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Portuguese Knowledge Migrants: Push effects during the financial and economic crisis

Objectives - This paper aims to understand the social significance of 2008 Eurozone crisis on Portuguese scientists' migration decision-making.

Design - Drawing from a mix-method strategy from the Brain Drain and Academic Mobility from Portugal to Europe (BRADRAMO), five individual portraits (Lahire, 2002) are analysed.

Study Limitations / implications - Further research needs to be conducted to understand the impact of knowledge migration on the Portuguese scientific system.

Findings - Academic mobility is the main lever for scientific migration. Portuguese scientists aspire for healthier career opportunities. Even though, the 2008 Eurozone crisis and its effects may not drove them from the country, have prevented them from returning, aggravating the brain drain.

Keywords: individual portraits; highly-skilled emigration; economic crisis; scientific careers; migration motivations

Objetivos - Este documento tiene como objetivo comprender la importancia social de la crisis de la Eurozona 2008 en la toma de decisiones sobre la migración de los científicos portugueses.

Diseño - A partir de una estrategia de método de mezcla de Brain Drain and Academic Mobility from Portugal to Europe (BRADRAMO) se analizan cinco retratos individuales (Lahire, 2002).

Limitaciones / implicaciones del estudio - Es necesario realizar más investigaciones para comprender el impacto de la migración del conocimiento en el sistema científico portugués.

Conclusiones –

La movilidad académica es la palanca principal para la migración científica. Los científicos portugueses aspiran a mejores oportunidades de carrera. A pesar de que la crisis de la eurozona de 2008 y sus efectos pueden no haberlos expulsado del país, han impedido que regresen, lo que agrava la fuga de cerebros.

Palabras clave: retratos sociológicos; emigración altamente cualificada; crisis económica; carreras científicas; motivaciones migratorias

Introduction

The migration of scientists and primarily the intra-European mobility is not a new phenomenon, however it has been reshaped by the 2008 economic crisis (Beets & Willekens, 2009). Scientific migration according to Ackers (2005) happens through network, individual motivation and risk, but also from student mobility. Free movement migration (Chaloff, Dumont, & Liebig, 2012) is part of the European Union plan. In the years before the economic meltdown of 2008, the European Union was recording a significant migration flow coming from the new member states on the east and southeast into older member states. In this scenario Portugal was a receiving country, an oddity in its history. However, from 2008 onward, the Portuguese migratory balance has changed (Peixoto, 2014; Videira, 2013). In the course of 2008 financial – and subsequent economic and social – crisis that sprawled across the global, the hardest hit countries during the downturn, such as Portugal, went from a migration recipient country to a sending one. The effects of the crisis led to the joint intervention of the IMF, the European Union and the European Central Bank, which resulted in austerity policies and measures, still in place (AA.VV., 2011). In the current Portuguese context of economic stagnation, investment in science retrain, brain drain and unemployment (Beine, Docquier, & Rapoport, 2008) are thoughtful consequences among others.

Since 2008, unemployment in Portugal has been on the rise: in that year, the unemployment rate was of 7.6%, value that grew securely in the following years, peaking at 16.2% in 2013. In 2014, the unemployment rate decreased for the first time since 2008, even though, its value – 13.9% – is still high. In 2014, youth unemployment was 34.8%. The unemployment rate among people with university degrees has risen in

the years after the explosion of the crisis, from 6.8% in 2008 to a peak of 12.6% in 2013. In 2014, this figure was of 10% (Instituto Nacional de Estatística, 2015).

The scientific field in Portugal displays several alarming signs. The investment in science drop from 2 585 million euros (1.45% of GDP) in 2008 to 2 268 million euros (1.34% of GDP) in 2013 (Direção-Geral de Estatísticas da Educação e Ciência, 2015). The number of teachers in higher education has decreased, and their ageing index has quickly grown in the years after 2008. After peaking in 2007 with a figure 2030, the number of granted Ph.D. scholarships by Foundation for Science and Technology (FCT)¹ has consistently decreased in the following years. In 2012, this institution awarded only half grants. The results of the most recent – and highly controversial – evaluation of research units by the FCT resulted in extensive cuts in funding and the closure of half of its research units in a ‘flawed evaluation process’ (Moro-Martin, 2014, p. 1).

Despite what Castles, Haas, & Miller (2014) predicted, drawing from the 1930s crisis on *The Age of Migration*, the economic recession hasn’t restrict international migration. In fact, since the 2008 financial meltdown, is possible to observe a change and growth in the intra-European migrations flows, mainly from the most severely impacted southern European countries to north and central Europe. Docquier & Marfouk (2007) state that since the 1990s, Portugal has already lost a fifth of its more skilled workforce. Along with other south European countries, Portugal have been observing an increase number of highly-skilled workers migrating to north and central Europe (Bygnes, 2015; Enríquez & Romera, 2014; Triandafyllidou & Gropas, 2014). According to the data provided by the Centre for Emigration (2014), Portuguese skilled

¹ FCT is the main Portuguese science state funding institution.

emigration grew by 87.5% between 2000/1 and 2010/11 (OECD-UNDESA, 2013). Growing from a relative value of 6.2% of the total emigration to a figure of 9.9% in 2010/11, Portuguese highly qualified migration's weight on total migration has now reached 11%²³. According to the statistics of some major receptor countries of Portuguese migration analyses' this number seems to be undervalued. In fact, for the same period, the Office for National Statistics of the United Kingdom, one of the main countries of destination of the recent Portuguese migration, notes that 21.5% of the total Portuguese emigrants over 16 years old arriving to that country have higher education qualifications. Malheiros (2011) suggests that the growth of Portuguese emigration is related to the economic and social aftermath of the international financial crisis of 2008.

Taking in mind the deep, long-term economic crisis in Portugal, the consequent austerity policies and the current socio-economic situation, one proposes to grasp the importance of the Portuguese economic context in the activation of the migratory disposition on academics, considering that academic mobility is often associated with individual career perspectives and also encouraged by European policies (Mahroum, 1998) and scientists tend to be considered knowledge migrants rather than economic migrants (Ackers, 2005; Casey, Mahroum, Ducatel, & Rémi, 2001). Therefore, this paper aims to address the intrinsic relationship between the decision-making processes, the crisis' effects in Portugal, academics individual career aspirations', and opportunities for mobility created by national and European policies. Five individual portraits (Lahire B. , 2002) of Portuguese scientists that migrated to an European

² Along with Salt (1997, p. 5) the definition of highly skilled migrant, in the scope of this research is an individual possessing a 'tertiary level of education or its equivalent in experience'.

³ If one consider the last value, which concerns to the period 2011-2013, it is estimated that skilled emigration flow has reached a value of about 40 000 individuals

country since the outbreak of the 2008 economic crisis were selected among 52⁴ to be considered.

First, the importance of academic mobility is discussed and how it is perceived as something desirable by both academics and policy makers. Then, one will discuss the relations between economic crisis and highly-skilled emigration. Our next step will be to introduce the chosen methodology – the individual portrait – and the theoretical implications of such approach. One shall then present our data, followed by a discussion of results and, finally, by our concluding remarks.

Scientific mobility in times of crisis

Along with Peixoto (2001) one considers that scientific mobility (Ackers, 2005) has to be addressed in the scope of the specificities of scientific career. Academic mobility is generally perceived as something desirable and capable of enabling positive effects, essentially when it is addressed as circulation (Meyer, 2001). The management of academic careers is increasingly linked to international mobility (Beaverstock, 2010), as part of a process of exchange "ways of doing" science and knowledge production. In fact, it became an essential aspect of it. European science policies are not exempt in this issue (Vine, 2013). The European Commission pictures mobility as 'an essential element of lifelong learning and an important means of enhancing people's employability and adaptability'. Multiple programs that are created to encourage international mobility at different stages of the academic careers – Marie Skłodowska-Curie actions, Erasmus+ can be stated as examples (The Council of the European

⁴ This paper emerges from a research project entitled RESEARCH PPROJECT TITLE, which aims to understand and analyse the skilled emigration from Portugal to Europe.

Union, 2009) – seems to reinforce the mobility expectation. In fact, the Bologna process⁵ stresses the importance of mobility to the construction of the European Higher Education Area (Powell & Finger, 2013) are a knowledge-based society – ‘The more mobility, the better’ is Bologna’s motto (Powell & Finger, 2013: 278).

However, Musselin (2004, 72) considers that mobility incentives in Europe may not be enough to create a true European academic labour market, since recruitment of foreign staff by higher education institutions faces some important obstacles. First of all, between the diverse national markets, there are different formal and informal structures regarding regulations, recruitment and academic careers (Powell & Finger, 2013). Secondly, mobility is frequently instrumentalised by both receiving institutions and academics in foreign countries: the former do not use academic mobility as a recruitment tool, but as a means to access cheap and temporary labour; and the latter perceive mobility as an advantage to secure a career in their home country. When this happens, ties between institutions in different European countries are reinforced, but it does not contribute to a European academic market.

According to Powell and Finger (2013), the Bologna process seems to ignore the social selectivity of both higher education and mobility initiatives, thus overlooking the nexus between social and spatial mobility. If it stresses geographic mobility as a fundamental objective of European policies for science and higher education, it disregards the necessity of making mobility socially more equal, thus risking to fail its

⁵ According to the European University Association, the Bologna Process aimed to create a European Higher Education Area (EHEA) by 2010. Signed in 1999 by the Ministers of Education of 29 countries, it has been expanded to 46 countries. The Bologna Process aims to provide tools to connect the national educational systems and facilitate the recognition of degrees and academic qualifications, mobility, and exchanges between institutions. The most significant achievement was the creating of a comparable three cycle degree system: Bachelor, Master and PhD degrees (European University Association, 2004).

objective of promoting social integration through education, which the authors consider underrepresented in the Bologna documents. The nexus between mobility and social background means that ‘if the European model of mobility is to be achieved, social selectivity must be addressed’ (Powell & Finger, 2013, p. 271).

Musselin (2004) and Ackers (2005) argue that spending some time working in a foreign country is frequently a means to secure a better position at the home country’s academia. As Ackers puts it, “career progression in scientific research *demands* a very high level of mobility in order to achieve the level of international experience necessary for progression” (Ackers, 2005: 104).

Scientists’ emigration motivations may be related with other factors outside individual career ambitions and the overall logic of the academic field. Aspects like employment (career progress, access to research centres of excellence and better funding schemes, earning improvements) are obvious ones (Guth & Gill, 2008); however wider economic and quality of life issues; personal development associated with travelling and experiencing other cultures should also be considered when addressing scientific migration (Ryan & Mulholland, 2013). Transparent and meritocratic environments are perceived as locus for progression and excellence rewarding – fairer opportunities – essentially for south European scientists. Social status may also be a factor for emigration. According to Martin-Rovet, scientists ‘look for a society where science is respected and where their social status is esteemed’ (Martin-Rovet, 2003, p. 1). At once other factors can also be considered. For instance, Mahroum (1998) states researchers change countries motivated by “scientific curiosity”, and King (2002) stresses “self-realization” as a motive.

In a recent publication, Bygnes (2015) analysed the post-2008 economic crisis migration of highly-skilled Spanish to Norway. This author argue that those individuals were reluctant to identify the economic crisis as the may push factor. In fact, what this author argue is that the migration motivation factors of the white and highly-skilled are the same before and after the 2008 economic crisis. These migrants leave their home countries as a form of career development rather than because they were unemployed. In fact what is undressed by this author is the idea that people from south European countries migrate to run away from anomie societies. Bygnes (2015) and Enríquez & Romera (2014) begin to design a new type of refuge, the ones that tries to escape from no future prospects, corruption, lack of meritocracy, fraud, absense of faith in politic and economic elites and civic, social and political disorganization and apathy – civic refugees, one could state. The social, political and economic circumstances described by those authors are pre-2008 southern European problems that are only exacerbated by the current deep economic crisis. In the same sense, the highly-skilled migration push factors, therefore are just magnified by the 2008 crisis.

Previous 2008 studies reinforce the same argument. Sretenova (2003, p. 8) revealed that Bulgarian scientists often prefer the mobility and the nomadic lifestyle in order to perform effective and productively their profession “instead of being frozen at home”. Guth & Gill (2008) on a research on east-west doctoral mobility stress the idea that scientists move for professional and socio-economic reasons centred at career development motivations. Italian scientists ‘have to leave their home country not so much for the wages but rather to seek an environment in which they can work effectively with enthusiasm and support’ (Dickson, 2003: 1). Highly-skilled workers from southern European countries such as Greece, Italy, Spain and Portugal

(Triandafyllidou & Gropas, 2014) seems to be reluctant to state on their migration narratives the economic crisis as the main push factor. There is to say that a deeper understanding of the social significance of the crisis as a motivation for migration is necessary.

Methodological Design: individual portraits as a way to micro level migration research

The individual portraits analysed here were gathered as part of RESEARCH PPROJECT TITLE research project (Cabrito, et al., 2014; Gomes, et al., 2014; Ganga, et al., 2014). The analysis was based on in-depth life course interviews conducted across Europe between 2014 and 2015 with 52 highly skilled Portuguese migrants who left the country after 2008. Those individuals were selected by convenience sample, using the snowball technique and four selection criterion that helps to balance the sampling process. It was a research concern to listen to the same number of individuals from four profiles of highly-skilled migration modalities – 13 of each profile: a) migration to a European country for the exercise of professions in higher education or scientific systems; b) long-term migration to a European country for work in primary or secondary segment of the employment system; c) European student mobility of 1st, 2nd, or 3rd cycle that leads to insert primary or secondary segments of the employment system of the receiving countries; d) mobility and transient movement or commuting through European networks of science, production, services or culture.

From the 52 portrayed individuals, two thirds (64.2%) were females, 56,6% are aged between 30-39 years old, 50% are single and 80,8% do not have children (Figure 1). One should stress that, for an important number of cases (25%) emigration was an initiative from the subject's romantic partner.

Figure 1. Sociodemographic characterization (%).

Germany, Belgium and the United Kingdom are the countries more often chosen as the new living place, with 11 (20.8%) of all portrayed individuals leaving Portugal to live and work in each of them. The qualifications of these individuals are rather high⁶ (Figure 2):

Figure 2. Academic qualifications (%).

A minority, albeit a significant one (27.5%), have completed their higher qualification in a foreign country. Germany, with four cases (7.8% of all individuals who completed their education outside Portugal), was the most chosen country for studying abroad.

In 76.5% of the cases, emigration was a planned decision. This is a large majority of cases, which contrasts with the values for unforeseen emigration (7.8%) and emigration resulting from an invitation (15.7%). Focusing our attention on individuals' occupations before emigration, there are two activities that strike out from the data. Firstly, almost one third of the subjects (32.6%) were students. Secondly, an important group (18.6%) were researchers, mostly awarded with a research grant, some of them enrolled in doctoral studies programs – the focus of this paper rest on this group. Regarding the occupation in the receiving country, 31.7% were researchers, the most

⁶ In order to integrate our sample, it was necessary to possess a university degree or, at least, a professional occupation compatible with the former.

frequent of a diversified group of professional activities. Emigration improved some aspects of the professional situation of portrayed individuals – 98% of individuals were employed, large majority of individuals (83.7%) were able to find a job compatible with their qualifications and emigration granted higher wages than those they were earning while working in Portugal (Figure 3). About two thirds of them were employed before emigrating.

Figure 3. Wages comparing between Portugal and the current country of residency (%).

Concerning the reasons accounting for emigration, the majority (72.5%) emigrate for mentioned professional reasons (Figure 4):

Figure 4. Reasons for emigration (%).

Individual portraits as research technique

Considering the interest to understand the social significance of the economic crisis, EU mobility and career development as push factors, one draw on individual portraits as research technique.

Bernard Lahire's (1998, 2002, 2004) theory of pluralistic determination and inter/intra variation in social behaviour offered a new vision on the limits of Bourdieusian schemes of social constrain on individuals. Individual portraits emerge as a methodological device capable of capturing a double plurality in individual life trajectories: first, unequal "strength" and systemic internal dispositional plurality;

second, the outside contextual plurality, the multiple associated processes, agencies and context or the worlds of life (Habermas, 1981).

In the genealogy of practice theory, this French author developed a series of reviews that allowed him to propose a program building the *plural actor* (Lahire, 2011), exposed to multiple socialization principles, updated along the life course and strongly related to the areas of activity, the situations and contexts (family, friends, school, work, leisure, etc.). Indeed, Lahire even suggests abandoning the concept of habitus⁷, replacing it by the *heritage of individual dispositions* concept. The emphasis of the *heritage of individual dispositions* is on the dispositions' repertoires with different genesis, degrees of activation and strength. Indeed, extensive research work by Lahire (2011; 2015; 2003), and, in Portugal, by, for instance, Lopes (2014), has shown that dispositions are transferred under a number of conditions. There are situations that trigger some dispositions by mobilization, while other dispositions fall asleep or are inhibited. The dispositions have unequal degrees of robustness, in close articulation with its genesis⁸. Therefore, it matters to grasp the details of intra-individual variations; in order to capture that, it is important to understand how each individual unfolds in multiple metamorphoses and commits in different contexts of action.

In this context, Lahire (2002) proposes the individual portrait as a methodological device. Contrary to a somewhat widespread idea, the author's goal is not to reveal an individual exempt from social constraint, dissocialized or fragmented. On the contrary, he proposes the analysis of the individual's complex social production; after all, the

⁷ The concept of habitus, as proposed by Pierre Bourdieu, refers to an incorporated and coherent set of world visions and dispositions, which, resulting from the individual's position and trajectory in the social space, structures his social practices (Bourdieu, 1994).

⁸ How the socialization process takes place in a particular way in a particular individual. This process is always plural, more or less contradictory and driven by multiple agents, including family context.

individual is multi-socialized and multi-determined. The individual, a socialized and socializing body, reflects on its life paths the invisible architecture of social forces, developing ways of relating with himself and with the contexts and situations where he moves – e.g. economic crisis, family migratory history or students mobility (Baláz & Williams, 2004). This form of self-producing incorporates the heaviest social constraints and is unrelated with the enchanted and illusory theories of the free will. Lahire (2002) refers to this process as the formation of natural social folds, advocating the autonomy and complementary relevance of a range of observation and a level of analysis that sociologists cannot abandon, lest they become analytically myopic.

However, the individual scale of observation does not exclude others: in this particular case one will consider at a meso level, the interaction frames and institutions in which the migrants were immersed (Lopes & Costa, 2014) – e.g. academia; and at a macro and structural level, the positions in the social space before migration, at the migration decision-making moment and at the receiving country.

According to Lahire (2013: 16): "there is no possible existence for individuals outside the social fabric (...) the fibres of this tissue, which intersect and cross each other, are constitutive of each individual", thus forming a kind of singularity coefficient. Is on the singularity coefficient of each of RESEARCH PPROJECT TITLE interviewed that one is looking for a micro level sociology of migration.

Portraits of the portrayed scientists

This paper analyse five individual portrait (Lahire B. , 2002) from the migration profile A – migration to a European country for the exercise of professions in higher

education or scientific systems – that were selected according to the following criteria⁹:

i. heterogenic life stages; ii. heterogenic cultural and socio-economic backgrounds; iii. heterogenic academic career stages; iv. heterogenic contexts of migration dispositions activation. The analysis of these individual portraits is break down in eight items: geographic mobility; academic trajectory; family; professional trajectory; romantic relationships; social ties and friendship; reasons for emigration; perspectives of return.

Table 1. Case A.1 - Yara Reis, 34 years old: “I was born unrooted”

Geographic mobility
Born and lived in Maputo (Mozambique). Lived in Santa Comba Dão, Campo de Besteiros, Lisbon, Viseu (Portugal) and Heidelberg (Germany). Currently living in Berlin (Germany).
Academic trajectory
Graduation (Biochemistry) in University of Beira Interior (1998-2004). Internship in University of Lisbon. Ph.D. in Biology (Heidelberg University).
Family (social origins)
Multicultural family, with origins in India, Portugal, Mozambique and Cape Verde. Parents with high cultural capital: mother is veterinary (BA); father is customs broker (BA); both lived in two countries (Portugal and Mozambique).
Professional trajectory
2 year hiatus after graduation, trying to get a Ph.D. grant. Worked 1 year as a researcher, under a grant. Works as lab manager since she completed her Ph.D., in the Max Plank Institute. Happy with the job and the salary, although she misses the research routine.
Romantic relationships
Emigrated with a Portuguese former boyfriend. Meanwhile, formed a family and had one child with the current partner.
Social ties and friendship
Contact with family and friends in Portugal mainly assured by computer communication technologies, but also by travelling. Friends in Berlin are mostly emigrants from multiple countries. Belongs to an association of Portuguese post-graduates in Germany.
Reasons for emigration

⁹ Due to the aim of this paper is only presented a synthetic analysis of five individual portraits. The 52 individual portraits produced in this research project can be consulted at: RESEARCH PPROJECT WEBSITE

Push factors in the destination country (Germany). Mobility as a necessity in the context of an academic career.

Perspectives of return

Considers returning to Portugal only a long time from now, possibly after retirement.

Table 2. Case A.10 - Alexandre Faria, 25 years old: “Between the scientific career abroad and the affection at home”

Geographic mobility

Born in Oporto (Portugal). Lived in Maia (Portugal). Currently living in Canterbury (United Kingdom).

Academic trajectory

Masters degree (Physical Engineering) at University of Porto and Ph.D. candidate at Kent University (Physical Engineering).

Family (social origins)

Parents with high cultural capital, both working in academia. Mother is a museum curator (BA) and father is a university professor (PhD.).

Professional trajectory

Works as an Assistant Professor at the University of Kent. Happy with the job. Anticipates an academic career.

Romantic relationships

None.

Social ties and friendship

Calls Porto “his city”, as he has old friend and family there. Contacts older acquaintances through computer communication technologies. Friends in Canterbury are mainly other Ph.D. students. Member of an association of Portuguese researchers and students in the United Kingdom.

Reasons for emigration

Conscious about the advantage of mobility for an academic career. During the Erasmus program, he understood that University of Kent had better working conditions and better access to funding than University of Porto.

Perspectives of return

Admits the possibility of returning to Portugal, in case of favourable conditions to continue his scientific career. He believes this will be possible in the long term.

Table 3. Case A.12 - Ângela Relógio, 39 years old: “For scientist the world is our place”

Geographic mobility
Born in Beja (Portugal). Lived in Ferreira do Alentejo, Lisbon (Portugal) and Heidelberg (Germany). Currently living in Berlin (Germany).
Academic trajectory
Graduation (Physical Technological Engineering) in Instituto Superior Técnico. Ph.D. in the European Molecular Biology Laboratory (Heidelberg).
Family (social origins)
Parents with high cultural capital. Mother is economist (BA) and father is a university professor (Ph.D.).
Professional trajectory
After graduation, taught in Instituto Superior Técnico and worked in the Santa Maria Hospital (both in Lisbon, Portugal). After the Ph.D., worked as a post-doctoral researcher in the European Molecular Biology Laboratory (Heidelberg). She is currently a researcher in Berlin (Germany).
Romantic relationships
Met her husband, a German, in Heidelberg. The couple has two children. They have chosen to live in Berlin because they perceive it as a good city to raise children.
Social ties and friendship
High occupational rotation is an obstacle to the preservation of friendship ties with friends from university. Some of the neighbours have become friends. The closest friends are the oldest ones, from her youth in Alentejo.
Reasons for emigration
International mobility is seen as a necessity in the context of an academic career.
Perspectives of return
Ângela is trying to reactivate her connections with Portuguese academia, but currently with unfruitful efforts.

Table 3. Case A.9 - Joana Batista, 25 years old: “That was the scariest decision I had to take in my life”

Geographic mobility
Born in Alcochete (Portugal). Emigrated to London, is now living in Cambridge (United Kingdom)
Academic trajectory
Graduation in Clinical Analysis and Public Health. The course was chosen after failing entrance in Pathological Anatomy, and after experiencing Nursery. Medicine would have been her first choice, if she had better grades in order to enter the course.

Did an internship in a laboratory in Sweden under the Erasmus program. Masters student at the University of Cambridge (Translational Cardiovascular Medicine).

Family (social origins)

Blue collar family, with scarce cultural capital and few economical resources. Mother is factory worker (secondary education) an father is construction worker (secondary education).

Professional trajectory

The family suffered economic stress, and she had to work while studying. Worked in several precarious jobs in Portugal after graduation, in diverse fields: clinical analyses (sometimes in part-time), employee of a clothing store, events organization. Worked in a M&M's store in London. Currently works in the University of Cambridge, as a research assistant. She is happy with her job.

Romantic relationships

Her Portuguese boyfriend decided to emigrate to the United Kingdom, reinforcing Joana's will in leaving the country. They now live together.

Social ties and friendship

The most significant friends are in Portugal. Has made some friends in London and many of them are Portuguese. Considers that there was not enough time yet to forge significant social ties in Cambridge.

Reasons for emigration

Dissatisfaction with working experiences in Portugal (precariousness, organizational culture, low wages, lack of recognition). Positive experience in a Swedish laboratory, under the Erasmus program. Her boyfriend also decided to emigrate to the United Kingdom.

Perspectives of return

Returning to Portugal is not in her plans for now. The United Kingdom offers better working conditions and is considered an advantageous place to have children and form a family.

Table 4. **Case A.7 - Manuela Alcobia, 43 years old: "Portugal is a great place to live and to spend holidays, but is now a good place to work"**

Geographic mobility

Born in Lisbon (Portugal). Currently living in London (United Kingdom).

Academic trajectory

Graduation in Biochemistry (Lisbon, Portugal). Frequency of higher education in Pharmaceutics (Lisbon, Portugal), after graduation and already with professional experience. Masters in Biochemistry (Lisbon, Portugal), already inserted in the labour market.

Family (social origins)

Parents with high social capital –mother is a housewife; her father is an engineer (BA).

Professional trajectory

Worked as a researcher in Instituto Ricardo Jorge, under a grant. Worked 13 years in a Lisbon Hospital in the area of genetic diagnosis (public service worker). Currently works in a London Hospital, with the same occupation. Although she retroceded in terms of work recognition and cannot be as creative in her occupation as she was in Portugal, she stresses the importance of thrust relationships as a positive trait of her new job.

Romantic relationships

Long-time marriage with three children.

Social ties and friendship

Emigrated with her husband and the three children. Receives occasional visits of friends from Portugal. Is making an effort to forge new friendship ties in London, both with Britons and people from other countries – including Portugal.

Reasons for emigration

As a result of austerity policies, progression in public service workers careers in Portugal is paralysed. Moreover, Manuela's husband, civil engineer, was facing a stressful situation in his job (wage arrears).

Perspectives of return

Considers returning to Portugal after retirement.

Micro level sociology of migration

All five individuals have long careers as students (Costa & Lopes, 2010), motivated by the desire of working in research, sometimes overlapping their entrance in the labour market with their transition into adulthood.

Manuela's, Yara's, Ângela's and Alexandre's trajectories in the education system can be described as tendentially top route paths (Costa & Lopes, 2010), as they confirm the expectations of a long, successful student career associated with the manifest volume of economic and educative resources of their families. Joana Batista, on the contrary, has drawn a trajectory of ascending counter-tendency (Costa & Lopes, 2010), in the sense that her passage through the educative system was successful, despite her family's humbler cultural and economic capital.

Yara, Alexandre and Joana emigrated to pursue doctoral or post-graduate research opportunities, taking advantage of formal recruitment processes. However, reasons for

emigrating are diverse: Yara went to Germany because she wasn't able to acquire funding for her Ph.D. project in Portugal, after two years of efforts. Ângela also went to Germany in order to pursue doctoral studies, but on a joint Ph.D. program between a Portuguese and a German university, and with Portuguese funding. Alexandre's decision to pursue a Ph.D. in England is related to his mobility experience under the Erasmus program in a British university, where he found better funding conditions and different ways of working. The Erasmus program was also a way of taking advantage of his university's international networks, and it also allowed the establishment of his own first transnational contacts. Being able to opt between a Portuguese and a British grant, he chose the latter. This one allowed him to work as assistant professor and set the ground to his next career step.

Therefore, the decision to emigrate was career-oriented in the case of three individuals (Yara, Ângela and Alexandre), who shared some common traits that, at the same time, distinguished them from the remaining two. All of them developed a fondness for scientific research and decided they wanted to become a scientist early on, while doing their graduate studies, or even before entering university. This professional project should not be addressed without a reference to the social origins of these individuals. All of them come from families with a reasonable stock of social resources, chiefly cultural capital, and their decision to embrace an academic career was clearly supported, if not encouraged, by their family. This is particularly revealing in the case of Alexandre, whose parents are both working in the university. These individuals started to invest early on their future careers, seizing short duration mobility opportunities while students and understanding international mobility as a prerequisite for a successful professional career. Except with the case of Yara, who failed to obtain

funding for her PhD in Portugal and thus left to Germany, emigration seems much more related with career ambitions than lack of funding or employment opportunities in Portugal.

Therefore, it is not surprising that for three of the individuals' trajectories grouped in this case (Yara's, Ângela's and Alexandre's) geographical mobility is not represented by these individuals as a consequence of the economic crisis in Portugal, but as the direct result of mobility experiences while students and as career strategy. Strategy motivated by the experience of working in foreign scientific institutions and the contact with different ways of researching. That is regarded as an important, if not indispensable, moment in the career trajectory. The choice of the destiny country is related to pull factors of scientific order: better working conditions, better access to funding, the reputation of a certain institution or research, mobilization of previous networks, recognition of individual scientific merit, and models of quality evaluation.

In fact, the remaining two cases – Joana and Manuela –, however, are different from the former three. Coming from a blue-collar family who was hit hard by the crisis, forced to look for a job in her teenage years, and after several unsatisfying experiences with uninteresting, underpaid and/or precarious work experiences, Joana decided to accompany her boyfriend to London and try to find a job there. One should stress that Joana's decision is also related to a mobility experience in Sweden under the Erasmus program, where she found a different model of work organization and better working conditions. After a few precarious jobs, she found a position as research assistant at the University of Cambridge, where she is also enrolled as a Masters degree student.

Confronted with a stalled professional career because of restrictions in public service career progression in the wake of the crisis, and with her husband facing wage

arrears, Manuela and her family decided to part to the United Kingdom in order to avoid a downgrade in their lifestyle. Despite a comfortable social background, she never invested clearly on a scientific career. Emigration is clearly related with the economic and social effects of the 2008 crisis: her career as a civil servant was stalled (no wage raises or professional category progression) and her husband was facing wage arrears. Manuela was able to find a job that allows her to do the same work she did in Portugal¹⁰. Although this is different case from Joana, it is also a situation where the economic and social backlash of the crisis was more important to emigration than the project of a career in science.

As above mentioned, geographical mobility act as reagent of professional, cultural and personal experiences reinforces personal development, individualizing and diversifying lifestyles and expand the social networks of individuals. This generates broad networks of weak social ties (Granovetter, 1973). New networks in the receiving countries are mainly composed of individuals inserted in similar life contexts, with whom these emigrants share some significant common traits: other researchers and post-graduate students, and other emigrants, whether from Portugal or multiple other countries. Simultaneously, network is also extended to home country contexts. Some of these individuals have joined Portuguese associations in their receiving countries. At the same time, strong social ties (Granovetter, 1973) that are still in Portugal are kept: there is an active effort to keep in touch with Portuguese friends and relatives, through the use of computer mediated communication and occasionally receiving visitors or travelling to Portugal. Though, that does not mean that professional connections at home are being build or will be instrumental in a possible future return, the sense that Meyer (2001)

¹⁰ She is a diagnosis technician in a hospital.

argue. For this author, the circulation paradigm of high-skilled migration brings to the debate positive aspects, such as scientific cooperation, or knowledge and technology transfer, which arguably would compensate the sending countries of the brain drain effects.

Returning to Portugal is a desire of most of these individuals if they were able to maintain the same working conditions. However, in general terms, it is unlikely it will become true, mainly because of the specificities of the scientific work in the mentioned country.

Final remarks

King (2002) argues for the need to recognize the dual embeddedness of migration, meaning that methodological approaches to research on migration should address its issue at the macro and micro levels of analysis. This article is concerned with the latter, as it focus on the individual, and it reveals the individual portrait as a privileged technique to dive into the individual level of analysis and to understand how the uniqueness of each one's life is inevitably related with the action of macro-level social forces. Using this methodology, one was able address the singularity coefficient and to analyse the life trajectories of five Portuguese emigrants who have scientific professional occupations in foreign European countries, contrasting their idiosyncrasies with their common aspects, and to understand how their social backgrounds and resulting advantages (or disadvantages), together with life contingencies, produced five different personal, professional and migration stories, in times of Eurozone crisis.

Alexandre comes from a family with strong academic resources. Master in Physics Engineering, he has been accumulating academic and social capital, reproducing his father's academic career. Emigrated to the UK in 2012 to engage in a

Ph.D. degree, after a student mobility experience in Canterbury, he admits that his life course will depend on where the professional opportunities are.

Yara is from Maputo and currently lives in Berlin with her boyfriend and 18 months daughter. Completed a Ph.D. in 2011, after an academic mobility experience of three months, she works as Manager of Science. Emigration is present throughout her personal, academic and professional life.

Ângela was born a rural context as had a very stable academic path. She started her doctoral course in Heidelberg, where later she develop her first post-doc. Ângela emigrate again to Berlin in 2006 to start her second post-doctoral, motivated by affective issues, once Ângela marries a German colleague and does not anticipate a return to Portugal.

After a short period of labour market research, experience of unqualified and precarious jobs, Joana seems to have found a somewhat stable occupation, compatible with her qualifications, something she could not find in Portugal. This sense of stability encouraged her into post-graduate studies at the so called 'golden triangle' (Oxford, Cambridge and London).

Leaving behind a 13 year position in a Portuguese state hospital, Manuela considers that she took a temporary step back in terms of professional recognition, but her family gain financial stability.

While in Portugal, some of these individuals had precarious professional experiences, often related to the acquisition of resources to support future studying, and sometimes in the form of research grants. In the countries they currently live in, they feel integrated in the labour market while doctoral students or post-doctoral researchers, as they have work contracts and contribute to social security schemes.

The dispositions to migrate are activated in different situations, mainly in context of students' mobility. The incentives to academic mobility promoted by national and international institutions. One observe that four of these five individuals took advantage of the possibility of studying abroad sometime in their trajectories as university students. If Ângela and mainly Yara first embraced transitory mobility as a means to build their career in science (enrolling in foreign doctoral studies programs), Alexandre's and Joana's experience studying abroad under the Erasmus program was absolutely decisive to awaken the will to leave Portugal. Enrolling in international mobility programs emerges as a facilitator of future emigration. However, one must be aware that these programs are socially selective, attracting predominantly students from families with better social resources (Powell and Finger, 2013).

The economic crisis and its effects are still present in their life decisions: it may not drive them off the country, but it refrains the will to return to Portugal. Yara, Alexandre and Ângela look with dismay to the current Portuguese scientific field, identifying a diminishing state investment in science and high education, a consequent greater difficulty of finding job and funding opportunities and growing precariousness of scientific occupations as deterrents to an eventual return to the home country.

Having worked in several short-term, precarious jobs since her teenage years, when her father lost his job because of the impacts of the economic crisis, Joana decided to leave the country to search for an occupation that could be compatible with her aspirations. Madalena it is also a situation where the economic and social backlash of the crisis was more important to emigration than the project of a career in science. In this sense, social capital works as a cushion to mediate the impact of the economic crisis on careers development perspectives. Will Atkinson (2013) address the issue of

economic recessions and employment arguing that class and occupational resources are fundamental to shape of perceptions of the first. Therefore, the individuals that occupy privilege positions at the social space are less likely to suffer the impact of economic crises.

Four of the five researchers were still young when they left Portugal, transitioning into adulthood and beginning their professional careers abroad. Receiving countries are generally represented as offering better living conditions, not only because of higher wages, but also because of stronger social protection, incentives to the families and a wide range of opportunities and cosmopolitan environments – interests for scientific, cultural and social reasons (Weenink, 2008).

Decreasing professional opportunities in the Portuguese academia, conjugated with the prevalent view of international mobility as a career advantage, may trigger a phenomenon of a research missed generation (Guth & Gill, 2008). One can state that there will be an age gap between the current established generation of academics and the next one, as young postgraduates, finding the doors to a stable (or even unstable) position in Portuguese academia. This may happen if science and education policies remain in the same trend (significant cuts in the funding of research centres and reduction of the number of individual Ph.D. and post-doctoral grants). Apparently the European Union mobility policies focus on circulation seems to be on the opposite direction of the Portuguese science policies that are not being able to attract back its brains – with obvious implications on a fragile south European economy as the Portuguese one. For those reasons, but also because of the personal and familiar ties meanwhile built abroad, migrants who invested heavily in settling in the country of destination are not expected to return.

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Appendices

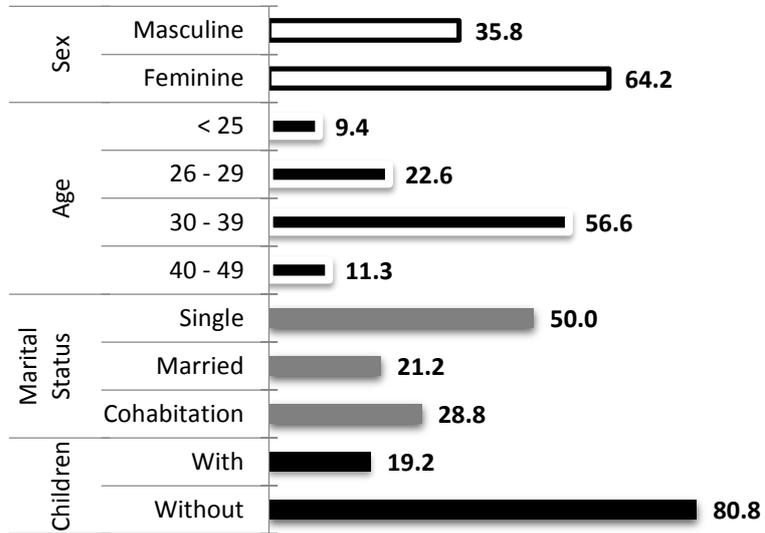


Figure 1. Sociodemographic characterization



Figure 2. Academic qualifications

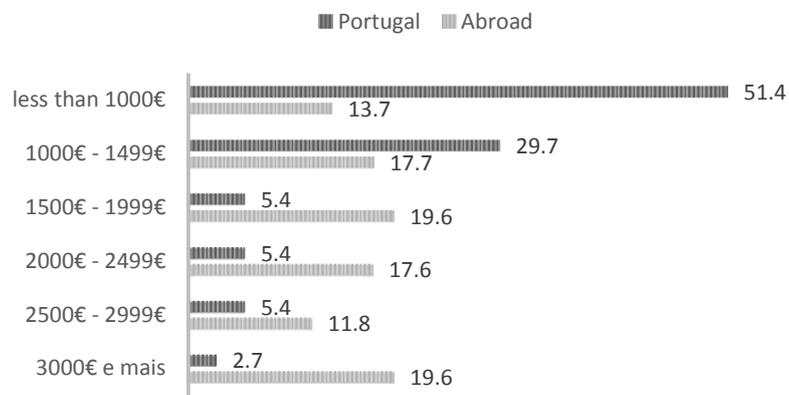


Figure 3. Wages comparing between Portugal and the current country of residency.

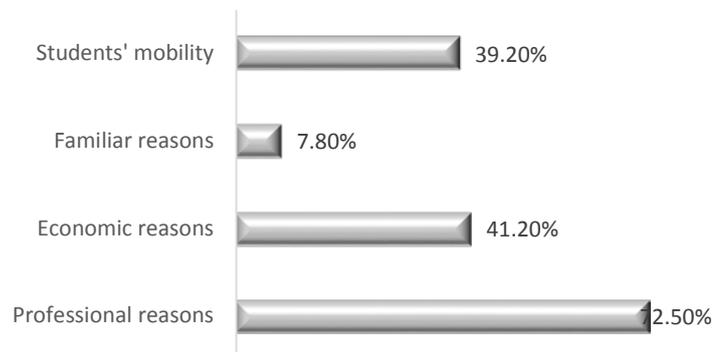


Figure 4. Reasons for emigration.