, women were in the majority. Men were often recruited to work in clinical research but they often made internal careers which led them to positions in other departments. Therefore many of the interviewees, especially women, claimed that it was desirable to have a few men working in the SWT as they could contribute with alternative perspectives on problems. Men were also claimed to be more focused on results and output, while women were identified as having a proclivity towards democratic decisions that took all SWT members' views into account. In general, there was a strong belief in men as being a good complement to the women's skills and experience. Women's experience and competencies were to a much larger extent taken for granted and were not depicted as being as important as those of the men. For instance, during the two-day workshop, located at a nice beach resort one hour from the Alpha site, the clinical research division employees were split up into discussion groups of about ten people to discuss potential for improvements of clinical research. Issues such as leadership, communication, document management, etc. were discussed for one and a half hours and reports were made back to the entire group. During the presentations, it was common that men were either presenters of the individual group discussions or top management addressed specific questions to individuals who were in most cases, men. For instance, during a presentation, the managing director would intervene to make a remark like 'well, that is an interesting idea... what about if we turn to John to hear if he can make a further clarification?' or 'I believe that we have already initiated a discussion on mentorship. I think that Robert has something to say about that. What do you say Robert?' This tendency was most conspicuous regarding the role of the five trainees that had been recently recruited and had almost completed the entire trainee program by the time of the workshop. Alpha had an explicit objective of recruiting more men to the

clinical research division, but it was most difficult to find male applicants for the trainee program who had the right combination of formal education and degrees, communicative skills, and the capacity to work in a group-based setting. As a consequence, there were five women and no men had been hired for the trainee program. During informal discussions with the managers and the person responsible for the trainee program, the five women were praised for being skilled, cooperative, and professional and were depicted as being a major investment and resource for the company. However, the roles of these trainees were rather peripheral in the discussions and demonstrations. They were not referred to or explicitly asked to comment on the discussion, but remained silent. In one discussion, one male data manager working his second day at Alpha was assigned to report back on a specific topic to top management. Compared to the nine-month trainee program that the five women had passed, his two days, experience hardly made him input credible.

At Alpha, many female interviewees half-jokingly, half-seriously referred to the low female representation in top management as a problem in terms of distributive justice; there were simply too few female managers within the organization given the number of women working in the company. For instance, one of the clinical project leaders was upset about a notice posted on the intranet that claimed that the company had as its 'ambition and guideline' to have 'at least' 10% female managers. The project leader argued that it was a disgrace that top management dared to even formulate anything else but an objective of 50% women, and, as she pointed out, to have a direct representation between the sexes, there should be about 70% female managers.

To conclude, knowledge in clinical research was distributed among the members of the SWTs in the form of relational knowledge, produced through joint effort and conversations. On the other hand, the expert knowledge controlled by PhDs and other specialist groups were thought of in terms of being knowledge *per se*, removed from contextual influences. The relational, distributed knowledge was not given as much attention as the expert knowledge within Alpha. Most of the employees within the clinical research division were women. The relational knowledge was thus primarily developed by female co-workers, and it is noteworthy that several of the interviewees claimed that the activities of the clinical research division were relatively marginalized compared to the pre-clinical and laboratory basic research. Clinical

research was expected to provide adequate evidence of the beneficial effects of the new drug, but it was not thought of as being a key strategic activity. It was therefore not as prestigious as earlier phases of the new product development process. In general, the roles of women in clinical research activities were often more marginal than those of men *ceteris paribus*; the competencies, skills, and efforts of men were highly appreciated and less taken for granted.

IS KNOWLEDGE GENDERED?

The point of departure for this paper is whether knowledge is gendered. This is a most complicated question since it assumes that there are qualities inherent in knowledge that can be seen as being either 'male' or 'female'. When taking a non-essentialist stance, there is no such thing as male or female knowledge; knowledge always become knowledge, is *knowledgized* in specific social settings and contexts (Choo, 1998). Therefore, it is more adequate to talk of *knowing*, as Choo (1998) does, rather than knowledge; the notion of knowing integrates *temporal* and contextual aspect into knowledge and thus avoids a number of complicated ontological and epistemological problems that need to be addressed. To rephrase the question, is the process of knowing affected by certain perspectives, ideologies, or worldviews that can be claimed to be derived from a specific gender-biased view on organizational activities? To express this question in terms of the theory of knowledge management: Does the knowledge management literature address the issues of knowledge, knowing, and knowledge management as being gendered activities that need to be self-reflexive in terms of unconcealing and articulating their own assumptions? The gender problem inherent in the knowledge management literature is therefore twofold; it is both a practical problem that deals with the use of knowledge resources in organizational activities, and it is a theoretical problem that sheds light on the meta-narrative of knowledge. Both the practical as well as the theoretical side need to be examined in detail.

Following Choo's (1998) idea of knowing, i.e. knowledge in action, situated within certain epistemes, paradigms, and numerous taken-for-granted ideas and everyday practices, the study suggests that there is no gendered knowledge as such since we seek to depart from essentialistic, *eidetic* views on knowledge. We rather think of knowing as being embedded in the multiplicity of

practices that constitutes organizations (Cyert and March, 1963; Nelson and Winter, 1982), and therefore, the gendered practices of the organization are transferred to the practices of knowing. Knowing in organizations is made up by everyday activities. As previous feminist studies suggest, there are a broad number of strategies and routines that exclude and marginalize women's skills, communicative performances, and sources of illnesses or concerns. The practices of knowing are by no means sheltered from these strategies and routines; women's skills and capabilities were not neglected or underrated at Alpha, but it was still noteworthy that most prestigious positions were held by men; at the same time women with adequate degrees and qualifications had in general fewer prestigious roles *vis-à-vis* other men with the same backgrounds. However, these conditions were articulated by the interviewees who suggested that this should be changed, which indicates that there were possibilities for an open discussion on the topic.

The second problem deals with the existing knowledge management literature that does not really conceive of the notion of knowledge as being subject to gender issues or other form of contextual influences. Much of the knowledge management literature is normative and suggest various models for dealing with knowledge in organizations (see, for instance, Von Krogh, Ichijū and Nonaka, 2000, or Nonaka and Takeuchi, 1995) and dedicates very little space to the political dimensions of knowledge, a domain of thinking that have been examined within organizational theory and social science (see Foucault's extensive work, e.g. Foucault, 1980). To conclude: knowledge management is still in its infancy, and it has neither sufficiently addressed the general political aspects of knowledge nor has it integrated the more specific question of gender.

DISCUSSION

The study of new product development in the pharmaceutical industry suggests that knowledge management would benefit from, clarifying and articulating the assumptions that serve as its basis. A comprehensive theory of knowledge and knowledge management needs to both define how concepts and notions such as knowledge, knowing, learning, and thinking are related and formulate what kind of theory knowledge management should be. For instance, is knowledge management primarily a box of tools aimed at being applied to cases or is it a phenomenological

or socio-political integrated framework for the study of how knowledge is used in organizations? There are, and have always been, various forms of knowledge in organizations. Today, the existing knowledge management literature theorizes and problematize only a fraction of the potential aspects of knowledge and the idea of managing it as an organizational resource. A broad variety of ontological, epistemological, and methodological issues remain subject to analysis. Therefore, the knowledge management literature needs to be further developed to avoid being turned into the latest management fad.

What remains to be discussed is why a body of literature that is so completely directed at highlighting the opportunities for personal well-being and self-fulfilment so conspicuously ignores the entire issue of gender. For instance, Von Krogh, Ichiju and Nonaka (2000) fill their book with colorful accounts on visionary companies' endeavours to build 'classless societies', 'total involvement', 'mutual trust', 'active empathy' (Von Krogh, Ichiju and Nonaka, 2000, pp. 35-55), indeed a complete political vision of the good and sane society. This society is not, however, based on the old political virtues of justice, liberation, equality and freedom, but on the management of knowledge. In such a visionary and edifying discourse there should, one might suggest, be room for discussion on post-colonial implications or gender issues. In von Krogh, Ichiju and Nonaka's contribution, it becomes evident that the very idea of gender is removed from the discourse on knowledge. Feminist studies in organization and management theory remain a somewhat peripheral or/and excluded domain that are being developed in particular communities and research groups. To conclude, there is a considerable distance between the normative popular management literature and scholarly feminist research which says something about popular management literature and about feminist research. To put it briefly, each would benefit from taking more note of the another.

Feminist theorists of science such as Donna Haraway (1991, 1997) suggest that all (scientific) knowledge is *situational*, i.e. is inscribed with meaning and purpose within specific communities and in certain settings. Haraway's detailed analysis of scientific practices shows that even 'pure', basic, natural science such as zoology is gendered, i.e. is subject to ideologically based conceptions on what are male and female idiosyncratic qualities. The philosophy of science in the tradition of Popper (1959), Kuhn (1962), Lakatos (1970) and Feyerabend (1975) has served to relativize the idea

of 'pure' science; pure science is never as pure as its claims but is always embedded in the shared worldview of the scientific communities, the dominant paradigm(s), or the political agenda(s) influencing the research program (Latour, 1995). The degree of reflexivity of science, defined in terms of being aware of its own ground and point of departure, is enhanced through critical examination of various practices. This paper suggests that the practices of knowledge management need to be critically examined since they overlook the situational aspects of knowledge.

CONCLUSION

The knowledge management view on organizations is a recently developed perspective. As a consequence, there are a number of theoretical and practical problems and puzzles that need to be resolved. However, there is little evidence of a self-reflexive view on knowledge in the normative literature that suggests that all these aspects will be addressed by knowledge management theorists. To Calori (1998), 'strategic management is still a "grand narrative", an archetypical "modern" concept governed by deductive rationality, and researchers are still guided by the principles of "performativity" (Calori, 1998, p. 290). This criticism could be directed at the knowledge management literature as well; there are no critical views on the ideas of a singular, conclusive, and unified model of knowledge, knowledge is conceptualized as being a new 'grand-narrative' of today's organizations. Knowledge is promised to be the key organizational resource of the future and therefore it must be managed as such. Hence, the importance of knowledge management. It is therefore hardly surprising that the *petit récits* of feminist theory have not been adopted by knowledge management theorists. The influence of feminist theory on knowledge management literature to date has therefore been negligible. It is vital that the future of knowledge management does not return to its past.

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