ARXIUS
ARXIUS DE CIÈNCIES SOCIALS
NÚM. 39, DESEMBRE 2018, ISSN: 1137-7038, pp. 19-36

HIGH-SKILLED MIGRATION AND THE KNOWLEDGE SOCIETY. THEORIES, PROCESSES, PERSPECTIVES

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Recepció: maig 2018; acceptació: setembre 2018

ABSTRACT

The recent economic crisis has led to an upswing in migration from the Mediterranean countries of Europe towards its central and northern development hubs. This overall increase in migration also includes high numbers of the so-called skilled migrants, consisting mainly, though not exclusively, of young people moving within Europe for study or specialisation, or seeking employment that matches their skills profile. It is no coincidence then that this new trend for skilled migration within Europe forms the main thrust of the cognitive and research interests of sociologists, economists and migration geographers. The aim of this paper is to reconstruct the theoretical debate on skilled migration in the context of what is perhaps too hastily defined as a "knowledge society", through a broad and systematic critical analysis of the scientific literature.

KEYWORDS

Highly-Skilled Emigration, Knowledge society, Brain drain, Brain circulation

INTRODUCTION

The recent economic crisis has led to an upswing in migration from the Mediterranean countries of Europe towards its central and northern development hubs[1]. This overall increase in migration also includes high numbers of the so-called skilled migrants, consisting mainly, though not exclusively,

[1] As referred in the last *Report on intra-EU Labour Mobility*: "In 2016, there were roughly 11.8 million EU-28 movers in total. This shows that the number of EU-28 movers had further increased compared to 2015, at a similar pace as it had increased in the previous years [...] Germany and the UK remain by far the main countries of residence hosting almost 50 % of all EU-28 movers in 2016 and their number of EU-28 movers was growing faster than EU average compared to 2015 [...] Around half of all movers across the EU-28 Member States are Romanian, Polish, Italian and Portuguese (in order by size)" (Fries-Tersch, 2018: 12-13).

of young people moving within Europe for study or specialisation, or seeking employment that matches their skills profile[2].

Whilst movement of this type generally involves transfer abroad for a period of more than twelve months, which would qualify it for inclusion in the category of migration, it often involves a number of characteristics that would define it as short-term mobility: temporary migration (with regards to a specific contract or research project), travelling between a number of different bases with periodic returns to home, and maintaining relationships and frequent contact with the home community (Recchi, 2013). In the case of internal transfers into supranational jurisdictions (such as between different EU countries), the list of characteristics also includes the same entitlement to protection as provided by the state in which the migrant holds citizenship.

In this sense, therefore, the phenomena of migration and mobility can often be differentiated only by formal definition. Both contribute substantially to the dynamics of globalisation and should be considered as an integral and essential part of the process of "social transformation" that has radically altered the global model of development over the last thirty years, and that has increased its asymmetry (Castles, 2001). This transformation also establishes a new kind of polarisation in the flows of highly-skilled migrants within Europe: a further increase in the socioeconomic gap between countries in the south and those in the north.

Migration and mobility are usually triggered by a high level of development in the destination country and a state of underdevelopment in the country of origin, but they also stimulate and generate new development dynamics in both countries[3]. This logic also applies in the case of high-skilled intra-European migration, which promotes (or impedes) the circulation of human and social capital, skills and knowledge through mobility (or immobility). From this perspective, studying the flows of high-skilled migrants which enter and leave different countries and the devices that facilitate or inhibit this circulation, reveals one of the most important dynamics of growth in countries attracting knowledge. Likewise, it reveals recession, both in home countries which become subject to a brain drain, and destination countries which discourage or block this mobility. It is no coincidence then that this new trend for skilled migration within Europe forms the main thrust of the cognitive and research interests of sociologists, economists and migration geographers. This paper aims to reconstruct the theoretical debate on skilled migration in the context of what is perhaps too hastily defined as a "knowledge society", through a broad and systematic critical analysis of the scientific literature.

1. Knowledge society and knowledge mobility: the theoretical political framework

Knowledge societies are often referred to when tracing the possible development paths of contemporary societies (Böhme and Stehr, 1986; Drucker, 1957, 1969, 1994; Lane, 1966; Stehr, 1994, 2001). Additionally addressing the high degree of complexity and contradiction of today's social systems (Bauman, 2002; Beck, 2000; Bell, 1973; Boutang, 2011; Castells, 2002; Cotesta, 2004; Fumagalli, 2007; Gallino, 2015; Giddens, 1994; Gorz, 2003; Kumar, 2000; Martell, 2011; Sennett, 1999; Touraine, 1993, 2008), this expression also indicates the key role that knowledge should play in defining

[2] International statistics define "high-skilled migration" according to educational and professional levels. The OECD-DIOC database (*Database of Immigrants in OECD Countries*) classifies immigrants according to the ISCED's stratification (*International Standard Classification of Education*) and identifies as "high-skilled" those migrants who own a third level educational qualification. The WB-OECD DIOC-E database, on the other hand, links the educational level with high occupations, classified according to the ISCO's stratification (*International Standard Classification of Occupations*).

[3] In the medium term, however, development even in poor countries does not reduce but stimulate outward flows of migration. This phenomenon is known as the "migration hump" (Martin and Taylor, 1996).

political actions aimed at constructing a "new" model of society (Morin, 2012; Touraine, 2012). In this sense, it appears to support the affirmation and consolidation of a concept of progress that exists solely for knowledge as a strategic resource that can guarantee widespread affluence and development of the individual, the society and the economy.

As early as 1957, Peter Drucker attributed a new function to knowledge with his definition of a "new" vision of the world: the notion of order, power, development, innovation, research and education (Drucker, 1957). But only in his subsequent works, as part of a long research career on the transformations of capitalism and production systems, does he specifically mention "knowledge society" and "knowledge worker" (Drucker, 1969, 1993). The revolution he announced was the substitution of the "worker management" of the Taylorist and Fordist period with "knowledge management" in the current capitalist era. More specifically, he referred to employment changes and the growing importance of "human capital" in new forms of work organisation (Becker, 2008; Schultz, 1971; Stehr, 1994). Knowledge is identified as the strategic resource, and the management of knowledge is crucial to the success and competitiveness of both individual businesses and the entire economic and social system.

The sociological debate around this "new" model of society intensified around the late 1960s and 1970s (Kumar, 2000). Many scholars believed that the rapid development of information and communication technology played a significant role in the overall process of transforming contemporary societies (Bell, 1973, 1987; Castells, 1989, 2002; Wiener, 1950). When it arrives at a constant flux, information takes on new forms of the past. In the economic and business environment, it changes from being a simple tool for production into an actual product, and information flows are placed at the centre of the whole production process (Machlup, 1962, 1980, 1982). In the cultural and social context, however, the increase in the amount of information available and the possibility of acquiring knowledge can to a great extent alter both lifestyles and behaviour.

Daniel Bell was one of the first authors that recognised the importance of information and knowledge in the improved, but still hybrid, social configurations. This Harvard sociologist identified a new stage in economic and social development, where knowledge and information were becoming the strategic resource and agent for the transformation of post-industrial society, just as the combination of energy, raw materials and mechanical technology were the drivers for development of the industrial society (Bell, 1973: 467; Bell, 1980). Manuel Castells talks more specifically about the emergence of a new sociotechnological paradigm. Castells' particular area of interest is the idea of an open system where the structural element is increasingly associated with the exploitation of the so-called intangible resources (Castells, 2002). This results in a radical transformation of the elements of space and time "through the combined effect of the paradigm of information technology and the processes and social forms induced by the current historical change" (Castells, 2002: 435). According to Castells' theoretical processes, it can be asserted that contemporary societies tend to form around flows: "capital flows, information flows, technology flows, flows of organisational interaction, flows of images, sounds and symbols" (Castells, 2002: 472). Hence the definition of the flow space as the "material organisation of social time-division practices that operate through flows" (ibid.: 473). In contexts with "improved" networking, all forms of mobility –including the geographical mobility of knowledge and workers– appear to be within the range of possibilities and are almost ceaselessly encouraged (Urry, 2007), sometimes leading to a chain of events that generates new material conditions and new types of ideal (Sassen, 2008) that do not always reflect the actual situation.

An approach of this kind is the guiding principle behind the European strategy detailed in documents such as Delors' white paper (European Commission, 1994), the Lisbon objectives (European Council, 2000) and the Europe 2020 strategy (European Commission, 2010). This strategy calls on member states to adopt measures for smart and inclusive growth through investment in research,

development, innovation, education and training. Articulations in this direction are increasing in speed and intensity and are linked to general cultural considerations. Furthermore, with the Bologna process (European Commission, 1999) and its developments in the Education and Training 2020 strategic framework (European Council, 2009), and with regards also to other initiatives supporting the mobility of scholars and researchers, the vision of a common European destiny appears on the horizon possibly for the first time, although it is not particularly constraining. The European Union is making concrete efforts to support this strategy in many different ways. These are the possibilities offered, for example, by the Erasmus Plus programme –an integrated intervention plan involving resources for study, training, work experience or volunteering abroad– or by the Horizon 2020 research and innovation programme, which has made almost €80 billion of funding available for a seven-year period (2014-2020) to promote and enhance worthy collaborations for creating a European Research Area (ERA). The European Research Council (ERC) funding initiatives have similar operational objectives, although they aim more specifically to achieve and share scientific excellence in all disciplines.

The concept of knowledge organisation is also gaining ground in line with the economic, organisational and sociocultural transformations attributable to the processes of innovation described above. Knowledge organisation is an actual "cognitive system" that restores the image of "dematerialised" organisations and companies whose distinguishing features are to be found in the very cognitive nature of the environment, the universality of knowledge and skills and the relationship networks developed inside and outside the workplace (Senge, 1990; Miggiani, 1994; Nonaka and Takeuchi, 1997; Argyris and Schön, 1998; Butera, 2009). The reflection on the circulation of skills emerged against this background and enlightened the most effective political strategies to support the economic growth of the knowledge-driven economies attracting high-skilled migrants from abroad and contrasting the expatriation or stimulating the return of the national best and brightest[4].

The cultural, economic and social consequences of this process are carefully and critically examined by a substantial number of scholars concerned with researching "cognitive capitalism" –an expression they favour over "knowledge-based economy" (Boutang, 2007; Fumagalli, 2011; Gorz, 2003; Marrazzi, 2015; Vercellone, 2006). More specifically, theorists of cognitive capitalism try to present an accurate depiction of the historical element and the conflicting relationship between the two terms it comprises:

> the term capitalism means the permanence, within situations of change, of the fundamental invariants of the capitalist system, such as the driving role of profit and the centrality of the salary ratio [...]. The term "cognitive" indicates the new nature of work, sources of value and forms of ownership on which the accumulation of capital is based, as well as the contradictions it generates (Vercellone, 2009: 32).

The main contradiction can be identified as the "value-making" process of all the elements of "living work", and of the emotional, symbolic and creative components of the worker's social life too (Boutang, 2007; Fumagalli, 2011). Furthermore, in what is often referred to as a "knowledge society", the knowledge acquired is not accompanied by the power to simply apply that knowledge to improve one's social standing. Moreover, the new contexts are often unable to create the necessary conditions for the "potential capital" of knowledge workers to emerge and to give them the best opportunity to develop their careers. Investing in knowledge is a priority that is often not translated into concrete interventions, and knowledge workers –especially

[4] Policy interventions in this direction can traditionally be attributed to Lowell's taxonomy (2002): (1) Return (encouragement); (2) Restriction (in respect of potential expatriates); (3) Recruitment (of skilled migrants); (4) Reparation (tax measures imposed on destination country as compensation for damage suffered by the country of origin); (5) "Resourcing expatriates" (exploiting diasporas); (6) Retention (encouragement by promoting national education and R&D systems).

young people starting to work for the first time– often seem to pay the price of the crisis caused by speculative capitalism: lower income, job insecurity, social status compression and reduced prospects for social and professional mobility. In the midst of these trends, there is the scientific debate on high-skilled migration, a particularly articulate debate that re-establishes the analytical complexity of the phenomenon, to which we will devote attention in the following paragraphs.

2. High-skilled migration: terminology of the concept and research position

A Google search of the term *high-skilled migration* does not identify use of the term in any document before 1988. The use of the term increased 30-fold, however, between 1990 and 2007 (Parsons *et al*., 2014), along with the connotations the phenomenon assumed in public opinion, politics and scientific research.

The term is now so diffuse and widely used that it is accorded its own entry in encyclopaedic dictionaries (Iredale, 2016) and textbooks (Rajan, 2015). Multiannual research programmes such as "Drivers and Dynamics of High-Skilled Migration" (IMI, University of Oxford), "High Skilled Migration in Time of Crisis" (EUI, Fiesole) and "Mobile Professionals" (CMR, University of Sussex) invested a great deal of effort and intellectual resources in examining and analysing it properly. A specific workshop was held on the subject at the 13th IMI-SCOE Conference in Prague in July 2016, and two discussion sessions at the ISA RC31 international conference in Doha in November 2016.

This increase in interest coincides with the intensification and globalisation of the phenomenon, which is becoming more widespread and characteristic of internal mobility in northern countries of the world. At the same time, however, there is growing concern over the critical and potentially depressive aspects of the phenomenon on the social and economic situations where it is taking place. All these aspects combine to distinguish the subject as one of the factors, and also one of the most reliable indicators, of the transformation that brought about changes to production models and geopolitical equilibrium throughout the 20th century (Arrighi, 1994).

Studies in migration have traditionally focused on this particular category of migrants, to draw attention to either the damage that results when the development potential is removed from the country of origin (*brain drain*) (Bhagwati and Hamada, 1974), or conversely the positive returns from which the country benefits through economic remittances in the short term (Grubel and Scott, 1966; Johnson, 1967) as well as the transfer of social remittances, knowledge and investment in the medium-to-long term (*brain gain*) (Findlay, 2002; Docquier and Rapoport, 2006; Boeri *et al*., 2012); studies have also paid attention to the effect of scientific diasporas on the development of the country of origin (Saxenian, 2005; Meyer and Brown, 1999; Gamlen, 2014*a*). The second of these tendencies corroborates the deliberations of the official political discourse of the main supranational bodies[5], where high-skilled migration is interpreted as a physiological phenomenon that operates for the development of a knowledge-based economy. A third tendency, more oriented to the paradigm of "social transformation" (Castles, 2001, 2010; Castles and Miller, 2012: 89-92), observes highly-skilled migration because it is indicative of the criteria and dynamics of social stratification that operate in various historical and geopolitical contexts (Cohen, 1987). Particularly, observation of the geographical and social mobility paths of high-skilled migrants is considered indicative of the processes through which human capital is formed and made available within knowledge-intensive production systems (Mezzadra and Neilsen, 2014).

[5] We refer here in particular to the two High-Level Dialogues on Migration and Development by the United Nations General Assembly in 2006 and 2013. With specific reference to the European debate, the topic was first discussed in the communication on the *Global Approach on Migration and Mobility* (GAMM) in 2011 (COM 2011/743) and returned to more recently in the Commission's communication on establishing a new Partnership Framework with third countries under the European Agenda on Migration (COM 385/2016).

International statistical sources estimate that high-skilled migrants now represent 30 % of the 232 million international migrants, 4.1 million of these are students (Rajan, 2015). This is a global phenomenon, although some regional variations are worthy of particular attention, as is the case in Europe, where it appears with greater intensity and different characteristics when compared with overall migration trends over the last 60 years. In Europe, official statistics have recorded a gradual and increasingly marked upswing in skilled migration from the Mediterranean countries (including Spain) towards the development hubs of the northern and central regions of Europe and other industrialised OECD and BRICS countries since the start of the millennium. The post-2008 economic crisis has exacerbated this trend, arousing media attention and public opinion[6].

3. Evolution of interpretative models

Empirical evidence suggests that high-skilled workers are more likely to emigrate than less skilled ones, and tend to move from underdeveloped countries to more developed countries that show greater consideration and offer higher remuneration for their specific skills (Ducquier and Machado, 2015). How can this phenomenon be interpreted? What effects does this mobility have on the country of origin? And what effects on the destination country?

3.1 Theoretical frameworks of the international debate

Deliberations on the dynamics of high-skilled migration are incorporated in the more general debate around the links between migration and development in both countries of origin and destination countries. It therefore focuses on trends and evidence, resulting in alternating views (Castles, 2008; De Haas, 2012) that emphasise the benefits of free circulation of skills, on the one hand, and those that denounce the effects of the resulting relative deprivation on the other[7].

In post-war reconstructed Europe, studies on high-skilled migration were based on a combination of human capital theories and a neo-Marxist approach to north-south dependency relationships, generating what Beltrame (2007) defines as the *standard view*. In this view, qualified migrations were interpreted as the result of "one-way movements from developing countries to developed countries as a result of autonomous choices by individuals seeking to capitalise on their education, and writing off the costs of transferring to another country" (Beltrame, 2007: 11). The view acknowledged the adverse effects of migration by top-level professionals, but considered it a modest, short-term phenomenon, largely offset by remittances and other factors[8] which in the long run could have a positive effect on the country of origin by stimulating the economy (Grubel and Scott, 1966; Johnson, 1967).

In the 1970s the focus of the debate shifted from the impact of migration on development to the interdependence of migration processes and continued underdevelopment in southern countries across the world (Meyer *et al.*, 2001). In this regard, there was greater consensus on the view that migration for work (especially skilled work) represented the expropriation of skills and abilities, which exacerbated underdevelopment in the

[6] "Among recent active EU-28 movers, highly educated people were slightly more likely to move (2.3 % have moved) than the total active population of working age (1.9 %). This is true for most EU Member States/EFTA countries and the positive difference is particularly high for Austrian (highly educated were more than twice as likely to move as the average) and Italian (highly educated were around three times as likely to move as the average) active movers" (Canetta *et al*., 2014: 11).

[7] For an overview of the main theories on highly skilled migration, see Brandi (2001) and Beltrame (2007).

[8] The economic theory underpinning this type of study argues that, given the decreasing trend of the marginal employment productivity curve, not only was the loss of workforce units no detriment to the steady economies of scale for production, but it even contributed to reducing unemployment and improving the capital/labour ratio (Beltrame, 2007: 13).

country of origin[9] rather than easing it. This new air of disillusionment contributed to a widespread pessimistic interpretation of the impact of skilled migration on development, and the first organic reflections on the phenomena of *brain drain* took root (Bhagwati and Hamada, 1974; Hamada and Bhagwati, 1975).

In the late 1990s the pendulum of debate once again swung towards more optimistic interpretations, as the process of globalisation intensified and the concept of the knowledge society started. In this new view, skilled mobility actually enhanced the flexibility, dynamism and diffusion of human capital required to support innovation in destination countries (Gaillard and Gaillard, 1997). At the same time, however, the inclination to migrate was likely to generate positive results in the countries of origin too, by generating remittance flows amounting to three times the level of international aid in middle and low-income countries, by exceeding the level of direct foreign investment (Kapur, 2003), by stimulating demand for training and consequently increasing the level of investment in education (Beltrame, 2007: 14), by transferring the knowledge and social attitudes that migrants acquire during their stay abroad back to the country of origin (Levitt, 1998) and, lastly, by initiating ongoing exchanges and transnational contact through the diaspora (Saxenian, 2005, 2006; Meyer and Brown, 1999; Meyers, 2011; Tejada, 2012; Gamlen, 2014*a*).

The key term in this new phase is "circular migration" (Gaillard and Gaillard, 1997), i. e. fluid mobility in which the direction and duration of the migration is determined by employment opportunities allowed by the governments of destination countries. This conception of the migratory path re-introduces the German model of the "guest worker" into the new framework for "migration management": a 2004 approach shared by the hundred member states of the Bern Initiative, which asked countries to implement quantitative containment policies (quotas and/or visas) and qualitative selection (by type) for regular immigration –as opposed to irregular immigration– to take advantage of the migrants' experience of working abroad after they return home (hence "circularity").

The most recent and articulate contributions on the topic, which coincide, however, with the current widespread crisis and economic downturn, have returned to a more moderate approach to the effects of highly-skilled migration, and identify both positive and negative contributions (Lowell and Findlay, 2001; Docquier and Rapoport, 2006; Khadria, 2007)[10].

This position returns, on the one hand, to previous optimistic theories that predict a future of global competition for the best talent (Docquier and Machado, 2015), where responsibility for reducing the *brain drain* effect and promoting *brain gain* lies with politicians (Boeri *et al*., 2012). On the other hand, however, it exposes the duplicity of having a public discourse on migration which is considered subordinate to a neoliberal, security-driven agenda (Castles, 2008; Gamlen, 2014*b*). Some authors have recently pointed out that the new references to the market mechanisms and self-propelling power of civic society in national migration policies are in fact linked to a demobilisation programme that the national state government has introduced in order to develop and strengthen controls on global migration (Faist, 2008). Others, on the other hand, repudiate the view that the (pervasive and persistent) promotion of ethical responsibility and self-entrepreneurship of migrants for development disguises bio-political objectives for control (Raghuram, 2009). In a recent special issue of the magazine *International Migration*, it was reported that rhetorical use of the link between migration and development disguises and legitimises the processes and values of global

[9] The economic theories in question for these approaches maintained that the emigration of skilled labour reduced the avail of human fiability scale capital in the country of origin, reduced the return on public investment in education, and generated negative externalities (Beltrame, 2007: 13).

[10] This approach was taken by Beltrame (2007) and developed more recently by Milio *et al.* (2012), in relation to the new emigration of skilled workers from Italy.

capitalism (Glick Schiller, 2012), eliminates or avoids the need for political intervention against the global stratification of power (De Haas, 2012), and sacrifices its potential with the constraints of a new security-driven agenda (Sørensen, 2012).

Taking the extensive reconstruction carried out by Beltrame (2007) as a basic reference, and integrating it with the subsequent contributions described above, the following table summarises the various positions that have emerged in literature regarding the effects that highly-skilled migration can have in countries of origin and destination countries.

Table 1. Summary of the effects of movement of skilled migrants

	Country of origin	Destination country
Positive effects	Income generation through economic remittances (Graubel and Scott, 1966; Johnson, 1967). Increasing likelihood of families to invest in education and accumulate human capital (Mountford, 1997; Beine *et al*., 2001; Stark, 2003). Increase in level of investment in the education sector (Schiff, 2006). Transformation of sociocultural and organisational models as a result of social remittances and the circulation of knowledge, skills and experience (Levitt, 1998; Findlay, 2002; Docquier and Rapoport, 2006). Resumption and start-up of innovative economic activities (Johnson and Rogets, 1998; Cassarino, 2000; Saxenian, 2002).	Increase in human capital and consequently average workforce productivity (Docquier and Rapoport, 2009). Tax revenue: returns in the destination country for investment in training by the country of origin (Docquier and Rapoport, 2009). Increase in tax revenue generated by expansion of the tax base (Docquier and Rapoport, 2009).
Negative effects	Reduction in returns on investment in training skilled personnel and lowering of the level of human capital (Commander *et al*., 2003; Docquier and Rapoport, 2005). Depletion of labour supply (in situations where there are reduced numbers of workers with suitable education and skills levels) (Bhagwati and Hamada, 1974; Hamada and Bhagwati, 1975). *Reduction in numbers of young people* in society (Balduzzi and Rosina, 2011). Reduction in the growth rate and per capita wealth (Hacque and Kim, 1995). Depletion of human capital in technology fields where potential migrants opt instead for development of language skills (Lien and Wang, 2005). Impoverishment of national higher education institutions when potential students prefer to undertake tertiary education abroad to enhance their chance of success in the destination country (Faini, 2002). Movement towards the education infrastructure investment priority sector (Schiff, 2006).	Increase in global competitiveness in knowledge-intense sectors (Cerna, 2016). Decline in national skills levels and progressive global transfer of the functions of *migration management* (Faist, 2008). Increase in highly-skilled bio-political control devices (Raghuram, 2009). Increase in global power stratification (De Haas, 2012). Radicalisation of security-driven pressures (Sørensen, 2012).

3. Concluding remarks: unanswered questions and paths to explore

What issues remain to be resolved, and what paths still need to be investigated and developed? To answer this question, we must explore the most significant terms used in research, and examine the various explanations of these terms provided by the phenomena observed to date.

Over time, the theoretical frameworks of which we have just reopened the main routes towards confirmation and development have focused on the main (and often conflicting) areas of interest. Within these frameworks, the choice of methodology, on the one hand, and availability of data, on the other, has determined the variables forming the focus of research programmes.

The first area of interest is undoubtedly *what determines the decision to migrate*, in other words, the structural reasons and personal motives that guide the subjective decision to emigrate.

The neoclassical theory on migration focuses on structural reasons as its field of investigation, identifying expulsion from the country of origin and offers of permits in the destination country as the determining factors in the decision to emigrate (Ravenstein, 1885; Harris and Todaro, 1970). Van Mol (2014) proposes an interesting development of this approach that incorporates the different macro-structural determinants (economic, social and political contexts in the countries of departure and arrival) within a "systemic" interpretative model (Mabogunje, 1970) through which (in the case of student migration as in the study) it is given a specific role both in terms of the regulatory system operated by intra-university networks (meso level) and specific events in the individual's experience (micro level) (Van Mol, 2014: 152-161). Other authors have included the original push-pull approach with considerations relating to mobility constraints and incentives depending on the different degrees of proximity between countries (historical, geographical, linguistic, technological, economic, etc). A series of "gravitational" interpretative models has been identified (Anderson, 1979), such as the one recently proposed by Zilin (2010) for analysing the determinants of international student migration.

Individual motives are another main focus for deliberations on what determines migration. Although research focusing on the extent that socioanagraphic variables (gender, age, level of education and occupation) and biographical variables (previous experience of migration) have on the decision to migrate, the role that symbolic and expressive aspects play is also reinforced. The Pioneur project has shown how the "emotional aspect" (living with a partner of a different nationality or, in a not insignificant number of cases, being a homosexual and distancing oneself from social control in the home country) is the reason for most intra-European mobility (Recchi, 2013: 129). The survey carried out by the EUI, on the other hand, points to "cultural-symbolic factors" such as corruption, absence of meritocracy, nepotism and a gerontocratic employment market structure as constituting the new and powerful determinants of recent high-skilled emigration from the most fragile EU countries (Triandafyllidou and Gropas, 2014).

The second area of interest concerns *mobility and integration models*.

Deliberations on models of integration are extensive and include as many possible interpretations as there are aspects defining the phenomenon (economic integration, social integration, cultural integration, etc)[11]. With special regards to the integration of highly-skilled migrant workers, we would like to refer to just two very different approaches that each in their own way and from their own perspective help to re-establish the image of the high-skilled migrant as an intelligent being who has managed to escape.

Confirmation of the status of escapee comes with recognition of the strength of the transnational ties that high-skilled migrants maintain with their family, friends and professional circles in their home countries. The recent abundance of

[11] For an introduction to the topic, see Boccagni and Pollini (2012).

literature on the transnationalism of high-skilled migrants indicates that there are multiple levels of identification and adherence to them, and explores the structure of relationship networks and the quantity and quality of exchanges with the home community in attempts to confirm the circular nature of this type of migration (Glick Schiller *et al*., 1995; Portes, 1997; Bauböck and Faist, 2010).

Analysing all the different levels involves extending the identification of structural types that influence the processes of economic migration. Recchi noted that the professional destination of mobile European citizens often depends on whether they come from countries in the West or East of Europe, concluding that "new European citizens have met with paths of descending social mobility, at least in the early years of migration" (Recchi, 2013: 120).

Critical reflection on the processes of accumulation in the knowledge capitalism era interprets migration as a device for the optimal constitution, distribution and subordination of human capital, and consequently takes as its key variables how precarious and temporary contractual relationships are, and whether unskilled and skilled work are interchangeable (or overlapping), to investigate the trajectories of "different" types of integration by highly-skilled migrants and to produce results, which is not always successful (Mezzadra and Neilsen, 2014).

We have illustrated the main directions the literature takes in analysing the impact of high-skilled migration on both the country of origin and the destination country, and in conclusion we would just reiterate that the elements for analysis can be identified as the meeting points between processes potentially triggered by the phenomenon of high-skilled migration (brain drain, brain gain and brain waste) and the subjects (and at the same time objects) of these phenomena (country of departure, country of destination and migrants). Within each of these elements/intersections, investigations have identified specific trends and critical issues, sometimes using variables and analytical devices consistent with the macro, meso or micro perspective adopted.

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