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INTERNATIONAL MIGRATION, LEARNING AND KNOWLEDGE

Allan M Williams

Abstract

The paper explores some of the changing but increasingly important ways in which international migration contributes to knowledge creation and transfer. The paper focuses on four main issues. First, the different ways in which knowledge is conceptualised, and the significance of corporeal mobility in effecting knowledge creation and transfer in relation to each of these types. Secondly, the significance of international migration in knowledge creation and transfer, and how this is mediated by whether migration is constituted within bounded (by company structures) or boundaryless careers, and as free agent labour migration. Thirdly, the situating of migrants within firms, and the particular obstacles to their engagement in co-learning and knowledge translation: especially positionality, intercultural communication and social identities. And, fourthly, a focus on the importance of place, which is explored through theories of learning regions and creativity, and notions of the transferability of social learning across different public and private spheres. The need to view migrant learning and knowledge creation/transfer as widely dispersed, rather than as elite practices in privileged regions, is a recurrent theme of the paper.

Key words: Knowledge Learning Migration Mobility Firms

I Introduction

This paper examines the role of international migration in knowledge creation and transfer, focussing particularly on the widely distributed learning and knowledge in the workplace. Drucker (1993: 176), in his seminal paper, emphasised that 'to make knowledge you have "to learn to connect"', and geographers initially focused on one aspect of this: the importance of spatial proximity in the transfer of tacit knowledge via face-to-face contacts, notably as epitomized by learning regions (Maskell and Malmberg, 1999). More recently, the focus has shifted to the diverse means of knowledge transfer, whether localized or 'distaniciated' (for example, Amin and Cohendet, 2004), which implicitly recognises the role of (international) mobility and migration. However, there are still major gaps in our understanding of the specific contribution of international migration to knowledge transfer, of the processes involved, and of the conditions that facilitate or constrain this.

This paper addresses these issues through considering four key issues: whether international migrants are carriers of particular types of knowledge; how migrants potentially contribute to knowledge transfer; the determinants of the effectiveness of firms in capturing migrant knowledge; and some of the ways in which place mediates effective learning and knowledge transfer by international migrants. This approach front-stages the individual but an emphasis on situated knowledge also implicitly recognizes structural features.

First, the paper reviews some of the different forms of knowledge. The conceptualization of knowledge has moved a long way since Polanyi's (1966) recognition of a binary divide between tacit and explicit forms, even though the resulting literature remains heavily indebted to this. Blackler (2005), amongst others, has recognized various forms of knowledge, some of which reside, relatively autonomously, in individuals, while others are given meaning through being socially situated. Migrants have differential capacity for transferring these types of knowledge.

Secondly, the paper considers how migrants can carry different types of knowledge, with differing degrees of effectiveness and exclusivity. This is considered in respect of knowledge transfer and translation, and knowledge creation. The discussion is partly structured around a discussion of bounded and boundaryless careers. Much of the literature on international migration and skills (knowledge) has focused on intra-company and other forms of elite mobility, whilst this paper contends that every migrant is a knowledge bearer with potential to transfer knowledge to others.

The third section of the paper addresses the relational nature of knowledge transfer and creation. The practices and the knowledge contributions of individual migrants are mediated by relationships with their co-workers who, typically, but not exclusively are non-migrants. It is therefore necessary to situate the role of international migrants in knowledge creation and transfer within the general debates on workplace co-learning and knowledge creation/transfer. The starting point for our analysis is the literature on the

management of knowledge within firms (for example, Nonaka *et al*, 2001). However, recent research has challenged the reification of the firm, which increasingly is seen a site of competing interests (Schoenberger, 1997). This leads to a discussion of how positionalities and social identities inform relationships between migrants (and, indeed, all newcomers) and existing groups of workers within firms, thereby mediating co-learning, and knowledge transfer. Research on the management of knowledge (Easterby-Smith and Lyles, 2003) has surprisingly little to say on these subjects, as does migration research, with the exception of a small but vibrant literature on highly skilled migration (for example, Beaverstock, 2002; Findlay *et al*, 1996; Salt, 1988). This research, however, is necessarily sectorally and gender selective (Kofman and Raghuram, 2005), and does not address the distribution of skills and knowledge *throughout* the actual and potential migrant labour force.

The final section of the paper addresses the need to understand the learning and knowledge transfer experiences of migrants as being socially situated (Evans and Rainbird, 2002). This directs our attention to the notion of place which can be understood as sites of embedded or encultured knowledge, and of 'the temporary spatiotemporalisation of associational networks' (Amin, 2002: 391). International migration is one, but an increasingly important, process of such 'temporary spatiotemporalisation', which mediates knowledge creation and transfer in and amongst particular places. This paper considers two literatures that provide perspectives on these relationships: learning regions and creative cities. However, it concludes that there is a need for a much broader approach to how socially situated learning and knowledge transfer influence the potential and effective economic contribution of international migrants, and to how knowledge flows between workplaces and the family/community.

This paper responds to both the increased importance of knowledge in advanced capitalist economies, and the roles played by international migration in creating and transferring knowledge. The increased importance of knowledge is rooted in a number of analyses of 'postindustrial', 'post-modern', and 'knowledge' societies (reviewed in Drucker 1993). There are several distinct strands here. First, an increasing emphasis on knowledge in determining the capacity of firms to respond rapidly in increasingly competitive conditions, exacerbated by globalization. Secondly, the potential offered by new technological means to generate, store and transfer information (but also the requirement to hold tacit knowledge in order to utilize these effectively). And, thirdly, the relative growth of knowledge-intensive sectors, particularly in the service sector. Drucker's (1993: 38) widely-quoted conclusion that 'knowledge is the only meaningful resource today', is of course a gross overstatement. Knowledge has always been integral to all forms of economic activity. However, there have been qualitative changes in the volume of knowledge available, and in the speed of dissemination. While most analysts have focused on the role of information technology in these qualitative changes, this paper contends that corporeal mobility remains critically important in knowledge transfer and creation, given the enduring, if not enhanced, importance of tacit knowledge (Nonaka *et al*, 2001: 490).

The importance of corporeal mobility in knowledge transfers has, of course, long been recognized; see Arrow's (1962) seminal paper on knowledge spillovers, and Bunnell and Coe's (2001) more recent comments on the roles of mobile individuals. This paper does not review all forms of such mobility, rather it focuses on international migration. This is not because of any claims as to unprecedented levels of international migration in recent decades – indeed, in many ways international migration was relatively greater in the second half of the nineteenth century (Chiswick and Hatton, 2003). But there have been qualitative changes in international mobility (King, 2002), recognized in for example the literatures on skilled international labour migration (Salt 1988) and transnational companies (Morgan 2001). International migration both mediates and is mediated by the transnationalisation of capital and knowledge.

Of course, international migration is a problematic term, and there is neither the need nor the space here to enter into debates about definitions. Not least because these are mostly concerned with universal definitions, which tend to abstract the roles of migrants from specific contexts or processes, in this case, in relation to learning and knowledge transfer. Instead, this paper focuses on international migration as a period spent working in another country, involving sufficient time for significant integration into the labour force (that is, beyond placements of a few days or weeks, or attending seminars or workshops). The term international migration is also used deliberately as embracing a range of working/living practices, from transnationalism to more 'traditional' single movements of emigration and return. In the former, 'migrants build fields that link together countries of origins and destination (Zhou and Tseng, 2002: 132), whereas in the latter economic relationships are focused more narrowly on the place of current residence, excepting remittance flows. Although recent theorization in social science has focused on transnationalism, this paper contends that many types of international migration are characterized by, and play roles in, knowledge creation and transfer.

II Conceptualisations of knowledge

Polanyi's (1958; 1966) seminal work, distinguishing between tacit and explicit knowledge, is the obvious starting point for considering different types of knowledge. This essentialised tacit knowledge as being person and context specific: 'a person knows more than he [sic] can express in words'. In contrast, explicit knowledge is transmittable in formal and systematic ways (via manuals, data bases etc). This dichotomy has been extended by a number of writers, most notably by Nonaka and Takeuchi (1995), who identified four types of knowledge transfer, involving different combinations of tacit and explicit knowledge. Subsequently, other writers have developed finer-grained conceptualisations of knowledge, for example Yang (2003) who distinguishes between explicit, implicit and emancipatory knowledge. But this paper adopts Blackler's (2002) typology, which draws especially on his own earlier work and that of Zuboff (1988), Berger and Luckmann (1966), and Brown and Duguid (1991). This typology is particularly useful for understanding how international migration mediates particular forms of knowledge transfer.

- *Embrained* knowledge is dependent on conceptual skills and cognitive abilities, which allow recognition of underlying patterns, and reflection on these. The individual mindset is a key influence on learning.
- *Embodied* knowledge results from experiences of physical presence (for example, via project work). This is practical thinking rooted in specific contexts, physical presence, sentient and sensory information, and learning in doing.
- *Encultured* knowledge emphasizes that meanings are shared understandings, arising from socialization and acculturation. Language, stories, sociality and metaphors are mainsprings of knowledge.
- *Embedded* knowledge is embedded in contextual factors and is not objectively pre given. Moreover, shared knowledge is generated in different language systems, (organizational) cultures and (work) groups.
- *Encoded* knowledge is embedded in signs and symbols to be found in traditional forms such as books, manuals, codes of practice, and web sites.

There has been increased recognition of these different types of knowledge because of the changing organization of work, notably greater emphasis on so-called 'soft' skills of communication, problem solving, and creativity (Payne, 2000). The issue here, however, is the transferability of particular types of knowledge via (international) migration. Encoded knowledge is, of course, the most mobile form. In contrast, tacit knowledge is inherently less mobile because it cannot be fully articulated through documented (i.e. codified), and possibly even through verbal, forms, but is learned through experience (Nonaka and Takeuchi, 1995; Polanyi, 1966). Consequently, given that much knowledge is tacit, '... whether knowledge spillovers are contained within a firm, or within a region, depends on the nature of mobility in that industry or region'. (Almeida and Kogut, 1999: 916)

The key question, however, is the relationship between knowledge transferability via migration and Blackler's (2002) typology of tacit knowledge. Given the limited empirical research on this theme, the following discussion is essentially hypothetical. Embrained and embodied knowledge are necessarily indivisible from the individual, and so are fully transferable via corporeal mobility. Migrants who have cognitive skills that allow them to diagnose faults in computer language (embrained knowledge), or sensory and physical skills for restoring art works (embodied knowledge), can transfer these in their entirety across borders. The valorisation of the migrants' knowledge therefore is conditioned by (while conditioning) corporeal mobility: in other words, their market values are dependent on where the individual works – taking into account different forms of migration (transnational, permanent, return) – whilst possession of such knowledge also influences the level and type of mobility.

In contrast, encultured and embedded knowledge represent relational knowledge, grounded in the institutionally-specific relationships between individuals. In so far as these 'settings' are not transferable or replicable, then – at best – they are only partly transferable through corporeal mobility. A more negative interpretation would emphasise that they are necessarily devalorised by corporeal mobility – for example, an understanding of country specific legal practices, or even non-transferable via migration. However, this denies individuals the capacity for reflexivity and, by extension, for migrants to take with them *knowledge of* encultured and embedded knowledge, even if these are time and place specific and non transferable in their totalities. In effect, individuals can be understood as engaged in informal benchmarking processes. For example, migrants can transfer ideas about alternative work practices, even if these require modification to fit culturally and organizationally different settings. In part, they carry such knowledge with them, but in part they carry the means to access such knowledge. Arguably, they have different social networks to non-migrants, and can draw on these to access new and different sources of encultured and embedded knowledge. Such linkages are particularly intensified in respect of transnational migrants (Zhou and Tseng, 2002). This positive assessment does not imply a lack of obstacles to applying 'knowledge of' in different settings. For example, transferring embedded knowledge between organizations is problematic because it resides in an organization's interrelated systems of physical, human and organizational relationships (Empson, 2001). Individual migrants have limited capacity to bring about changes in such institutions.

Finally, while the paper has distinguished between different types of knowledge, one of the keys to their valorisation is how they are combined. In this sense, all forms of knowledge are relational, and none are transferable by migrants without transforming their potential economic value. The question then is how corporeally mobile forms of knowledge, and 'knowledge of knowledge', are recombined with other forms of knowledge, in new settings which may be politically, culturally and organisationally different. The next section explores further how migration contributes to the transfer and creation of knowledge, and to learning.

III International migrants and knowledge

There has been growing recognition that mobile, 'knowledgeable' or 'learning' individuals have the potential to forge translocal networks (Bunnell and Coe, 2001: 581-2), making a critical contribution to innovation and competitiveness. However, the migration literature on knowledge transfer has tended to be highly selective, focusing on elites and especially intra-company mobility (eg Beaverstock 2004). Here, the paper first considers the roles of migrants in knowledge creation/transfer in the economy, before considering two major types of migration: bounded versus boundaryless career moves. This leads to revisiting the notion of how 'skilled labour migration' is constituted. First, consider knowledge transfer and knowledge creation.

1 Knowledge transfer and knowledge creation

The transfer of tacit knowledge is facilitated and sustained by corporeal mobility. International migration is one way in which mobility is articulated and, indeed, Bunnell and Coe (2001) suggest that the 'astronauts' shuttling between Taiwan's Hsinchu region and Silicon Valley are iconic figures for mobility (Saxenian, 1999). Other Silicon Valley examples include transnational migrants who originated in India, China or Israel, and are now strongly embedded in both locations (Saxenian and Hsu 2001). There are however limits to the transferability of some types of knowledge, as indicated in the previous section.

Hodkinson *et al* (2004: 11) comment on the differential transferability of skills and knowledge between different working environments:

'prior abilities are important in negotiating changes of work and learning environments. These are not decontextualised 'transferable skills' but abilities which have structural and referential features. Their structural features may be carried (tacitly) between environments but they have to be situated, underpinned by domain-specific knowledge and developed through social interaction within the culture and context of the work environment'.

The distinction between structural (transferable), and domain specific knowledge is useful, not least because it broadly accords with our earlier differentiation between transfers of embrained and embodied knowledge as opposed to encultured and embedded knowledge. However, as Evans and Rainbird (2002: 24) note, understanding of 'the processes by which skills are transformed from one setting into another' is limited, and – as this paper contends – this is especially so for international migrants.

The key to such transmissions is that knowledge and learning are relational, so that transfers between individuals in the same setting (eg company and country), let alone transfers between settings, are perhaps better thought of as *translation*. Czarniawska (2001: 126) elegantly captures this: 'It is people whether regarded as users or as creators, who energize an idea every time they translate it for their own or somebody else's use. Watching ideas travel, ... we observe a process of translation'. And this process of translation modifies all the agents involved: the individual translators, and the translated knowledge. Ultimately, it may also modify institutions.

Migrants have distinctive roles as translators of knowledge. As Allen (2000: 28) argues, 'the translation of ideas and practices, as opposed to their transmission, are likely to involve people moving to and through 'local' contexts, to which they bring their own blend of tacit and codified knowledges, ways of doing and ways of judging things'. Knowledge can be transferred across space via many different channels, but this paper contends that migration involves a particular combination of embrained, embodied, encultured, and embedded knowledge. Embedded and encultured knowledge are especially prone to translation, because of their reflexive nature, but all knowledge transfers involve translation, because they are effected through social interactions with others (migrants and non migrants) in the destination organization and territory. Knowledge transfer or translation, conceptualised in this way, does not privilege any particular group of migrants, but is a process

that all migrants necessarily engage in, even if their knowledges have different market values.

The notion of translation takes us beyond simplistic ideas about transferring immutable knowledge, and leads to consideration of knowledge creation. There is a very fine line between knowledge translation and creation. Migrants bring knowledge with them to a new setting, where it may be integrated with other knowledge through participation in various formal and informal practices, not only within but also outside of employing organizations. As a result, their knowledge can be described as 'having been expanded, modified, or even transformed' (Eraut, 2000: 27). At some point, therefore, knowledge translation (approximating 'expanded' and perhaps 'modified') becomes knowledge creation (approximating 'transformed').

Arguably, international migration is a particularly important, potential source of knowledge creation precisely because it involves transversing boundaries. Wenger (2000: 233), writing about generic (not specifically territorial) boundaries, emphasises that these present opportunities as well as barriers. They can be places of unusual learning, where different perspectives meet, and where – echoing our earlier discussion - reflexivity is at a premium. Radical new insights are particularly likely to emerge when boundaries are 'successfully' crossed, although such bridges tend to be exceptional rather than routinised in the workplace. Wenger (2000) identifies several types of bridges, including brokers. Some individuals act as brokers between communities, and this paper argues that international migrants are especially important as brokers across international borders that constitute significant cultural as well as jurisdictional boundaries.

Wenger (2000) identified a number of different types of brokering, which can be seen to apply to international migrants. '*Boundary spanners*' (Tushman and Scanlan, 1981), take care of one specific boundary over time, and are exemplified by the Taiwanese knowledge 'shuttlers' working in Silicon Valley (Saxenian, 1999), who constantly move between these two spaces, or by mobile managers responsible for particular international connections within multinational companies (e.g. the European operations of a North American company). '*Roamers*' travel from place to place, creating connections, and creating or transferring knowledge. They are exemplified by the 'free agents' (for example, tourist workers - Uriely, 2001) that are discussed below. Finally, '*outposts*' bring back news from 'the forefront', while exploring new territories: for example, the representative of a multinational who has been seconded for a period to work with a new supplier in a country new to the company's production chain. Again there is limited empirical research on this theme, but the paper contends that migrants are implicated in all these forms of brokering: crossing international boundaries potentially, but not necessarily, creates opportunities for unusual learning opportunities, or meetings of perspectives, as Wenger emphasizes. Migrants may be particularly important as brokers between previously unconnected networks. In particular, this paper argues that transnational migrants, who initiate 'global interactions by engaging simultaneously in several countries relating to their migration' (Zhou and Tseng 2002: 133), are especially likely to act as brokers, because they

are necessarily locally embedded in the origin *and* destination. But not all transnational migrants, let alone all migrants are significant brokers, as these roles are mediated by positionality and social identities. These issues are discussed later in relation to the firm, but first consider two types of economic migration..

2 Migration and bounded/boundaryless careers

The constitution of migration – temporally, spatially, and organizationally – mediates knowledge creation and transfer by migrants. One key feature is whether migration is constituted as what this paper terms *bounded* as opposed to *boundaryless careers*.

Bounded careers involve highly-channelled mobility, such as intra-company career or other transfers, or being allocated to work abroad on specific consultancies or contracts. The pioneering research on skilled labour migration focussed on such mobility (Salt, 1992), which remains an important phenomenon (Beaverstock and Boardwell, 2000; Morgan, 2001). The links between company organisation and international mobility have been explored by Morgan (2001), who distinguished between two types of international firms. 'Multinationals' are organized along national lines: they have local branches serving local markets, and organize relatively limited human mobility (of any form) amongst their branches, or between these and the company headquarters. In contrast, 'the global enterprise' is based on transnationally co-ordinated inter-relationships amongst different sites. Managers' careers regularly involve (international) mobility between subsidiaries and the HQ. Such mobility facilitates dispersed and multi-directional learning (p122).

Globalised firms value internationally mobile management as: providing generic expertise and technical skills to international offices; disseminating corporate culture and policy; contributing to career development; and networking and accumulating knowledge. More specifically, McCall (1997) details what managers learn overseas: managerial skills (including being more open minded and dealing with a broader range of people); tolerance of ambiguity (for example, taking decision with relatively limited information); acquiring multiple perspectives (seeing things from others' point of view); and ability to work with others (tolerating different kinds of people, communicating more, and anticipating the impact of one's practices). Many of these forms of learning contribute to Sennett's (2000) notion of flexible individuals, but also to the role of brokers, whether as boundary spanners or roamers. They involve not only embrained and embodied knowledge, but also reflexive encultured and embedded knowledge. Indeed, companies value mobile managers as brokers who distribute company values and business cultures across international boundaries to their different branches and affiliates (Morgan 2001). However, these conceptualisations tend to assume that intra-company mobility is associated with knowledge brokering, whilst this is highly contingent in practice as discussed later.

Mobile individuals also play an important role in flows of knowledge through extra-firm mobility. Moreover, Bunnell and Coe (2001) argue that a strong association between individually-centered knowledge and economic rewards has facilitated 'possibly unprecedented mobility' for highly skilled workers, including international migration. There is anecdotal and fragmented empirical evidence (for example, O'Riain 2004) that large and, at least in some contexts, increasing numbers of workers move as what can be termed 'free agent labour migrants': workers who migrate without formal employment contracts, and outside of company frameworks. The notion of 'free agent labour migrants' draws on Opengart and Short's (2002) concept of 'free agent learners' that, in turn, is based on Kanter's (1995) use of the term 'free agents' (analogous to professional sports). A different perspective comes from Barley and Kunda (2004: 21), who contend that new economy magazines such as *Fast Company* and *Wired* began to lionize highly skilled contractors as 'free agents, the heroes and heroines of postindustrialism'. These individuals focus on their long-term employability security within a career model that implicates mobility.

Free agent learners move between companies and organisations, seeking lifetime learning, while free agent international labour migrants also cross borders and have a range of economic goals. Free agent labour migrants are socially diverse, in terms of both their skills and motivations, ranging from young people working abroad as part of a gap year or the 'Big OE', to itinerant specialists such as ski instructors, to the plumber or builder who moves from eastern to western Europe in search of employment. From the company perspective, they perform diverse roles. Barley and Kunda (2004), for example, distinguish between 'hired guns' (purveyors of just in time expertise), and 'gurus' who import skills that permanent employees lack but need to learn. Such workers (whether or not international) 'epitomized the rhetoric of continual learning. Learning became a central life activity that blurred the boundary between work and everyday life (p263).

International migration, therefore, contributes to what are conceptualised as boundaryless careers (Arthur and Rousseau, 1996a; Eby, 2001). Boundaryless careers are constituted of sequences of jobs *across* organizations and – in the case of international migrants – across national boundaries. They are facilitated by external networks and contacts, and by a capacity for learning that fosters 'a "free agent" approach to careers, whereby employees are independent from, rather than dependent on, the employing organization' (Eby, 2001: 344). The boundaryless career is associated with increased emphasis on employability. Greater opportunities for mobility, and increased uncertainty in career development, have meant a shift from employment security to employability security (Opengart and Short, 2002: 221). Success in the labour market depends on knowing your strengths, continuously updating knowledge and skills, and renewing networks (p222). Migration is one of the more important signifiers of engagement in the processes that create and sustain employability, as O'Riain (2004) demonstrates in the case of a software writing team in Ireland. Of course, greater worker agency has not eclipsed the importance of structural labour market conditions (Hodkinson *et al*, 2004: 8), but the balance between

structure and agency has shifted, and migration is one of the key ways in which this is articulated in labour markets.

3 Rethinking the notion of 'the skilled migrant'

This recent emphasis in the migration literature on 'skilled' or 'highly skilled' labour migrants has privileged this group as learners and knowledge bearers. In reality, knowledge is widely dispersed within labour markets. This chimes with Robinson and Carey's (2000: 103) view that the prevalent dichotomy between unskilled and skilled is 'artificial and unhelpful, giving undue salience to a single characteristic of the individual'. Moreover, there have been deep changes in the organization of work, so that so-called 'unskilled' jobs increasingly require a range of 'social skills', such as communication, or team working (Payne, 2000). Florida (2005: 4-5), writing about creative cities and regions, also contends 'that every human being is creative'. This can be paraphrased to argue that every migrant is a learner, knowledge carrier and knowledge creator: the extent of this, and its economic impact, may vary considerably, but the underlying processes of learning and knowledge transfer remain in place. Care must be taken, however, not to glamorize jobs which may involve drudgery, and routine tasks, even if they involve learning and knowledge transfer experiences.

This perspective links to critiques of the highly gendered nature of research, and policy debates, on 'skilled' migration. As Kofman and Raghuram (2005: 150-1) argue, the neglect of women in the literature on skilled migration partly arises from the problematic definition of skills. The emphasis on technological innovation, and 'the new knowledge economy', has focused attention on scientific and technological jobs, thereby ignoring the skills required in – for example - educational and caring jobs, such as teaching and nursing. In reality, as Williams and Balaz (2004) demonstrate in their study of Slovak au pairs in the UK, there is a vast amount of learning and knowledge creation not only in the public sphere, but also within the private sphere of the home, which potentially can be commodified in the labour market (for example, social or language skills). By extension, there is a need to recognize that migrant workers, at all levels of the firm (and beyond), are knowledge carriers and learners. The critical question is whether organizations, managers and individual co-workers are able to recognize and facilitate the transfer of this knowledge, or co-learning.

IV Employer organizations: capturing migrant knowledge

Leveraging learning and knowledge transfer is a, if not the, key to competitiveness in the management literature (deGues, 1997; Nonaka and Takeuchi, 1995). From the perspective of migration research, and given our emphasis on the individual, it is useful to see firms as 'repositories of competences, knowledge, and creativity, as sites of invention, innovation and learning' (Amin and Cohendet, 2004: 2), inclusive of all workers (and

migrants). This is consistent with the focus in economic geography on microspaces, drawing attention to people and avoiding the reification of organizations (Ettlinger, 2003).

The focus on agency needs to be set alongside the view that knowledge is relational. Recognizing that knowledge exists within individuals is but the first step for an organization. As van der Heijden (2002: 565) argues, 'expertise can only exist by virtue of being respected by knowledgeable people in the organization'. However, 'knowledge gains value when shared with others' (Bertels and Savage, 1998: 22; see also Nonaka and Takeuchi, 1995: 340; Bartol and Srivastava, 2002). 'Sharing' is a disarmingly simple term for a complex process, whereby knowledge transfer (effectively translation) and knowledge creation become inseparable from co-learning. This applies to all four types of knowledge discussed earlier.

Where do migrants fit into this picture of knowledge transfer and learning in firms, where the other is often (although not always) a non-migrant? There are a number of points to consider although, once again, currently there is little empirical research to draw on.

- Whether mobility is bounded (e.g. within intra-company transfers) or unbounded, as part of boundaryless careers. The former usually provide more structured opportunities for co-learning and knowledge transfer.
- The immigration channels utilized (Nagel, 2005): were they registered or unregistered, and did they intend to be permanent or temporary migrants? This mediates the types of jobs and industries migrants seek employment in. There is, in short, an intersection of migration regulation, and processes of co-learning and knowledge transfer.
- The nature of the employer organization is important. This is partly an issue of firm size and complexity. Howells (2000: 54), for example, argues that the distance between the knowledge frames of individuals tend to be greater in larger firms, or firms spread across multiple (geographically-diverse) sites, where staff are more likely to be drawn from different cultural backgrounds. In practice, however, this mediated by other considerations, such as the prevalence of cosmopolitanism (see below) in firm, local and national cultures.
- Fourthly, micro processes within the firm are influential in organizational learning (Andrews and Delahaye, 2000). Co-learning flourishes where there are strongly established norms of trust and co-operation (Empson, 2001). Of course, all newcomers to organizations face barriers to co-learning precisely because 'norms, local discourse and other aspects of an organisational or occupational culture are acquired over a significant period of time' (Eraut, 2000: 19). But, as argued below, migrants face particular obstacles to co-learning and knowledge transfer.

While migrants seem to have relatively short learning curves for particular competencies (Williams and Balaz, 2005), sustained co-learning requires sharing norms and significant engagement between newcomers and existing personnel. Arguably, in terms of engagement, observation and imitation may

be relatively more important with respect to embrained and embodied knowledge, while discourse may be relatively more important for encultured and embedded knowledge. In any event, short-term, or temporary, migrants are potentially disadvantaged. But there are obstacles – and opportunities – which extend beyond this, related to diversity. Diversity is valued by many organizations as a source of learning and knowledge. Amin (2000: 11), for example, argues that ‘the infrastructure of soft learning is dissonance and experimentation’. Creative communities actively seek to mobilise difference and counterargument (see also Brown and Duguid, 1991), including assigning workers to teams on the basis of nationality differences (Randel, 2003). This is an idealized perspective because, in practice, many migrants face significant barriers to knowledge sharing and learning, although it is difficult to disentangle the implications for each of the main types of tacit knowledge.

Managing co-learning and knowledge transfer in a socially diverse workforce can be problematic. Co-learning depends, fundamentally, on the willingness of individual workers and the organization ‘to embrace external reference standards and methods’ (Earl, 1990: 742). At the level of the organization, this is exemplified by the difficulties that workers face in transferring educational credentials between countries, notably in the health sector (Hardill and MacDonald, 2000). There may also be a demand for social and cultural skills, which are seen as country-specific, although the latter are, to a degree, socially and politically constructed, and may conceal intolerance for diversity (Duvander, 2001: 210-1). Hence positionality – whether in terms of class, gender or migration status – is important in determining what people are perceived to know and can do within firms (Hudson, 2004: 450). And this applies as much to skilled migrants as unskilled migrants (Nagel, 2005: 208).

Obstacles to migrant and non-migrant co-learning can also be understood in terms of intercultural communication, the ‘symbolic process in which people from different cultures create shared meanings’ (Taylor and Osland, 2003: 213). Creating shared meanings is difficult where there are strong stereotypes concerning ‘the stranger’. Stereotyping - over-generalized expectations and beliefs about the attributes of group membership - increase the likelihood that the voices of strangers will not be heard within an organization. In contrast, cosmopolitanism facilitates inter-cultural exchanges. ‘Cosmopolitanism is an orientation, a willingness to engage with the other.... intellectual and esthetic openness toward divergent cultural experiences, a search for contrasts rather than uniformity’ (Hannerz, 1996: 104). And those contrasts include brokering, bringing together different perspectives across boundaries, as between migrant and non-migrant workers, or amongst migrants of different nationalities. While this definition of cosmopolitanism most obviously chimes with openness to encultured knowledge, ‘a willingness to engage’ can be argued to be a critical pre-requisite to the effective transfer of all four types of knowledge by migrants.

Another perspective on inter-cultural communication is provided by Goleman’s (1998: 7) notion of ‘emotional intelligence’, understood as ‘managing feelings so that they are expressed appropriately and effectively, enabling people to work together smoothly toward their common goals’. Of the five emotional

competences identified by Goleman, empathy is critical because it facilitates 'understanding others' and 'leveraging diversity'. Bogenrieder and Nooteboom (2004), for example, argue that empathy helps in judging trustworthiness because it facilitates accurate attribution of competencies and intentions, while tolerating deviations from expectations. However, 'empathy and identification are generally based on shared experience in the process of 'indwelling' (p297), which is why migrants may face particular barriers in developing shared identities and empathy with non migrants.

Co-learning and knowledge transfer are also mediated by social identities, understood here as 'the way that identification with a particular social group can be a referent for people to surface certain cognitive assumptions about themselves in relation to others' (Child and Rodrigues, 2003: 537). These assumptions – referring back to cosmopolitanism and stereotypes – are critical influences on how, and the extent to which, individuals are prepared to relate positively or negatively to others. Wenger (1998: 215) captures the essence of this relationship in respect of learning:

'Because learning transforms who we are and what we can do, it is an experience of identity. It is not just an accumulation of skills and information, but also a process of becoming – to become a certain person or, conversely, to avoid becoming a certain person'.

In his later writings, on 'expansiveness', Wenger (2000) concluded that 'a healthy identity' is constituted of multimemberships, and will involve crossing multiple boundaries. Individuals with 'healthy' identities will actively seek out a range of experiences, and will be open to new learning possibilities. And they will identify with broad communities, a notion that resonates with cosmopolitanism. By extension, therefore, it can be argued that co-learning in workplaces will be facilitated where migrants, and non migrants, both have 'healthy' identities.

Identities are central to the effectiveness of knowledge transfers and co-learning by international migrants, because nationality and ethnic group membership constitute major social points of reference around which personal identities are worked and reworked (Jenkins 2004: 5). This is increasingly important as companies – and their workforces – become more globalised (Child and Rodrigues, 2003: 538). Nationality and ethnicity are, of course, not the only referents for the identities that workers bring into, and which are reinterpreted within, organizations; gender is another important referent, as are age, and professional affiliation. But nationality and ethnicity are, of course, particularly strong referents for international migrants. Hence, organizations that aim to maximize dispersed knowledge within their workforce seek 'to create an affirming work climate for an increasingly multicultural workforce' (Chrobot-Mason and Thomas, 2002: 323-4). In other words, they seek to foster empathy, trust and openness in identities, and to counter stereotypes. Failure to do so may debase the organization's potential for knowledge transfer and creation.

In part, however, the importance of social identities depends on the type of knowledge involved. Child and Rodrigues (2003) argue that 'technical

knowledge' (about systems and procedures, and strategic understanding) is less likely to be sensitive to social identity, while systemic and strategic knowledge which originate within an organization, are far more identity sensitive. Or, in terms of Blackler's (2002) typology, it can be argued that transfers of encultured and embedded knowledge are more likely than embodied or embrained knowledge to be sensitive to identities – but this remains speculative.

While the above discussion has focussed mostly on the individual, these approaches tend to lose sight of the importance of the organizational features of the company, with respect to knowledge management (Easterby-Smith and Lyles, 2003). Firms can be seen as characterised by institutional isomorphism (DiMaggio and Powell, 1991: 66), whereby there is increased resemblance between units in the same set of environmental conditions. Migrants, it can be argued, potentially challenge the legitimacy of practices within organizations. However, the sources of legitimacy are controlled within these organizations by coercive, mimetic and normative institutional mechanisms (DiMaggio and Powell, 1991). The capacity of individual, or even groups of, migrants to challenge these may be constrained, but at the same time this is contingent on the types of migration: for example, skilled migrants, well-networked in formal and informal professional associations, may be better able to challenge normative mechanisms such as those relating to the recognition of knowledgeable individuals.

In summary, migrants are bearers of knowledge, and those organizations which value diversity as a source of creativity (see next section) seek to maximize knowledge transfers from migrants, both to individual workers and to the organizational level. Arguably, however, knowledge creation and knowledge transfer depend on co-learning, and the latter is mediated, both by the organization of the firm and by positionalities and social identities. However, this is not to argue that migrants are passive agents in co-learning, being dependent on the lead taken by non-migrants, or on how learning is institutionalized within particular companies. Like most newcomers, initially they may be peripheral to groups within a company, but their situation is neither static nor passive. Rather as Hodkinson et al (2004: 7) emphasise, 'it is not just that each person learns in a context, rather, each person is a reciprocal part of the context, and vice versa'. In other words, Baetjer's (2000: 170) comment that social co-learning is co-evolutionary, involving complex and changing relationships over time, is particularly apposite for migrants.

V Place and migrant knowledge

The final section looks beyond the boundaries of the firm. Initially, informed by the notion of the firm as a 'sociospatial construction', that is embedded in broader practices played out by social actors across various social networks (Currah and Wrigley, 2004: 1), the paper considers how migration relates to two significant literatures on knowledge in economic geography, on learning regions and creativity. Both perspectives, although less so creativity, fail to

address how knowledge spills over the borders between different spheres, for example the public and private. Therefore, an alternative approach is favoured, which understands *individual* migrant knowledge within firms as being socially situated, with learning distributed across work *and* non-work places. This again foregrounds the individual, drawing on Ettlinger's (2004: 32) notion of 'untidy geographies', whereby 'multiple geographies must be traced across spheres of life, over time, to make sense of behavior and interpersonal as well as interorganizational interaction'.

1 Learning regions and beyond

The literature on learning regions (having a high level capacity, via innovation, to adjust to changing economic conditions) starts from the assumption that tacit knowledge is most effectively transferred, face-to-face, by those who share similarities in terms of language, social norms, and personal knowledge developed through long established formal and informal interactions. The key contention is that physical proximity facilitates trust, which in turn facilitates knowledge transfers and collective learning (Maskell and Malmberg, 1999). The importance of a history of face-to-face contacts implies there is at least a core of relatively immobile - in terms of migration - key personnel (at least within a specific territory, if not within particular firms). This has led to a relative neglect of the role of migration in learning regions (Williams *et al*, 2004: 33-5). One important exception is Alarcon (1999), who argued that the higher proportion of foreign-born engineers and scientists in Silicon Valley, compared to Route 128 in the USA, was attributable to greater openness to new migrants in a more cosmopolitan environment. But, as our earlier discussion of social identities, inter-cultural communication, and stereotyping versus cosmopolitanism indicates, the opportunities and constraints faced by migrants are complex and still poorly understood.

There has, subsequently, been an extensive critique of the tendency to essentialise the role of proximity in knowledge transfer. Oinas (2000) argued that proximity only facilitates interactions, and does not necessarily create them. And, while distance may hinder interactions, it does not exclude them. Amin (2002) similarly argues against privileging spatial proximity because firms draw on a variety of networks, at different scales ranging from the local to the international. He argues that physical proximity and localized face to face contacts are not essential for developing trust-based relationships: 'Intimacy may be achieved through the frequent and regular contacts enabled by the distanced networks of communication and travel' (Amin, 2002: 393-4). Amin does not develop further his understanding of 'travel', or question the types of knowledge transfer that require corporeal mobility, although our earlier discussion of Blackler's (2002) typology suggests differentiation. There are numerous forms of migration, let alone 'travel', in terms of duration and frequency. Each is likely to provide different opportunities for translation of ideas and practices if only because of how these are mediated by social identity and stereotyping. In summary, surprisingly little is still known about the roles of different types of migration in learning regions.

Given the limitations of the learning region perspective, there has been a search for alternative conceptual frameworks for understanding extra-firm knowledge flows (see Amin and Cohendet, 2004; Bunnell and Coe, 2001; Gertler, 2001). Two literatures have been particularly important: communities of practice, and knowledge communities. Communities of practice (Wenger, 1998) is a well-established concept, which emphasizes that individuals are bound together by shared meanings and understandings, and the practices that emerge from networking. While Wenger recognizes that spatial proximity can be important (perhaps brought about by corporeal mobility), it does not necessarily create such communities. This has entered debates in economic geography. Some commentators (such as Amin, 2002) argue that relational proximity (achieved via communities of practice) is likely to outweigh spatial proximity. Others (such as Gertler, 2001) contest this, arguing that relational proximity is unlikely to overcome the barriers of geographical distance. Unfortunately, there is very little research on how different types of tacit knowledge are transferred by different channels – including different forms of migration - within such communities of practice, but the role of corporeal mobility is recognized.

An alternative literature on knowledge communities also pays limited attention to the role of migration in knowledge transfer, but does at least recognize this implicitly. Henry and Pinch (2000) analysed the agglomeration economies of the British motor sport industry, concentrated in 'Motor Sport Valley', and identified key elements in its constitution as a knowledge community. These include labour market features, such as rapid and continual staff transfers within the industry, the convergence of careers (most skilled workers spend at least part of their careers in this particular cluster), labour market churning due to the deaths and births of firms, and non-labour market factors. The constantly shifting pool of skilled labour within and from outside the knowledge community, that is including (circulating) migrants, is of particular relevance. This can be linked to Crouch *et al's* (1999) writings on employability in areas such as Silicon Valley. Workers in such areas have low employment security with individual firms (which have high death rates), but strong individual expectations of good job opportunities in other firms in the area. It can only be concluded, however, that the implications for migration are ambiguous: these conditions may repel or attract migrants. Crouch *et al* also argue that a shift 'from employment to employability' transfers greater responsibility to the individual for acquiring skills and planning career development. This suggests that both bounded and borderless careers, which are explicitly linked to migration, are important in how knowledge communities are constituted and reconstituted, and in the transfer of different types of knowledge.

In summary, migration does intersect with collective learning in learning regions or knowledge communities. Human capital theory, with its emphases on returns to individual 'investment' in learning, and the discounting of risk (Sjastaad, 1962), provides a basis for rationalizing why learning regions are particularly attractive to (skilled) migrants. The learning regions and knowledge communities perspectives then provide frameworks for understanding the circulation of migrants' translated knowledge from an initial

employer to the wider labour force in a particular territory. However, both approaches are unduly economistic in failing to address how discrimination and stereotyping shape opportunities and constraints.

2 Global cities and creativity

The extra-firm perspectives examined above pay scant attention to migration issues, not least because their focus remains the firm, albeit constellations of firms. However, the literature on creativity, especially when articulated in relation to global cities, gives more emphasis to place characteristics, including how migration relates to these.

Florida (2002) argues that, in the knowledge economy, territorial competitive advantage is based on ability to mobilize rapidly a combination of skilled people, resources and innovation capacity. Above all, it stems from being able to generate, attract and retain an effective combination of talent, creative people in the arts and cultural industries, and diverse ethnic, racial and lifestyle groups. This is reinforced by Lee et al (2004) who stress the need for creative people, from varied backgrounds, to come together to generate knowledge and innovation. Not surprisingly, global cities are key nodes of creativity, and Amin and Thrift (2002: 59) consider cities to be meeting places for knowledgeable and creative people, and sites of knowledge transfer.

Migration is clearly implicated in these perspectives, and is addressed directly by Florida (2002: 750-1). The key challenge for firms is to produce and retain talent because 'high human-capital people have many employment options and change jobs relatively frequently, and thus they strongly favor locations that possess thick labor markets'. This is matched by the expectations of the 'creative class' who seek out high-quality experiences, openness to diversity of all kinds, and opportunities 'to validate their identities as creative people' (Florida, 2005: 36). Therefore, the importance of social identities and cosmopolitanism for knowledge transfer and creation is seen to be important both within firms and within particular places.

A link can also be made to the earlier discussion of free agent labour migrants and movers, because the migration of creative people is related to life cycle stage and career-development aspirations. For example, Hannerz (1996: 131) argues that individuals specializing in expressive activities tend to migrate to global cities when they are relatively young, partly because these provide unique learning opportunities, but also because of a sense of pilgrimage or of 'being in the right place'. Such cities are 'open systems' (Jacobs, 1961) that attract people (including international migrants) from diverse backgrounds.

While the literature on global cities and creativity offers insights into the relationships between migration and knowledge, it has limitations. First, it tends to focus on social elites. In contrast, Sassen (2000) argues that the expansion of business service jobs in global cities creates a demand not only for high-level technical and administrative jobs, but also for low-wage unskilled jobs in public and private services, thereby generating parallel flows of skilled and 'unskilled' migrants. However, her reading of immigration

implies that the knowledge carriers and translators are in higher order jobs, which fails to recognise explicitly that all immigrants are involved in learning and knowledge creation/transfer. Secondly, the very notion of a creative class associated with the cultural industries and bohemian lifestyles is 'implicitly elitist' (Ettlinger, 2004: 27). Thirdly, these theories understate the discrimination and stereotyping faced by migrants, which shape the opportunities and constraints they encounter. For example, Zhou and Tseng (2002: 142) show that many Chinese high tech entrepreneurs in California followed this path way precisely because they encountered a glass ceiling as employees. And, finally, theories of creativity make sweeping assumptions about the openness and cosmopolitanism encountered by migrants in their non-working lives. In short, there is need for a more non-essentialist understanding of territorial competitive advantage, and the role played by migrants in this. A social learning perspective provides a step towards such an understanding.

3 Socially situated knowledge and migration histories

In contrast to learning regions and creativity theories, social learning perspectives, such as 'situated learning' (Brown and Duguid, 1991), do not privilege either places or social elites. They also encourage a lifelong learning perspective, arguing that individuals are products of their social and cultural histories whilst also contributing to producing situations that mirror these (Elkjaer, 2003). This perspective has two attractions for understanding international migration and knowledge.

First, it places the immediate experiences of the migrants, with respect to knowledge and learning, in context of personal histories of social and spatial mobilities. Secondly, the emphasis on social and cultural histories directs attention to 'the whole person' because 'experience, knowledge and skills already possessed range over all of a person's life, not just that part of it in paid employment' (Beckett, 2000: 41). In other words, workplace learning and knowledge transfer have to be understood in relation to non-workplace experiences. Ettlinger (2003) adopts a similar perspective in researching how multiple rationalities emanate from different spheres of peoples' lives. Paraphrasing such arguments (p152), this paper contends that 'a migrant's knowledge employed in a workplace derives from a kaleidoscope of learning practices that emanate from different spheres of life and different social networks'. This resonates with Folbre's (2001: 71) argument that:

'If human capital is so important, maybe we should pay more attention to how and where it is actually produced – in families and communities. The way economists treat nature helps explain the way they treat people. Both are taken as 'exogenously given'.

Similarly, Bentley (1998: 104) argues that social skills such as 'spontaneous sociability' (Fukuyama, 1995), learnt outside the immediate circle of family and colleagues, are important determinants of employability. Not only emotional intelligence (Goleman, 1998) travels across the boundaries of work, family and community; for arguably the same logic applies to different types of knowledge.

How does the above conceptualisation of learning apply specifically to international migrants? While there is a vast literature on migrant communities, there is little research on how practices within these relate to workplace knowledge and learning. However, by way of illustration, consider some evidence on elite meeting grounds, and language learning.

Beaverstock (2002; 2005) considers how internationally mobile workers in the higher order services constitute transnational elites, who flow into or through global cities, bringing with them well established cosmopolitan networks, cultural practices and social relations (in our terms, access to encultured and embedded knowledge). The social meeting grounds of global spaces, such as clubs, restaurants and bars, facilitate networking and are critical sites for knowledge transfer/translation and co-learning. They assume different forms in particular cities – bars and clubs in Singapore, lunching in New York, and bars and cafes in London – but have similar functions. Entertaining at home also provides an important arena for knowledge transfer, although the social rules governing this are more complex, as is evident in the differentiation between expatriates and locals in Singapore (Beaverstock, 2002: 537). Such complexity needs to be emphasized, for communities are of course differentiated, and should not be reified (Ettlinger, 2004: 35).

There is rather more published research on language learning by migration, another area in which non-workplace learning has spillovers (Voydanoff, 2001) into the workplace. Not surprisingly, immigrants who live in tightly-bounded ethnic enclaves, with few opportunities to practice the language of the host community, or to venture outside the 'security' of the home and neighbourhood, are likely to have less well developed foreign language competence (Chiswick *et al*, 2004; Tomlinson and Egan, 2002). Conversely, if there is a favourable environment for language learning at home – e.g. spillovers from children, who have been taught formally at school, to parents – this learning and knowledge can be taken into the workplace. For similar reasons, intermarriage between immigrants and non-migrants enhances language learning and communication skills (Chiswick and Miller, 1995), again with spillovers into employment. Intermarriage also facilitates the acquisition of country-specific customs, and knowledge of local labour markets (Meng and Gregory, 2005), that is of particular forms of encultured and embedded knowledge.

In summary, migrant learning and knowledge need to be understood as socially situated. This is recognised, implicitly, in the literature on learning regions in terms of the conditions that favour building trust, while creativity theories recognize the importance of cosmopolitanism in both the firm and local societies or places. These theories have two major limitations. First, their social and territorial focus is highly selective. Secondly, they do not engage with knowledge spillovers between different spheres, whether the public and private, or the firm and community/family. In short, this paper argues that all labour migrants have potential for realising knowledge spillovers, and it advocates a socially situated approach to understanding these. Although this foregrounds the individual, it also recognizes the

importance of institutional features (for example, affecting inter-marriage or immigration), and the interplay between these. Or, as Jenkins (2004: 17) argues, individuals experience the world in terms of three distinct but linked 'orders': the individual order (embodied individuals and what-goes-on-in- their-heads), the interaction order (relationships between people), and the institutional order (structures, organisation, and established norms and routines).

VI Conclusions

This paper does not seek to privilege international migration as a medium of knowledge transfer and creation. The world labour force is relatively immobile, and most working lives are corporeally – although not virtually - performed within nationally bounded spaces. In contrast, international migrants account for only some two per cent of the world's population at any one time. Nevertheless, there has been a fundamental shift in careers and working lives, so that 'flexibility, migration, and relocations, instead of being coerced or resisted, have become practices to strive for rather than stability' (Ong, 1999: 19). Changes in knowledge creation and transfer both facilitate and result from such enhanced flexibility, including international migration. However, the significance of international migration in knowledge transfer and learning extends beyond mobile individuals, to non-migrants in areas of origin and destination. Whether through migration and return, or transnational migrant practices, the knowledge creation and transfers effected by migrants impact – both through both positive and negative spillovers - on the performances of non-migrant workers.

In broad terms, two major gaps have been addressed in the still relatively neglected field of international migration, knowledge and learning. First, the paper has sought to conceptualise how migration contributes to knowledge creation and transfer, drawing in particular on the literatures in economic geography and migration studies, both of which have paid only scant attention to this subject. Secondly, it has sought to foreground the individual, although recognizing the importance of institutional frameworks. A privileging of places and elites in existing research needs to be balanced by a greater understanding of learning and knowledge creation/transfer as being distributed throughout the labour force.

A number of arguments have been advanced in this paper. First, the need to identify the potential for transferring different types of tacit knowledge via corporeal mobility; Blackler's (2002) typology of emplaced, embodied, encultured and embedded knowledge is useful in this respect, particularly when linked to reflexivity. Secondly, knowledge transfer and creation are blurred rather than distinctive processes, especially because knowledge transfer is perhaps better thought of, in the case of international migration, as knowledge translation. Thirdly, there are critical – and still little understood - distinctions between migration involving bounded as opposed to boundaryless

career moves, especially between intra-company moves and free agent labour migration.

Fourthly, migrant co-learning and knowledge transfer is relational, and needs to be understood in context of micro-processes within firms. The engagement of migrants in learning and knowledge transfer within firms, and particular work groups, is strongly mediated by positionality, social identities, and intercultural communication, as well as by company-level practices and organization. Fifthly, theories of learning regions, knowledge communities, and creativity do not pay sufficient attention to the constraints faced by individual migrants, in the forms of stereotyping or intercultural communication barriers. In extremis, their experiences may be more akin to knowledge being 'lost in translation', than to knowledge translation. Finally, there is a need to understand migrants' knowledge and learning as being socially situated, and to understand spillovers between workplace and non-workplace spheres. In short, deepening of our understanding of international migration, learning and knowledge, requires linking together our understanding of individuals, social relationships, and institutions in more imaginative and more non-essentialist ways.

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