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Culture and Actionable Knowledge: Proximities and Transfers

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Abstract

The prevalent methodological nationalism in studying culture makes it hard to comprehensively conceptualize the role of national and other subcultures in knowledge transfer. In the present paper, I explore the possibility of solving this matter. A brief overview of the debates surrounding the meanings of 'culture' and 'knowledge' is given and the relation between both concepts is being discussed. It is argued that they overlap considerably in their conceptualization: knowledge is defined as a *capacity for action*, acquiring significance in situations where such action does not follow purely stereotypical patterns. This chimes with a definition of culture as an emergent concept, constantly in the making, rather than a monolithic force 'causing' behavior. Knowledge is never neutral: it has a cultural flavor, but this flavor is not necessarily national (it can also be professional or generational or even gender-influenced).

Recent developments in the field of economic geography, defining 'proximity' as not only being spatial, but operating at different levels of association (e.g. organizational proximity, professional proximity, epistemic proximity) then equip us with the conceptual toolkit to scrutinize knowledge emerging at, but not necessarily confined to, the level of the individual employee.

Interviewing Indian knowledge migrants working for a multinational ICT and consultancy firm, I found that these highly skilled professionals indeed report on different (cultural), not necessarily geographically circumscribed spheres through which adaptation to a new client, working environment or cultural environment can take place. **The more spheres are altered in the transfer, the more difficult it is to transfer context-specific knowledge**. Also, relative

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distance in terms of one sphere can be compensated for through proximity in terms of another. Deserving of special mention is the 'global proximity' some of the Indians identify, which is not so much aligned with the organization as it is with their specific craftsmanship and the 'global orientation' of their jobs. This chimes with the concept of 'cross-cultural competence', a toolkit that enables professionals to span cultural boundaries within and between organizations and people.

1. Introduction: concepts of culture in management

In his book *"Cross-Cultural Management: A Knowledge Management Perspective"*, Nigel Holden (2002) argues that cross-cultural management has been using a conceptualization of culture which is indebted to the theoretical framework of Hofstede, who surveyed his fellow employees at IBM on their values and concluded that 'the general factor that can account for the differences in the answers is national culture' (Hofstede 1980: 44). As a result, there has been a long-standing tacit assumption in the field of cross-cultural management that culture can be more or less equated with nationality and that by surveying individuals, one can convey the core assumptions and values of people having the same nationality, which allows for cross-cultural comparison of these values. However, this approach is increasingly unable to account for cultural exchange in an increasingly interconnected world as dynamic and multifaceted and not just reducible to an all-determining 'software of the mind' (Hofstede, Hofstede & Minkov 2010). In recent years, some cross-cultural management scholars have moved away from monolithic and essentialist conceptions of culture and have offered us a new conceptual toolkit with which we can analyze cultural exchange within and between organizations in a more in-depth manner. In an attempt to offer such a toolkit, Holden conceives cross-cultural management as a knowledge management issue and looks for answers in the knowledge management literature. He comes up with a definition of culture as 'varieties of common knowledge' (Holden 2002: 98) and sees culture as

> being made up of relations, rather than as stable systems of form and substance […]. This implies
> that national cultures, corporate cultures or professional cultures, for example, are seen as

symbolic practices that only come into existence in relation to, and in contrast with, other cultural communities.

(ibid.: 57)

His conceptualization of culture chimes with constructivist notions of culture in the broader social sciences, especially sociology and anthropology. Snel (2003: 249-251) formulates four objections against the essentialist conceptualization of culture Holden is critical of. First, he states that such a conceptualization treats cultures as fixed and unchangeable entities. Second, it tends to reify culture, to see it as a 'thing' people take with them. Third, an essentialist conceptualization of culture tends to see culture as the **cause** of human behavior, some kind of external force that steers the minds of individual actors. When giving an example of scholars who tend to think of culture in such a way, he indeed uses Hofstede's conceptualization of culture as 'software of the mind'. His fourth and final objection is that there is no room for change in such a conceptualization of culture: especially in our current era of globalization, in which people and their cultural habits are increasingly interconnected, this is unrealistic. All these points are eloquently summarized, synthesized and corroborated by the German anthropologist Gerd Baumann in his book *Contesting Culture: Discourses of Ethnicity in Multi-Ethnic London*, in which he states that

culture is not a real thing, but an abstract and purely analytical notion. It does not cause behaviour, but summarizes an abstraction from it, and is thus neither normative nor predictive. […] Culture thus exists only insofar as it is performed, and even then its ontological status is that of a pointedly analytical description.

(Baumann 1996: 11)

Elsewhere in his book, Baumann (ibid.: 72-108) shows that inhabitants of Southall, a multi-ethnic neighborhood in London, often see themselves and other Southallians as members of one of five communities, each with its own culture: Sikhs, Hindus, Muslims, Afro-Caribbeans and whites. Three of these self-defined cultures are based on religion, the other two on ethnicity, which shows that cultures are indeed constructed depending on the context in which they operate. So, Holden's definition is not only in line with definitions used within sociology and anthropology, two disciplines for which a clear working definition of culture is of great

importance, research has also shown that actors can and do indeed shape their own culture and value orientations.

2. Culture and knowledge

To what extent, then, is it useful to study culture from a knowledge management perspective, as proposed by Holden? Through the use of case studies in which knowledge management across borders takes central stage and by using a methodology which captures the narratives of the participants, Holden himself shows that his approach is better able to grasp the difficulties and subtleties of transferring knowledge between employees with distinctively different backgrounds. Futhermore, Holden's idea that knowledge and culture can be used interchangeably has been argued for in other writings as well: Stehr gives a more thorough philosophical analysis of the meaning of both 'knowledge' and 'culture'. He sees knowledge as a capacity for action, and states that 'knowledge derives its utility from its capacity to set something in motion' (Stehr 2001: 35), and that '[k]nowledge as a symbolic 'system' structures reality' (ibid.). He also sees knowledge as heavily dependent upon context, arguing that knowledge 'acquires an 'active' role in the course of social action only under circumstances where such action does not follow purely stereotypical patterns […], or is strictly regulated in some other fashion' (ibid.) and that it 'assumes significance under conditions where social action is, for whatever reasons, based on a certain degree of freedom in the courses of action that can be chosen' (ibid.). This explains why knowledge is seen as the most important resource in this day and age: there is a broadly shared consensus among management scholars, social scientists and economists that the current era of globalization, in which markets and actors are increasingly interconnected, creates a bigger, more complex and rapidly changing environment for organizations. And in a changing environment, in which there is no action repertoire that is agreed upon, a firm has to rely on a core of knowledgeable employees. In a subsequent section, Stehr first discusses the 'dominant understanding of culture' (ibid.: 36), which sees culture as giving meaning to social action. He then discusses Swidler's (1986) definition of culture, who states that 'culture can be understood as a bundle of capacities or qualifications for strategic problem-solving' (Stehr 2001: 37), which significantly overlaps with Stehr's definition of knowledge and adds more weight to Holden's idea that culture can be considered a form of knowledge.

Surely, the use of a knowledge management perspective for researching culture in organizations has the potential to overcome an essentialist and reified notion of culture. But at the same time, this means that the shortcomings of the field of knowledge management will also apply to cross-cultural management studies. In the next section, I will give a brief overview of the role of knowledge in some of the more influential management theories.

3. Knowledge in management literature

As mentioned before, the key to adapting to a rapidly changing and highly interconnected environment is knowledge and obviously, it plays a central role in many theories of organization. For instance, Mintzberg (1980) analyzes the roles and activities of managers, and highlights the informational role of the manager as one of the three main areas into which the variety of activities and roles can be grouped. The manager needs to function as a monitor (what is going on in and around the organization?), a disseminator (passing in information to others in and around the organization) and a spokesman (providing others outside the organization with information on the organization) (Pugh, Hickson & Hinings 1983: 153).

The pivotal role of knowledge as a crucial resource for organizations is further demonstrated by resource dependence theory (Pfeffer & Salancik 1978). In short, resource dependence theory asserts that organizations import inputs from the environment and through internal transformation, they deliver goods or services back into environment. Organizations have to be effective, not only in an economic sense (efficiency), but also in satisfying the demands of those external entities on which they depend. An organization is thus interdependent; this interdependence has the potential to be a source of power but also of constraint. Organizational power lies in the ability to mobilize resources (ibid.).

One of the more crucial resources in an ever-changing environment, of course, is knowledge. In Bartlett and Ghoshal's managerial theory of the firm, the notion of knowledge as a fundamental resource for the firm plays an even greater role: they state that there has been a managerial shift from allocating capital (the focus of the classical and modern management perspectives) to managing knowledge (Bartlett & Ghoshal 1993: 41); one of the key activities of managers in advancing the interest of the firm, then, is to create a portfolio of board memberships and other liaisons with important actors in order to rapidly acquire crucial knowledge (ibid.: 40).

One interpretation and application of resource dependence theory is the knowledge-based view of the firm. This perspective sees the firm as 'integrating the specialist knowledge resident in individuals into goods and services' (Grant 1996: 120). The primary task of management in this perspective is 'establishing the coordination necessary for this knowledge integration' (ibid.). In conclusion, all these perspectives underline the importance of knowledge in today's economic and managerial environment. However, through the use of other fields of science, economic geography in particular, I will point at two major weaknesses in knowledge-based views on organizations. In the next section, I will introduce the core assumptions and concepts in the field of economic geography.

4. Knowledge in economic geography

Studies looking at geographies of knowledge (cf. Storper 1997) try to explain the ostensible paradox between globalization – facilitated by standardization – on the one hand and new forms of regionalism – induced by specialization – on the other, by focusing on the competitive advantages offered by spatial clustering. Besides the obvious scale advantages of agglomeration, the territorial clustering of institutions and people facilitates the transfer, formation and development of certain context specific knowledge and practices.

The arrival of the computer, combined with the emergence of the Internet, yielded an increased commodification and transferability of information; monitoring and automating (parts of) business processes took away many spatial constraints, allowing business processes to be relocated to places where production costs are lower. This ongoing process of codification of knowledge (codified knowledge is knowledge that has a universal interpretation, which makes that formal and systemic explicitation such as written text or a map suffices for its full transfer) and the subsequent weakening of spatial constraints raise the strategic value of uncodified or "tacit" knowledge. This type of knowledge depends on a shared context (Howells 2000: 54; 2002: 873) and needs to be communicated through direct and interpersonal interaction (Gertler 2003: 77-78; Howells, 2000: 53, 58; 2002: 872; Polanyi 1966; Roberts 2001: 100-101) in order to be fully transferred. Therefore, geographical clustering of actors who deal with such knowledge significantly lowers its transaction costs. Actors who have similar ways of interpreting and creating specific knowledge that is hard to replicate through formalization and/or standardization tend to cluster geographically. This leads to the formation of so-called

"communities of practice": social settings in which actors share common 'action capacities' (Storper 1997: 52), 'frameworks of action' (ibid.: 53), or 'cognitive representations' (ibid.: 190) and therefore facilitate the transfer and formation of tacit knowledge.

Part of the tacitness of the described type of knowledge lies in the fact that it is highly reflexive, thus constantly subjected to revision or reformulation. This is the reason why tacit knowledge is often inextricably associated with highly innovative and creative industries (Gertler 2003: 76, 78-79; Howells 2000: 52; Storper 1997: 238). The ICT industry in Silicon Valley, the movie industry in Hollywood and the fashion industry in Milan and Paris, for instance, are well-known and well-researched spatial clusters of reflexivity.

Simply put, knowledge in its most codified form flows freely around the globe through channels of mass communication; on the other hand, tacit knowledge relies strongly on geographical clustering of the involved actors for its formation and transfer through its dependence on learning-by-doing and a common interpretation.

However, perceiving this typology through simple dichotomies could lead one to think that the geography of knowledge can best be summarized by a tacit-local/codified-global matrix; both Howells (2000: 53-54; 2002: 873) and Roberts (2001: 101-102), while referring to Polanyi (1966), explicitly stress that knowledge is neither fully tacit nor fully codified and that codified knowledge always needs to rely on tacit understanding or application in order to be useful.

Now that we have a general idea of both the perceived role of knowledge in contemporary management writings and its assumed tendency to cluster according to economic geography, we can use some of the more recent developments in geography to address some theoretical weaknesses, both in the field of management and in economic geography.

First, in management literature, is still assumed that knowledge exclusively resides in the individual and that it can be appropriated and activated by hiring knowledgeable employees:

> The emphasis upon *the role of the individual as the primary actor in knowledge creation and the principal repository of knowledge,* I believe, is essential to piercing the veil of organizational knowledge and clarifying the role of organizations in the creation and application of knowledge. (Grant 1996: 121, my emphasis)

This somewhat simplistic conceptualization of knowledge is frequently attacked in the field of geography: instead of knowledge as possessed by actors and appropriated through the hiring and training of professionals, knowledge is conceived of as inseparable from practice, emergent and formed by context as well as by actors, much like Baumann's definition of culture. In addition, it is argued that in any given context, there is not just one practice, but a nexus of interconnected practices, and that this nexus is the main influencer of organizational performance (Marabelli & Newell 2012: 20). As a consequence, the assumption that knowledge is manageable is met with considerable criticism.

Second, as of recently, authors in the fields of economic and social geography are beginning to mention that the proximity created by spatial clustering is not the only proximity we need to take into account when studying the dependence on context of tacit knowledge. Storper (1997: 191) already hints at a 'complex set of territorialities', some of which 'will be international in scale, often embodied in internationally recognized multinational corporate practice and professional behavior.' More concretely, the authors who deal with the geography of tacit knowledge conclude that, besides simple spatial proximity, a common context allowing for tacit knowledge to be exchanged and transferred can also be provided for by relational, cognitive, institutional, social, or cultural proximity (Boschma 2005; Gertler 2003: 86-87; Howells 2000: 59-61; Williams 2006: 600; 2007: 376). While dealing with the theoretical construct of "communities of practice", Gertler (2003: 86) states that 'according to this approach, organizational or relational proximity and occupational similarity are more important than geographical proximity in supporting the production'. He further adds that 'the communities of practice literature [plainly asserts] that tacit knowledge will also flow across regional and national boundaries if organizational or 'virtual community' proximity is strong enough' (ibid.; see also: Van Egeraat & Kogler 2013). Quoting Bunnell & Coe (2000), he labels this phenomenon as the 'de-territorialization of closeness' (Gertler 2003: 86). This could mean that, according to these authors, a constant institutional and/or occupational context on which these professionals can rely, even when changing locations, makes that the nature of their knowledge is still tacit while not hindering their mobility in a geographical sense. It should be noted, however, that this mobility can only be more or less without loss of knowledge when one or more of the aforementioned contexts is being held constant.

Bathelt, Malmberg & Maskell (2004) try to integrate these notions into a theoretical framework when they add to the concepts of "buzz" (Storper & Venables, 2004), which is seen as the type of communication through which tacit knowledge is being formed and transported, the notion of "pipelines", the global knowledge linkages through which important knowledge and information is being communicated back and forth with actors outside of the cluster. Provided that there is a 'shared institutional context which enables joint problem-solving, learning and knowledge creation' (Bathelt et al., 2004: 43) between the actors involved, such a pipeline 'enables the actor to go beyond the routines of the local cluster' (ibid.: 42). This means that, according to these authors, the formation of tacit knowledge is no longer confined to a specific industrial region, but can be communicated to other actors if there is a shared institutional context. And indeed, Bathelt et al. (2004: 45) note that '[s]paces of shared meaning and identity are established through ongoing interactions between actors and firms over time. The resulting values, norms and other institutional arrangements may easily include actors which are located outside the region.'

In short, scholars within this field are beginning to mention that besides simple geographical proximity, other types of proximity (institutional, occupational, etc.) need to be taken into account when studying knowledge migration: a constant institutional and/or occupational context on which these professionals can rely, even when changing locations, makes that the nature of their knowledge is still tacit while not hindering their mobility in a geographic sense (it should be noted, that this mobility can only be without loss of knowledge when the context is being held constant). Unsurprisingly, relatively little is known about the ways in which these 'proximities' influence knowledge transfer and each other (Boschma 2005; Storper & Venables 2004).

In the remaining parts of this paper, I will present a previous case study that tried to shed some more light on the ways in which these proximities were used by Indian knowledge migrants.

5. Research methodology and results

5.1. Description of the research method and population

In this study (Burgers & Touburg 2013), I used the aforementioned insights from the field of economic geography to examine the proximities Indian knowledge migrants at Capgemini, a multinational consultancy and ICT firm experience and how they use these proximities for the

transfer of context-specific knowledge. In open interviews with 19 Indian respondents and 1 Dutchman who had been managing the "Indian connection" from the beginning, I asked them about their job experience, job content, migration history and the possible barriers they experienced on each matter. I used the individual employee as unit of analysis, because the identified "proximities" encompass different scales, yet the individual is at the nexus of these interrelated practices. The Indian interview population consisted of 17 men and 2 women, between the ages of 27 and 43. By interviewing Indian employees in as many different positions in the company (managers/supervisors as well as programmers and consultants) as possible, I was able to shed some light on the aforementioned theories regarding on knowledge transfer. The interviewed employees can be qualified as highly skilled; all the interviewees who were asked about their level of education had at least a bachelor's degree, seven had a master's degree and one a PhD. 19 interviews were conducted at the company's Dutch headquarter, 1 interview was conducted at a branch office nearby; the interviews lasted between 35 and 120 minutes, but typically took more than 45 minutes.

The aforementioned case leads to the following research question:

> What proximities do the Indian knowledge workers at Capgemini in the Netherlands experience and how do these proximities relate to each other?

Directly reflecting on knowledge, especially tacit knowledge, would be tricky for the respondents, since the tacit nature of such knowledge would mean that it would be hard for them to put their knowledge into words. However, using the theoretical assumptions on the geography of knowledge and the way in which it is used in research on skills, I aimed to measure or at least appropriate the degree in which these different kinds of knowledge manifest themselves in different levels of labor migration flexibility of highly skilled migrants: in the literature on skill formation, tacit knowledge is often affiliated with soft or interpersonal skills, and codified knowledge is seen as the basis for hard or technical skills. In the following example, one of the interviewees points at the connection between these soft skills and their tacit nature:

> [A person coming to an onsite location] will need to carry these [soft] skills. And I think it's very important, because many times... What I have seen in the past also, is that if there is a

programming error, the customer will point it out in black and white and he will say that there are some issues with your program, etcetera. But the soft things jeopardize the relationship, because these programming errors can be fixed. This is a black-and-white situation; you can go back to the same customer and say 'mister customer, I fixed your problems'. But the soft things... A customer will come back and say that 'you know, I'm not getting a good feeling with your company'. And you tell him 'can you explain?' He'd say 'I can't, it's difficult'. […] So, these soft skills jeopardize the relationship more than hard skills.

(I7)

Moreover, through conversations with my first contact at Capgemini and the first interviews, it soon became clear that, corresponding to this distinction between different skill types, there are two distinct career paths being followed within the research population. One of the career paths can be described as that of the "liaison officer", relying on soft skills: a person who is a middleman between the Dutch clients and the Indian software team and thus has to cope with the cultural differences and possible misunderstandings he or she encounters, either as a sales person or as an onsite manager. The other is that of the "programmer", largely relying on hard skills: a person whose job is to program the desired software for the client after receiving instructions from the onsite manager. It should be noted, however, that these two career paths do not oppose each other, nor are they mutually exclusive: they can best be seen as idealtypes, as I have come across onsite managers for whom coding was still part of the job. I have also encountered some software programmers who had coordinating tasks delegated to them. This role convergence is not surprising when one realizes that a lot of the "liaison officers" started out as programmers. The formal education profiles of both groups seem to be very similar as well, so the different career orientations appear not to depend on the level of education one has reached. The "liaison officers" developed their own distinct skillset, acquired through learning-by-doing. This also hints at their use of tacit knowledge: Polanyi (1966) already used the master-apprentice relationship to illustrate the non-formal character of transferring tacit knowledge.

Thus, I used the aforementioned occupational distinctions as instruments for identifying differences in knowledge use and the influence thereof on their knowledge transfer, on which I will elaborate in the next few paragraphs. The original aim of the research was to examine knowledge transfer in general and not necessarily the particular role of culture in this process. However, several interviewees had something to say about it.

5.2. Context and adaptation

The soft skills the interviewees report on often entail some kind of communicative proficiency that is vital for understanding the needs of the customer and translating these into workable IT-solutions. This type of skill is also associated with the ability to work in different and specific geographical areas and thus has to be partly renewed when entering a new geography:

> It always depends on how flexible you are with the culture of that geography or this country. It depends on what kind of people you are dealing with and what the difference is in working with them, so definitely that part of soft skills you have to develop.
> (I19)

Some interviewees report on the adaptability to new environments and the development of context-specific skills as a skillset of its own:

> I could apply [these skills], but I would have to improvise considering the existing structure. So you can look at it as a constraint, but you can also look at it as being able to adapt and being able to change their way of working as well, not overnight, but gradually.
> (I11)

Interviewing them, several striking and intertwined differences arose between the Indians for whom interacting with local and Indian parties was an integral part of the job and those who were mainly doing technical work.

The strong focus on interaction with (potential) customers necessitates a greater sensitivity for local and/or company-specific cultural differences. This makes that the sales representatives as well as the onsite workers who are not only writing code report on an extensive process of adaptation. A frequently noted process of adjustment is described in the anecdotal reports on adaptation to the (business) etiquette in the Netherlands and previous countries they have worked in:

> I would also say that it doesn't vary by... country by country, but certainly, the way they work in the US is different, of course. In that market, you can't work the same as you work here in the

Netherlands. So, that's different. The level of aggression, the level of result-orientation is much higher as a corporate culture in the US. In the Netherlands, you don't get fired for losing a deal. In the US, you do. So, that's a difference.

(I5)

More specifically, these interviewees explicitly connect their specific roles to the amount of adaptation required:

The description [of my job] is more or less the same [as in India], but my life… I see my life as a sales guy in India, in the US and in the Netherlands and it's totally different. My interaction with people, and the kind of things that are on their minds, and the way to deal with them are totally different.

(I18)

The Indians in onsite managerial or sales roles report on an adaptation process to local and/or company-specific differences of 'a couple of months' (I7), two months (I12), six months (I11) or even five years 'learning the systems and processes' for a banking consultant (I9). Referring to his fellow countrymen who are for the most part developing software, one interviewee postulates:

Most of the time, programmers sit at customer locations. So for example, if you're traveling from Capgemini the Netherlands to Capgemini Japan and you are still programming internally, you are doing more or less the same thing. But if you're traveling from one customer to the other, it is a completely different ballgame altogether.

(I7)

Indeed, the programmers themselves 'didn't see much of a change' coming to the Netherlands (I10), experienced 'no hiccups' workwise (I3) or needed only '15 days to a month' to learn a new programming language (I2).
So, while the "liaison officers" experience an ongoing and lengthy adaptation process, due to changing surroundings and interaction with different individual customers, the "programmers" report on a less extensive adjustment, experiencing little changes contentwise.

5.3. Geographical proximity

The theories on tacit knowledge express a significant importance of geography: the implicitness and cultural and/or organizational dependency of this kind of knowledge makes it subject to geographical clustering, having face-to-face contact as virtually its only means of transfer. Again, the interviewees' findings are consistent with the assumptions made in the theoretical part of this paper; their dealing with context makes that the so-called "liaison officers" stress the importance of face-to-face contact and geographical proximity:

> Software is something... It requires a lot of interaction. Sometimes, customers themselves are not clear about their requirements. There are people who help in analyzing the problem of the customer; help the customers in defining their requirements thoroughly. There is a lot of work in the implementation that requires feedback from the customer and configuring is closer to the customer. And then, there are people required to gather the information, the way in which it is expected by India. Collect that information, send it across, facilitate communication. If India has any queries, take it to the customer. […] By definition, anything that requires a lot of interaction... if you do it from remote, then it will have a lot of overheads in communication; there is a good chance of missing out on something.
> (I13)

Consequently, when reflecting on their own situation, some of the "liaison officers" assume that geographical proximity is not as important for programmers:

> I could have continued [being a software expert], even being in India. Expert in those areas, that's... I don't think it would have been a problem. But in my current role, yes... that's where some of my big learnings came from.
> (I5)

One of the few interviewees whose job is mainly programming agrees with this view out of first hand experience, alluding to the relative non-importance of physical proximity for his learning experience:

Technically, I would say… If I would have been in India these three years, then I would have been at the same level as I am here. Technically, we do the same work.
(I3)

The pivotal role face-to-face contact plays in some critical business processes and the need for geographical proximity that comes with it, makes that the extent to which these processes can be outsourced or offshored to other geographic areas is fairly limited. This is also recognized by the more experienced interviewees:

When you need a lot of input from users, you need to acquire it through talking to them personally. In such a case, outsourcing is not very obvious.
(I6, translated out of Dutch)

5.4. Other proximities

However, it could be that a solely geographical approach on proximity neglects the other ways in which the researched professionals deal with differences in context that possibly hamper their flexibility. As I suggested earlier, several scholars are interested in the way other forms of proximity (e.g. organizational) play a role in facilitating and limiting the mobility of transnational professionals. With this approach in the back of our minds, I asked my interviewees about any geographical, occupational or company transfer and to what extent he or she had to adapt to the changes. One interviewee, who was already working for Capgemini in India before he transferred to the Netherlands, recognizes the advantage of remaining within the same organizational setting when going abroad; he also states that there are different "cultures" to which you have to adjust in such a case:

The principles of Capgemini are more or less the same for all the different geographies. The local culture is definitely different, that depends upon the people. Over here in the Netherlands, we follow the Dutch culture.
(I19)

One could suggest that his remaining "proximity" to the institutional context of Capgemini facilitated his transfer to an unfamiliar geography. Another interviewee adds to the notion of the

constant context of the company the similarities between globally oriented companies vis-à-vis locally operating companies, adding another specific context to the realm of "proximities":

> If you are working in a local company, or a local customer... more of a pure Dutch customer, not a global customer... then [the specific way of working] does impact you. And then of course, the language, the culture and those things come into picture. But if you are working for [globally operating Dutch companies], it doesn't matter, because they're global companies. So in that sense, it doesn't impact your contents.
> (I12)

The complementary and buffering effect these different "proximities" have on each other can also work the other way around; one Indian interviewee who changed to Capgemini a year ago but still works within the Netherlands, reports on his adaptation process in the following way:

> I was thinking that I would be productive on the first day, that I would join and be running, I'd be going to the customers. And I suddenly kept hitting these speed breakers on a daily basis. And then I realized that it takes more time to adjust to a company, that it's not an overnight job. I was thinking that I will have my laptop and I will have this and that and those things happen but, you know, the physical hardware does not really enable you to adjust; it's the whole, you know, mindset behind it. So I think the adjustment is always company-specific.
> (I7)

Regarding his adaptation to local culture, he says:

> For me, the adjustment to the local culture was low. Because I was already in the Netherlands for the last five or six years, so I did not need to adjust to that. I already knew my relationship with the Dutch culture and how good or bad I am adjusted to that.
> (I7)

So, one could say that an already established "cultural proximity" to the Netherlands facilitated (or even compensated for parts of) the transfer to a different company. When questioned on the difficulties he encountered when adapting to a new working environment, an interviewee who also switched to Capgemini while already working in the Netherlands remarks:

> One of the advantages [was] that I was here in the Netherlands for two years before I joined
> Capgemini.
> (I18)

One could conclude from these quotes that there are several "proximities" that play a role in the adaptation to new surroundings – be it organizational or geographical. One interviewee integrates this into his analysis of "layers of culture", that loosely corresponds with the different forms of proximity I was aiming to uncover:

> I keep saying that there are three layers of culture. One is the local culture layer, which the
> company has. One is the global culture layer which the company has. And one is the country or
> geography layer. For example, [Dutch Company 1] was one of my big customers in a previous
> company. So we were working for [3 Dutch companies]. And they're all... Within the
> Netherlands, they're so close to each other, I mean... twenty kilometers, thirty, maybe sixty
> kilometers. And there's such a big culture difference between [these Dutch companies]. There's a
> huge culture difference between these labels of [Dutch company 1]. And then you realize that it's
> a Dutch company... [these Dutch companies are] not at all global, [they are] completely Dutch.
> But they still have so much culture differences.
> (I7)

So, while the customer companies he mentions are all located very close to each other, he still sees notable differences which he attributes to both company-specific cultural differences and the fact that some of these companies operate globally, while others are mainly focused towards the regional market.

The fact that some of these companies have a "global orientation" makes that there are similarities between these companies – the "global culture layer" I7 mentions – which enables the transfer from one globally operating company to another.

This means that, besides the geographic proximity I mentioned in the preceding section, the Indians who are "liaison officers" discerned at least three other interrelated "proximities" that play a role in the transfer from one area to another, be it geographical or not. First, they referred to the local cultural differences between India, the Netherlands and other countries where they

have worked. Second, they stated that besides the local culture, there is also the specific culture of the company. Third, there seems to be an added dimension to the way in which the workplace culture comes to the fore: globally operating companies appear to require the same mindset of its employees, while locally operating companies can differ very sharply from each other. Judging by the case of the Indian employees at Capgemini, the recognition of different spheres of adjustment combined with the vast difference in the level of adjustment required for the two professional groups, coinciding with the different ways of learning and a corresponding difference in the need for proximity, hints at a difference in types of knowledge used by both groups. In the next part, I will elaborate on this by answering the main research question.

6. Conclusions, implications and limitations

6.1. Answering the research question
Looking at the main findings distilled out of the literature on the geography of knowledge, one finds that the tacit knowledge these individuals possess partly relies on the interpretative, geographically bounded context necessary to fully and adequately transfer this knowledge. This at least leaves one wondering to what extent the geographic movement of these individuals is bounded by their inability to fully communicate this knowledge without its necessary (and place-bound) context. The theory itself provides a possible answer: by interpreting proximity as not just geographical, but also as institutional or relational (e.g. when transferring to another geographic location within the same company, the constant corporate mindset – institutional proximity – makes that the context through which specialist knowledge needs to be interpreted, remains constant). By maintaining one or more other "proximities", one can be relatively flexible in a geographic sense without being hampered in the transfer and communication of his or her knowledge. Using the main findings on the geography of knowledge as guidelines, I found several patterns in the interview data.

First, when it comes to the dependence on context, interpreted as the degree to which a person experiences obstacles when transferring to a new cultural and/or business environment, another difference between both groups arises. Whereas the employees in a more "programming" role report on a relatively short work-related adaptation process, the "liaison officers" tend to need a little more time to familiarize with their new professional surroundings. The differences in the

degree in which both groups report to rely on context also hints at a difference in knowledge: as I mentioned earlier, tacit knowledge tends to rely heavily on context for its interpretation, while codified knowledge has a universal way of interpreting agreed upon.

Second, there also is a difference in reliance on face-to-face contact and its subsequent need for geographical proximity between both groups: the "liaison officers" say they rely heavily on this type of contact, whereas it is not regarded as an essential aspect of work by pure "programmers". The reliance on geographical proximity through the need for face-to-face interaction is congruent with the dependence on context I mentioned earlier and is seen as a prerequisite for an adequate transfer of tacit knowledge as well.

Third, the interviewees report on other, not necessarily geographical spheres in which the adaptation can take place: organizational or cultural. There has to be a certain "proximity" to each of these spheres in order for the transfer to go smoothly. If not, a process of gradual adaptation takes place. The more spheres are altered in the transfer (e.g. a transfer to both a new company and a new geography), the more extensive the adaptation process will be. The more recent literature on the geography of knowledge indeed suggests that the proximity associated with tacit knowledge is not only to be explained in terms of geography; the authors suggest that there are other forms, such as institutional or relational proximity that play a facilitating or limiting role when it comes to the transferability of context-dependent knowledge. The most interesting finding is perhaps that a worldwide operating advanced producer service firm like Capgemini offers a possibility for global mobility through its constant context, allowing easy development, distribution and utilization of tacit knowledge, and through the skillsets of the "liaison officers", who have built up a portfolio of expertise related to the specific challenges posed by working in a multinational environment. This chimes with earlier studies within the field of cross-cultural management, pointing at the importance of developing a cross-cultural competence (Magala 2005).

6.2. Limitations of the research

While limiting the research to the company of Capgemini makes sure that all respondents share the same company context – which facilitates the comparison of the individual interviewees – it hampers the external validity of this research. Another disadvantage of this research, as I mentioned before, is that it does not measure knowledge directly, and therefore only can assume

that the observed differences can be ascribed to differences in knowledge. Another problem is the bias that could occur when an interviewee talks about his or her own job and/or career: it could well be that some interviewees omitted negative aspects of their job and or career moves, as well as exaggeration of the importance of their job.

6.3. Implications of this research

Summarizing the aforementioned section, the differences in context-dependency, reliance on geographical proximity and the importance of other, non-geographical forms of proximity seem to adhere to the idealtypical distinction between tacit and codified knowledge. By using an emergent conceptualization of knowledge, as dependent on context and not just "possessed" by individuals, and by conceiving of culture as one of the competing and complementary proximities experienced and used by the Indian knowledge workers, I hope to have contributed to a further understanding of the way in which cultures and knowledge are used, mediated and constructed in a global business environment.

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