Mobility of non-European researchers in the Mediterranean. The Italy-Spain relationships

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ABSTRACT

To this day, academic mobility has acquired increasingly marked traits of a true migratory phenomenon. In Italy and Spain, the internationalization strategies at supranational and institutional level, and the presence of tutor figures in the country of origin and destination could steer the mobility choice of foreign researchers and could be driving forces for academic migration, especially where the national context is not favorable for the permanence of these resources.

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KEYWORDS: academic mobility, internationalization, intellectual migration.

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1 Introduction

Today, mobility of academics and students is one of the main forms of international mobility and it is an individual choice influenced both by external factors and a variety of actors involved (Mahroum, 2000). On the one hand, the intensification of student and scientist mobility is linked to the internationalization processes encouraged by European institutions to face and compete in the global knowledge market (Teichler, 2015). On the other hand, academic mobility plays a key role in internationalization processes promoted by universities. Moreover, it has positive effects on the quality of research, the international prestige and the attraction of funding (Cattaneo et al., 2016). Lastly, internationality is also an essential element in the career path of future researchers, and it is linked to the pursuit of different individual objectives as well as to the need for academic socialization, that is the need to activate useful international networks (Fahey & Kenway, 2010).

Many definitions given to this phenomenon (brain drain -gain -waste -export -bank, etc) do not show the career paths that can be at the base of the mobility choices. Intellectual mobility is a kaleidoscopic phenomenon, hard to conceptualize, whose positive or negative appreciation is subject to a country-specific analysis (O'Connor & Crowley-Henry, 2020). Its characteristics change in accordance to the point of view observed: institutional, geographical, political and individual (Ackers & Gill, 2008; Weinar & Klekowski Von Koppenfels, 2020).

This paper investigates the relationship between the paths of academic mobility and the migratory processes, which involve highly skilled resources in the field of scientific research. The phenomenon of intellectual mobility and migration has been observed through three levels of analysis, supranational, institutional and individual, to trace the framework of constraints and opportunities presented to foreign resources engaged in scientific research during the course of one's own career.

2 THEORETICAL FRAMEWORK

The economic competition, based on the ability to innovate and combined with the lack of research personnel, has generated new orientations in the internationalization of research policies. In fact, at supranational level, EU policy, by making mobility and the possibility of studying abroad accessible, is configured as a trigger for the circulation of skilled human resources both during the first phase of university studies and the other stages of the academic career (Mangematin, 2000; Teichler, 2015).

At institutional level, the academic integration path is favored by incentives such as scholarships, research grants, inclusion in research groups. These facilitate the process of integration for foreign researchers in an academic context other than their original one. Universities represent a privileged field of observation, framed as new territories of knowledge where foreign researchers create relationships, networks and plan their future (Leemann, 2010). Moreover, universities benefit from scientific mobility in terms of both international reputation and local legitimacy (Knight, 2004; Cattaneo et al., 2016).

Short-term mobility can be transformed into a long-term project thanks to the support of tutor figures and the collaborations activated during this mobility experience. The literature highlights how internationality constitutes an essential step in the career path of future researchers. Moreover, the propensity to move becomes stronger with the increasing of the mobility experiences, transforming these unidirectional flows into multidirectional flows (Teichler, 2015; Franzoni et al., 2014). The networks and connections established during the experience abroad have a positive influence on the choice to return in a given country or to have further research experience in a third country (Reale et al., 2018).

3 MATERIALS AND METHOD

This work is carried out through a mixed method approach (Morgan, 2014), which uses descriptive quantitative analysis of secondary data collected from European commission on Marie Skłodowska-Curie Actions and social analysis tools such as semi-structured interview (Corbetta, 1999). The Marie Skłodowska-Curie actions (MSCA), whith the Seventh Framework Programme for Research (FP7) and H2020 programme, it aim to equip researchers with the necessary skills and international experience for a successful career. The programme responds to the challenges sometimes faced by researchers, offering them attractive working conditions and the opportunity to move between academic and other settings (European Commission). ¹

Qualitative analysis conducted from interviews involved institutional figures and foreign human resources engaged in University and research and they are conducted at Polytechnic of Milan (PoliMi) for the Italian case, and at Universitat Politecnica de Valencia (UPV) for the Spanish case.

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		PoliMi	UPV
Individual level	Number of interviews	12	19
	Gender	7 men 5 women	7 men 12 women
	Position	4 PhD students 6 research fellows 2 Prof.	13 PhD students 6 research fellows
Istitutional level	Number of interviews	2	3
	Gender	2 women	1 woman 2 men
	Position	Delegate of Rector	Delegate of Rector

Table 1. Number, gender and academic position of interviewed

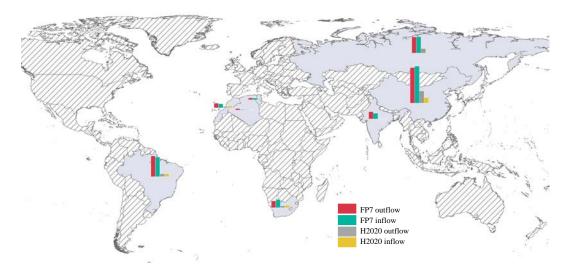
At the institutional level, Delegates for internationalization and research have been identified as specific profiles capable of satisfying purpose of research. At individual level, however, interviews involved research fellows, contract professors and PhD students. For the Spanish case, interviews were conducted in Valencia in June 2017. The sample of interviews at the PoliMi, conducted in September 2017 was selected by the CINECA portal which it was possible to identify a list of foreign human resources involved in research activities. Interviews were recorded, then transcribed and all textual material was subjected to content analysis with the aim of transforming the large amount of text into an organized key results. The coding procedure allowed the identification of themes. Each theme identified was treated in literal quotes extracted from the interviews.

4 RESULTS

The policies for the circulation and attraction of highly qualified human resources promoted at supranational level by the EU are among the main reasons for attracting non-European

¹ http://ec.europa.eu/research/mariecurieactions/msca-numbers_en

students and researchers to the EU area. At the supranational level, the analysis of the scientific mobility measures of Marie Skłodowska-Curie Actions (MSCA), promoted by the European Commission to increase the attractiveness of the EU in the field of scientific research, confirms a leading role of the BRICS countries. In recent years, China has become a more attractive country for European researchers than is the EU for Chinese researchers.



Picture 1. Research personnel from BRICS and Maghreb involved in exchange schemes. Source: MSCA data, 2018.

Data on researchers' mobility between the EU and the Maghreb are lower than the data relating to the BRICS countries. Among Maghreb countries, Morocco arises as the main country to benefit from the research grants made available by the MSCA. Despite Tunisia could offer equal opportunities to researchers from EU counterparts thanks to the association agreement for H2020, it showed less interest in the MSCA fellowships than Morocco. Data on researchers' inflow from the aforementioned two groups of countries also show that France, Germany and the United Kingdom are the top three of EU countries with the largest quota of incoming researchers. On the other hand, Italy and Spain classified respectively at fifth and sixth place.

At the European level, the importance of supranational policies as drivers for circulation of foreign resources in scientific research emerged at the meso and micro level. The interviews conducted with non-EU research personnel in the two observed case studies, the Polytechnic of Milan (PoliMi) and the Universitat Politecnica de Valencia (UPV), show that European organizations have made mobility more accessible, offering the opportunity to undertake degree and/or doctorate abroad. In many cases, the access to these EU exchange programs was the first impulse to be involved in academic mobility experiences. The interviews also show the influence of the European guidelines among delegates of PoliMi and UPV, who have underlined the importance of the supranational orientation in internationalization processes of the university, on several occasions. On the national level, in Spain and Italy, there is a low level of attractiveness for highly skilled resources from abroad. In the Italian context, a scarce presence of highly qualified human resources in the field of scientific research is confirmed, both among students enrolled in degree courses and among the university staff with foreign citizenship. In addition to this, the Spanish context has similarities with Italy in terms of foreign presence within the staff employed in its universities.

At the institutional and individual level, the qualitative research has produced the most interesting results confirming the important role of universities and the related internationalization processes as intangible bridges for the transition of talents. The main results of the interviews confirmed that academic integration in foreign universities begins during an experience abroad as visiting students at the beginning of the academic course:

Master degree from Italy, Politecnico di Milano and then the PhD again from Politecnico. I have studied environmental engineering in bachelor, master and PhD, and water research management on I'm working [...] Well there are different dynamics because I continued my PhD in the same line, with the same professor, because she was encouraging me to go forward and so than also for PhD I decided to stay here. I met my professor in the master degree thesis in the last part she was my thesis supervisor and after that... we continue working together (IT12F - Research fellow, Turkey).

Degree and doctorate are stages in which the universities intercept the best foreign talents and decide to "keep them" scientifically productive through economic and professional incentives during the first stage of their research career. In fact, for many research fellows interviewed, the career in host university began thanks to a first mobility experience that allowed them to establish first contacts with a new scientific environment.

At the same time, although complex and competitive, university environment is a place of integration for foreign researchers with respect to other more discriminatory working contexts, as in the case of the industrial sector. Among the internationalization initiatives described by delegates, the increase in delegates abroad in specific geographical areas is a common element between the two universities.

I think there is another aspect: the human contacts with other universities and other countries and the academic network. As I said before many years ago we establish strong relation with Latin American university and we have many many relations with professors. We have a very high number of graduated or doctors in Latin America Universities. Than this is a source of contacts (Delegate UPV, Spain).

Even the international prestige has a significant weight. In other cases, the presence of an internationally renowned scientist in a given university is the main reason for the mobility choice.

In the Spanish case, among the interviewees there is greater satisfaction with the experience in the UPV, especially among the doctoral students who are in a transitory condition between training and research. In the interviews conducted at the PoliMi, instead, less enthusiasm emerges among researchers who have started in Italy both a career path and a family life project. Moreover, some difficulties emerge linked both to the economic crisis andto the complexity of the Italian academic system. Problems are experienced by any individual who is in a precarious condition, given by annual contracts or research fellowship. According to some interviewees, access to the job market in Academia for foreigners is even more problematic, a "glass ceiling" that discriminates non-EU citizens. Finally, the delegates of the Politecnico di Milano know well the lack of benefits in Italy, such as the necessity of parental support and the problems of housing. The researchers interviewed complain about this inefficiency by comparing it with efficiency of other foreign university systems.

5 CONCLUSIONS

The results emerged from this research confirm that European policies and institutional strategies constitute an input for circulation of foreign resources in the scientific sector and they underline the important role of university strategies and tutors to guide mobility choices and to retain foreign researchers in the contexts of arrival. Institutional strategies, tutorship, and international networks are therefore the main pull factors for attracting foreign highly skilled

human resources, especially where the national context is not favorable for the permanence of these resources.

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