KNOWLEDGE MANAGEMENT : TAKING POWER DYNAMICS SERIOUSLY.

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Abstract:

This paper deals with knowledge management both as a practice and as a concept. We argue that both practitioners and academics have dismissed the issue of power too quickly. One may summarize the prevailing discourse on power within the context of KM the following way: 'Yes, knowledge is power, but shared knowledge is more power'. We posit that knowledge flow is fundamentally embedded in power relations. However, using the organizational sociology of M. Crozier and E. Friedberg, we posit that power dynamics play a dual role in knowledge management as both a barrier and an enabler. We report a study undertaken in a large multi-national consultancy firm using the above approach. The study contrasts three entities: a quality and method department, a central KM unit and a community of practice of IT architects. Preliminary findings point toward a tight coupling between the social structure induced by dynamics of power and knowledge flow within the organization.

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1. INTRODUCTION

Knowledge appears as a cornerstone in many recent research in management. The so-called 'knowledge view of the firm' (Kogut and Zander, 1996; Grant, 1996) is gaining increasing attention, as well as process-oriented research on the management of knowledge (Hedlund and Nonanaka, 1993; Nonaka, 1994). The OECD recently published a report entitled *Knowledge Management in the Learning Society* (OECD, 2000) that contrasts the production, mediation and use of knowledge in various sectors of the economy. It highlights the fundamental role that these processes play in economic development. The management of knowledge, or Knowledge Management (KM) as it is popularly referenced, is rapidly becoming a managerial practice of its own (Bonner, 2000; Ruggles, 2000) with a growing number of practitioner publications (Davenport and Prusak, 1998).

This paper argues that both practitioners and academics have dismissed the issue of power too quickly. One may summarize the prevailing discourse on power within the context of KM the following way: 'Yes, knowledge is power, but shared knowledge is more power.' We posit that knowledge flow is fundamentally embedded in power relations. Using the organizational sociology of M. Crozier and E. Friedberg, we explore the role of power dynamics in knowledge management. In contradiction with popular wisdom, we claim that power dynamics act simultaneously as a barrier and an enabler to the flow of knowledge within organizations.

Our paper has three sections. In the first section, we present a theoretical perspective on the potential role of power in KM processes. Then we present the organizational sociology of Crozier and Friedberg as an heuristic particularly useful for studying the KM processes. In the last section, we briefly report preliminary findings from a study undertaken within a large multi-national consultancy firm using the above approach.

2. THE POTENTIAL ROLE OF POWER IN KM PROCESSES : A THEORETICAL ARGUMENT.

2.1 Sharing knowledge

Formal IT-supported knowledge management systems have often reported only limited success (Ciborra, 1996). Beyond technological and design problems, one often finds that it is difficult to convince people to contribute to these systems, i.e. to share their knowledge. When formal incentives are introduced, as several management consultancy firms have done, one finds that the knowledge shared is of low strategic value, and that informal networks prevail as the key medium for knowledge acquisition. Intuitively, and in casual conversations, many recognize that sharing valuable information and knowledge *in a competitive environment* poses difficulty. For the most part, organizations remain in environments where individuals face fierce competition. Competition takes place among individuals, but also among teams and departments within the organization, and between the organization and its external audiences. In

many circumstances, giving away valuable information and knowledge can be equated with a loss of power.

2.2 Acquiring and using knowledge

The dynamics of power do not only affect knowledge sharing. In many cases, using knowledge can also be resisted on the grounds of power struggles. In other words, one could refuse to use the knowledge shared by someone else because it could mean (i) to grant expert status to the sender, and (ii) to engage in a logic of reciprocation where the commodities exchanged in return are not restricted to knowledge and information, but can take many other forms. That is, if B uses the knowledge "shared" by A, then A could in return ask B for a favor, which might have nothing to do with knowledge exchange. This issue is not restricted to the individuals' dyadic level but takes place at the inter-group level as well. In firms where competing teams work in parallel, the "Not Invented Here" syndrome can be regarded as a matter of losing power to the "sharer". Another occurrence where power influences the way knowledge flows within an organization is when knowledge acquired from external sources undermines the traditional expertise of an internal group. The often-debated "resistance to change" can be a by-product of the instrumental behavior of a given group to protect its knowledge power-base.

2.4 Knowledge Management as an emerging corporate function: the need for research.

When a firm introduces formal KM procedures and set up a managerial structure to support it, such as knowledge managers, knowledge editors, and Chief Knowledge Officers, the introduction equates to the emergence of new actors in the organizational power games. As KM gains credibility in an organization, it becomes a potential source of resources. Conflicts may appear within the Quality department, the Human Resources Management department, or the Marketing department, for example.

As these four instances illustrate, the "politics of knowledge" are significant. There is a risk that, if not addressed the dynamics of power will undermine many efforts at improving the management of knowledge within organizations. So far, there has been few empirical works addressing the implementation of KM. The importance of trust and psychological safety (Edmondson, 1999), interactions within communities of practice (Brown and Duguid, 1991), enabling information and communication technologies (Ciborra, 1996), group dynamics (Argote, 1999), absorptive capacity (Cohen and Levinthal, 1990), defensive routines (Argyris and Schön, 1978), knowledge stickiness (Szulanski, 1996) are discussed at length. However, the idea that the creation and diffusion of knowledge are socially embedded in power relationships receives scant attention. More generally, Easterby-Smith, Snell and Gherardi (1998) have identified power as an issue that has received limited attention in the organizational learning literature. De Long and Seeman (2000) report the case of a European pharmaceutical company, which launched a KM program to reduce the development cycle of new drugs. For political reasons, the group responsible for implementing KM became centered on the process of loading-up documents into databases instead of focusing on knowledge sharing across project teams, and as a result, the project had a low impact.

However, there is a danger that if power is presented only as a barrier to KM, then it will remain taboo and hence will not be dealt with correctly. We need to regard power

dynamics as not necessarily negative. In some cases, these dynamics may even enable KM. Because power plays a central role in KM, we need a theory of power to study it.

3. POWER IN THE ORGANIZATIONAL SOCIOLOGY OF M. CROZIER AND E. FRIEDBERG

In this section, we present the epistemological foundations and the central concepts of the organizational sociology of M. Crozier and E. Friedberg[1]. In so doing, the reasons for choosing this approach to study KM processes will become clear. Since this approach to the study of organizations may seem quite different from the main stream of modern American sociology and organization theory, we feel it is necessary to explore its ontology and genesis. Notably, it is worth noting that M. Crozier has remained prisoner of the success of *The Bureaucratic Phenomenon* (1963) and has been labeled as a specialist of French Bureaucracy. It must be stressed that the concepts, which we describe below, which are borrowed from Crozier and Friedberg (1977, 1995) and Crozier and Thoenig (1976) are posterior to *The Bureaucratic Phenomenon.* They are not associated with the study of bureaucracy. Rather, they constitute a framework for the sociological analysis of organizing and organized action, 'organizations', being a case in point. In France, this approach is known as "analyse stratégique", which does not translate well in English word-to-word since 'strategic analysis' has a very different meaning in management research. Since its publication in 1977, this approach has become one of the dominant paradigm in French Sociology, alongside the work of Bourdieu, or Latour for example.

3.2 The genesis of the approach

Crozier and Friedberg developed their approach in the 1970s. They borrowed on several basic notions from various domains. First, they borrowed *the relational concept of power* from Dahl (1957) and Emerson (1962). Second, they borrowed the concept of *bounded rationality* from Simon (1957) and later March and Simon (1958). A third borrowing was from decision-making research, and the then developing game theory, for the concept of "*game*". Historically, the authors also borrowed from American social sciences of the 1950s, with the emphasis put on empirical investigation. Indeed, more than a substantive theory, this perspective is essentially heuristic. It is a mode of reasoning for the empirical analysis of organized action. In this approach, an organization is defined as 'a tool for the management of interdependencies which arise between actors from the uncertainties affecting their collective effort and outcome'. (p. 73, 1995). That is, organizations are ways and means of collective action. In other words, the object of analysis is not only formal organizations, 'but organization understood as the process through which the strategic interactions among a set of actors placed in a given field of action and mutually dependent for the solution of some common "problem" are stabilized and structured into local and contingent orders'. (p. 75, 1995).

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[1] This section builds on Crozier M. and E. Friedberg, 'Organization and collective action – our contribution to organizational analysis' in S.B. Bacharach, P. Gagliardi, B. Mundel (Eds*), Studies of Organizations in the European Tradition, Research in the Sociology of Organizations*, Vol. 13, Greenwich, CT: JAI Press, 1995, p. 71-92.

This means that to understand KM, which alongside Weick (1979) we regard as a fundamental constituent of organizing, there is a need for clinical research into the various fields of action where it is currently deployed. So far, there is a dearth of such empirical research. Considering the potential power-embeddedness of KM, which we previously discussed, such research appears necessary.

3.2 The notion of actors

The unit of analysis so to speak in this approach is the *strategic actor*. That is, collective action is analyzed from the standpoint of the interactions between actors. The conception of individuals as actors does not imply any ontological or a priori definition of what it takes to be an actor. In other words, everybody is an actor as soon as he acts in a field of action, and by doing so contributes by his behavior to its structuration. So, passivity as much as activism constitutes an act. The actor can be an individual or a collective entity. Which individuals or groups will be considered as the actors depend on the research-question and the ensuing configuration of the relevant field of action. Hence, the individualism which underlies this approach is purely methodological.

Applied to the study of KM this has profound methodological consequences. That is, the relevant actors as far as knowledge management is concerned need to be established inductively. This in turn means that we should not restrict the analysis to processes formally presented as being part of KM. Instead, we should start with a broad picture of the knowledge flow, which make up an organization, and work from there to reconstruct the relevant actors. This entails a view of the organization as a knowledge processing system, which resembles the organizational metaphor found in organizational memory research (Stein, 1995; Walsh and Ungson, 1991).

The actor is "strategic"; this means that he or she is intelligent and active. Actors think. They have intentions and objectives, but that does not mean that they will succeed in their pursuit. They are endowed with what can be called a "strategic instinct", i.e. their behavior is not the sole result of their past socialization but also reflect their perception and assessment of the current situation in terms of opportunities and constraints, plus their intuitive anticipation of the behaviors of other actors in the field. This means that human action is driven by interest but the analysis does not need to define any further the nature of this interest. The foundation of human motivation, if ever one can get to it, can only be derived from an inductive analysis of a given field of action.

3.3 The contingency of actors: the notion of concrete action system

Parallel to the definition of agents as strategic actors, is the postulate about the existence of a system of action, which again must be empirically determined. It is in reference to the action system that the behavior of actors makes sense. According to Crozier and Friedberg (1995), a system "is relatively autonomous from global mechanisms of regulation" (p.78). This means that its characteristics, its rules of functioning will always mediate psychological as well as societal constraints. It is in this sense that the analysis is truly 'organizational', that is, it focuses on the dynamics at the organizational level with the assumption that this level of analysis has a certain degree of autonomy with respect to both individual or societal level of analysis.

Similar to the notion of actor, that of action system has been defined as it is for methodological purposes. The system here is nothing more than a framework that has to be reconstructed. It is void of all functional determinism that is usually associated with the notion of system. The system does not exist outside of the actors who have constructed it and the researcher who can reconstruct it. Therefore, it is always at least partially conventional. Clearly, it consists of an open system, not predetermined in advance, and not necessarily self-regulated.

Adopting such an 'open system' perspective also has profound significance for our research. It means that the motivation to share, the attitude to knowledge is born out of a given context of action and does exist independently of it. It is not possible to divide individuals in two groups, those who view knowledge as power and those who view shared knowledge as more power. Without denying the influence of individual psychology, this approach gives the primacy to contexts of action. Thus the central research question becomes 'are there specific contexts of action, with given "rules of games", which favor a logic of action where sharing is the norm? On the contrary, are there other concrete action systems, which generate knowledge hoarding, NIH syndromes and others, well known motivational or knowledge related barriers to KM?

The notion of games or "rules of the games" within a given action system refer to the empirical mechanisms through which the various actors' behavior are integrated. These rules of the games constitute *a logic of action*, which is radically contingent. Most of the time, in any field of action there will be several games more or less tightly coupled. These games partially overlap and there exists a second-order regulation, a game of games so to speak, which structure these games: it is this meta-game or second-order regulation, which is called a "concrete action system".

3.4 Power as a capacity for action

In this perspective, human interactions are mediated through power-relations, i.e. unbalanced exchange relations that calls for negotiations. The concrete action system is a result of power-relations. But to quote the authors 'contrary to the negative connotation which this notion [power] has always carried in our societies, power in this perspective is not a pathological degeneration of human interaction, it is the normal and unavoidable ingredient of human action " (p. 82, 1995). So following Dahl (1957), Emerson (1962) and Crozier (1964) we define power as the structurally unbalanced exchange of possibilities of action (i.e. of behavior) among a set of individual and or collective actors. In this conception, power is not something an individual inherently possesses. It has an instrumental dimension. It is a characteristic which emerges when one member (A) in a system of relations has the capacity to render his behavior somehow unpredictable in respect of (B) who is dependent upon this action / behavior. Thus, A controls a 'zone of uncertainty' in respect of B, and consequently A has power over B *in this specific context* (most likely, B has some power over A in some other instances, that is in other games where they also meet). A simple example illustrates the salience of adopting this perspective when analyzing the management of knowledge. In knowledge-intensive firms, many professionals rely on their expertise as their main resource for personal and collective bargaining. They will agree to share their experience as long as it is done with identified individuals – this way, they enter a logic of reciprocation and can exchange their knowledge in return of other 'commodities'. Using a 'Crozierian' terminology, we can say that knowledge is a valid source of power for professionals within knowledge intensive firms because simultaneously (i) young

recruits need this knowledge (they face a constraint), and (ii) by selecting who and how fast they 'train' the new comers, the professionals render their behavior somehow unpredictable from the recruits' perspective (they control a useful resource). The issue is very different when one has to codify his or her knowledge in a centralized, anonymous knowledge base – the knowledge contributed becomes non-tradable. Even when financial incentives are introduced for stimulating sharing knowledge, to do so may represent a substantial loss of power. As a result the strategy adopted by most professionals, all other things being equal, will be to resist the process. This explains (among other things) why the knowledge found in centralized databases is often depicted as non-strategic, and why people still rely on informal networks as the key source for vital information and knowledge.

4. PRELIMINARY FINDINGS

4.1 The case studies: methodology and settings.

We have negotiated a research contract with a multinational firm operating in IT and business consultancy. In exchange of confidentiality agreements and detailed feedback, we are given access to the company. The first author has been hired as a full-time researcher in the company's corporate university, with the mission to carry out a series of comparative case studies on the management of knowledge in different units of the group.

So far, we have conducted around 40 interviews, in three groups:
- within the **Central KM function**, where we interviewed the group CKO, his assistant, as well as a regional CKO and a few knowledge managers with either a business orientation or a technology orientation.
- within the **Quality and Methods department**, which is a corporate function working on methods development and deployment for the entire group worldwide, where we interviewed a series of managers.
- within a **community of practice of IT architects**, a group of highly experienced consultants specialized in technological architecture and management for large and complex IT projects where we interviewed several community leaders, senior and junior architects.

In addition, we have also conducted a series of interviews with one general manager and a few professionals who have had a long experience in working for the company, in order to understand the overall functioning of the organization. We also interviewed the Group IT manager. Interviews were carried on-site, and the interviewer was presented as a young recruit doing a PhD research on the management of knowledge on behalf of the group. The interviews were semi-structured. We used a topic guide derived from Friedberg (1987) to analyze the concrete action system. We added specific questions related to KM centered around:
➢ What type of knowledge or information do you need in your work?
➢ Can you give examples illustrating why these knowledge/information are useful for your work?
➢ How do you acquire them (through which channels / people)?
➢ How do you assess their validity?
➢ Globally, are you satisfied with the timeliness and quality of the knowledge and information you receive?

Then, once all the actors identified in the action system have been interviewed, it is possible to reconstruct the knowledge flow among them. When asking these questions we constantly sought for concrete examples. We also distinguished between information, formal knowledge and tacit knowledge or expertise on the ground that it is likely that each have potentially different transfer and transformation dynamics.

4.2 Knowledge dynamics

According to Hedlund and Nonaka (1993) 'the generation and exploitation of knowledge in an organizational context revolve around two critical issues: the interplay of articulated and tacit knowledge, and the transfer and transformation of knowledge between individuals, organizational units and the surrounding environment". (p. 117). Based on the preliminary analysis of the interviews, three knowledge processes have emerged:

- **Articulation** refers to the transformation of tacit knowledge into explicit knowledge.
- **Formalization,** refers to the transformation of individuals' knowledge into a collective knowledge controlled by the organization's hierarchy (the knowledge becomes institutionalized in formal procedures, methods or databases)
- **Horizontal Sharing** refers to the diffusion of knowledge, both tacit and explicit within the community where the knowledge originates.

These processes are present within the three units we are analyzing, but with varying intensity. That is, when one looks at the dynamics of knowledge transformation within these three settings, one finds distinct processes. This has been schematized in figure 2.

	Articulation	**Formalization**	**Horizontal Sharing**
IT Architects Community	+	+	++
Methods Department	++	++	+
Central KM Function	+	++	**? Discourse only**

Table 2: The characteristics of knowledge dynamics in three different organizational units.

In the **IT Achitects community**, which is geographically dispersed around the world, there is a substantial amount of horizontal knowledge sharing. This is done formally through a very successful international training program (successful in comparison to similar programs for other groups within the company) associated with a formal certification process[2]. Informally there is an active electronic forum (again this is in comparison with forums in other communities in the firm). Formalization occurs through the certification process and through formal methods development initiatives. Articulation occurs as well through the production of courses material for the training programs. However, we have conducted direct observation during the training and we

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[2] The Certification process is designed to serve as a formal mechanism to recognize the expertise and experience of architects. The community itself runs it, and there are currently four levels of certification.

have found that the primary objective of the program is networking. Furthermore, everything during the course is actually designed to maximize interactions among participants. The participants themselves, acknowledging the complexity of the knowledge to be acquired in architecture, recognize that the course was too short for acquiring any formal explicit knowledge and that it was more important to get to know the other architects and understand the 'essence' of architecture. In this sense, our data confirm the ideas of Brown and Duguid (1991) who assert that learning occur through a process of becoming a recognized member of a community of practice. Overall, the dominant knowledge process in the IT architects community appear to be the sharing of knowledge among members of the community.

For the **Quality and Method Department**, which is an established function within the firm, the dominant processes are articulation and formalization. Indeed the role of this department consists in extracting 'best practices' from operational units and transforms them into standardized methods, which are then deployed throughout the organization. The articulation is achieved by calling on people from the field to work on the method development process. In this process, the managers of the Quality and Methods Department play a facilitator role. In parallel to this process there is formalization as the knowledge, which has been made explicit, is further transformed into formal guidelines which are, for some, embedded into the quality system of the organization. There is also some element of sharing in the sense that the Department, through a bottom-up method development process, has been relatively successful in deploying the methodologies produced. The same people who participated into their development use these methodologies, although only in parts. In comparison to the Architects community methods though, the deployment of the methods, and hence the use of the knowledge produced is less effective.

In the **Central KM function** the dominant knowledge process is formalization. Knowledge flows from individuals to centrally managed databases. Naturally, in parallel there is a process of articulation since knowledge formalization is mediated through electronic means. However, the extent of articulation is less than in the Quality and Methods department because there is less effort put into the transformation process. Between the two entities, the nature of the knowledge transformed differs: whereas the Quality and Method department spends considerable amount of time working on a single method, the KM function deals which a much more dispersed and short-lived knowledge cose to the information end of the knowledge continuum. So far, the extent of horizontal sharing seems very little although sharing is the dominant professed value in the KM discourse. Through the interviews, we found that people in general do not use the firm's intranet and knowledge bases and they have a low opinion of its quality. It appears as if the knowledge transferred into the databases stop there and do not feed back to the groups whose members have contributed it.

4.3 Discussion.

It is too early in our research to claim that it is the distinct power dynamics associated with these three units that shape knowledge flow within them. For instance, it could be argued that the KM function has historically faced considerable difficulty in securing the right level of financial investments into the technology needed to support the KM infrastructure. This surely explains in part the lack of horizontal sharing. However, why such a lack of investment in central IT systems in a leading IT firm? Furthermore, beyond technological determinism, there is evidence to suggest that knowledge flow

and knowledge dynamics are instead tightly coupled. Notably, the success of the IT Architects community in terms of knowledge management, particularly in terms of knowledge sharing horizontally within the community, appears closely connected to the specific "rules of the games" which structure its action system. The community seems to form a concrete action system quite autonomous from the rest of the organization. Notably, project staffing and career progression appears to be strongly linked with how an individual fare within the community. In some parts of the network, there is an unspoken rule that forbid members to leave the community without first discussing it with the other members (and this before than with management). Gentleman agreements of this kind are possible because the network extends fare beyond the organization's boundaries. There are informal technology clubs where architects from different companies meet. Within the organization, because architects are a small minority with a very specialized knowledge base, they need one another for support. In projects, they are responsible for the technical risks. Such risks are substantial considering the inherent complexity of large IT projects and due to the fact that these projects are sold by a different community, salesmen, who have a very a different logic of action which can sometimes create tension in the delivery process. The community seems to function as a mechanism for risk sharing. This renders possible the exchange of 'strategic knowledge', knowledge such as a personal expert opinion onto someone else project. Indeed, some architects rely on informal cooperation with peers to validate their work outside the formal quality system procedures. Although we do not have sufficient data on this yet, it is very likely that architects identify strongly with their community. This would explain why whereas knowledge sharing is good within the community, architects do not contribute more than other groups in the organization to the formal KM system, nor do they seem to have good knowledge exchanges with the business consultants (who are the other big arm of the firm). The classical in-group versus out-group bias seems very much present.

The Quality and Method department and the emerging KM function seem to be governed by different logic of action. First, unlike the Architects community, they rely exclusively on knowledge that has its source outside their own perimeter; this is especially true for the KM function, which has theoretically a transmission mechanism role. This means that both are in fact collective actors embedded in an action system that encompasses the organization as a whole whereas the Architects community constitute a more secluded action system. It would seem that the action system of the two departments, i.e. their system of interdependence, is roughly the same. However, the position they occupy within it differs. The KM function is a much more recent player compared to the Quality and Method department. The Quality and Method department has enjoyed top management support for a long time whereas the KM function is still fighting for legitimacy. More importantly, from a knowledge dynamics perspective, the Quality and Method department has managed to generate some horizontal sharing in its processes whereas the KM function is still viewed as a formalization device. In some respect, it is as if the latent function of KM was a control function, i.e. a mean for top management to enforce compliance to certain modes of behavior and a symbol of its central importance to the functioning of the company.

5. Conclusion

Based on the preliminary findings, and bearing in mind the substantial degree of caution they call for, the comparison of the three cases show how knowledge flow are embedded in power dynamics.

So far, we have found that knowledge sharing was easier within a more autonomous action system characterized by a collectivization of risk. The existence of a power structure marked by strong mutual interdependence among peer seems to facilitate knowledge transfer within the community while at the same time creating barriers with the rest of the organization. Therefore, power is both an enabler and a barrier to knowledge sharing.

We need to continue our fieldwork to complete our three cases, and add another case that will be looking at a more traditional "geography-based" unit. An interesting question that arose from the preliminary findings as to do with the latent function of KM : How does the apex of the organization consider the true role of KM ? Is KM experienced as a "taylorisation" of intellectual work by consultants ? If it is the case, and still it is successful, why do consultants play the game ? Is there a specific psychological contract within professional service firms, which render possible such a system ? Finally, as the legitimacy of KM increases through institutional pressures, how is the concrete action system modified at the level of the organization and how is knowledge flow affected ?

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