The Importance of Learning to Differentiate between 'Hard' and 'Soft' Knowledge

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Abstract

For knowledge to be managed it has to be severed from those who produced it; it must be stable, replicable, and translatable across contexts, space and time. What this entails is that at some point in its development it has to be divided from its auspices as a specific knowledge of specific people. In science the norms of replication and experimentation enable this division. In the commercial world, where what is required is a commercial product that can be marketed as distinct, different norms operate. In this paper we explore what we take to be a significant way of making such division, which entails the strategy of differentiating that which is 'soft' from that which is 'hard'. Such categories are not self evident and are always socially constructed. In this paper we look at the process through which the division is made up.

Introduction

Mundane practices shape everyday life, structuring the ways in which people choose to fashion their own sense of self, their dispositions and those devices with which, through which, by which, they are shaped and framed. Typically, people regulate their own behaviour and actions in accord with idealized representations that are institutionalized in specific contexts: the worker who strives for excellence; the manager who strives to be enterprising, or the service worker who aims to leave every client delighted. Some representations of the world, which, of necessity, have a historical specificity, become fixed in usage, are normalized, become the common currency of thought and conceptualization. Specific discursive practices become institutionalized and thus have common currency, even as they are resisted. Discourses are always in permanent dispute; there is no meta-discourse of/for everyday life. The tactical polyvalence of discourses indicates their unstable, contingent articulation between knowledge and power, marking possible displacements and reutilizations (Foucault 1981: 98-102). Some discourses become temporally and temporarily ontologized; that is taken for granted as a necessary aspect of (thinking about) being. Hence, part of the task of analysis is to provide an understanding of how the ways of thinking and conceptualizing the world that have become normalized are possible. A recent and significant normalization involves knowledge management.

Knowledge management

Knowledge management produces new routines that result from acquiring and distilling knowledge of tacit experiences and action embedded in social and institutional practice (Brown and Duguid, 1991). Thus, as recent theory has it, 'the primary role of the firm is in integrating specialist knowledge resident in individuals into goods and services' (Grant 1996: 120). Knowledge management institutes what Garrick and Clegg (2000) have referred to as an 'organizational gothic' at the heart of organizational life, a desire to incorporate the vitality of individual bodies to enhance the vitality of the corporate body for increased efficiency and reduced costs. The secret is in extracting creativity from the individual and instilling it into the body corporate (Garrick and Clegg 2000). Through seduction and the promise of sweet delights the vitality is sucked from the material to the abstract body.

At the core of management is the framing of knowledge to extend, limit, and otherwise shape property rights and organization relations. Increasingly, organizations use the seductions of soft bureaucracy, through framing knowledge, to gain vitality (Courpasson 2000). Maguire et al. (2001) suggest they actively manipulate employees, using rewards and acquiring information, so that behaviour will be more predictable and controllable. Employee goodwill is manipulated by increasing identification with managerially determined objectives so that organization and self-image are wholly aligned (Alvesson and Willmott 2002). All organizations draw on and specifically frame broader bodies of knowledge, disciplinary and 'common sense', shaping it to be shared as 'common cognitive ground' among employees, creating an intentional overlap of information that facilitates transfer between and integration of different relations and knowledges.

'Soft' and 'hard' knowledge

Anthropologically, how communities of practice use binary ways of viewing the world has long been a constant source of fascination; one thinks of Durkheim (1971) and his analysis of the "sacred" and the "profane", of Levi-Strauss (1970), and his

analysis of the "cooked" and the "raw", or Douglas (1988), and her fascination with concepts of "purity" and "pollution". In this paper we focus on a similar binary category as it developed in use by members of an organizational community of practice; here the key terms are "hard" and "soft". Just as in primitive societies, the definition of what is to be considered pure or polluted, or sacred or profane, is a highly political judgement that locates real barriers to and shapers of human relations, so it is in organizations.

What is taken to be "soft" and "hard" is an effect of normalized relations of meaning. Hard knowledge is that which is accepted as indubitably uncontested, while soft knowledge is denoted by a lack of agreement about its properties and is characterized by contestation. Whether food tastes good is soft knowledge because people disagree about what tastes good. Against this, hard knowledge may be defined as that which people generally accept without discussion. For example, recipes for using chemicals to fabricate artificial tastes can be regarded as hard knowledge, because they work, can be replicated and are knowable thorough the sense-datum of taste. Fitzgerald et al. (2002: 1445) say that the ambiguity of soft knowledge cannot be reduced by a volumetric increase in available information – knowledge is soft not because of a lack of things being made explicit but because of the existence of alternative perspectives and values. Soft knowledge is therefore not the same as tacit knowledge.

Soft knowledge involving opinion and qualitative judgements is likely to be important because what people think will invariably be relevant for what they say. Because most practical problems are soft and messy, people often end up either saying more than they mean to by allowing their emotional commitment to positions to determine their argumentative strategies or meaning more than they say because they are unable to formulate precisely what it is that they want to say – they lack the precision instruments to do so. Thus, soft knowledge has high pragmatic validity, serving important organizational functions (Worren et al. 2002: 1227). Its haziness acknowledges the complexity of the real world and allows for organizational hypocrisy (Brunsson 1985). Where they wish to control others, managers often seek to translate arguments into 'hard' knowledge in order to minimize doubt or differences of interests.

'Hard' knowledge is often taken to be synonymous with codified knowledge. However, soft and un-codified are not synonymous terms. Organizations vary considerably in how important they consider it to be to codify knowledge in documentary forms. Such variations represent differences in institutionally embedded means of legitimating knowledge from one context to another. For example, in a science-based company, knowledge claims may be validated by means of experimentation and the patent process. Expertise would be demonstrated by an ability to solve problems and a predominantly pragmatic theory of truth (what is true is what is useful). On the other hand, in a legal firm, knowledge claims might be validated using text and reference to other forms of codified knowledge. Law firms rely predominantly on a coherence theory of truth (what is true is what is coherent with that which is already known). Expertise will be judged in terms of ability to construct persuasive interpretations of how different texts were coherently related together (Robertson et al. 2003) – the essence of being a 'black-letter lawyer'. Clearly, part of the professional project of scientists, accountants and lawyers, is to turn their claims to knowledge into something hard and indisputable. Knowledge about roles and discourses, when engrained deeply in people's identities, as both practitioners and those practiced on, is able to be rendered incontestable by processes of quasi- and full professionalization. Thus, knowledge is made 'hard' and withdrawn from the arena of contestation by many different means.

What is defined as 'hard' knowledge is often made up by discourses containing pre-digested arguments and assumptions positioned as moral goods as if it were incontestable, even when it is apparent from ethnographic enquiry that the managerial positioning of these discourses as such is rarely achieved; for example, discourses of 'teamwork' (Barker 1999; Knights and McCabe 2003) or the 'customer' (du Gay and Salaman 1992; Alvesson 2000). Where and when such discursive acceptance occurs it leads to employees managing themselves according to delegated concepts rather than being managed by coercive control, such that individuals would succumb to 'teamwork' by seeing themselves as subject to the discipline of teams (Barker 1999; Knights and McCabe 2003) or by imagining customers whom they must delight (Bunzel et al 2002). Of course, the imagining of these outcomes is more likely to be a managerial aspiration rather than an existential state, as ethnographies often make apparent (Alvesson 2001: 881).

Methodology and data collection
We sought to understand how organizational members constructed understandings of 'knowledge management', using a methodology of close scrutiny of "processes, relationships among people and events, continuities over time and patterns, as well as the immediate sociocultural contexts in which human existence unfolds" (Jorgensen 1989: 12). Data was collected from an

insider or 'emic' perspective. The inspiration was derived from both Whyte (1981) and Barley (1996). While an insider collected the data the other authors were able to retain an etic view in the subsequent data analysis and theorisation. The opportunity arose when one of the authors was invited to participate in and observe the evolution of a knowledge management project which ran in a consulting division of the UK Post Office between September 1999 and May 2000. The project was convened in order to 'capture and deploy' the knowledge of UK Post Office consultants working on the transition of the Argentinean Post Office (the Correo) as it became the first fully privatised postal administration in the world. The likelihood of privatisation of the UK Post Office had been on the political agenda since the early 1990s; hence such knowledge had great value.

The Argentina Knowledge Capture Project (AKAP) was intended to transfer strategically important knowledge. It was an opportunity for Post Office Consulting to realise its aspiration of functioning as a 'learning organization' by putting into practice the knowledge management principles and techniques which it had been zealously developing. AKAP had a well-resourced project infrastructure, consisting of a project team of six (including an author of this paper) meeting regularly to execute an ambitious project plan, overseen by a project board representing key stakeholders within the UK Post Office.

The principal tool used by AKAP for knowledge capture was the 'Knowledge Interview' technique, involving a trained Knowledge Interviewer drawing out the knowledge of the Argentina consultant in a recorded interview. The record was transcribed and was available as potential input into one or more 'case-studies' composed by the Interviewer. The outputs from these interviews (in total 10 were conducted) were all 'analysed' together by the project team in order to extract the 'key learning from the Argentina experience', and from this analysis a 'Learning Summary Report' was produced.

Participation in the AKAP project team gave access to meetings (some 16 project meetings were convened), communications (both by email and groupware for maintaining a virtual project environment) and daily direct formal and informal interaction with other participants. Participation also gave access to all project documentation, amounting to several hundred pages of interview transcripts and case studies. Observations were made using a fieldwork journal and were supported by focused interviews with all participants. A total of 38 such interviews were conducted, most of which were tape-recorded and many of which were transcribed. A grounded approach was taken to the data analysis. In the following analysis pseudonyms have been used to protect the anonymity of participants.

The knowledge managers produced a "Knowledge Map" beforehand to indicate those areas of knowledge to capture. It indicated equal weighting of soft people issues and hard technical knowledge. In the latter stages of the project managers sought to privilege hard over soft knowledge, the latter having been perceived to dominate the Knowledge Interviews. Thus, there were two distinct phases to AKAP: a series of Knowledge Interviews, which were one-to-one between interviewer and interviewee, followed by a review of the interview data by the project team to extract "key learning" from the Knowledge Interviews.

Our data shows a dichotomy arose between two ways of defining knowledge. First, there were "technical" or "operational" aspects of the interviewee's knowledge, in terms of how their knowledge was applied and developed in the work they performed for the *Correo*. Second, there were "domestic" and "people" issues surrounding the Argentina Consultancy Project. These were framed in terms of the management and leadership of the project and the local treatment and welfare of consultants. As AKAP progressed, these domestic/people issues became known as the "soft" issues of the project. By contrast, technical/operational knowledge was thought of as "hard" knowledge. As more than one interviewee expressed the soft issues, the terms "generic knowledge" also emerged.

Knowledge Interviews
While some participants were eager to participate in Knowledge Interviews in order to have their say, particularly over the project management and welfare issues, others participated through a sense of obligation. When asked to participate in a Knowledge Interview, Judy Kirkwood remarked "do I have a choice? What would happen if I didn't? Phones would start ringing." Following his Knowledge Interview, David Orr became "distinctly nervous" about the possible repercussions that might arise from his criticism of the way the Argentina Consultancy Project was being managed. This is clear in an extract from his email to the AKAP project manager:

> "I have now read the transcript and the case study. I have also now been trained as a knowledge interviewer. However, reading the case study and then talking to Bob and Patricia who are heading the AKAP I am a bit concerned about who will get to see the case study and how it is used. You have

recorded my impressions in the case study but it could come over (without any other explanation) as being quite critical and if certain quarters got hold of it then it would not be helpful to anyone as they are unlikely to view it constructively. At this moment I have no assurances that access to the case study will be limited. In these circumstances I have asked that, without such an assurance, the case study be withdrawn from the process. I am always willing to provide constructive learning but the case study is personalised and the impact comes from the way I was involved (e.g. as line manager of consultants out there) and if you were to de-personalise it then I think that the impact would be lost because it only means something in the context of my involvement."

Nigel Hale expressed similar nervousness, as shown in the following email extract:

"I am happy for the project team to use the document that I agreed with Fran. However, before it is passed to Carol and Cynthia at the end of March, I would probably want to take out some of the personal references made about certain people. I'm sorry if this seems a little paranoid but to be honest, it is hard not to be paranoid about Argentina as you will no doubt have picked up from the interview results! I still have a close relationship with BPCS and knowing them as I do, they don't take kindly to criticism."

Once the transcripts and case studies from the Knowledge Interviews were completed, the AKAP project team got together to analyse the results. The analysis was conducted through two meetings in February and March 2000. At the first meeting a grounded approach was taken to coding the transcripts and case studies, whereby participants pulled out anything of interest from the Knowledge Interviews, jotted key terms on Post-It notes, and arranged the notes into common themes.

The results from the 1st meeting were presented to the Project Board, the managers of the project, in order for Board members to recommend the next steps. The Board members expressed an overwhelming perception that what had been captured was "soft" knowledge: Cynthia Houston, the head of BPCS, remarked, "This is all subjective anyway." Bob Field, the AKAP project sponsor, pointed out jokingly to Cynthia, "it's all right, there's only a few under team conflict." Bob also suggested, "If Chris Arthur (Head of Argentina Consultancy Project) could see this he would say 'there are tears all over the wall, the walls are bleeding.'" These comments arose because the Post-It notes had been grouped by the participants mostly under the headings of "people issues" and the "project organization." As the AKAP Project Board member John Macallan remarked, "These are really soft issues; there is not much about what they did in Argentina." In Bob's view this material did not give much "tacit stuff on the technical side." Patricia, the AKAP Project Manager, also shared her "gut reaction" that the "technical" side was missing. Teresa Singer (on the AKAP Board as a developer of the Knowledge Interview technique) wanted to see the emphasis of the knowledge capture process focus on the technical side of people's knowledge and move it away from the "sensitive stuff."

The perceived dominance of "soft" knowledge at the first meeting was perhaps not surprising given the nature of the "cross-analysis" and the emphasis on grouping issues together under common headings. With the pressure of time on the participants to cover a huge number of documents, it is also not surprising that the group picked snippets that were quick and easy to pull out of the Knowledge Interview outputs. In order to address this apparent lack of capture of "technical" knowledge, a second analysis meeting attempted to redress the balance by codifying an index of the "technical" knowledge contained in the AKAP interview outputs. The approach taken was to divide up the documents among the participants. Each participant would then go through the document, pick out any reference to technical knowledge in the document, and reference it according to the existing headings and sub-headings given in the AKAP Knowledge Map, or create a new heading if one was not there. During this process a similar issue arose as in the Knowledge Interview cases.

The Learning Summary Report
When the final Learning Summary Report was produced in fulfilment of AKAP's objective to capture the "key learning from Argentina", the hard/ soft dichotomisation was represented under the headings "technical" and "generic" knowledge. Technical, as it has already been defined, referred to the technical aspects of the individual's knowledge developed and applied to the postal operations in Argentina. "Generic" referred to knowledge which appeared to be commonly expressed, by more than one individual, including themes such as the treatment of the consultants and their welfare, represented as "people" issues in the Learning Summary Report, and the management and leadership of the Argentina Consultancy Project, coming under "project organization" in the Learning Summary Report.

Patricia felt that Polly's first draft of the Learning Summary Report was too sensitive and too critical of BPCS; also that there should have been a clearer split between "generic" and "technical" issues. Although Polly was happy to follow this recommendation with respect to "generic" and "technical" knowledge, she was less happy to feel that she should ignore some of the more sensitive issues in the Interviews. In Polly's words, she felt that the consultants from Argentina who had participated would think it a "whitewash" if these issues were sidelined.

In the Learning Summary Report, there were more substantial and specific recommendations under the heading of "people." The number of recommendations in this section, compared with other sections, did not correspond to the respective size of the sections in the main body of the report. Furthermore, the recommendations made were comparatively easy, requiring little substantial knowledge of the Argentina Consultancy Project. In the limited time available at the 1st Analysis Meeting, knowledge was extracted from anything which grabbed participants' interest and was quickly jotted down: these were the simple observations relating to people and their welfare-related observations. No specialist knowledge was required to make such observations or reach recommendations.

The predominance of soft knowledge was interpreted by some as a limitation of the Knowledge Interview process to capture "technical" knowledge, and by others as the neglect of some interviewers to conduct "technical" interviews and produce "technical" case studies. The core group that had developed the Knowledge Interview technique, including Maria (the AKAP Board member) and Andrea (one of the AKAP Knowledge Interviewers), believed there was homogeneity in their use of the technique. However, when the technique moved from the core grouping into the wider community of trained Knowledge Interviewers, heterogeneity emerged, suggesting that while the instrument was constant the operatives were not. When Teresa saw the outputs from the AKAP Knowledge Interviews she was agitated. She said "what the hell are you doing, I trained these people … what's wrong?" Her interpretation was that the AKAP Knowledge Interviewers were not following the established Knowledge Interview structure. From this observation the core group questioned whether they had effectively codified the technique outside their immediate community. In other words, for this core group the Knowledge Interview was a hard technique, characterised by homogeneity in the way they applied it but, outside the group, the application of the technique was seen to be softer

and open to interpretation. Comments by Val Kennedy, an AKAP project team member, suggest that the Knowledge Technique, was not as "hard" as Teresa believed – "I suppose the actual process of the Knowledge Interview surprised me, having this 5 or 6 hour brain dump … the other aspect which surprised me was you didn't know what you did with it once you'd got your 5 or 6 hour brain dump … I had assumed again, perhaps naively, that this was a well-established process."

Discussion

Knowledge was the product that the consulting unit sold, collected through Knowledge Interviews and codified in Knowledge Maps that could be replicated and validated. There were three principal phases to the process. First, the interviews privileged soft knowledge because they enabled individuals to talk about their feelings and how they tried to make sense of their experiences. Second, the approach to analysis in the initial analysis favoured people issues. Third, in the second analysis following the Board meeting, official priorities were made clear and hard knowledge became privileged such that it threatened to "whitewash" soft knowledge. There was a clear management control agenda to achieve closure on the project by classifying its findings as hard knowledge, using the Knowledge Map.

There are some contexts in which it is rhetorically expedient to use hard knowledge, but in other contexts *soft* knowledge is important. Knowing when to treat knowledge as "hard" and when to treat it as "soft" provides a considerable source of rhetorical power. There are many settings in which constructing knowledge as 'soft' is politically judicious (Pitsis et al. 2003). When knowledge may give rise to conflict between stakeholders, defining knowledge as soft may avoid magnifying differences and exacerbating distrust. When knowledge may become known to competitors, it is likely to be presented in vague terms so that commercial secrets are not revealed about exactly what processes have what effects on business performance. Also if actors such as regulators or auditors are likely to scrutinise or criticise knowledge it is likely to be presented ambiguously in order to provide room for rationalisation and to avoid attracting too much critical attention. Constructing knowledge as soft is also more appropriate in uncertain settings e.g. management, where knowledge is provisional, suspect, biased or contested.

To construct hard knowledge from ambiguous and soft knowledge requires a form of political work whose use legitimates the instrumentation that produces the hard effects (Adler 1995). In a study of evidence-based medicine, Fitzgerald et al. (2002:

1437) found that "Our data support the view that scientific evidence is not clear, accepted and bounded. There is no one fact, which can be seen as 'the evidence'. There are simply bodies of evidence, usually competing bodies of evidence". Therefore, because what experts do cannot be trusted to be wholly objective or inter-subjectively shared, their work must be rendered reliable, auditable, and checkable by outsiders (Power 1999). The Knowledge Map was supposed to be a transparent, replicable and accurate method: "Precision, even a certain fake precision, confers an administrative and pragmatic transparency that both parties to a transaction can use to reach a fair bargain" (Power 2004: 770). Indexes such as the Knowledge Map are based on nominal scaling, the most primitive of data scaling methods, but serious numbers do lend a spurious objectivity seemingly lacking in foolhardy words.

The organizational unit we studied wished to increase its customer base within the internal market of the Post Office. It was offering a product – knowledge management – that relied partly on fashionable management ideas and which partly used "the development of measurement tools as a strategy to develop its own legitimacy and power" (Déjean et al. 2004: 741, functioning through impersonal routines and procedures in a seemingly disinterested way (Lawrence et al. 2001). The purpose of collecting knowledge was to improve the practice and the marketing of Post Office tools, such as the Knowledge Map. Clearly the Knowledge Interviewers wanted hard knowledge and were exasperated by the fact that they kept getting soft accounts whose retail value was dubious.

Why did the Knowledge Interviews privilege hard accounts? To understand this we need to know the intended audience for the final account. The expectation was that in the Knowledge Interview, through the Interviewer's skilled performance, emotionality should be channelled into the appropriate hard-edged circuits and flows of knowledge. The manager, it was hypothesized, uses different views of knowledge depending on the communicative purpose and the nature of the audience. For the Knowledge Interviewers the purpose was to construct sellable knowledge in which tales of triumph over technical adversity in trying circumstances had their place but tales of emotional distress did not.

Clearly, given the audience in our case, many of the interviews were off-message. The important thing about "hard" knowledge is not that it is realistic but that it represents an ideal, illustrated by the fact that several Knowledge Management assumptions in our case study were unrealistic, and yet this did not damage its status as "hard" knowledge. The Knowledge Interview technique involved unrealistic assumptions about an agreed topic, impartiality of informants, and transparency of meaning of information provided by informants. Similarly, the project management knowledge that managers used in our case study involved unrealistic assumptions about the collapsibility of codification procedures, which did not damage the "hardness" of this knowledge. We found that managers were able to portray their idealizations not as the representations of reality that they were, but as normative standards against which reality could and should be judged and measured, against which reality should be corrected (Fuller and Collier 2003: 108). Our data demonstrate practices which involved technical activities, such as how to design, build and commission a mail centre and those which involve people issues, such as how to manage expatriate housing, which were preconstituted for our subjects (i.e. no amount of social construction by them could turn the issue of how to make a mail centre into a people issue). To say what knowledge is 'hard' enables its removal from social contestation, thus reducing potential opposition.

Conclusions

The significance of this piece of research is quite simple: conceptions of knowledge management need to acknowledge the interrelation of power and knowledge (Foucault 1979). The paper illustrates how the construction of knowledge as hard or soft can provide a significant rhetorical device for the exercise of unobtrusive managerial control. What may subsequently be taken for granted as a hard instrumentality has first to be wrenched from context – no easy matter. The meaning of the knowledge that is to be managed always attaches itself, prior to instrumentalization, to those whose knowledge it is, those who constitute and construct it. However, the terms in which these members know the world in which they move and live will always be irremediably contested. The knowledge that is to be managed is always knowledge of someone, from somewhere, about something substantive. In the early stages of the construction of a knowledge tool these specificities of context are all too apparent. Politically, how these are dealt with is important because if the knowledge gleaned cannot be severed from context then an appropriate trans-contextual tool cannot be created. As the paper demonstrates an effective way of dealing with severance is to construct a specific rhetoric of soft and hard, which consigns all that is not desired for inclusion in the tool to the soft side of the binary divide. In effect, what knowledge management amounted to in this case was the creation of that rhetoric in order to divide member's knowledge and sever it from context.

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