

# Repairing Managerial Knowledge-Ability over Distance

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## Abstract

Despite a growing acknowledgement in the literature of the 'socially embedded' character of organizational knowledge, in this article we argue that conceptualizations of knowledge management have remained aloof from the agency that they seek to inform, particularly in relation to managing within physically dispersed organizations. We seek, therefore, to explore the essential link between knowledge and action ('knowledge-ability') through an empirical investigation of the organizational conditions and managerial labour needed to preserve knowledge-ability within a transnational. In order to achieve this, we compare the experiences and practices of three managers located in China, Columbia and Australia as they seek both to communicate knowledge of their local context to the remote centre in order to influence policy and gather knowledge of what is happening remotely in order to coordinate their local action with shifts in corporate thinking. A model of the resources needed in order to limit and repair the damage of distance is generated using this qualitative data. We argue that the labour of repairing knowledge-ability should be understood as an essential aspect of the workings of power relations within the transnational, and involves an intensification of self-disciplinary practices within network forms of organizing.

**Keywords:** multinational organization, knowledge, distance, virtual teams, power, international manager

## Introduction

Effective knowledge creation and transfer is central to the realization of a variety of contemporary organizational projects (Pettigrew and Fenton 2000): the 'transnational' (Ghoshal and Bartlett 1998), the 'virtual' organization (Chesbrough and Teece 1996; Davidow and Malone 1992), and the 'knowledge intensive firm' (Drucker 1993; Nonaka and Takeuchi 1995; Hansen et al. 1999; Brown and Duguid 2000). Relationships underpinning knowledge creation and sharing in such organizations have been explored in terms of social capital (Burt 2000; Adler and Kwon 2002), communities of practice (Lave and Wenger 1991; Brown and Duguid 1991), and networks (Hedlund 1994; Jones and Borgatti 1997; Miles and Snow 1992; Nohria and Eccles 1992). Our broad contention in this article is that these conceptualizations of the relationship between knowledge and community, particularly in geographically dispersed

Organization  
Studies  
24(7): 1153–1175  
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SAGE Publications  
(London,  
Thousand Oaks,  
CA & New Delhi)

organizations, have neither taken sufficient account of the damage of distance to knowledge-ability nor sought to explore the organizational conditions for its repair. As a result, we suggest that most conceptual and empirical studies to date have been defeated by distance; they have remained remote and aloof from an understanding of the organizational conditions and managerial labour that they seek to inform.

The central part of the article that follows involves the presentation of qualitative empirical research into the work of remote senior managers acting at the boundaries between the European headquarters and operations in China, Australia and Colombia. This research suggests that the managerial labour required to create and transfer knowledge over distance is particularly demanding. Because distance is potentially damaging to knowledge and relationships, as well as trust (Gulati 1995; Parkhe 1993), these managers had to seek constantly to repair their understanding of distant and fluid aspects of the wider organization, in order to be able to convey knowledge of their particular local context to distant others, and in particular the corporate centre.

Prior to the detailed presentation of this research we will review some of the diverse approaches in the literature to the understanding of knowledge and community as a means of explicating the rationale for our own focus on managerial knowledge-ability.

### **From Knowledge Management to Knowledge-Ability**

In much of the literature, particularly that concerned with 'knowledge management', the metaphors used suggest that knowledge has a comfortably solid nature, allowing it to be 'captured', 'stockpiled', 'dug', 'mined', and 'drilled' (Scarbrough et al. 1999). Knowledge here is frequently reduced to information expressed as 'objective' facts (Knights and Willmott 1999: 9), and appears timeless and disembodied (Ophir and Shapin 1991). Boland and Tenkasi characterize such a view of knowledge management as a 'conduit model' in which communication can be improved simply by 'increasing the channel capacity; by redefining the procedures for encoding and decoding messages; by providing more reliable data storage and retrieval facilities; or by making the channel of communication more universally available' (1995: 352). Such a mechanistic view of knowledge informs many of the hopes of those who see the potential for new technology to effect 'the death of distance' (Cairncross 1997).

Against such a positivist view of knowledge, and consequently mechanistic view of organizational knowledge integration, there is a growing body of work that insists that knowledge is socially 'embedded' and mediated (Kuhn 1970; Giddens 1984; Collins 1993; Knights and Willmott 1993; Blackler et al. 1993; Blackler 1993; Tsoukas 1996; Prusak 1997; Araujo 1998; Lam 2000). Much of the analysis here, in sharp contrast to the 'knowledge management' literature, emphasizes the 'essentially tentative, partial and rhetorical nature' of knowledge (Blackler et al. 1993: 854); knowledge is situated (Suchman 1987), distributed (Hutchins 1983), and enacted (Weick 1979). Core to such approaches is a recognition that much knowledge is 'tacit' (Polanyi 1967)

and that the labour of 'sense making' depends critically on the body's senses, and the physical context (Garfinkel 1984). From this perspective, the creation of organizational 'knowledge' depends not on the accumulation of empirical facts, but on the creation of intersubjective agreement — what Weick and Roberts (1993) term 'collective knowing'. As Rorty has argued, 'there is no activity called "knowing" which has a nature to be discovered. There is simply the process of justifying beliefs to audiences' (1999: 36). 'Objective' knowledge is not defined in terms of the intrinsic features of objects, but with reference to the relative ease of reaching agreements (Rorty 1999: 50–51; see also Sellars 1997; Law 1992; Cooper 1992).

Insisting that knowledge is socially embedded and mediated leads to a more complex and demanding view of organizational knowledge management. Tsoukas, for example, argues that a firm's knowledge cannot be seen as a whole, and is inherently indeterminate — firms are faced with '*radical uncertainty*: they do not, they cannot, know what they need to know' (1996: 22; original emphasis). Tsoukas proposes that firms should be seen as 'distributed knowledge systems' in which knowledge is 'continually (re)constituted' through the activities of the firm (1996: 22). Drawing out the management implications of such distributed knowledge systems, Tsoukas notes that 'the key to achieving coordinated action does not so much depend on those "higher up" collecting more and more knowledge, as on those "lower down" finding more and more ways of getting connected and interrelating the knowledge each one has' (1996: 22).

Some of the difficulties that might be associated with the labour of getting connected and interrelating have recently been characterized by Nahapiet and Ghoshal in terms of a distinction between 'social' and 'intellectual capital' (Bourdieu 1977; Burt 2000; Granovetter 1982). Following Schumpeter (1934), they argue that 'intellectual capital' in an organization is created through two processes: combining previously unconnected elements or finding new ways of combining previously associated elements, and exchange. They suggest that these synthetic organizational processes are themselves fundamentally influenced by underlying processes involving the development of social capital. Patterns of connectedness within an organization are both 'relational' and 'cognitive'; they are built out of the norms, identifications, obligations and expectations, as well as shared meanings, narratives, codes and language that are produced and reproduced over time in work interactions. These authors emphasize that 'the combination of and exchange of knowledge are complex social processes and much valuable knowledge is fundamentally socially embedded — in particular situations, in coactivity, and in relationships' (Nahapiet and Ghoshal 1998: 250). Their analysis is suggestive of how knowledge transfer in organizations is likely to encounter a certain immobility. Friendships and obligations cannot be easily passed from one person to another or from one context to another; norms and mutual identifications in strongly networked groups effect a sort of closure, both to others and to alternative practices.

Other authors have offered a variety of labels that seek to capture the ways in which knowledge comes to be bound in particular communities, such as

'communities of practice' (Lave and Wenger 1991; Brown and Duguid 1991) and 'communities of knowing' (Boland and Tenkasi 1995). Each of these characterizations point to the ways in which different communities within organizations come to develop shared and distinctive ways of interpreting the world. This then creates considerable difficulties for representing and integrating knowledge between 'multiple' communities. Boland and Tenkasi (1995: 362) distinguish between such intra-community and intercommunity knowledge in terms of processes of 'perspective making' (communication which strengthens the unique knowledge of a community) and 'perspective taking' (communication that improves a community's ability to take the knowledge of others into account).

Although these conceptualizations of social embeddedness represent a considerable advance over mechanistic conceptions of knowledge management, we want to argue that they are still somewhat remote and aloof from the experiences of those who are seeking to remain *knowledge-able* within organizations. We draw the term 'knowledge-able' from Giddens (1979), who insists on what he calls the 'paradigmatic' character of action; action can only be framed by drawing upon our existing knowledge resources. We hyphenate this term ('knowledge-able') in order to emphasize the often ignored connection between knowledge and situated action. Organizationally, this can be conceptualized in terms of being able to participate in a particular 'language game' (Wittgenstein 1969; Boland and Tenkasi 1995). However, the theoretical focus on *organizational* knowledge, even where this insists on the socially embedded nature of knowledge, easily falls into what Tsoukas (1992) characterizes as a 'topographic' view of the organization. The description of the organizational problem occludes a full appreciation of the practical problems faced by individuals seeking to remain knowledge-able within an organization. Acknowledging that connecting and interrelating are important tells us nothing about how this is done. In this respect, it is not 'firms' that face 'radical uncertainty', but rather individuals who do not and cannot 'know what they need to know'. Given that knowledge is itself transitory and mobile, such 'not knowing' has a dual character at the level of practice. On the one hand, it is about what one takes for granted that others do not. On the other hand, it is about the need to know what others, in other contexts, know.

These problems seemed to be particularly acute in the transnational organization that was the focus of our empirical work; physical distance here compounds the difficulties associated with the 'distributed' nature of knowledge. In Ghoshal and Bartlett's (1998) ideal-type analysis, what distinguishes the 'transnational' from global, international or multinational organizations is precisely the attempt to develop and exploit knowledge on a worldwide basis. They argue that the 'true hallmarks' of the transnational lie in its 'rich and complex communication linkages, work inter-dependencies, and formal and informal systems' (Ghoshal and Bartlett 1989: 61). However, in their own empirical studies of these linkages, Ghoshal and Bartlett rely largely on what can be measured from a distance. Communication, for example, is reduced to a measure of frequency and density. In this way, we believe that they ignore both the damage of distance to relationships and

knowledge, and the organizational conditions and work that are required to repair this damage. Similarly, studies of headquarters–subsidiary relations in the multinational corporation (MNC) fail to capture situated practices, particularly in remote subsidiaries (Doz and Prahalad 1995; Hedlund 1980; Otterbeck 1981).

Boland and Tenkasi argue that: ‘In any communication, the knowing of what others know is a necessary component for co-ordinated action to take place’ (1995: 358). Knowledge is both a condition and outcome of interaction, but these processes are far easier and communicatively rich under conditions of what Giddens (1984) calls ‘co-presence’; the face-to-face encounter in a shared context. Technology allows knowledge to be ‘disembedded’ from such a shared context, but then, in order to coordinate action at a distance, it is necessary to have an understanding of how it is being ‘re-embedded’, by others, in another context (Giddens 1990). As Thompson (1995) notes, while telecommunications uncouple time and space, the interpretation of media products remains a situated, hermeneutic activity.

Several authors argue that the problems of knowledge creation and transfer can only be resolved when communication is socially (re-)embedded by bringing actors together in the same physical setting (Weick 1995; Nonaka and Takeuchi 1995). In our study of a transnational, such a remedy was only available exceptionally, and managers faced very considerable challenges both in communicating to distant others something of their own local knowledge as well as in finding ways to stay connected with the mobile knowing of these distant others. Moreover, the problems associated with remaining knowledge-able over distance were not symmetrically distributed in the organization. ‘Radical uncertainty’ appeared to be unevenly distributed, placing the weight of responsibility for ‘knowing what others know’ firmly at the periphery rather than at the centre. In this respect, Tsoukas’ focus on the ‘distribution’ of knowledge and Boland and Tenkasi’s focus on the ‘lateral’ problems of communication between ‘interdependent knowledge communities’ leave unexplored the relationship between knowledge-ability and power.

## Methodology

Following Garfinkel, our qualitative research focused on ‘particular, located organizations of artful practices’ (1984: 32; see also Van Maanen 1988: 520; Denzin and Lincoln 1994: 4). However, whereas Garfinkel assumed co-presence, we were interested in ‘artful practices’ in situations where actors are remote from one another. The unit of our analysis is, therefore, the remote manager in his relations with the headquarters. In order to develop a ‘thick description’ (Geertz 1993), three focal managers, all of whom belonged to the exploration division (EuroilX) of the same oil company, were observed and interviewed in their remote locations (China, Australia and Colombia). During the same visit, semi-structured interviews were carried out with their direct reports, both local and expatriate. After each period of fieldwork,

headquarters staff who had direct knowledge of the managers in question were also interviewed, as well as HR managers. While this 'triangulation' of perspectives has been seen as permitting convergence on a 'true' account, we saw it rather as a means of enriching understanding and of generating credible evidence to support key claims (Seale 1999: 52–72).

The selection of remote managers who might participate in the research was mediated and facilitated by our headquarters 'gatekeeper' (Pettigrew 1973). It took 13 months from initial contact with the company to obtain consent from the first manager to take part in the study. This first manager, in Beijing, was recommended as someone who was highly skilled at operating in China. He was then sacked shortly after we had an initial meeting in Beijing, but generously agreed to carry on with the research process. This surprising, and for many months poorly understood event, focused our attention on how remote managers might stay reliably connected to the centre. The selection of the second manager was a more informed choice. In interviews he had been identified as a 'consummate insider'. He had worked closely with the current chief executive officer (CEO) and was highly rated by senior managers both at the headquarters and in Colombia: the antithesis of the Beijing manager. The third manager, in Melbourne, was recommended by his boss as a paradigm of what a remote manager should be. During the interviews, however, it became clear that even this well-established manager was struggling to influence headquarters from his remote location. Our sample then, gave us a failed manager, a success story, and an account of an established manager struggling to remain knowledge-able over distance.

After three iterations of the research process, we had data from 47 interviews and 120 hours of observation carried out between 1994 and 1999. Content analysis of this data suggested that we had reached 'theoretical saturation' (Eisenhardt 1989). The data analysis was informed, rather than guided step-by-step, by 'grounded theory' (Strauss and Corbin 1990). Of necessity, in what follows, we draw selectively on these research materials.

## **Euroil**

Euroil is a major oil company whose activities span six continents. In the late 1970s, the company began an ambitious programme of acquisition and diversification, and by 1988 it had a peak workforce of 129,000 staff worldwide. Euroil has experimented at one time or another with all the organizational forms identified by Ghoshal and Bartlett, culminating in its current version of the transnational, wherein great emphasis is placed on the sharing of knowledge worldwide through informal networks. Underlying all these organizational changes since the early 1990s has been a continual process of 'downsizing'. By 1994, for example, there were 73,000 staff — 56,000 fewer than at its manpower peak. This process continued throughout the research period with Euroil, and presumably concentrated the minds of distant staff on the importance of keeping in touch with (and influencing) current corporate versions of valid knowledge. During the research period,

the 42 asset managers in the exploration division reported directly to a headquarters executive committee consisting of the EuroilX CEO and two deputy CEOs. A layer of general managers, who had acted as a buffer between the senior headquarters managers and the asset managers, had been dispensed with in 1994. The asset managers were then highly accountable for results and were expected to function as ‘mini-CEOs’. Despite attempts to change, EuroilX remained a highly ethnocentric organization (Perlmutter 1969).

Tables 1 and 2 give basic biographical data for the three focal managers and their operational contexts. Despite the obvious differences in managerial profiles, locations, and work activities shown in the tables, all managers and staff commented on their struggles to resolve what one called the ‘two-way disconnect’ between themselves and the headquarters. Headquarters, as he put it, ‘does not understand here, and we don’t know what they want’. The following three cases describe both the challenges to knowledge-ability over distance and the remedies attempted by managers in China, Australia and Colombia.

Table 1.  
The Managers

	Beijing	Melbourne	Bogota
Name	Bill Cross	Chuck Gable	Jim Dare
Nationality	British	American	British
Job title	Associate President and Asset Manager	Associate President and Asset Manager	Manager, Pipelines and Commercial
Years with company	6	21	10
Time in post at start of research	6 years	3 years	6 months
Notes	Employment terminated during research	Requested transfer to USA for family reasons	Identified as future CEO

Table 2.  
The Businesses

	Beijing	Melbourne	Bogota
Business focus	Identification of possible exploration acreage	Mature and profitable oilfields	Exploitation of massive proven oil and gas reserves in difficult operating conditions
	Development of government relations	Development of new gas business	Government negotiations on terms and security
Business and environment issues	Opaque business and political environment	Persuading headquarters to invest in a new gas business in difficult region	Threats to personal security. Strong local opposition to ‘greedy’ oil companies



## China

Knowledge-ability in Euroil can be approached through an account of its failure. Bill Cross, the senior manager for EuroilX in Beijing, was brought into the organization relatively late in his career following the takeover of Smalloy. He was then dispatched to Beijing, having spent no more than a few weeks at the headquarters. Although identified by headquarters staff as a highly skilled expatriate manager, he was sacked at an early stage of the research process after six years in China. We want to concentrate here on the ways in which Bill's knowledge of China remained locked in China.

At a meeting in Singapore, it became evident that Bill's knowledge of current company activities was, to say the least, incomplete. After a presentation by a colleague on oil-related activities in Asia, Bill said, 'We should share better. There are very strong walls. A lot of the oil stuff in today's presentations was new to me.' Bill explained this failure to know in terms of his not being a member of 'the club', noting that 'It's important to "know" people to a level that's ridiculous in this organization.' Without such personal relationships certain information did not reach Bill, despite his senior position in the hierarchy.

Even visits from senior headquarters-based managers failed to improve Bill's knowledge and understanding of the organization:

'Visits of Managing Directors are dangerous.... When they come you're actually spending time in a very intense period.... The opportunity to say the wrong thing, to be misinterpreted, is very strong. It's a very slippery surface.'

The same was true of relationships with London-based bosses, Bill said. He would see his boss two or three times a year, and 'most people have short conversations, and it's inevitable that the impression the person leaves with is based on these short meetings'. Another London-based manager, nominated as a 'China Champion', had apparently come to Beijing 'and didn't ask a single question'. The people in China were told what their views should be. Bill also resented the headquarters pressure for him to share his understanding of China in a predetermined form:

'They want too much detail.... We're dealing with mature oil fields on the one hand and us on the other.... It's the process going mad. Someone's able to tick their box. They need to collate and compare.... So they want one size fits all.'

The loss of face-to-face contact with his peers scattered over Asia was also a problem, and e-mail had clear limitations:

'we don't meet, we don't have lunch together, there's less opportunity for casual sharing.... What you can't say on email is "What the \*\*\*\* is this all about?"... All your communication is remote. You don't see the body language.'

A London-based manager added a further dimension to Bill's failure to know and be known over distance: he had no close relationship with a senior manager at headquarters:

'Patronage is very important. It's a self-fulfilling prophecy: I selected him, he's good, he must be doing well.... The chances of an unattached, unconnected body doing well are slight.'



The ability to know and be known over distance are here connected, in part at least, to prior co-presence with powerful others currently in positions of influence at the centre. When Bill, without this prior co-presence, tried to share his knowledge of China at headquarters, he encountered difficulties:

‘Quite often people make a play for their asset. Bill would drivel on about stuff around the key conclusions, and Brill [the CEO] would have to drag the key conclusions out of him.... Bill went into the detail too much.’

The ‘key conclusions’ here are unequivocally what the centre wants to hear. We can see that Bill’s attachment to his immediate environment and his lack of contact with, and sympathy for, the centre might easily lead to this mismatch in what counted as knowledge. And again, in the view of another headquarters manager:

‘Bill is committed to the Chinese way and the business wants hard facts.... There’s an issue of flexibility of style. Bill is presenting in a China style while we wanted a London style.... He saw things through Chinese eyes, not headquarters eyes.’

So Bill’s knowledge of China remained hopelessly locked in its immediate location. Local staff praised his knowledge of China, but he knew very little about his own headquarters, and was not, therefore, in company terms, knowledge-able. What might currently count as knowledge, and the form of words that could hold that knowledge for the centre, remained elusive. He was not, as one of his peers put it, ‘able to frame the debate for the corporation’, and was ultimately sacked.

## **Australia**

The experiences of a second, ‘corporately successful’ manager in Australia shed additional light on the resources required for knowledge-ability at a distance. Unlike Bill, Chuck Gable had joined Euroil from university, and had an enviable track record with the CEO, who also functioned as a patron. Highly regarded, Chuck was sent to Australia because his knowledge of the organization, and senior managers’ knowledge of him, made it likely that he would be successful in a remote location. As a manager at the centre put it:

‘In Australia nobody goes to see you, you rarely talk with anybody. You’re lost for the rest of the organization.’

Chuck himself emphasized the value of prior co-presence with those at the centre for sense-making over distance:

‘You get exposure, and you get to build a track record with the guys who make the decisions. And periodically throughout your career you need to reacquaint yourself with them. It helps you understand: you get requests from headquarters and don’t just think they’re a bunch of dicks. And headquarters people should understand that we have more to do than answer questions, so they need exposure to the business.’

Unlike Bill, Chuck was also clear about the importance for the distant manager of staying attuned to shifts in language:

'You have to keep tuned in to what key words are being used. It's all part of being a good listener and observer.... If you want someone to understand your message you have to put it in the right language. And it helps to put in the current buzzwords.'

Despite Chuck's impressive credentials, however, he was anxious about his new boss at the headquarters:

'[He is] not well known to me. I have to develop a sense of him. I knew his last turtle [executive assistant], and his current turtle was my commercial manager. I chat with turtles more than I talk with Grant. It's helpful since I don't know him — what does he like, what's important to him, what does he want to have, his personal hot buttons. And they tell Grant I'm OK — about my track record.... If Bob [Head of EuroilX] tells him I'm OK it has weight. I need to know how helpful he is, how effective.... Will he keep me informed? When I need something from the corporation will he help grease the path?'

Chuck here drew on the knowledge of distant intermediaries currently co-present with his boss in order to re-establish knowledge-ability.

Chuck, like many Euroil managers, was dismissive of 'formal' information transmitted by e-mail. Pointing to a message on his screen, he said:

'I can tell from the code words that I can't print it because it's confidential. But by definition something you're going to send around the world to 250 people isn't really confidential. The interesting stuff isn't here — that's the stuff you get over lunch at headquarters.'

Staff in Australia again emphasized the importance of face-to-face contact, but here there was a repeated emphasis on the value of informal contact:

'If you've had a few beers together it's easier to call later and discuss ... the chatting like over the coffee-machine is missing from here.'

The utility of communications technology was consistently tied by Euroil staff to the strength of relations established in prior co-presence. It is these informal contacts, members of the network, who were relied upon to supply information that distant managers might not even realize was available:

'Sometimes I get copied things which don't have to come to me ... that's why you can't afford not to phone. Your bank account of goodwill has been credited in the UK and you draw down on it while you're away.'

A manager in good credit with his network may then find his knowledge-ability repaired before he even realizes it is damaged.

The difficulties of sense-making over distance were strikingly illustrated in the attempt by managers in Australia to persuade the centre to invest in a gas business (a proposal that was not seen to lie within the current business scope of the organization):

'You can work well at a distance when it's business as usual. There are problems when it's different, and my project is large and difficult. It's difficult to get the CEO [of EuroilX] to understand at a distance so he can stand up and support it.'

How then do the 'interesting' projects get done? How do distant managers reach a shared sense of what the project might mean?

'They get done not through formal processes, but it's a whole myriad of things. It's influence, personal contacts, a network enrolling a wider network, one-to-one

conversations between the CEO and people he trusts. You have to initiate positive conversations and head off the negative ones.... There's a whole set of people justifying why the project shouldn't happen. And if you're in Melbourne you don't hear about these conversations for two weeks.... These projects get off by quiet conversations.... It needs substance, profit potential, etc., but perceptions and interpretations are important.... A two minute conversation in a toilet somewhere is often how these things get decided.'

Interestingly, in the same manager's account of a technical meeting 'hard facts' appeared to melt. New technology was now available which allowed oil explorers to 'see' previously invisible features of the subsurface. However:

'[one] manager said you can't get a sub-surface image, and no matter what I said it was dismissed and not listened to. Other people [from less distant assets] would have had a chance to warm up the participants, and I didn't. So they guessed what I was going to say, and then heard what they guessed and didn't like it.'

## Colombia

Lastly, there are the experiences of Jim Dare in Colombia. Jim had recently spent a successful period working as an executive assistant with the CEO, who again was seen in the role of patron. Jim spoke of feeling 'subliminally part of Euroil':

'Many people can't picture how HQ pictures their bit strategically. Some people don't want to understand it but I'm in the top 350. I feel I'm connected to something important. The information I get is really high quality. Brill believes his assistants are the people who can operate remotely.'

As a result of this recent relationship, Jim was the most comfortable of all the managers in facing the dilemmas of remaining knowledge-able at a distance. One incident in particular illustrates the abilities and resources required to achieve this. Jim needed to write a briefing document providing guidance and background for a senior manager at the centre prior to his meeting there with an influential Colombian minister. The precise details of the brief are less important here than the process of its delivery.

As Jim composed the briefing paper his knowledge of the physical pattern of the distant senior manager's life and routines was at a surprising level of detail: 'I knew Bob [the senior manager at the centre] was travelling, he was at a wedding — so he wouldn't have much time. So, I kept the brief to three pages in large type.' He knew this from his network contacts in London. Jim later reflected on the importance of personal knowledge in a communication of this type:

'You need to decide what is the main theme and you must communicate it in a proactive way. You need to pay attention to the style: is it aggressive, seductive? I expect Bob to stick to the brief but he is sometimes aggressive, so I span it as supportive. Knowing Bob's character is very helpful.'

Jim was also careful to manage the sending of the note to his CEO. As Chuck had done, he used intermediaries: 'I arranged to send an initial copy to Ben [Bob's deputy] and checked it was OK to send to his Chief Executive.'

Background information was then sent to Bob's assistant. This allowed Jim to reinforce a relationship with the assistant by giving him a share of the background information. The manager, in turn, had the concise briefing note that Jim felt his character and schedule demanded. The assistant, who was on the spot, could be the best judge of if, when, and how to give the additional information. Much of this activity can be seen as the skilful repair of Jim's knowledge-ability, which, he recognized, was damaged by absence.

What, briefly, can be learned from the composition of the briefing note? It was composed for a person rather than just a 'function'. The composition took into account not only the personality of the recipient (and compensated for this), but also his weekend schedule. This knowledge was only possible as a result of intense, close, and recent contact, reinforced by information from intermediaries. The delivery of the message was also carefully managed, again using the local knowledge of co-present intermediaries. Jim recognized here that his knowledge of the centre could not be completely 'fresh' and he enlisted the help of people who were currently close to the recipient. It is difficult to identify how Jim was disadvantaged by distance in this process — though it did require extreme amounts of time and energy. He managed what he called a 'two-way disconnect' by 'thinking as London from here'. The ability to do this decays over time, and he drew on distant resources to help him remain knowledge-able. Jim talked about a 'thin conduit' of 'key financials' linking Colombia and the centre. The problem, he said, was, 'How do you put corridors, toilets, and coffee machines' along this conduit? Crucially, Jim shared his knowledge with local staff:

'He's very good at transmitting. He's transparent, whatever is out there he gives it clearly and completely. With some Euroil managers you get the impression you don't have the whole picture and can't help. But not with Jim. He thinks out loud and you understand.'

Jim, in other words, produced and reproduced the absent context of the organization in a way that allowed local staff, in their turn, to become knowledge-able.

### **Remedies of Distance**

Each focal manager in the cases had twin binding functions: making himself and the asset understandably present for the headquarters, and the headquarters understandably present for local staff. Knowledge-able agency required managers to be present while absent — to be able to draw on often distant resources in order to shape current action. The skills of the knowledge-able agent lie in this binding over distance of what is learned with what is known. The decay and loss of distance is precisely the decay and loss of knowledge, relationships, and trust, which in turn undermines the ability to act at and over distance. In what follows, we present a model of the resources that managers needed in order to repair their knowledge-ability across distance.

### Resources For Distance

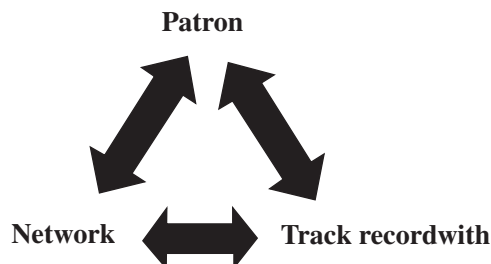
Managers repeatedly invoked a core set of resources upon which they had to draw in order to remain knowledge-able: a ‘mantra of distance’. These three resources had to be in place prior to departure, and can be understood as preconditions of remote knowledge-ability.

- 1 *Network*. The ‘network’ (Granovetter 1982; Nohria and Eccles 1992) consists of those people within the organization who will, because of your personal relationship, return your telephone calls, look favourably on your requests for help and respond quickly, spontaneously pass on useful information, and defend your interests when you are absent.
- 2 *Patron*. The ‘patron’ (Scandura 1992) was a particularly powerful member of the network. This was a senior manager with a presence in, or strong connections to, the centre, who was able to bind the distant manager to the organization by feeding him current information or perceiving his performance in a positive light.
- 3 *‘Track recordwith’*. The third part of the mantra of distance was the ‘track recordwith’: a history of achievement in the company ‘with’ a senior manager. The track record was peculiarly personal: it was acquired ‘with’ someone, and its value as a promise of future performance was not easily or completely transferable.

The track record appeared to function, at least for the manager who had ‘witnessed’ the success, as a guarantee of future performance — and, therefore, marked you both as a person with whom knowledge should be shared and as someone who might create valid knowledge. The value of the ‘track recordwith’ was, like the patron, and network, susceptible to change over time. It also had to be refreshed by further measurable achievements (meeting the current performance contract, for example).

The resources of the mantra of distance should finally be understood as mutually reinforcing in their effects on knowledge-ability: a powerful patron could place a manager in a favourable location for improving his ‘track recordwith’, which in turn would attract more people to his network, which in turn would improve his chances of remaining knowledge-able, retaining patronage, and achieving targets. Preserving knowledge-ability involved a never-ending dance, in which the mantra offered the preconditions and some of the necessary resources (Figure 1).

Figure 1.  
The Mantra of  
Distance



### Resources At a Distance

The 'mantra of distance' describes resources that an individual manager accumulates over time in an organization, often through close face-to-face working with people. These then become resources *at* a distance in the way that they can be drawn upon to repair knowledge-ability. To draw upon these resources, however, a further set of resources are necessary that we will call 'resources at a distance'; they are communications technology, punctuated co-presence, intermediaries, and memory. Each of these additional resources is only effective in combination with the patron, network, and 'track recordwith'; effectively, resources *at* a distance allow managers to draw upon and reproduce their resources *for* distance.

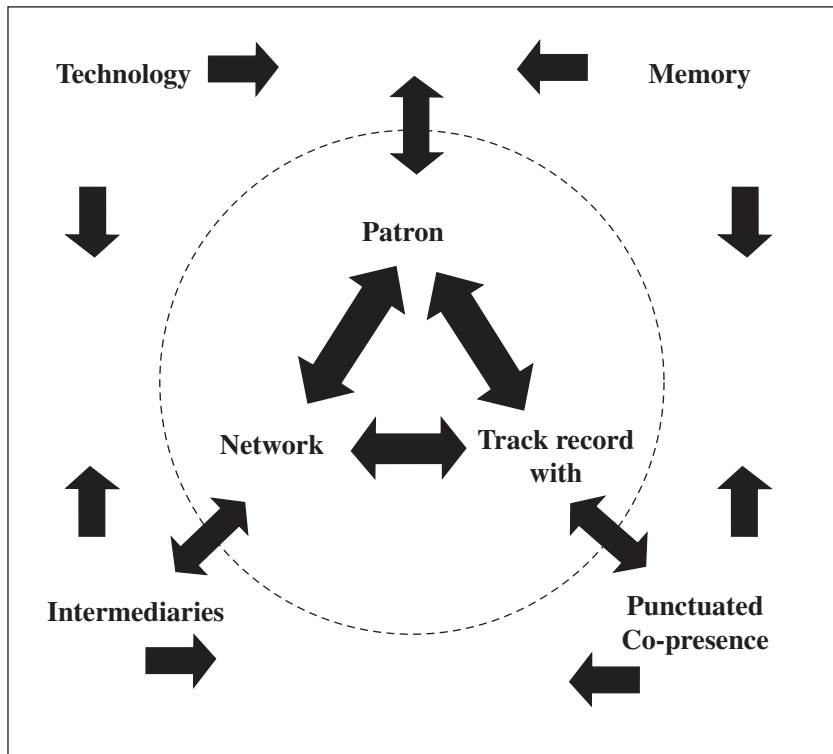
- 1 *Technology*. Clearly, fax, e-mail, telephone, and video-phone are of immense importance to the multinational (Cairncross 1997; Lipnack and Stamps 1997). Bill again provided a powerful example of how the utility and reach of technology was inextricably tied to the social: he noted that many of the messages he received made little sense, yet he was reluctant to ask questions by e-mail or telephone for fear of revealing his ignorance. Having spent very little time at the centre, and with no network or patron to advise him, he had little sense of what might or might not be legitimately asked. The technological resources, therefore, remained underutilized, and the value of the information received in this way often remained low. Conversely, in Australia, while electronic messages were well understood by Chuck, they were not felt to carry 'real' information.
- 2 *Punctuated co-presence*. Managers are able to move between distant locations and the centre relatively quickly by plane. The face-to-face contact that appears to be so important to them can, therefore, be periodically re-established, even from Australia, thus recreating what have been seen as the optimum conditions for sense-making (Weick 1995) and knowledge creation (Nonaka and Takeuchi 1995). However, many such brief meetings appeared to be unsatisfactory. Bill, for example, found visits from senior managers very stressful, and tried to stage-manage them. The manager from Australia was unable to get the European expert to hear that subsurface imaging technology had changed. If the resources of the mantra of distance are available, then brief periods of renewed co-presence can refresh relationships and mutual understanding. In the absence of these, however, co-presence can simply enact reciprocal misunderstanding — a point that is seldom acknowledged in the literature.
- 3 *Intermediaries*. Members of the network can also be used as intermediaries to bind the perceptual spaces between meetings, and so sustain knowledge-ability. Distant intermediaries can usefully provide some sense of the distant context that absent agents require in order to act effectively, particularly when dealing with more powerful corporate managers.
- 4 *Memory*. Lastly, there is the importance of memory based on prior co-presence for knowledge-ability. Jim, in preparing his briefing note, appeared able to hold the behaviour and attitudes of his boss in mind.

London was present for him as he thought about how to frame the information in the note. He was seeing the problems of Bogota as if from London. By contrast, for Bill, there was little to remember. He was neither held positively in memory at, nor had a memory of, the centre. Memory, although constantly either degraded (as memory fades over time) or devalued (as what is remembered changes), is key to managerial knowledge-ability over distance. The value of the network and other resources is precisely that they refresh, update, or renew memory, and so knowledge-ability, over distance.

One of the sharpest markers of knowledge-ability within Euroil, and one that was remarked upon in all locations, was language. As corporate attention moves, 'buzzwords' change, as do the labels for issues, and it is important to be fluent in 'newspeak'. Managers who have resources for distance and draw upon them at a distance are able to monitor these shifts and continue to signal their belonging, making their knowledge claims in the appropriate language. Members of this particular club recognize one another, and their current level of membership, in the flux of language. To be unable to speak in the current headquarters language immediately signals your disconnection, and thereby weakens your value to others who want to be, and be seen to be, 'in the know'.

Figure 2 summarizes the key resources managers must draw on in order to remain knowledge-able over distance. The diagram shows, in the inner circle,

Figure 2.  
Resources FOR and  
AT a Distance





the core conditions of knowledge-ability in the 'mantra of distance'. The outer square shows the resources available for operating at a distance. The resources of the mantra must be developed in co-presence prior to departure, and may then be drawn on in absence. Only with these resources for distance do the resources at a distance become fully functional.

### Concluding Remarks

Building upon recent discussions of the 'socially embedded' nature of knowledge in organizations, in this article we have sought to explore the creation and transfer of knowledge across distance. Arguably, our understanding of the difficulty and complexity of knowledge management has been enhanced through the recognition that knowledge is 'distributed', grounded in 'social capital', and embedded in 'multiple communities of knowing'. However, these re-conceptualizations of the organizational conditions of knowledge creation and transfer tell us very little about how these conditions are met at the level of practice. Our own focus here on 'knowledge-ability' insists on the indivisible relationship between knowledge and action: knowledge management is not just an organizational problem, creating and maintaining knowledge is a condition of effective agency within organizations.

Transnational organizing presents especial problems for knowledge-ability. This form has been proposed as a way of realizing the competitive benefits of sharing and integrating knowledge on a worldwide basis. Yet sustained physical distance robs people of many of the necessary conditions of knowledge-ability, since it is co-presence and a shared setting that offer the greatest possibility of what Weick (1995) calls 'resolving equivocality'. As Turkle (1996) has observed, virtual communication greatly enhances the potential for projection; it makes it much easier to find in the virtual other only what one thinks to look for. In this way, distance makes it much more difficult to overwhelm what currently counts as knowledge, to break through typifications born of past experience, or to add, augment or challenge what is already known.

Our representation of the experiences of three managers seeking to coordinate action remotely with both other assets and the corporate centre is intended to be illustrative of the damage of distance to knowledge and relationships. Both their own routine representations of their activity to the distant centre and the centre's similar use of communications technology for 'party political broadcasts' were felt to suffer from the very processes of abstraction and displacement which they effect (Boisot 1995). The 'disembedding' and 're-embedding' of knowledge that technology makes possible robs communication of its essential contextual clues (Thompson 1995). What the above empirical analysis makes clear is that the effective coordination of action across distance is only possible if one has, and is able to preserve, a knowledge of the distant context within which one's communication will be re-embedded. Without this, codified knowledge cannot

become 'know-how' or what we are calling 'knowledge-ability' (Dreyfus 1986).

While the interdependence of social and technological resources has long been recognized (Law 1992), our subsequent analysis of 'resources for distance', and how they combine with 'resources at a distance', offers a more precise view of the organizational conditions and managerial labour required constantly to repair knowledge-ability across distance. As Hutchby (2001) has recently observed, different technologies create different 'affordances' for communication; for example, our focal managers had a clear preference for the 'intimacy' of the telephone over e-mail. However, our research points not just to the effects of different means of communication, but also to their different combinatorial potentials. In the unpredictable operating conditions and ill-defined projects that we describe here, technology was only effective through allowing individuals to draw upon, and thereby reproduce, the social resources of network, patron and 'track recordwith' that had been built up in previous periods of co-presence. Only with these resources were individuals able to realize a knowledge-able presence in absence, and to give knowledge-able presence to what was absent. Without these prior resources, at least for those at the periphery, the communicative potentials of technology were severely compromised.

The early academic literature on network forms of organization typically contrasted new organizational forms with more traditional hierarchies. Similarly, the literature on communities of practice or knowing emphasizes the lateral nature of these flows, and the 'distributed' nature of the problem. What later studies have argued (Knights and Willmott 1993; Pettigrew and Fenton 2000), and our own study supports, is the degree to which hierarchy persists within network forms of organization. Despite the routine separation of the two forms in the literature, Euroil appears here as both a network organization and a hierarchy — a 'netarchy', perhaps. As Poster (1989) has observed, information technology makes possible not only new forms of organization, but also new forms of domination.

If distance is damaging to processes of sense-making precisely because of the loss of the body of the other and of a shared context, knowledge thus liberated from the constraints of body and place *thereby* produces all sorts of important power effects. What has to be observed in the above account of the repair of knowledge-ability within Euroil is the asymmetrical distribution of the problem; the weight of responsibility for staying connected seemed to fall upon those who were remote, while the centre rested content in its synthetic certainties. So it was remote managers who had to translate the local, or at least attempt to do so, in order that the centre might understand. It was they who had to struggle to preserve their contextual knowledge of the centre in order to be understood. Only with great effort could the mind of the centre be moved; even intense periods of punctuated co-presence sometimes failed to shift the corporate sense of already knowing. Arguably, the problem of knowledge in Euroil lay as much in the certainty of the centre (its apparent refusal to entertain seriously its own ignorance) as in the remoteness of the asset managers. As a senior manager based in Singapore put it: 'Headquarters

doesn't see that it speaks a language that isn't universal ... it's not just that we expatriate managers go native, but that headquarters is so introspective and quick to reach conclusions.'

Latour offers some explanation of this asymmetry in his discussion of the voyages of exploration commissioned from Versailles, 'those who were the weakest because they remained at the centre and saw nothing start becoming the strongest, familiar with more places not only than any native, but than any traveling captain as well' (1987: 224). Those at the centre, he suggests, see 'new things' because, like zoologists examining a collection of objects from around the world, it is the first time so many things have been seen together. Their power is in new forms of combining (Latour 1987: 225–226). While Bill bemoans the contextual insensitivity of 'one size fits all' reporting systems, these routine, technologically mediated flows of information are precisely what effects the centrality of the centre, makes of it an 'obligatory passage point' (Callon 1986). Although physically just another local context, the centre can come, through combining these information flows, to 'see' the whole, and project itself as a transnational organization with a global strategy. The centre's dependence on distant managers to send back representations of their activity thereby becomes a source of the centre's power. Cooper (1993) talks here of the potential for modern technology to lend itself to an 'economics of mastery and control' in which representations hold out the promise of not only knowing at a distance, but also of 'knowing in advance'. From this perspective, the power of the corporate centre depends upon its refusal to entertain its own ignorance. As Rorty puts it, 'power is all there is to knowing — a claim to know X is a claim to be able to do something with or to X, to put X into relation with something else' (1999: 50).

The condition and consequence of this synthetic corporate certainty is the anxious preoccupation with staying connected that it installs in those working at a distance from the centre (Roberts 1991). Preserving knowledge-ability is so important to the managers we have described because they know that they depend upon the sense that distant others, in another context, will be making of them and what they do. The fear that haunts them is of being misunderstood, or misrepresented, or worse, overlooked and forgotten from a distance. Where a person failed to remain knowledge-able, as with Bill, then their local power faded with the gradual recognition by others of their disconnection from the centre. Where they were successful, as in Jim's case, their local power and authority was enhanced, and their careers flourished (Van Maanen 1977; Schein 1978; Pfeffer 1989). From this perspective, the labour of preserving knowledge-ability within the network organization can be seen as an intensification of processes of self-discipline (Rose 1989; Knights and Willmott 1989) in which the individual knows that their organizational survival depends not only on delivering performance, but also on being able to discern the shifting categories of corporate relevance through which their performance will be judged. Over time their success or otherwise in 'staying connected' comes to shape the career projects that they entertain for themselves (Grey 1994). Jim pursued the possible identity of a future chief executive; Chuck had abandoned

all thoughts of returning to the centre, but felt that there was a future for him as a technical manager within Euroil; while Bill, even before his sacking, saw China rather than Euroil as his likely future home.

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