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**LISTEN TO ME, LEARN WITH ME: INTERNATIONAL MIGRATION AND
KNOWLEDGE TRANSFER**

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LISTEN TO ME, LEARN WITH ME: INTERNATIONAL MIGRATION AND KNOWLEDGE TRANSFER

Abstract

Existing research on the economic contribution of individual international labour migrants has largely been couched in terms of skills, and has focussed on mobility within transnational corporations. This paper explores some of the broader links between the literatures on international migration and management, and addresses four main questions: is migrant knowledge selective, is it distinctive, what are the barriers to migrant knowledge transfer, and what are the implications for individual migrants and firms. The largely conceptual review is informed by three main premises: the value of adopting a knowledge as opposed to a skills perspective on migration; the importance of examining the cycle of migration rather than static snapshots at particular stages; and the need to consider inter- and extra-firm migration, as well as intra-firm mobility.

Introduction

The significance of knowledge to modern economies is widely acknowledged, if often overstated (Brown et al 2001; Nonaka & Takeuchi, 1995). As Welch (2001; 21; emphases added) asserts: “Know that the ultimate, sustainable competitive advantage lies in the ability to *learn*, to *transfer* that learning across components, and to act on it *quickly*”. There are a number of vehicles for learning and knowledge transfer, and recent research has focused on how this is socially situated (Brown & Duguid 1991) and on the importance of localized (based on physical proximity) versus distanced (virtual) relationships (Amin 2000). International migration has been surprisingly overlooked in most of this research, with some notable exceptions (Alarcon 1999), even though it plays a significant role in effecting localized, or face-to-face knowledge transfers (Williams 2006).

Potentially, migrants are significant actors in knowledge transfer, especially where international borders constitute substantial economic and cultural barriers, and or where co-presence and corporeal proximity are critical for learning and tacit knowledge transfer. Co-presence is not, of course, a necessary condition for tacit knowledge transfer between individuals (Wenger 1998; Amin 2002), given the competing or complementary potential of electronic communication. However, this paper contends that physical proximity does mediate knowledge transfer. Migration is only one means whereby proximity can be achieved – short-term placements, assembling short-life project teams, and conference attendance are some of the alternatives. However, international migration is a potentially important means

of knowledge transfer, as evident in the estimated 175 million people living outside their country of birth (United Nations 2003) – as well as the unquantified but substantial number of return migrants. This article looks beyond the numbers, seeking to provide a conceptual framework for understanding the selective and distinctive contribution of international migration to knowledge transfer.

Surprisingly few studies have examined, empirically, the role of human mobility (see Argote & Ingram 2000), let alone international migration, in knowledge transfer. Instead, both the management and the migration literatures have pursued more narrowly focused research agendas that have militated against a fuller exploration of the role of international migration in learning and knowledge transfer. The management literature, while recognizing the importance of organizations' intra-, inter- and extra-firm networks (Nohria & Ghoshal 1997) in knowledge transfer, has paid little attention to international migration as a transfer mechanism within these networks. Migration studies have mostly examined skills rather than knowledge, and mostly individual migrants rather than how their knowledge is socially situated within workplaces (Williams 2006). There are exceptions to this generalization, such as Almeida & Kogut's (1999) and Reget's (2001) studies of the geographical mobility of scientists and engineers. And there is also a growing body of research on transnational elites in advanced business and financial services in world cities (Beaverstock 2005; Morgan 2001), but surprisingly little investigation of migrants who move between firms, whether inter-firm or extra-firm. Bridging the management and migration literatures

offers fresh perspectives on knowledge transfer by migrants, as explained below.

In seeking to address this gap in our understanding of migration and knowledge, the paper is informed by three underlying concerns. First, to demonstrate the value of focussing on knowledge rather than skills: in practice, the latter has mainly emphasised educational qualifications (Auriol & Sexton 2002), which are relatively easily measurable, therefore focussing on technical rather than social skills and particular forms of knowledge (Williams & Baláž 2005). Secondly, to provide a framework whereby *all* international migrants are understood to be potential knowledge carriers or knowledgeable workers (Thompson et al 2001), even if they face very different constraints. This provides a counterpoint to the fragmentation of existing research into discrete segments on skilled and unskilled workers. It also acknowledges previous neglect of the role of women in knowledge transfer, because of their concentration in teaching and caring jobs, rather than supposedly knowledge-rich technological and managerial posts (Kofman & Raghuram 2005; 150-1). And it is considered to be as important to study inter- and extra-firm mobility as intra-firm moves. And thirdly, to emphasise the importance of looking at the full cycle, or cycles, of migration, in order to understand the impacts of knowledge acquisition and transfer: most research focuses only on migrants in their destinations, ignoring high levels of temporary international migration (Ruhs 2005) and 'reverse knowledge transfers'.

Against this background, the paper addresses four main questions:

1. Is knowledge transfer by international migrants selective in terms of the types of knowledge that are transferable via human mobility?
2. Is the knowledge transferred by international migrants distinctive?
3. What are the barriers to greater utilisation of migrant knowledge?
4. What are the impacts of such knowledge transfers at the levels of the individual migrant and the firm?

In the absence of a substantial body of research in this field, the article provides a conceptual framework rather than a review of empirical research. Nevertheless, the conclusions address some of potential policy implications, and these are addressed in the conclusions.

Before proceeding to the main discussion, it is necessary to consider what is understood by 'international migration'. This assumes many forms but here we focus on labour migration. Traditionally, international migration was considered to involve crossing an international border and a degree of permanence (to distinguish it from tourism, for example) (Boyle et al 1998; 34). There is no theoretically grounded definition of 'permanence', so that a necessarily arbitrary minimum period (usually one year) has been used in most secondary data sources. But that does not take into account the emergence of new forms of migration, notably circulation and temporary migration (King 2002), with migrants working abroad for shorter and more discontinuous time periods. Attempting to place time limits on different types of migration, or on migration as opposed to visits is a futile exercise, as this is as much a matter of meanings and material consequences (for example,

opening local bank accounts, or housing arrangements) as of the numbers of days spent in another country. Instead, temporary migration can be understood to exclude business trips and visits, but include short-term work assignments where these involve significant disruption to previous or normal working and living arrangements, but not on a permanent basis. Permanent migration involves a more prolonged period working in another country, probably involving more durable and significant changes in living arrangements and material circumstances in both the country of origin and destination. This paper is also interested in the extent to which migration occurs within or across corporate boundaries, and it therefore distinguishes between international intra-firm, inter-firm, and extra-firm mobility. The last is constituted of workers moving in advance of finding new jobs.

The selectiveness of migrant knowledge

There are many different perspectives on knowledge and learning but, given the focus of this paper, it is considered to be, at least in part, commodifiable and transferable (Lave & Wenger 1991; Brown & Duguid 2001). A useful starting point for discussing migrant knowledge is Polanyi's (1975: 44) notion that 'all knowledge is personal knowing', and particularly Tsoukas & Vladimirou's (2001: 979) extension of this to argue that 'knowledge is the individual capacity to draw distinctions within a collective domain of action, based on an appreciation of context or theory, or both'. In considering the transferability of knowledge by migrants, this immediately poses questions about the extent to which appreciation of context, as opposed to theory, are

transferable, given that the former is rooted in 'processes of socialization' (Tsoukas & Vladimirou 2001: 979). This understanding of personal knowing can be made more specific by considering Blackler's (2002) identification of four main types of non-encoded knowledge. However, it must be emphasized that this is an analytical device because different types of knowledge are closely interwoven in individual practices, as indeed was indicated by Tsoukas & Vladimirou's stress on 'theory *and* context'.

- *Embrained* knowledge is dependent on conceptual skills and cognitive abilities, which allow recognition of underlying patterns, and reflection on these.
- *Embodied* knowledge results from experiences of physical presence (for example, via participation in 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.
- *Embedded* knowledge is set within contextual factors and is not objectively pre-given. Moreover, shared knowledge is generated in particular language systems, (organizational) cultures and (work) groups.

As argued elsewhere (Williams 2006; Williams 2007)), embrained and embodied knowledge are encapsulated in the individual, and are transferable via international migration. Moreover, while embrained and embodied knowledge can be transferred in virtual space, co-presence is important, and probably necessary, for transferring some elements of such knowledge, such as 'learning by observation' at a medical operation. Another example is learning by participation, when a team is assembled to work together to make a complex object or undertake a complex process. Such learning may require recurrent observation of and interaction with other individuals over a long period.

Turning to encultured and embedded knowledge, these are necessarily place specific: they represent specific forms of socially-situated knowledge. Encultured and embedded knowledge are, by definition, grounded in the relationships between individuals, in particular settings, and also in the process of socialization. In so far as these settings are not transferable or replicable (contrary to the assumptions of borderless world theorists, such as Ohmae 1999), such knowledge is – at best – only partly transferable through migration. Individuals' embedded and encultured knowledge is necessarily susceptible to being eroded by migration. However, the relationship between migration and these types of knowledge may be more complex than this initial formulation suggests.

First, return migrants face apparently similar challenges to migrants in transferring knowledge between places. But they already possess substantial

embedded and encultured knowledge of their destination (their countries of origin) – although this may have diminished over time – which should facilitate knowledge transfer. Secondly, the selectiveness of migrants' embedded or encultured knowledge does not mean that it is necessarily eroded via human mobility. Of course, migrants cannot transfer and share such knowledge in its entirety in a different context because of a lack of shared meanings with the recipients, and different institutions. But migrants can share a truncated version of that knowledge with other individuals in the destination, subject to the limitation of a lack of shared meaning. Moreover, this truncated knowledge may be highly valued in some circumstances. For example, a truncated knowledge of how accountancy firms operate in London may be sought after in New York or Tokyo (Beaverstock 2005). And a Korean hotel receptionist in New Zealand will have encultured knowledge of the Korean guests at that establishment (Aitken & Hall 2000). Thirdly, and linked to this, international migrants bring with them distinctive social networks as part of their embedded knowledge. Their social networks were informed by trust generated through relatively intense personal relationships, reinforced by physical proximity and face-to-face contacts in many instances. When migrating, some of their encultured and embedded knowledge may be eroded in a new location, but the social networks which partly defined these forms of knowledge may gain value when articulated in a new setting. For example, a migrant may use such networks to call on particular sources of knowledge, when addressing specific challenges for an organization in the destination, such as sourcing supplies from his or her country of origin. Transnational migrants who effectively live

and work in two or more places (Zhou & Tseng 2002) are especially well placed to access knowledge in multiple local and international networks.

In summary, this section of the article has argued that the knowledge transferred by migrants is necessarily selective. Four main types of knowledge have been identified, although these may be closely interwoven in individual practices. Migrants and returned migrants may also have contrasting experiences of transferring particular types of knowledge. While, at first sight, it could be argued that embodied and embrained knowledge are most easily transferable, the truncated forms of embedded and encultured knowledge possessed by some migrants may also have significant value. This is related to the distinctiveness of migrant knowledge, which is considered in the next section.

The distinctiveness of migrant knowledge

Migrant knowledge is distinctive. This is not to argue that it is necessarily of greater or lesser value than non-migrant knowledge. That is, it is contingent on production conditions (including organizational cultures and labour markets) and the regulatory framework in the destination. We return to this issue later in the paper when discussing impacts.

Human capital theories provide an initial perspective on the distinctiveness of migrant knowledge. In essence, these argue that migration is an investment decision, whereby individuals evaluate expected returns from

their human capital in the locations of origin and destination, in relation to the costs of migration (Sjaastad 1962). Critically, the costs include those related to a period of adjustment because, as Dustmann et al (2003; 13) comment in their review of the UK evidence, 'the skills immigrants have acquired in their home country are often not directly transferable to the host economy'. This argument can be rephrased in terms of knowledge. In other words, migrants make decisions about the net commodifiable value of their total knowledge in different places. Their initial lack of destination-specific embedded and encultured knowledge means that the economic rent derived from their total knowledge will increase over time as these are acquired. Language knowledge is one obvious form of such knowledge and Dustmann and Fabbri (2002), for example, demonstrate that there is, predictably, a positive relationship between acquiring language competence and realizing higher status employment and higher earnings.

While we do not question the broad relationship identified in this approach, it only provides a partial understanding of knowledge transfers. Wages reflect the social recognition of knowledge by employers and fellow employees and, as argued in the next section, this is highly structured and uneven. There is also an inherent conservatism in this approach, for it effectively considers migrants to be 'replacement knowledge bearers', who necessarily have to adjust to the knowledge framework in the destination in order to fulfil their roles more effectively. This implicitly denies them the role of 'distinctive knowledge bearers', whose knowledge is valorised precisely

because it is different. This can be considered further in terms of the four main types of knowledge.

First, individuals in different places may have acquired different forms of embodied and embrained knowledge. Migrants may therefore bring with them distinctive forms of such knowledge. A premium may be payable for such knowledge spillovers in the destination, particularly if there are relatively few barriers to their utilization (see next section): for example, mathematical programming, laboratory techniques, or sporting expertise. In practice, however, the utilization of such knowledge may face barriers (language, knowledge of local culture and organizational norms) which can only be broken down, if at all, after acquiring encultured and embedded knowledge. This broadly accords with the position of human capital theories. However, a fuller picture is obtained if encultured and embedded knowledge are considered in their own right, rather than as facilitators of the valorisation of embrained and embodied knowledge.

We have already argued that embedded and encultured knowledge can only be transferred in truncated form between places. However, migrants are reflexive, and they may be able to draw on their previous embedded and encultured knowledge to provide a deeper understanding of the particularities of knowledge, that is how it is embedded in different locations (Williams 2006). They may, for example, be able to reflect on how organizational culture in their new employer influences production and productivity, compared to their last job. All mobile workers can reflect on organizational differences

(especially on embedded knowledge), but international migrants bring an additional dimension to this, because of the significance of national boundaries in the map of encultured knowledge. In other words, international migrants may have a particular capacity for reflexivity that can be related to the Critical Reflection School of Action Learning. As summarized by Marsick & O'Neil (1999; 163), participants

‘ ... need to reflect on the assumptions and beliefs that shape practice..... Critical reflection can also go beyond the individual participant's underlying assumptions and can lead specifically to the examination of organizational norms’.

The notion of migrants as possessing critical reflective capacity leads to consideration of their *potential* role as boundary spanners and brokers. Wenger's (2000; 223) comments about (generic) boundaries are instructive, even though they did not specifically address international borders: they are ‘areas of unusual learning, places where perspectives meet and new possibilities arise. Radically new insights often arise at the boundaries’.

Boundary spanners (Tushman & Scanlan 1981) are individuals who can work across such boundaries, and leverage external knowledge into organizations. They perform three key roles: accessing external knowledge, interpreting it, and refining it. Crossing an international boundary does not necessarily make a migrant a boundary spanner, but *if* international borders constitute significant barriers to acquiring external knowledge, then migrants potentially have a distinctive role to play. The argument that international borders do constitute significant barriers rests on assumptions about the ‘stickiness’ of

tacit knowledge (Allen 2000). Moreover, the role of international migrants as brokers is enhanced because of their potential to transfer 'uncommon knowledge', or what we have referred to as distinctive knowledge. As Bentley (1998; 157) argues:

'Relationships which are distributed across organisations, social groups and geographical areas connect us to a wider range of resources and help to broaden our horizons. From this perspective, it is the most surprising and unconventional relationships that are of most use. If our relationships mirror the formal external structures by which we organise our lives - school classes, tiers of management offices, families – then our access to information and resources is determined by these structures. Much of what we can learn from co-workers will already be common knowledge'

Brokers have a number of different roles to play. Following Tushman and Scanlan (1981), they can be boundary spanners who take care of one boundary at a time, 'roamers' who travel from place to place, and 'outposts' who bring back knowledge from 'the forefront'. Changes in the nature of international migration have increased the potential of migrants to perform all three of these roles. For example, there has been a growth of short-term migration (King 2002) and of transnational migration, both of which facilitate boundary spanning and roaming. Transnational migrants are especially likely to act as brokers, because they have access to embedded knowledge across international borders. And growing temporary migration (Ruhs 2005) means

there is an increasing number of returnees who transfer knowledge from so-called outposts.

The emphasis in this section has been on the *potential* of migrants to transfer distinctive knowledge across borders, and thereby act as brokers. Brokering knowledge is, however, inherently based on negotiation. From the perspective of an individual, it means acquiring both sufficient legitimacy to be listened to and sufficient distance to be seen as bringing something really new to an organization (Wenger 2000). There are, of course, a number of obstacles to migrants acquiring such legitimacy, and becoming effective negotiators in knowledge transfer. Not all migrants have sufficient reflexive capacity to be able to act as brokers. Many jobs are designed around routine skills and positively discourage knowledge transfer from outside the organization. But even where migrants have the capacity to be brokers, and organizations seek actively to enhance knowledge leverage, migrants may still face formidable obstacles to fulfilling their potential as knowledgeable workers.

Barriers to migrant knowledge transfer

Wenger (2000) argues that the effectiveness of boundary transversing depends on: coordination (in this case, within organizations), transparency (the accessibility of meanings), and negotiability (whether boundary processes are one- or two-way). Migrants face a number of obstacles to knowledge transfer in terms of this framework: some are generalized and

some are specific to their positionalities as migrants and, in some instances, ethnic minorities. A full analysis of these obstacles requires a multi-level perspective, including national-level influences such as immigration and employment laws, or the regulations of professional bodies (Hardill & MacDonald 2000). There is insufficient space to explore all these obstacles here (but see Williams 2007); instead, we focus on the firm level.

Within an organization, the contribution of migrants – and indeed all workers – is conditioned by the systemic approach to leveraging knowledge: in particular, is the organization willing ‘to embrace external reference standards and methods’ (Earl 1990; 742)? Migrant knowledge will have little impact on the effectiveness of an organization unless this knowledge is shared with other individuals and groups (Nonaka & Takeuchi 1995). Both formal management strategies and individual practices influence learning and knowledge sharing (Ipe 2003: 349). The overall production and management strategy is exemplified by two polar extremes. If firms are competing mainly on the basis of unit costs of production, migrants are principally viewed as a reserve of low cost workers. In so far as employers are interested in their knowledge, this is limited to the requirements for performing routine tasks: that is, involving minimal levels of replacement knowledge. Folbre (2001: 187) encapsulates this approach:

‘The great advantage of temporary immigrants is their compatibility with last-minute methods of inventory control. If you don’t need them, you

don't order them. If you accidentally get too many, they can be returned'.

The distinctive knowledge of migrants is neither negotiated nor transparent in such organizations.

The 'learning organization' (Lundvall & Johnson 1994) represents a very different model, wherein an attempt is made to maximise knowledge leverage through company-wide strategies. Migrants may be positively valued as sources of different types of knowledge, and of creativity (Florida 2005). However, migrants may face barriers even in this second type, because of the institutional context, understood as:

'the visions, values and memories in the form of artifacts, routines and experience which help to ensure that what each employee learns is in some way connected to what the other employees might know or learn' (Bathelt et al 2004: 34).

Firms need to maximize these connections between workers if they are to leverage migrant knowledge – in Wenger's terms, they must co-ordinate knowledge transfers. To a considerable extent this is dependent on organizational forms, particularly the extent to which controls and knowledge flows are hierarchical as opposed to dispersed and multi-directional. But even where organizations actively seek to create such a common interpretative context, open to the external and distinctive knowledge of migrants, firms are

sites of competing interests amongst individuals and groups. This may cloud both the transparency and negotiability of knowledge in several ways.

First, there are barriers related to ascription, acceptability and suitability (Jenkins 2004: 153). Ascriptive criteria – who you are – are likely to influence perceptions of acceptability, or whether you fit into the networks and values of an organization. Migrants may be ascribed as outsiders, newcomers, or – in some cases - as ethnic minorities. Suitability emphasizes achieved or acquired characteristics; migrants have more power to change these (including acquiring encultured and embedded knowledge), but the social recognition of their suitability may be constrained by their ascription and acceptability. Ascription applies to all migrants, and not only to those who are conventionally considered to be unskilled. This is emphasized by Nagel (2005: 208) who 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’. Within the health sector, for example, doctors, nurses, carers and cleaners all experience the effects of ascription on career development, albeit in different ways and this mediates their learning and knowledge transfers (see Larsen et al 2005; Raghuram & Kofman 2002). Returned migrants may also be ascribed as outsiders in some circumstances, although longer term they are more likely to be able to demonstrate their acceptability.

Secondly, migrants, like most newcomers, are likely to be ascribed a peripheral position within work groups (Lave & Wenger 1991). A strategy of

effective knowledge mobilization would involve moving newcomers 'incrementally along a continuum from the domain of stranger toward that of friend' (English-Lucek et al 2002: 97). In part, this involves overcoming – if possible – ascriptive obstacles centred on race and nationality (Nagel 2005), as well as newcomer status. Acquiring encultured and embedded knowledge – which originates within an organization – may be critical in helping individual migrants to move from the status of 'stranger' to that of 'friend', and cease to be viewed as a newcomer. However, ascription – in terms of either ethnicity or migration - can create persistent obstacles to movement along the continuum from peripheral to within-group member, or from stranger to friend. In contrast, returned migrants may face fewer long-term barriers to such changes in status.

Thirdly, language competence is obviously an important element of inter-cultural communication, which is central to the negotiability of knowledge by many international migrants. Blackler et al (1998: 75) write that 'Language does not passively mirror the world, rather speech is a practical act that shapes and negotiates meanings'. Similarly, Elkjaer (2003: 43) argues that language, according to social learning theory, is central to learning, since it is the main way of acting in contemporary organizations. This is not simply a question of technical competence, because language is replete with cultural symbols. Migrants are, of course, likely to be disadvantaged in respect of cultural symbols and negotiated meanings, because of their limited encultured knowledge of the host organization and country. Local workers employed in international companies can face similar barriers to communicating

knowledge, as evident in Sakai's (2000) study of Japanese banks in London (Sakai 2000). Older and senior Japanese managers had usually tried to learn English, but still found communication with native English speakers to be problematic:

'people made contact with each other on the borders of 'different' cultures but this only served to emphasize differences: the 'others' were being defined in their everyday working lives' (p96).

Explanations are time consuming, consequently 'many things are never articulated'. These constraints are not limited to the elite world of global financial services. For example, Duff et al (2002) demonstrate the challenges faced by international nurses in Canada, who had to learn not only to speak English, but also had to acquire encultured knowledge, notably to interpret body language, and understand colloquial speech. In contrast, returned migrants are unlikely to face many, or even any, obstacles in this respect.

In summary, all migrants and returned migrants face challenges in utilising their knowledge and in acting as brokers, whether they are relatively skilled or unskilled. These barriers are of course highly uneven and are contingent on co-ordination, transparency and negotiability in the workplace. In turn, these - particularly negotiability - are shaped by cultural and linguistic distance, and by ascription. The next section considers the significance of the resulting, highly-mediated migrant knowledge transfers.

The significance of international migrant learning and knowledge transfer

The distinctiveness of migrant-associated learning and knowledge transfer has significant impacts at a number of different levels. Here we only consider the organizational and the individual levels, but for an alternative perspective on the national and urban levels, see Williams (2007).

Not surprisingly, the role of international mobility in knowledge transfer features most prominently in the literature on multinational companies, especially in relation to their internationalisation strategies, and the diffusion of corporate culture. Of course, mobility does not equate with migration, and intra-company transfers have diverse temporalities and spatialities. There is a debate as to whether longer-term managerial placements (equating to 'migration') are being replaced by electronic communication and shorter-term placements (Koser & Salt 1997), or by 'epistemic knowledge communities'; that is the assemblage of project specific teams to effect knowledge creation and transfer (Grabher 2001). However, the management literature continues to recognise international migration as a significant channel for knowledge transfer. Perkins (1997: 83-4) recognizes three main forms of international assignment: business trips (less than 31 days duration per single trip), short term assignments (31 days – 1 year), and full assignments (over 12 months). Full assignments conform to traditional definitions of migration, while short

term assignments broadly resonate with the notion of temporary migration, as discussed in the introduction.

The type of mobility is dictated by the company's internationalization strategy. Bartlett & Ghoshal (1989) identify four main types of internationalized firms - multinational, global, international and transnational - differentiated in terms of their degree of centralization, and linkages across establishments. Mobility, of all types, is relatively low in the first two types, whereas core-branch mobility is implicit for knowledge transfer in the third, and genuine trans-company mobility is implicit in the fourth type. The latter two, in particular, require what Perkins (1997: 62-3) terms an 'international cadre of executives' who are:

capable of transferring the enterprise's commercial and operational philosophies and systems into every location in which they wish to do business. This group – capable of thinking global, acting local, and vice versa – will be among the premium capital any organization will wish to have access to.

To varying degrees, these different types of internationalised companies particularly value the acquisition of international experiences by their key employees because they are one articulation of the 'transformational experiences' that force people to engage with new ideas and practices: 'It is now de rigueur for high-potential managers to be given an international assignment' (McCall 1997: 77). However, 'the rationale goes little beyond an assumption that a "stint overseas" can be quite developmental' (McCall 1997:

77). In fact, what companies value is the acquisition of encultured and embedded knowledge, and an ability to reflect critically upon these. There may also be recognition of the distinctive nature of such knowledge, and the potential for individuals to become boundary spanners.

This rationale is well-developed in international financial services. Beaverstock and Boardwell (2000: 280) identify three main reasons why companies in this sector send staff to work abroad: to obtain or transfer specific knowledge within the company, including the perpetuation of organizational culture; networking and accumulating cultural capital; and performing 'global facetime' processes between firms and clients. These broadly correspond to our earlier identification of the distinctiveness of migrant knowledge, and the importance of encultured and embedded knowledge. There are several empirical studies that generally confirm these roles. For example, the NOP Business/Institute for Employment Studies (2002) survey demonstrated that major companies value international migration as a means to foster cultural diversity and redistribute international expertise within organizations, in order to create new ideas and/or provide a wider knowledge base (see also the Ashridge survey, summarised in Perkins 1997).

While there is a significant literature on migration and intra-company mobility, there are still major gaps in understanding of this subject. In particular, we still know relatively little about the mobility of engineers, technicians and professionals, other than higher echelon managers, although these constitute significant categories of skilled labour migration (Mahroum 2001), and knowledge transfer is not the monopoly of higher order

management. In contrast, the recent management literature emphasises that knowledge is diffused throughout companies (Hodkinson et al 2004) and the same logic applies to international migration and knowledge transfer. Migrants other than top managers possess distinctive knowledge and may be potential knowledge brokers.

The focus on intra-company mobility has also privileged particular types of employment relations. In terms of Inkson et al's (2001) typology, it means the focus has mainly been on classical core employees who are 'highly internalized into the firm through cultural assimilation and accumulation of organization-specific knowledge'; for them, mobility is associated with internalization. But there are also other forms of employment relations, which are associated more with inter- and extra-company mobility, than with intra-company moves. Thus, the 'careerist' is a short-term insider, performing work where organization-specific knowledge is required, while at the same time (s)he is likely to be involved in extra-company mobility for career development purposes. 'Pooled workers' only work periodically with the same organization, and will move between companies to find work at other time. And 'temporaries and independent contractors' constitute short-term outsiders employed on highly specific short-term projects. All these types constitute forms of 'free agent labour migrants', moving outside of intra-company transfer schemes (see Williams 2006).

The contribution of 'free agent labour migrants' to knowledge transfers and spillovers (Møen 2005) should not be under-estimated. Arrow (1962:

615), writing about knowledge spillovers, emphasized that 'no amount of legal protection can make a thoroughly appropriable commodity of something so intangible as information'; hence, 'mobility of personnel among firms provides a way of spreading information'. As Geroski (1995: 78) states, 'spillovers occur when a researcher paid by one firm to generate new knowledge transfers to another firm (or creates a spin-off firm) without compensating his/her former employer for the full inventory of ideas that travels with him or her'. This is akin to what Song et al (2003: 352) term 'learning-by-hiring', a process that was critical in the growth of major Korean companies such as Samsung, which deliberately recruited scientists and engineers who had worked for market-leading US firms. In this instance, distinctive migrant knowledge (of all types) is constituted as a source of innovation. But such workers can play different roles, and this is captured by Barley and Kunda (2004) in their terminology of 'gurus, hired guns, and warm bodies'. Gurus are employed to provide knowledge that permanent employees lack, while warm bodies and hired guns provide just-in-time knowledge over short periods. Not surprisingly, in many high tech industries the priority is to retain knowledgeable workers, and to reduce knowledge spillovers via migration:

Negotiating the commitment of highly mobile employees becomes the critical dilemma facing firms ... the typical career pattern now involves a number of moves between organizations, and there has been a clear shift from internal labor markets to job-hopping between firms (O'Riain 2004: 222).

Job-hopping and knowledge spillovers, which can be problematic for organizations, may be resources for individual migrants. This needs to be seen in the context of increasing labour market flexibility and greater emphasis on individuals taking responsibility for their personal career development, in response to significant changes in the division of labour. As Poell et al (2000: 27) argue: 'The work organization is no longer characterized by a strong Taylorist task division Employees have also become more and more responsible for their own learning, in order to ensure their employability'.

International migration is of course undertaken for a variety of reasons, and under varying degrees of duress. It can be a source of exceptional learning, as individuals take responsibility for acquiring knowledge and enhancing their employability. In these circumstances, distinctive migrant knowledge can become a key component of knowledge accumulation. But migration can also be a stultifying experience, with poor learning content. Migrants, because their knowledge is not fully recognised, or because of obstacles such as limited encultured knowledge, may enter the labour market sub-optimally. The eventual employment outcome depends on whether these initial jobs constitute stepping-stones or entrapments. In the case of 'stepping stones', there is gradually a matching of knowledge and occupational position, as migrants overcome barriers to using and acquiring knowledge. In the case of 'entrapment', an initial sub-optimal labour market entry has enduring consequences as individuals become 'trapped' in a particular job or labour market segment. In the context of cycles of migration, the stepping stones

may not be to jobs in the destination, but via return migration to jobs in their country of origin. For example, individual migrants may accept sub-optimal jobs abroad, in order to acquire particular knowledge for which a premium is paid in their countries of origin. This may be embodied or embrained, or (reflexive) encultured or embedded knowledge. As emphasized earlier, the valorization of knowledge is highly place contingent.

In the case of stepping-stones, migration may constitute 'significant learning moments' for individuals, whereby they acquire particular forms of knowledge. This is especially so if we look beyond formal qualifications and technical knowledge. Migration can be a source for acquiring a range of social skills and competences (see Williams & Baláž 2005). These include the acquisition of self-confidence, networking skills, learning and adaptability competences, and self-reliance. Moreover, as Williams & Baláž (2004) demonstrate for Slovak au pairs in the UK, there is a vast amount of learning and knowledge creation not only in the workplace but also within the private sphere of the home, which potentially can be commodified in the labour market by migrants and returned migrants (for example, social or language skills). There are also parallels with the acquisition of what Sennett (2000) terms 'flexpertise' – the ability to learn and adapt quickly to changing circumstances. For migrants, this broadly equates with the ability to reflect critically on embodied and encultured knowledge, thereby acquiring distinctive knowledge, or more precisely 'knowledge about knowledge'.

The emphasis on flexpertise resonates with the conceptualisation of changes in careers. Gold & Fraser (2002), for example, argue that there has been a shift away from seeing careers as planned linear progressions within organizations, with strong internal labour markets, and long-term employment with individual employers. Instead, careers have changed (Handy 1984) and, increasingly, individuals have 'boundaryless' careers which include 'a range of possible forms that defies traditional employment assumptions' (Arthur & Rousseau 1996: 3). Migration may be interwoven into some of these forms. This resonates with Beck and Beck Gernsheim's (2002) 'individualization' thesis. Both King & Ruiz Galices (2003) and Baláž & Williams (2004) have argued that the individualization thesis provides useful insights into international student migration. Individual student migrants understand their migration experiences in the context of lifelong learning, and as a means of acquiring distinctive knowledge that enhances their CVs.

The valorisation of international migrants' knowledge provides significant opportunities for individuals and organizations, and such opportunities exist beyond the realm of top-level managers and transnational companies. However, this potential should not be over-stated. The international experiences of many migrants are constituted of deprivation and hardship, with scant opportunities for knowledge acquisition, learning and enhancement of their curriculum vitas. Instead, they may become entrapped, with their knowledge being under-valued, and few opportunities to add to this.

Conclusions: listen to me, learn with me

There has been surprisingly little research on the learning and knowledge transfer experiences of international migrants. While there have been some excellent studies of international mobility within transnational corporations, of transnational elites in the global centres of the knowledge-based economy, and of human capital and skills, there has been no attempt to provide a generic assessment of international migrants as 'knowledgeable workers' (Thompson et al 2001). This article has sought to provide a conceptual framework that helps to fill this gap, focusing on the selectiveness and the distinctiveness of migrant knowledge, barriers to knowledge transfer and the impacts on the careers and employment of individuals, and on organizations. This has been linked to a differentiation between intra-, inter-, and extra-firm mobility. It has focused largely on labour migrants and has not addressed the specificities of refugees, asylum seekers and second-generation migrants in the labour market.

The theoretical starting point for the article has been Polanyi's (1975) concept of 'personal knowing', but especially Tsoukas & Vladimirou's (2001; 979) emphasis on knowledge as individual capacity, based on appreciation of context and, or theory, and Blackler's (2002) typology of knowledge. Drawing particularly on the latter, it has been argued that migrants can transfer embrained and embodied knowledge in its entirety, but only truncated versions of their embedded and encultured knowledge – although all these forms of knowledge are interwoven in individual practices. Furthermore, there are significant contextual differences between migrants and return migrants, in respect of their appreciation of these types of knowledge.

International migrants may often lack the shared or socialized understandings which structure embedded and encultured knowledge, and this tends to disadvantage them in the labour force, at least initially, because of the additional costs incurred by employers; hence, the well-established tendency – demonstrated by human capital researchers – for migrants to be paid lower wages than indigenous workers initially, but for wages to converge over time as migrants acquire additional skills and language capital (Dustmann et al 2003); this broadly equates to valorizing acquired embedded and encultured knowledge. But this is a passive view of migrants as replacement knowledge workers that ignores the potential valorization of difference. Most obviously, migrants have acquired embodied and emplaced knowledge in different contexts, and there may be a relative premium for workers with such knowledge in the destination (ranging from particular sporting skills to computer programming skills) . But, beyond this, migrants' reflexive capacities also mean that they can develop valued insights into embedded and encultured knowledge. Moreover, potentially they could acquire roles as brokers and boundary spanners, if international borders constitute significant barriers to transfers of personal knowledge. Migration may convert what had been considered 'common knowledge' in one place into 'uncommon knowledge' (Bentley 1998) in another place, whether in the destination, or after return migration, and this is reinforced by the distinctive networks, which partly constitute their embedded knowledge.

In practice, of course, migrants may face considerable barriers to utilizing and transferring their personal knowledge, and this is recognized in the title of this paper – ‘listen to me, learn with me’. They may lack sufficient reflexive capacities, and may only be able to obtain routine jobs, where the organization is only interested in labour cost minimization, or strict replication of, or conformation to, the existing knowledge base. In other words, the effectiveness of knowledge transfers depends on what Wenger (2000) terms co-ordination, accessibility and negotiability, which are variable between firms and places. Even where firms aspire to be learning organizations, in reality they are contested sites of competing interests, and these may constitute real barriers to knowledge sharing and learning. Migrants face specific barriers in the forms of ascription, their peripherality to work groups, and the challenges of linguistic and cultural communication. The acquisition of embedded and encultured knowledge allow migrants to overcome some of these barriers, although ascription and acceptability (Jenkins 2004) are more persistent challenges.

If such barriers can be overcome, then migration can play a significant role in knowledge transfer. This is particularly evident in intra-firm managerial transfers, which constitute key elements of many corporate internationalization strategies. Managers value ‘stints abroad’ (McCall 1997) as means to acquire encultured and embedded knowledge of other contexts. This is particularly evident in global financial and business services, where international, intra-company international migration is valued for transferring knowledge, networking and acquiring cultural capital, and as providing face

time with clients (Beaverstock 2005). Unfortunately, we know far less about knowledge transfers via intra-company migration in many other sectors and occupations, such as technicians and engineers (Mahroum 2001).

Inter-company and extra-company migration may also be important in knowledge transfers, in the form of knowledge spillovers. While these links between mobility and knowledge transfer may be problematic for the firms that originated such knowledge, they may be of positive value for receptor firms, if they have the capacity to recognize and utilize such knowledge. And there are also advantages for individual migrants in terms of constructing their CVs and enhancing their employability. This underlines the need to see international migration in context of a shift to more boundaryless careers (Arthur & Rousseau 1996), greater emphasis on individual responsibilities for learning, and the potential for migration to provide 'significant learning moments'. In reality, many migrants initially enter the labour market in jobs which are sub optimal relative to their personal knowledge, and even the acquisition of embedded and encultured knowledge does not guarantee that these eventually become stepping stones to better paid jobs which recognize their knowledge. However, this need not be viewed as labour market entrapment, if we consider the full migration cycle, and they eventually become return migrants. Some types of knowledge – about networks, enhanced reflexivity, greater self confidence, and above all a knowledge of other languages – can be valorized if they become return migrants (Williams & Baláž 2005), or indeed if they migrate again in future.

While this article has explored conceptually some of the issues relating to international migration and knowledge, many of these relationships are highly contingent and require empirical research to tease out the complexities of how they are articulated. Although organizations can benefit from the valorisation of the knowledge carried by migrants, there are significant barriers in practice. As a result, we can rephrase Wenger's (2000: 234-5), generic question about unrealized brokering potential, in terms specific to migration: 'Are there migrants who are potential brokers but who for some reason do not provide cross-boundary connections?' If the answer is affirmative, then the plea to 'listen to me, learn with me' is especially apposite.

The plea to 'listen to me, learn with me' gives rise to a number of policy implications. First, it questions the effectiveness (quite apart from the equity) of national immigration regimes, and the extent to which these support national innovation systems. Most such schemes revolve around preferential visa or work permit provisions for 'skilled' or 'highly skilled' workers, particularly for those occupations or industries which are perceived to have labour skills shortages (McLaughlan & Salt 2002). They singularly fail to recognise the different types of personal knowledge possessed by other knowledgeable workers and potential migrants, and especially the economic return to social diversity, explored here in terms of reflexivity on encultured and embedded knowledge. Secondly, the debates about brain drain and brain waste (Lowell & Findlay 2002) can be given a more positive hue if seen through the lenses of knowledge rather than skills, and the cycle of migration rather than particular migrations (Williams & Baláž 2005). Thirdly, even after

knowledgeable workers manage to hurdle the barriers posed by immigration and employment laws, there are still considerable obstacles at company level, and these are expressed differently for intra-, as opposed to inter- and extra-firm migrants. The most progressive firms do recognize the knowledge premium of social diversity, but there is still little understanding of how either formal organizational features or group dynamics facilitate or obstruct the plea to 'listen to me, learn with me'. In an age of international migration and intensifying competition, this represents a substantial untapped source of creativity, innovation, and enhanced productivity that few firms or national economies can afford to neglect.

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