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International Migration
and Knowledge

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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 how different types relate to migration. Secondly, the significance of international migration in knowledge creation and transfer, and how this is mediated by whether migration is bounded (by company structures) or constitutes parts of boundaryless careers, and free agent labour migration. Thirdly, the situating of migrants within firms, and the particular obstacles to their engagement in co-learning and knowledge translation. 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 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.

Keywords: International migration, knowledge transfer, work, place

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International Migration and Knowledge

Knowledge economies are a well-established, if contested (Brown and Lauder, 1996), concept in social science inquiry, and geographers have contributed particularly to conceptualising the shifting connectivities of knowledge(s) across time and space. Drucker (1993: 176) emphasised in his seminal paper 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, as epitomized by learning regions (Maskell and Malmberg, 1999). More recently, the focus has shifted to the diversity means of knowledge transfer, whether localized or 'distanciated' (for example, Amin and Cohendet, 2004). There has, however, been a surprising neglect of international migration as a channel of knowledge creation and transfer, and of learning, and this is the object of this paper. As such, the paper does not seek to privilege the role of international migration vis-à-vis. other channels (see also Koser and Salt, 1997: 299), but to fill a gap in the literatures in both economic geography and migration studies.

The importance of international migration in knowledge transfer does not lie in the absolute or relative number of international migrants. Most of the world's population are relatively immobile, and their entire working lives are performed within nationally bounded spaces. In contrast, international migrants account for only some two per cent of the world's population. Rather, the importance of international migration lies in 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). This is reflected in changing conceptions of employment and employability, with changes in knowledge creation and transfer both facilitating and resulting from international migration. But the importance of international migration in knowledge transfer and learning extend beyond mobile individuals, to non-migrants in areas of origin and destination (akin to Jackson's (2004) conceptualisation of transnationalism and the nature of transnational spaces). For example, the knowledge creation and transfers effected by migrants can impact on the productivity of particular firms and – both though both positive and negative spillovers - on the competitiveness of their respective labour forces.

This paper aims to deepen understanding of the role of migration and migrants in knowledge creation and transfer, and learning, through a discussion of several, hitherto largely disparate, research literatures. First, it is important to recognize that there are many 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 (1995), 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.

The second part of the paper considers how different types of knowledge can be carried, with differing degrees of effectiveness and exclusivity, by migrants. This is considered in respect of three key relationships: knowledge transfer and translation, knowledge creation, and knowledge screening. Some of the key factors influencing the potential of international migration in knowledge transfer are also considered, leading to a discussion of bounded and boundaryless careers. A recurring theme in this, and subsequent, discussion, is that much of the literature on international migration and knowledge has privileged elite migration, because every migrant is a carrier of knowledge.

There are, however, considerable variations in the extent to which individual migrants contribute to knowledge creation and transfer. The third section of the paper, therefore, addresses the issue of knowledge transfer and creation being relational processes. The economic role of individual migrants is mediated by relationships with their co-workers who, typically, but not exclusively are non-migrants, who have co-evolved embedded knowledge within the firm, over time. The role of international migrants in knowledge creation and transfer therefore has to be situated in the literatures on workplace co-learning and knowledge creation/transfer. Initially, this research focussed on the firm, and especially on theories of organizational knowledge, crystallising around concepts such as the learning organization (Nonaka *et al,* 2001). However, recent research has challenged the reification of the firm, which is increasingly seen a site of the competing interests of individuals and groups, rather than as a homogenous

entity (Schoenberger, 1997). The latter provides a more fruitful framework for analysing the contribution of international migration to knowledge transfer.

This framework leads to a discussion of how positionalities and social identities infuse the 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, although there is a very substantial literature on how migration and ethnicity contribute to labour market segmentation. Perhaps even more surprisingly, the migration literature, although rich in discussions of human capital, has relatively little to say on knowledge transfer and co-learning within firms, 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. For example, as Kofman (2004) argues, we know little about whether and how 'family migrants', as opposed to 'primary' labour migrants enter the labour market, let alone their contribution to knowledge creation and transfer. Moreover, we also know little about how knowledge is created and transferred by all workers, even those in jobs that are socially constructed as 'unskilled' (but see Williams and Balaz, 2005 on the experience of diverse Slovak migrants in the UK). This paper therefore emphasizes the need to understand how *all* migrants learn and create/transfer knowledge within firms.

The fourth section of the paper looks beyond the boundaries of the firm, recognizing that 'the knowledge production system is becoming more and more widely distributed across a host of new places and actors' (David and Foray, 2002: 11). Learning is socially situated both within and beyond the firm (Evans and Rainbird, 2002) and, moreover, is transferable between different spheres of life, whether from the private to the public, or between the home, community, and workplace. There is a need therefore to see knowledge bearing migrants, and their learning and knowledge transfer experiences, as being socially situated. To some extent this directs our attention to the notion of place, which can be understood as sites of embedded or encultured knowledge. That does not imply

spatial or social closure. Rather, following Amin (2002: 391), places increasingly have to be conceptualised as nodes in relational settings, and as 'the temporary spatiotemporalisation of associational networks' (Amin, 2002) of different length and duration, which contribute to their creation, maintenance and reformation. Migration is one process of such 'temporary spatiotemporalisation', and in some instances, may have a major influence on how places are constituted (and there are links here particularly to the literatures on diasporas). The emphasis on place also chimes with the management literature, which recognizes that actors belong simultaneously to numerous networks in and outside of the workplace (Ettlinger, 2003). This poses major questions about the relationships between migration, place, workplace, and knowledge that have barely been researched to date. This paper considers two literatures that provide some perspectives on these relationships, those on learning regions and creative cities. However, it concludes that there is a need for a much broader approach to socially situated learning and knowledge transfer, which does not privilege either particular types of groups or places.

At a broader theoretical level, this paper is informed by the call for a non-rationalist political economy (Amin and Palen, 2001: 570), which 'is inclined towards avoiding total theorization or totalizing metaphors, such as globalization, preferring instead to work with the phenomenology of ongoing practices'. In this view, learning is 'a multiple, on-going, and distributed, process with no formulaic aspects' (Amin and Palen, 2001: 571). In respect of international migration and knowledge, 'free agent' movers pursuing boundaryless careers are probably iconic of a non-rationalist political economy. The paper's theoretical perspective is also infused with the notion of the relational turn, which ascribes a greater role to agency in the structure versus agency debates, without negating the role of the latter (Boggs and Rantisi 2003). The interactions between particular agents – notably migrants and non-migrants - are the central focus of this paper, and the outcomes of these are considered to be no more fixed than their relationships.

Conceptualisations of knowledge

It is not possible here to explore the extensive literature on the epistemology of knowledge (Currie and Kerrin, 2004). However, two points are important for this paper. First, following Beckett (2000) and others, the distinction between knowledge and learning is avoided, and the paper draws on both of these, relatively discrete, literatures. Secondly, we concur with Blackler (2002: 63) that 'knowing should be studied as practice, and practice should be studied as activity that is rooted in time and culture'. This chimes with the emphasis in this paper on socially situated learning and knowledge, and also with a non-rationalist political economy perspective (Amin and Palen, 2001).

Turning specifically to the identification of different types of knowledge, the starting point for any discussion, of course, is Polanyi's (1958; 1966) seminal work that distinguishes between tacit and explicit knowledge. This is perhaps best known for the way it essentialised tacit knowledge in terms of 'a person knows more than he can express in words', i.e is it is person and context specific. In contrast, explicit knowledge is transmittable in formal and systematic ways (in manuals etc). This has been extended by a number of writers, but most notably by Nonaka and Takeuchi (1995), who identified four types of knowledge transfer, involving different combinations of tacit and explicit knowledge: socialization (from tacit to tacit); externalization (tacit to explicit); internalization (explicit to tacit) and combination (explicit to explicit).

Subsequently, other writers have developed finer-grained conceptualisations of knowledge. For example, Yang (2003) distinguishes between explicit knowledge, implicit knowledge and emancipatory knowledge (emotional affection). 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).

- *Embrained* knowledge is dependent on conceptual skills and cognitive abilities, which allow recognition of underlying patterns, and reflection on these and on basic assumptions. The individual mindset is a key influence on learning.

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- *Embodied* knowledge (drawing on Zuboff, 1988) 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, material objects, 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 emphasises the process of knowledge construction. 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. It is knowledge that remains in an organization even when personnel have left, whether temporarily or permanently.

There has been more recognition of the importance of different types of knowledge because of the changing organization of work, for example, the greater emphasis on the so-called 'soft' skills of communication, problem solving, and creativity (Payne, 2000). The key issue for this paper, however, is the transferability of particular types of knowledge via (international) migration. Encoded is, of course, the most mobile of all these knowledge forms. In contrast, the transfer of tacit knowledge is inherently problematic because it cannot be fully articulated through written (i.e. codified), and possibly even through verbal, forms but is learned through experience (Nonaka and Takeuchi, 1995; Polanyi, 1966). Moreover, tacit knowledge both defines and is defined by social context (Gertler, 2003). It can only be shared effectively by two or more people who share a common social context.

There are differences in the mobility of knowledge, not only in terms of the tacit-explicit divide, but also among the four types of tacit knowledge identified by

Blackler (2002). Embrained and embodied knowledge are necessarily indivisible from the individual, and so are fully transferable via corporeal mobility. Their utilisation and valorisation therefore are conditioned by (while conditioning) the mobility of human agents. Encultured and embedded knowledge are grounded in the relationships between individuals, in particular settings, that is they represent specific forms of relational knowledge. In so far as these settings are not transferable or replicable (but international franchising represent an attempt to achieve this end), then these forms of knowledge are – at best – only partly transferable through corporeal mobility. A more negative reading would emphasise that they are necessarily disrupted by corporeal mobility, and so are non-transferable. However, this would be to deny individuals the capacity for reflexivity and, by extension, for migrants to take with them *knowledge of* encultured and embedded knowledge, even if, in themselves, these are time and place specific and non transferable. This is not however to deny that there are obstacles to applying such 'knowledge of' in different settings. For example, transferring embedded knowledge between organizations is problematic because it is highly context-specific and resides in an organization's interrelated systems of physical, human and organizational relationships (Empson, 2001).

Finally, while it is important to distinguish between different types of knowledge, one of the keys to utilising and valorising knowledge is how these are combined. In this sense, all forms of knowledge are relational, and none are transferable without transforming their potential economic value. The question then is how corporeally mobile forms 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 the role of migration as a mechanism for the transfer and creation of knowledge, and for learning.

International migrants and knowledge

There has been growing recognition that mobile, 'knowledgeable' or 'learning' individuals have the potential to forge translocal networks, cross-cutting as well as connecting innovative locales or territories (Bunnell and Coe, 2001: 581-2), and this is seen as critical in innovation and competitiveness. Whilst concurring

with such a view, this paper argues that all mobile individuals – although to varying degrees - are bearers of knowledge, whether or not they link innovative or non-innovative territories, or organisations. In other words, knowledge is far more widely dispersed than is often recognized in the literature on knowledge economies, which emphasizes the role of the 'highly skilled'.

The international migration literature also recognises the importance of migration to knowledge economies, and Mahroum (2001: 27), for example, writes that it is an 'inseparable segment of national technology and economic development policies'. However, the migration literature on knowledge transfer has also tended to be highly selective, and to focus on elites. For example, this is reflected in the research on international migration within the human capital theoretical framework, which has assessed brain gain, brain loss, brain waste etc (Lowell and Findlay, 2002) in terms of migrants' qualifications and whether they have quit/entered so-called highly skilled jobs as a result of migration. This privileges highly skilled migration, and underplays the potential for knowledge creation/transfer, and learning, in many types of jobs, and industrial sectors. It is therefore more useful to question how international migration is related to knowledge transfer and creation: a focus on process, rather than outcomes, reinforces a broader reading of the contribution of international migration to knowledge. We consider this here in respect of knowledge transfer and translation, creation and screening.

Knowledge transfer and translation

The transfer of tacit knowledge is facilitated and sustained by physical or corporeal mobility (Bunnell and Coe, 2001). International migration is one way in which mobility is articulated and, indeed, they suggest that the 'astronauts' shuttling between Taiwan's Hsinchu region and Silicon Valley are iconic figures for mobility (Saxenian, 1999). There are however limits to the transferability of some types of knowledge, as indicated in the earlier discussion of the conceptualization of knowledge.

The limits to such transferability are explored by Evans and Rainbird (2002: 24), albeit in terms of skills:

'skills derive much of their meaning from the context in which they are used …. It may be more helpful to regard these skills as partly structural and partly embedded contextually recognizing that people do take things with them into new jobs and occupations but not in simple ways … What we need to understand better are the processes by which skills are transformed from one setting into another'.

Hodkinson *et al* (2004: 11) reach similar conclusions in respect of knowledge transfers within and between organizations:

'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 for this paper, and broadly accords with our earlier distinction between, on the one hand, embrained and embodied knowledge, and, on the other hand, encultured and embedded knowledge.

However, knowledge transfer is not just about the fixity of particular types of knowledge, that is that some are transferable while others are embedded. Knowledge and learning are relational, and interactions between individuals in the same setting, let alone transfer between settings, is perhaps better thought of as *translation*. Czarniawska (2001: 126), writing about the anthropology of organizational learning 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 knowledge that is translated.

Migrants therefore can be seen as translators of knowledge, but their role is distinctive because of their corporeal mobility between social settings. 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 migration involves a particular combination of embrained, embodied, encultured, and embedded knowledge. This is then translated through social interactions with others in the destination organization and territory. At the same time, translation is also a process of learning for the migrants. There are two points to emphasise here. First, 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. Secondly, the notion of translation takes us beyond simplistic ideas about transfer, and leads to a consideration of knowledge creation.

Knowledge creation

There is a very fine line between knowledge translation and creation. Migrants bring prior knowledge with them to a new setting, where it may be integrated with other knowledge through participation in various practices, whether within or outside of employing organizations. Depending on the impact of these interactions, their knowledge can be described as 'having been expanded, modified, or even transformed' (Eraut, 2000: 27). At some point, therefore, knowledge translation becomes knowledge creation.

Migration is a particularly important, potential source of knowledge creation because it involves transversing boundaries. Wenger (2000: 233), writing about generic (not specifically territorial) boundaries, emphasises that these are sources of new opportunities as well as of potential difficulties. They can be places of unusual learning, as a consequence of the meeting of perspectives. Radical new insights are particularly like to emerge when boundaries are 'successfully' crossed, but such bridges are more likely to be exceptional rather than universal. Wenger identifies a number of different types of bridges, the most important of which for our purpose is brokers (or people). Some individuals act as brokers between communities, and, where these are located across significant boundaries, migrants can be especially important as brokers.

Wenger identified a number of different types of brokering, which have direct parallels with the potential roles of migrants. '*Boundary spanners*' (Tushman and Scanlan, 1981), take care of one specific boundary over time, and are exemplified by the Taiwanese knowledge shuttlers mentioned earlier (Saxenian, 1999), or by mobile managers responsible for particular international connections within multinational companies. '*Roamers*' travel from place to place, creating connections, and moving knowledge in the process. They are exemplified by the 'free agents' that are discussed later in this section. Finally, '*outposts*' bring back news from the forefront, while exploring new territories. In practice, migrants can undertake all these different forms of brokering activities: crossing international boundaries potentially, but not necessarily, creates opportunities for the unusual learning, or the meeting of perspectives, that Wenger emphasized. However, brokering knowledge is a delicate process. Individuals require enough legitimacy to be listened to as well as enough distance to bring something really new. It is particularly difficult for migrants to maintain a balance between these, and this is discussed further in the section on the organization.

Migration and the screening of knowledge potential

Migration also performs a 'screening' role in relation to knowledge. This term has its origin in the work of labour economists on education. They argue that, for example, a university education does not make an individual any more productive, but does represent a form of screening: it signals to potential employers that they are, and always have been, more productive than those who have not attended university (Keep *et al*, 2002). By extension, this paper argues that migration has a similar screening function, signaling to employers that a particular social group (migrants) contains potentially important knowledge bearers.

International migration is therefore seen as what Knox (1977) terms a triggering or significant life event, which offers exceptional opportunities for learning. This idea was also espoused in McCall's (1997: 62) study of 'High Fliers'. He argued that not all experiences are equal, and that 'transformational experiences almost always forced people to face something different from what they had faced

before'. Arguably, international migration is one such significant transformational experience, although admittedly some forms of international migration experience are more transformational than others.

Arguably, successful migration also signals, what Sennett (2000) terms, flexible people, individuals who repeatedly take on new tasks, and are willing to change either/both jobs and place of residence, in response to the dictates of global capitalism. They have a certain 'elasticity' in how they respond to events, or seize opportunities. This also links with the notion of flexibility in social psychology, and it is notable that flexibility is an important element of the 'openness to experience factor' in the Five Factor Model of Personality. Successful international migration both requires, and enhances, flexibility. This is epitomized by, but not limited to, those 'hybrids' who live transnational lives, as Faist (2004: 5) argues: 'These are individuals, groups, organisations, and communities who speak certain languages, engage in code-switching, embark upon transnational business activities, and who classify themselves or are defined by others as hybrids'. In summary then, migration indicates a propensity for learning from a triggering or significant life event, but whether organizations are able to valorise this potential is more problematic, as is discussed later.

Migration and bounded/boundaryless careers

The relationship between international migration and knowledge is mediated by a number of considerations, ranging from the structural and regulatory, to the personal and socio-psychological. Here, we discuss whether such mobility constitutes a part of what we term b*ounded as opposed to boundaryless careers,* as this links with the earlier discussions of types of knowledge*.*

Bounded careers are constituted of highly channelled forms of mobility, such as intra-company career or other transfers, or working abroad on specific consultancies. This type of mobility was the focus of much of the earlier research on international skilled labour migration (Salt, 1992), and continues to dominate discussions of migration and knowledge (Beaverstock and Boardwell, 2000; Morgan, 2001). The links between company organisation and international mobility has been explored by Morgan (2001), who distinguished between two

types of international firms. 'Multinationals' have local branches that serve local markets, and there is relatively limited corporeal mobility (of any form) amongst individual branches, or even between these and company headquarters. In contrast, 'the global enterprise' is based on transnationally co-ordinated interactions amongst different sites, and managers' careers are varied and involve moves between subsidiaries as well as to the core. Migration plays a role in facilitating dispersed and multi-directional learning in such firms (p122).

Globalised and multinational firms value the international mobility of management for a number of reasons: providing generic expertise and technical skills to international offices; disseminating corporate culture and policy; contribution 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 a being able to deal 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 better 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 in crossing boundaries. They relate not only to embrained and embodied knowledge, but also to encultured and embedded knowledge. Indeed, companies particularly value the role of mobile managers in distributing company values and business cultures across different establishments. The fact that the ability to spread encultured and embedded knowledge also depends on embrained and embodied knowledge, however, reinforces our earlier argument that the valorisation of particular forms of knowledge is dependent on how these are combined.

Mobility, even highly skilled mobility, is not limited to intra-company flows. As Coe and Bunnell (2003: 442) contend, crucial exchanges of information take place beyond firm networks, especially through the migration of mobile individuals. Furthermore, Bunnell and Coe (2001) argue that a strong association between individually centred knowledge and economic rewards has created the potential for 'possibly unprecedented mobility' for highly skilled

workers, some of which involves international migration. While this understates the potential for mobility amongst workers other than the highly skilled, their general diagnosis of increased potential for mobility outside of intra-company moves is important. Large numbers of workers move as, what this paper terms 'free agent labour migrants': that is, workers who migrate without formal or informal employment contracts. The notion of 'free agent labour migrants' draws on Opengart and Short's (2002), concept of 'free agent learners' which, in turn, is based on Kanter's (1995) use of the term 'free agents' (drawing from professional sports) to describe individuals who focus on their long term employability security within a 'new' career model based on mobility. Free agent learners move between companies and organisations, seeking lifetime learning, while free agent labour migrants also cross borders, but without learning necessarily being an explicit goal.

Free agent labour migrants are constituted as a diverse social group, in terms of both 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 from eastern to western Europe, and then seeks employment. Of particular importance here is how migration can contribute to what have become known as boundaryless careers (Arthur and Rousseau, 1996; Eby, 2001). Boundaryless careers are constituted of sequences of jobs *across* organizations and jobs, and – in the case of international migrants – national boundaries. They are facilitated by external networks and contacts, and by a capacity for learning that fosters 'a "free agent" mentality, whereby employees are independent from, rather than dependent on, the employing organization' (Eby, 2001: 344), in career terms.

The boundaryless career is associated with increased emphasis on employability in modern economies. As a result of greater opportunities for mobility, and increased uncertainty in career development, there has been a shift from employment security to employability security (Opengart and Short, 2002: 221). Success in the labour market comes to those who know their strengths, who continuously update their knowledge and skills, and who construct and renew networks (p222). Migration is one potentially important signifier of engagement in the processes that create and sustain employability. This is not to argue that

the greater worker agency has eclipsed the importance of structural conditions in labour markets (Hodkinson *et al,* 2004: 8), but to emphasise that the balance between structure and agency has shifted, and that migration is one of the key ways in which agency is articulated in labour markets.

Rethinking the notion of 'the skilled migrant'

The contribution of skilled migration to economic development is now largely accepted in discourses on the knowledge economy, and has informed a generalised shift to more receptive, or even pro-active, immigration policies that favour such workers (McLaughlan and Salt, 2002). This recognises the role of migrants in knowledge transfer/translation, and knowledge creation, while migration in turn can be seen as a signifier of potential knowledge capture and learning. However, the focus on international 'skilled labour migration' is based on a particularly narrow social and policy construction of this as involving scientists, engineers, medical doctors, and a few other highly professionalised or visible groups such as IT specialists, or other business services.

This emphasis on the 'skilled' or 'highly skilled' labour migrant has privileged this group as learners and knowledge carriers. In reality, knowledge is widely dispersed within labour markets, and is not the monopoly of a particular group (although this may be true of particular specialised types of knowledge). This chimes with Robinson and Carey's (2000: 103) view that the current dichotomy in the migration literature between unskilled and skilled is 'artificial and unhelpful, giving undue salience to a single characteristic of the individual'. It also draws support from the literature on skills, which emphasises there have been deep changes in the organization of work. Even those in so-called 'unskilled' jobs, at the lower paid end of the labour market, are increasingly required to have a range of 'social skills' such as competence in communication, or team working (Payne 2000). Florida (2005: 4-5), writing about creative cities and regions – which we return to later in this paper – takes an even bolder stand, arguing for 'the idea that every human being is creative'. This can be paraphrased to argue that every migrant is a learner, knowledge carrier and knowledge creator: the degree to which this informs their work, and its economic

impact, may vary considerably, but the underlying processes of learning and knowledge transfer remain in place.

Coe and Bunnell (2003: 438-9) use the term knowledgeable migrants/individuals 'to denote people who embody any form of knowledge (for example, market, technical, managerial, financial) that is of economic value to others, and can enact knowledge transfer by moving across space through innovative networks'. This paper concurs with their view, but with the added emphasis that every migrant is potentially a 'knowledgeable migrant'.

Recognition that everyone is a potential knowledge carrier and learner also indicates a need to look beyond the primary labour migrant, or even all those who are economically active. Instead, there is a need to recognise the learning and knowledge roles of non-economic migrants, such as international retirement migrants who are learners of, say, languages, and transfer knowledge about voluntarism in welfare services (see King *et al,* 2000 on retired British people living in southern Europe). There is also a need to take into account accompanying family members, irrespective of whether or not they take up waged labour. This perspective links to critiques of the highly gendered nature of academic 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 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 spheres, but also within the private sphere of the home, where their work is defined in terms of caring and cleaning. By extension, we need to recognize that migrant workers, at all levels of the firm (and beyond), are knowledge carriers and learners. However, the critical question is whether employer organizations, or their individual co-workers, are able to recognize and facilitate the transfer of this knowledge.

Employer organizations and capturing migrant knowledge

Leveraging learning and knowledge transfer is seen as a, if not the, key to competitiveness in the management literature on the firm (deGues, 1997; Nonaka and Takeuchi, 1995). Even if over-stated, it is difficult to contradict this view. This literature divides between research on organisational learning/knowledge transfer, and knowledge management (Easterby-Smith *et al*, 2000). This paper is concerned with the former, and particularly with the view that knowledge transfer, nationally or internationally, is crucial to competitiveness and productivity, and needs to be understood in terms of organizations' complex inta-, inter- and extra-firm networks (Nohria and Ghoshal, 1997).

From the perspective of migration research, and given the earlier stress on agency, 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), and inclusive of all workers (and migrants), to varying degrees. This also harmonizes with an emphasis in the learning literature on this being a 'fine grained process', which is grounded and distributed *(*Gibbons *et al*, 1994). It is also consistent with the recent 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 seen alongside acknowledgement that knowledge is relational. Therefore, for organizations, recognising that it exists within individuals is only the first step. 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 being shared with others' (Bertels and Savage, 1998: 22). If it is not shared with other individuals and groups, its impacts on firms will be limited (Nonaka and Takeuchi, 1995: 340; Bartol and Srivastava, 2002). This does not, of course, occur automatically, but is a complex process, where obstacles feature as much as facilitators (Hendriks, 1999). Knowledge transfer and knowledge creation therefore become inseparable from co –learning, which links with Felstead *et al*'s (2004) 'learning as participation' metaphor: learning is fluid, and is produced and continually

reconstructed through relationships with and interactions between individuals – rather than being an object which is acquired. This may be deliberative, occurring in a specifically set aside time, implicit as when there is no intention to learn and even no awareness at the time that learning is taking place, and reactive when learning is explicit but occurs in response to particular situations as they arise (Eraut, 2000).

Where do migrants fit into this picture of knowledge transfer and learning? Or, in other words, how does their prior knowledge(s) fit into a process or practices of co-learning, where the partner is most obviously (although not always) a non-migrant? There are a number of points to be taken into consideration here. First, the answer in part depends on whether their mobility is bounded (within intra-company transfers) or unbounded, as part of boundaryless careers. The former provide far more structured opportunities for co-learning and knowledge transfer. Secondly, it also depends on which immigration routes the migrants have followed (Nagel, 2005), whether legal or illegal, and whether they are or intend to be permanent or temporary migrants. There is, in short, an intersection of migration regulation, and the processes of co-learning and knowledge transfer.

Thirdly, it depends on the nature of the employing organization. This is in part an issue of firm size and complexity. Howells (2000: 54), for example, argues that the distance between the knowledge frames of individuals are relatively insignificant within small, single-site firms, where staff are drawn from similar class and cultural background (and therefore implicitly nationality backgrounds). Correspondingly, they tend to be greater in larger firms, or firms spread across multiple, geographically diverse, sites.

Fourthly, micro processes are highly influential in organizational learning (Andrews and Delahaye, 2000). In particular, co-learning is likely to flourish where there are strongly established norms of trust and co-operation (Empson, 2001). Of course, all newcomers to organizations face barriers to co-learning, not least because:

'Norms, local discourse and other aspects of an organisational or occupational culture are acquired over a significant period of time by

processes which implicitly add meaning to what are explicitly interpreted as routine activities' (Eraut, 2000: 19).

Alternatively, and using the language of socio-psychology, Bogenrieder and Nooteboom (2004: 293) argue that cognitive distance provides opportunities for learning. But, at the same time, the more shared experience people have, the greater their cognitive similarity, hence it requires less effort to try and understand what others say (including the particular terminologies they utilise). Therefore, most newcomers to any group are likely to have to start in a 'peripheral position' (Lave and Wenger, 1991) but – as discussed below - migrants face particular obstacles to co-learning and knowledge transfer.

In part, this relates to how the 'stickiness' of mobility mediates knowledge transfer. While migrants seem to have relatively short learning curves for particular competencies (Williams and Balaz, 2005), genuine co-learning is far more demanding, in terms of sharing norms, and developing discourses between newcomers and existing personnel. Short-term, or temporary, migrants are therefore potentially disadvantaged. But there are obstacles – and opportunities – which extend beyond this, related to diversity. Diversity is valued by many organizations, precisely because it is a source of learning and knowledge transfer. Amin (2000: 11), for example, argues that 'the infrastructure of soft learning is dissonance and experimentation'. Creative communities are those which are able to mobilise difference, variety and counterargument' (see also Brown and Duguid, 1991).   And Randel (2003) reports that some organizations actively use nationality differences to assign workers to teams, because this is a formula for ensuring that individuals with different knowledges, experiences and ways of thinking are brought together.

But the aspirations of organizations do not necessarily match the practices of learning and knowledge transfer. 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. There may also be a demand for social and cultural skills, which are seen as country-specific. However, the latter are, to a degree, socially and politically constructed, and this

can be an argument that uses skills to 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 do within firms (Hudson, 2004: 450). Hence, Nagel (2005: 208) argues that it is important, when considering skilled migrants, to explore 'questions about exclusion, racialisation, integration, and citizenship, which are typically reserved for unskilled migrants'. In reality, all migrants (and, of course, all workers) bring societal positionality into the labour market, and the workforce of particular firms.

Obstacles to co-learning can also be understood in terms of intercultural communication. Intercultural communication is 'a symbolic process in which people from different cultures create shared meanings' (Taylor and Osland, 2003: 213), and it lies at the heart of co-learning and knowledge transfer between migrants and non-migrants. It is most fraught where there are strong stereotypes concerning 'the stranger'. Stereotyping is understood here as overgeneralised expectations and beliefs about the attributes of group membership, and a failure to recognize individual variations. Stereotyping inceases the likelihood that the voices of strangers will not be heard within an organization. In contrast, cosmopolitanism, understood as a mindset that is oriented toward the outside world (Merton, 1957), facilitates inter-cultural exchanges. Hannerz (1996: 104) captures the essence of this: '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'. And those contrasts include bringing together different perspectives across boundaries, as between migrant and non-migrant workers, or between migrants of different nationalities.

Co-learning and knowledge transfer are also mediated by social identities. While the understanding of social identities remains contested, here we follow Child and Rodrigues (2003: 537) who argue that social identity is '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'. These assumptions – and here we can refer 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 what he termed expansiveness, Wenger (2000) examined what 'the breadth and scope' of an identity. He concluded that 'a healthy identity' is not exclusively locally defined. Rather it will be constituted of multimemberships, and will involve crossing multiple boundaries. Individuals with 'healthy' identities will actively seek out a broad range of experiences, and will be open to new learning possibilities. And they will identify with broad communities, a notion that chimes with cosmopolitanism. Co-learning will be facilitated where migrants, and non migrants, both have the characteristics of 'healthy' identities, and will face substantial obstacles if one or more of the participants in co-learning lack such identities. Empathy provides another, but related, perspective on the role of social identities. Bogenrieder and Nooteboom (2004), for example, argue that empathy helps in judging trustworthiness because it facilitates accurate attribution of competencies, intentions, and honesty. It also indicates an inclination to sympathize with perceived weaknesses, and to tolerate deviations from expectations. '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.

Identities are central to the effectiveness of knowledge transfers and co-learning in modern organizations, because nationality and ethnic group membership constitute major social points of reference around which personal identities are constructed. The increased mobility of capital and labour, associated with globalization, reinforces the importance of these referents: 'As organizations increase their global reach – so their need to find a basis for people of different cultures to work together increases correspondingly' (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 is age, or professional affiliation. But nationality and ethnicity are, of course, particularly strong referents for international migrants. This is why organizations which seek to maximize the dispersed knowledge that resides within their organizations 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 means not only that the social recognition (and rewards) of migrant workers is reduced, but also that the knowledge transfer and creation capacity of the firm are debased.

While the importance of social identities for learning is evident, this depends in part on the type of knowledge involved. Child and Rodrigues (2003) argue that what they call technical knowledge (about systems and procedures, and strategic understanding) is least likely to be sensitive to social identity, while systemic and strategic knowledge which originates within an organization, are much more identity sensitive. Or, in terms of Blackler's (2002) typology, encultured and embedded knowledge are more likely than embodied or embrained knowledge to be sensitive to identities.

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, or indeed any newcomers, both to individual workers and to the organizational level. Knowledge creation and knowledge transfer do, however, depend on co-learning, and the latter is mediated, on the one hand, by the organization of the firm, and on the other by positionalities and social identities. However, this is not to argue that, in some way, migrants are passive agents in co-learning, dependent on the attitudes of others, or on how learning is institutionalized within particular companies. In most instances they may start – as do all newcomers – as peripheral to groups within the 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, social co-learning is coevolutionary, and it involves complex and changing relationships over time (Baetjer, 2000: 170). This theme is taken up and extended in the next

section of the paper in respect of debates about learning regions and creative cities.

Place and migrant knowledge

The fourth and final section of the paper looks beyond the boundaries of the firm, in keeping with recent research on the firm as a 'sociospatial construction', that is embedded in broader practices, 'which are played out by social actors across multiple and overlapping intra-firm, inter-firm and extra-firm network relationships' (Currah and Wrigley, 2004: 1). Much of the associated literature in economic geography has concentrated on issues relating to the spatial proximity of firms, as epitomized by debates on learning regions and cities. More recently, this has broadened out to viewing firms as having blurred boundaries, and being situated at the nexus of flows of knowledge and innovation, at different scales. Migration is one source of such knowledge flows, but this has been under-researched, and often unrecognised. There has, however, been greater recognition of the role of international migration and knowledge transfer, although largely implicitly, in the literature on creativity and global cities. Both these literatures are considered here, with a view to extending our understanding of the role of migration in knowledge creation and transfer. However, there is also a need to look beyond the firm as the locus of learning and knowledge creation/transfer. The final part of this section therefore considers learning as being socially situated, and as distributed across work *and* non-work places, although the links between these remain poorly understood.

Learning regions and beyond

The literature on learning regions starts from the assumption that tacit knowledge is most effectively shared, face to face, by those who share some similarities. These are expressed in terms of language, social norms, and personal knowledge developed through a history of formal and informal interactions. Although social identities are not usually mentioned in these discourses, they are implicit. They key point, for this paper, is the argument that physical proximity facilitates trust, which in turn facilitates knowledge transfers.

Where clusters of firms also have institutional endowments (densities of networks, shared goals, research-state-business links etc), they constitute learning regions or cities. This was an important conceptual development in economic geography and regional studies, as it shifted the locus of analysis from the territory as a container of positive location factors to being a site for collective learning (Maskell and Malmberg, 1999).

Migration featured relatively little, if at all, in the earlier formulations of this literature. Indeed, the emphasis on the development of relationships based on trust, through a history of face-to-face contacts, implied a core of relatively static key personnel (at least within a specific territory, if not within particular firms). The relationship with migration, therefore, remained largely unexplored (Williams *et al*, 2004: 33-5). One important exception to this was the work of Alarcon (1999), who analysed the role of foreign-born engineers and scientists in Silicon Valley and around Route 128 in the USA. The higher proportion of international migrant scientists and engineers in Silicon Valley was attributed to greater openness to new migrants in a more favourable environment in Silicon Valley. This research while not denying the importance of proximity in knowledge transfer, underlined the need to examine the extra-regional connections of firms, including those articulated through migration, and the role of cosmopolitanism.

There has, subsequently, been a well-developed critique of the limitations of overly-narrow readings of the role of proximity in knowledge transfer. Before, outlining these, it is useful to consider the critical framework provided by Wenger's (1998) research on constellations of practices, understood as configurations of people that can be characterised by various notions of proximity, distance and locality. Wenger emphasises that these notions are not necessarily congruent with physical proximity, institutional affiliations, or even frequency of interactions. They are not irrelevant, but the geography of practice is not reducible to these. Instead, he emphasises the need to examine how communities of practice are time and place specific, and also how they emerge out of practices of learning.

Wenger's perspective echoes through much of the subsequent debate on learning region. For example, Oinas (2000) argued that proximity only creates the

potential for interactions, it does not necessarily create these. While distance may hinder interactions, it does not exclude these. Indeed, non local connections may be as important as local connections in learning and enhancing the competitiveness of firms. Amin (2002) takes a similar line, arguing against privileging the economic role of spatial proximity. Firms can draw on a variety of contact networks, at different scales ranging from the local to the international. In this context, he argues that physical proximity and localized face to face contacts are not essential for the development of trust-based relationships:

> Intimacy may be achieved through the frequent and regular contacts enabled by the distanciated networks of communication and travel (how else do transnational firms, institutions, and social movements work?) as well as the unbroken interplay between face-to-face and telemediated contact (Amin, 2002: 393-4).

He does not develop further his understanding of 'travel', or question the types of knowledge transfer that require corporeal mobility. However, this point is stressed by Allen (2000: 28): ' the translation of ideas and practices …. (is) likely to involve people moving to and through local contexts, to which they bring their own blend of tacit and codified knowledges'. There are many different forms of mobility, ranging from short visits of a few hours or more for meetings, to a few days spent at a workshop, to a work placement of a few weeks or months, to a migration of several years. Each of these provides different opportunities for the translation of ideas and practices, but we still know surprisingly little about their relative efficiencies, or the types of knowledge that are most effectively transferred by particular types of corporeal mobilities.

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 in this: communities of practice, and knowledge communities. Communities of practice (Wenger, 1998) are now 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 (for example, sharing offices), it does not necessarily create such communities.

This has been an area of debate in economic geography. On the one hand, some commentators (such as Amin, 2002) argue that relational proximity (achieved via communities of practice) are 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 engagement with the question of how different types of tacit knowledge are transferable by different channels within such communities of practice.

The alternative literature on knowledge communities also pays scant attention to the role of migration in knowledge transfer, but it does at least recognize this implicitly. Henry and Pinch (2000) analysed the transaction costs and agglomeration economies of the British motor sport industry, which is concentrated in 'Motor Sport Valley', centred on Oxfordshire, and identified a number of 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 (so that skilled workers spend at least part of their careers in this particular cluster), and labour market churning due to the deaths and births of firms, in addition to other factors such as the role of cross-cutting suppliers, and shared discourse and practices arising out of dense social contacts. The factors related directly to the labour market are of interest here, especially the existence of a constantly shifting pool of skilled labour within and outside the particular territory, although rooted in the knowledge community. This can be linked to Crouch *et al's* (1999) writings on employability in areas such as Silicon Valley. On the one hand, they emphasize that 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. The implications for migration are ambiguous as these conditions may repel or attract migrants. But on the other hand, they argue that a shift 'from employment to employability' also transfers greater responsibility to the individual for enhancing his or her employability through acquiring skills and planning career development. This, and the importance to career development of spending at least part of a career in a particular knowledge community, provides at least an implicit link to migration.

In summary, it is possible to envisage how the migration literature could intersect with that on collective learning in learning regions or knowledge communities. Human capital theory, with its emphases on returns to 'investment' in capital, and the discounting of risk (Sjastaad, 1962) provides a basis for rationalizing why learning regions (either as a collective firms, or the presence of 'beacon firms') are attractive to (skilled) migrants. The learning regions theory or knowledge communities perspective then provide a framework for understanding the circulation of high skills beyond the initial employer to the wider labour force in a particular territory (Brown, 2001).

From knowledge communities to global cities and creativity

None of the extra-firm perspectives examined in the previous section consider migration issues to any great extent. In part, this may be because, their focus remains the firm, albeit constellations of firms in particular territories. However, the literature on creativity, especially when articulated in relation to global cities, is more promising in this respect, not least because of a greater focus on place characteristics, and the potential for situated social learning.

Florida (2002) provides a useful review of the literature on creativity and uneven economic development. He argues that, in the knowledge economy, territorial competitive advantage is based on the ability to mobilize rapidly the skilled people, resources and the capability to convert innovations into new products and processes. Above all, the nexus of competitive advantage is the ability of territories to generate, attract and retain the best 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 for creativity.

Migration is clearly implicated in these perspectives, and is addressed more directly in Florida (2002: 750-1). The key challenge for firms is not just to produce talent, but also to retain it, 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). Not surprisingly, then, the importance of social identities for knowledge transfer and creation within firms is paralleled by similar concerns in the places within which firms are embedded.

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 aspirations for career development. For example, Hannerz (1996: 131) argues that people specializing in expressive activities tend to migrate to global cities when they are relatively young. In part, this is because these cities are perceived to provide unique learning opportunities, but there is also a sense of pilgrimage to 'being in the right place'. Such cities are 'open systems' (Jacobs, 1961) that attract people form diverse backgrounds.

Other writers have also emphasised the importance of knowledge and creativity in, and for, global cities. For example, Amin and Thrift (2002: 59) consider that 'the city is a place for knowing, through its density of knowledgeable and creative people and its offer of meeting places for such people'. They are sites of circulation, not only for economic production, but also for transaction and translation. And, as argued earlier, knowledge transfer is perhaps best viewed as a process of translation for international migrants. Amin (2002: 392-3) shows that the literature on creativity and knowledge in cities (Leadbeater, 1999) does acknowledge the global circuits of the knowledge economy, including various forms of 'travel', but he also questions whether it over-privileges the role of place, given the diverse ways in which social relationships can be maintained. However, few if any writers would deny the key role of young migrants in sustaining and reproducing cities as centers of knowledge and creativity.

While the focus on global cities offers insights into the relationships between migration and knowledge, it tends to focus on the knowledge and learning of elites. Sassen (2000) has sought to counteract this, arguing that the expansion of financial and producer services jobs in global cities creates a demand not only high-level technical and administrative jobs, but also for low-wage unskilled jobs in public and private services, partly in response to the demands of the former

group. She also emphasises that the 'other' jobs of the global information economy, as she terms them, take place within reterritorialized 'immigrant' cultures (p7). However, her reading of immigration implies that the knowledge carriers and translators are those in higher order jobs, and as such does not recognise that all immigrants are involved in learning and knowledge creation/transfer. A social learning perspective, discussed below, provides a partial corrective to this selectivity.

Socially situated knowledge and migration histories

The fixation with particular geographies of collective learning and knowledge transfer means there has been a failure to appreciate how learning and knowledge creation/transfer are woven throughout communities, across workplaces and non-workplaces. In contrast, the literature on social learning, such as 'situated learning' (Brown and Duguid, 1991), does not privilege either places or elites. It also encourages a lifelong learning perspective, because social learning theory (see Elkjaer, 2003) argues that individuals are both products of their social and cultural histories also contribute to producing situations that mirror these. This has two attractions for migration research.

First, it places the immediate experiences of the migrants (for example, first jobs abroad) in context of personal histories of social and spatial mobilities. Secondly, the emphasis on social and cultural histories directs attention to what Beckett (2000) terms 'the whole person' (p 43), because 'experience, knowledge and skills already possessed range over all of a person's life, not just that part of it in paid employment' (p 41). This, of course, poses particular difficulties for researchers seeking to identify the key locales within which particular dimensions of social life, related to learning, are played out (Goss and Lindquist, 1995: 333). It is an important question, but there is no scope to explore this further here, beyond, generalised notions of the household, the community, and the workplace.

Ettlinger's (2003) discussion, of how multiple rationalities emanate from different spheres of peoples' lives, provides a useful model for thinking about links across different areas of people's lives. Paraphrasing her arguments (p152), it can be

argued that 'the knowledge employed in one sphere, such as a workplace, derives from a kaleidoscope of learning practices that emanate from different spheres of life and different social networks'. In other words, knowledge and learning are entwined across the public and private spheres. Williams and Balaz (2004), for example, explore this notion in a case study of Slovak au pairs in the UK.

Voydanoff's (2001: 1617) notion of spillovers between domains also captures the holistic essence of social learning. Spillovers may be positive or negative. In positive spillovers, knowledge gained by migrants in one aspect of their life – for example, in respect of the cultural attitudes of neighbours – can be applied to co-learning in the workplace. More specifically, Bentley (1998) argues that learning may take place in a wide range of contexts, and that social skills obtained outside the workplace are particularly important in the workplace:

> 'Overall what Fukuyama (1995) has called 'spontaneous sociability' – the capacity to form bonds of trust and sustain relationships with those outside our immediate circle of family, friends and colleagues – is a capacity which forms an important part of employability' (Bentley, 1998: 104),

While the above observation applies to all workers, a key question in respect of migration is the extent to which their social lives are embedded in the migrant community or in the wider community. While there is a vast literature on migrant communities, there is little research on how practices within these relate to workplace knowledge and learning.

One of the more interesting exceptions, perhaps inevitably focussed on elites, is the work of Beaverstock and his colleagues on international migration and higher order services in global cities. Beaverstock (2002: 526) outlines the role of global labour in bringing highly specific knowledge, skills and networks to global cities. He considers that they constitute transnational elites, who flow into or through the city, bringing with them well established cosmopolitan networks, cultural practices and social relations (in other words, access to encultured and embedded knowledge). Of particular note here, is the role of social meeting grounds, such as clubs and bars, in networking, knowledge transfer, and

translation practices. He argues that the cohabitation of very tightly bounded work and social spaces ensures the exchange of knowledge, a feature that has also been noted in respect of the social meeting grounds of financial service districts in other global cities (Thrift, 1994). Interestingly, while migrants and Singaporeans occupied these social spaces equally, this did not extend to home life, which included other migrants but, by and large, not Singaporeans (Beaverstock 2002: 537). Unfortunately, we know far less about such knowledge spillovers in respect of unskilled workers.

However, one topic on which there is a literature on migrant learning is language. Chiswick *et al* (2004: 3), for example, argue – unsurprisingly - that those immigrants who have greater access to using their native language in the country they have emigrated to (which is related to the history of immigration, and the nature of migrant communities) are likely to have poorer destination language skills. Tomlinson and Egan (2002) confirm this finding in respect of refugees in the UK: those who live within ethnic enclaves, where there are few opportunities to speak English or venture far outside the security of home and neighbourhood, have less well developed language skills than those who live outside such enclaves. Conversely, if language learning takes place in the home, there can be positive spillovers from one family member's investment in language training to others, perhaps most obviously in parents' learning from children who have been studying the destination language in school (p34). There is also evidence that intermarriage between immigrants and non-migrants can enhance language learning (Chiswick and Miller, 1995). And knowledge of destination language is positively associated with earnings (Dustmann, 1994).

In summary, learning and knowledge are socially situated. All migrants have the potential for co-learning and knowledge creation/transfer, but the opportunities for realising these reside not only in their workplaces but how they are located within local communities, in terms of integration and social networks. There are knowledge spillovers between these different spheres for all migrants, and not only for the elites.

Conclusions

This paper has aimed to address two gaps in the literature on international migration and knowledge. First, the lack of detailed conceptualisation of how migration contributes to knowledge creation and transfer. The role of migration within the often-overstated argument about the contribution of knowledge to economic development is, in some ways, relatively understated. The literatures on learning firms, learning regions/cities, and creativity all acknowledge the importance of 'travel', or 'mobility' to knowledge transfer and innovation, but pay little attention to the actual role of (international) migration in transferring particular types of knowledge, or the obstacles to this. Similarly, the literature on international migration, while rich in studies of human capital, is much poorer in terms of the specifics of knowledge and learning. Secondly, there has been a privileging of places and elites, and a neglect of how learning and knowledge creation/transfer are distributed throughout the labour force.

This paper has sought to deepen understanding of the relationships between international migration and learning/knowledge by examining four main issues. First, by identifying different types of knowledge, which have different potentials for being transferred via corporeal mobility. Secondly, by addressing some of the particularities of knowledge transfer, creation and screening via international migration. In particular, migrants are seen as being involved in co-learning and knowledge translation, in other words, these are relational activities that have to be understood in terms of relationships with others, and how they are socially situated. These have to be understood in terms of regulation, institutions and changing social practices and, of particular note here, whether migration involves bounded or boundaryless career moves. The difference between intra-company moves and free agent labour migration is particularly instructive. Thirdly, the role of migrants needs to be understood in context of theories of the firms, particularly more recent writings that focus on micro-processes. Migrants, like most newcomers, are initially peripheral to most workplace groups. Their ability to become engaged more fully in learning and knowledge transfer within these groups is strongly mediated by positionality, social identity, and cultural communication issues, as well as by company-level practices and organizational features. Finally, the paper has emphasised the important of socially situating

learning and knowledge transfer. To varying extents, the literatures on learning regions and creativity both address this issue. However, they do not engage with the ways in which learning is distributed across the workplace, home and community *for all workers*. The capacity for co-learning and knowledge transfer in any one of these spheres is partly dependent on practices and experiences in the other spheres.

This paper does is sensitive of the need to avoid replacing a privileging of places and elites, with a privileging of international migration as a channel for learning and knowledge transfer. Rather, it agrees with Baetjer (2000: 147) that:

> 'What prevents exponential returns is neither diminishing returns nor upper bounds to human capital, as growth models assume. It is the constant challenge of maintaining capital complementarities in a world of incomplete and rapidly changing knowledge'.

However, both the scale and the forms of international migration and mobility are changing, and their potential economic value, in terms of learning and knowledge, are increasingly being realised by individuals, firms and governments. This underlines the need for a deepening of the understanding of how international migration (and other forms of corporeal mobility) intersect with processes of co-learning, knowledge creation and knowledge transfer.

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