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Analysing the Consequences  
of Academic Mobility and Migration

Edited by

Fred Dervin

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**P U B L I S H I N G**

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CHAPTER NINE

THE CONSEQUENCES OF MOBILITY:  
CAREERS AND WORK PRACTICES  
OF PORTUGUESE RESEARCHERS  
WITH A FOREIGN PHD DEGREE

ANA DELICADO

**Introduction**

International mobility is a growing phenomenon in contemporary science, which has received heightened attention both in terms of policy and research. However, it is a complex research object, since there are multiple definitions of academic mobility, either focusing on its length (short, medium and long term, which can encompass anything from attending a conference to permanently moving to another country), aims (for educational or professional purposes) or actors (higher education students or faculty). There are also multiple angles from which it can be studied: outbound and inbound flows, motivations, barriers, impacts on family and personal life.

This paper concentrates on a narrow component of mobility, namely the achievement of a PhD in a foreign institution (in this particular case, an institution outside of Portugal), and on the particular aspect of the consequences of scientific mobility in two specific areas: careers and work practices.

Policy discourse usually focuses on the beneficial aspects of scientific mobility, both in terms of the careers of researchers and on the production of knowledge. However, research has shown that mobility has become not so much a choice but a career obligation (Ackers 2001), and that mobile scientists can be left “locked in” a host country or “locked out” of their home country (Casey et al. 2001). On the one hand, non-native researchers can face discrimination and career stall (Diaz-Briquets & Cheney 2002),

on the other hand, reintegration in the native scientific communities can be hindered by institutional and cultural conditions (Ackers 2005, Gill 2005).

Though universality is one of the cornerstones of science, social studies of Science and Technology (S&T) have shown that scientific training and practice is subject to local conditions (see Knor-Cetina 1981, Campbell 2003), such as curricular specificities, the prevalence of certain theoretical paradigms over others, availability of equipment, local interpretations of methodological rules, informal socialization and tacit knowledge acquired in laboratories.

Therefore, what happens once PhD degrees are obtained? Do mobile researchers face more difficulties than the ones that trained at home? Are they willing or able to return to the home country? How is their integration in the public or in the private sector, in research or in other occupations? And what effect does their training abroad have on scientific work practices? Do work values, ethics, hierarchies, formal and informal relations, modes of organisation vary significantly in different national contexts, and therefore have an impact on the science that is produced?

This paper is based on research on the international mobility of Portuguese scientists<sup>1</sup>. The empirical data that sustains it has been collected through a two-tiered methodology: an online survey of Portuguese researchers abroad (PhD students and PhD holders, who were staying abroad for a period of at least six months) and interviews with researchers who obtained their PhD degrees abroad and have returned to Portugal. The survey was carried out in June-July 2007 and obtained 521 replies (roughly 65 per cent of the original sample<sup>2</sup>), analysed through statistical procedures<sup>3</sup>. The interviews were performed between May and November 2008 with a sample of 32 individuals, derived from a database

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<sup>1</sup> Funded by the Portuguese Foundation for Science and Technology under a post-doctoral grant. I am grateful for the suggestions of the reviewer that greatly improved this article.

<sup>2</sup> A tentative census of the Portuguese expatriate researchers was conducted by using several sources: an online database, newspaper articles, membership lists of associations, university WebPages, Google searches. 803 persons were identified. However, there is no official data with which to compare in order to assess how close this is to the actual population.

<sup>3</sup> 52 per cent of the respondents were women; 45 per cent were under 30 years of age, 31 per cent between 30 and 34 years old, 13 per cent between 35 and 39 years old and 11 per cent over 40 years of age; 64 per cent are located in European Union countries, mainly in the UK (29 per cent), 5 per cent are in other non EU European countries; 27 per cent in the US.

containing over 3000 names<sup>4</sup> and selected according to several criteria: scientific area, country where the PhD was obtained, current host institution, career situation. The interviews were then fully transcribed and subjected to content analysis.

The following data is based on what researchers say about their own careers and practice, coloured by their perceptions, values and interests of self-presentation. Thus it has mainly an exploratory value. These results ought to be corroborated with data collected through other methodologies, such as ethnographic observation, surveys of both mobile and non-mobile researchers, network analysis or bibliometrics.

### Context Matters: A Brief Overview of Mobility Trends in the Portuguese S&T System

Much of the observations and results presented here are not country specific and can occur in other scientific systems. However, the specific conditions of the Portuguese scientific system (in all probability quite similar to other semi-peripheral countries in the world system of science, such as Spain and Greece) do have a bearing on the phenomenon under study. Although there are no official figures for these trends, available evidence shows that exit flows surpass entry of foreign researchers but return flows are also considerable.

As other southern European countries (see, for instance, van de Sande et al. 2005, Morano-Foadi 2006, IPTS 2007), Portugal has been mostly a sending country for scientific mobility. According to figures collected by the Institute for Prospective Technological Studies (IPTS 2007), in 2006 there were only 188 foreign (from EU countries) doctoral students in Portugal, while there were 2,240 Portuguese studying for a PhD in a EU country. An evaluation of the Marie Curie Fellowship scheme (van de Sande et al. 2005) ascertained that between 1994 and 2002 there were 173 Portuguese fellows, but only 69 European researchers chose Portugal as their host country.

Although there is no accurate figure data on the numbers of Portuguese scientists who have left the country (temporarily or permanently) in the

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<sup>4</sup> This database was created by combining a list of PhDs awarded by foreign institutions to Portuguese researchers (and recognized by Portuguese universities) with a list of higher education personnel, in order to identify the current host institution of formerly mobile researchers. Web searches were conducted in order to fill in missing information (researchers in State laboratories, business companies, other research centres, and non-research occupations).

past few decades, the late development of Portuguese science has dictated that many scientists were compelled to go abroad to obtain postgraduate education. Furthermore, national S&T policies have actively promoted outbound mobility, by funding large numbers of PhD and post-doctoral fellowships for studying or working abroad. Between 1994 and 2007, the Portuguese Foundation for Science and Technology funded 3,571 PhD and 647 postdoctoral fellowships for studying abroad and 2,592 PhD and 842 post-doctoral mixed fellowships (that comprise a period abroad and another at a Portuguese institution)<sup>5</sup>.

As to return flows, there is no solid administrative data but between 1970 and 2007, Portuguese universities have recognised 4,004 PhDs obtained in foreign institutions (until recently a necessary step for applying for a position in academia in Portugal). However, not all of these PhD holders are Portuguese nationals nor are they necessarily still working in Portugal. Positions in research institutions do not require the recognition of the diploma. Additionally, a survey carried out in 2006 by the statistical office of the Science Ministry of Science, Technology and Higher Education registered that 29 per cent of Portuguese doctorate holders (3200) had obtained their PhDs abroad<sup>6</sup>. There have been no specific return policies but the growth of scientific system (in the seventies and eighties with the creation of peripheral universities and polytechnics, in the nineties the rise in funding for scientific activities) and some recent government initiatives (post-doctoral fellowships, a programme of five-year contracts as assistant researchers) have clearly benefited expatriate researchers aiming to come back.

### Career Opportunities and Constraints of Expatriate Researchers

International mobility is regarded as a bonus in a scientific career. According to Ackers (2001), researchers feel that it is expected of them to spend some time abroad in order to pursue an academic career. Most mobile researchers strive to access high-profile institutions (Millard 2005, Mahroum 2000, Gill 2005, Van de Sande et al. 2005), whose prestige is transferred to its alumni or personnel: the choice of a PhD host institution is often determinant for the development of a career in research (Casey et

<sup>5</sup> Source: official statistics (see <http://alfa.fct.mctes.pt/estatisticas/bolsas/>, last accessed in August 2009).

<sup>6</sup> Source: official statistics (see <http://gpri-08-193.link.pt/main>, last accessed in August 2009).

al. 2001, Mahroum 2000).

However, going abroad can also prove to be a disadvantage, in the sense that, for instance in the US, foreign researchers are not always awarded the same benefits as native researchers in terms of wages and rights and can be discriminated against in job opportunities (Diaz-Briquets & Cheney 2002). This is less likely to happen in Europe, since EU citizens are legally entitled to equal treatment and non-discrimination.

According to the survey of Portuguese researchers abroad, the majority (62 per cent) was in the early stages of the career (PhD students) but one third of the respondents were already senior researchers (PhD holders) and most of them are in permanent positions (see table 1). Tenured researchers tend to be older (45 per cent over 40 years of age) than researchers in temporary positions, although a fraction of older researchers are still in temporary contracts or even post-doctoral fellowships. The majority work in universities and concentrate full-time on research.

**Table 1: Senior Portuguese researchers abroad (%)**

Career situation	Tenure	38.5
	Fixed-term contract	37.5
	Post-doctoral fellows	14.5
	Visiting professors/researchers	8.5
Sector of employment	Universities	77.8
	Public research centres	13.6
	Private non-profit research centres	8.6
	Business companies	3.0
	Hospitals	2.0
Activities	Mainly research	63.3
	Research and teaching	18.6
	Research, teaching and administration	14.6
	Research and other activities	2.0
	Mainly teaching	1.5

Most of these senior expatriate researchers obtained their PhD abroad, especially those on tenure (84%) or on fixed-term contract (79%). However, half of the post-doctoral fellows had obtained their PhDs in Portugal, so this could be their opportunity for enriching their CVs with a work experience abroad. It can also be hypothesized that it is easier for those who already studied abroad to build a career in a foreign country. Numerous studies have shown that studying abroad is often the first step

in a more permanent migration (Alarcon 1999, Baruch et al. 2007, Jalowiecki & Gorzelak 2004, Millard 2005, Avveduto 2001, Rizvi 2005, Diaz-Briquet & Cheney 2002, Mahroum 2000): "Study abroad offers possible social and cultural integration, and provides the educational credits (recognized abroad) that make integration less difficult" (Ferro 2004: 383).

Overall, and although changes in the academic professions have made scientific employment less stable and secure throughout the world (Henkel 2000, Casey et al. 2001, Diaz-Briquets & Cheney 2002), the career prospects of Portuguese researchers abroad seem quite favourable.

But what does happen to those researchers that return home? Do they manage to successfully reintegrate in the Portuguese scientific system? Are their careers helped or hindered by their mobility experience?

### Career Opportunities and Constraints of Returnee Researchers

As stated above, there is a quite considerable rate of return of Portuguese researchers who have obtained a PhD abroad. And most of them seem to reintegrate fairly easily into the Portuguese S&T system. According to the work performed on official databases (see footnote 4, above), out of the 3,789 Portuguese researchers (with PhDs obtained abroad between 1970 and 2006) identified, close to 80% are currently active in the Portuguese scientific system. Among the remaining 20%, 4% returned or remained abroad, 9% are retired or deceased, 2% work in areas other than research and there are 6% whose situation is unknown.

Many of these returnee researchers had previous contracts with Portuguese institutions (mainly as university lecturers, but also polytechnic lecturers and State Laboratories researchers) before leaving the country and their absence was supported by government grants for studying abroad. Thus their return was practically assured.

I had a job here. It never crossed my mind [staying]. Since the Portuguese government paid for my training I had the moral duty of returning. It never crossed my mind, staying. I hadn't had an offer, but even if I have had, it never crossed my mind, staying. (Full professor in a public university, natural sciences)

Higher Education absorbs the largest portion of returnee researchers: 73 per cent of scientists trained abroad between 1970 and 2006 work in public universities. However, breaking down this value by time segments

shows changes over time, evidencing a decrease in the universities' capacity to absorb mobile researchers (Table 2). Although the most prestigious public universities (larger, older, located in the main three cities of the country) still absorb the majority of returnees, the weight of peripheral universities has been increasing. Symmetrically, a growing number of researchers trained abroad have been integrated in less prestigious (and less research intensive) institutions, such as private universities and polytechnics. State laboratories have also received an increased influx of PhDs, especially in the nineties.

**Table 2: Host institutions of returnee researchers by year of PhD (%)**

	70s	80s	1990-94	1995-99	2000-06	Total
Public university	86.5	86.0	78.0	67.4	61.2	73.0
Private university	10.5	6.4	11.6	18.3	22.8	15.3
Polytechnic	1.3	2.0	5.3	7.6	13.2	7.1
State laboratory	1.3	3.1	4.6	5.1	1.5	3.2
Other	0.4	2.5	0.5	1.6	1.3	1.4

Nevertheless, this trend does not necessary apply only to returnee researchers. Home-grown PhDs, which have been increasing at a much faster pace (in the seventies, they represented 38 per cent of all PhD obtained; between 2000 and 2006 this value reached 84 per cent), may also face difficulties in finding a position in the more prestigious institutions of the scientific system.

In order to measure the consequences of mobility on careers, it is also relevant to assess the kinds of positions returnee researchers are able to access. In public universities, 41 per cent of full professors have been trained abroad but this value decreases as we go down the stages of the faculty career: 28 per cent of associate professors, 18 per cent of assistant professors (non-tenure) and 15 per cent of instructors (a position usually reserved for non-doctorate holders). And although this distribution is certainly affected by the recent growth in PhDs obtained in Portugal, it also seems to indicate that returnee academics tend to be more successful in reaching the top echelons of the career. However, this is not always the case amongst the academics interviewed:

Here everything is very rigid, there is no opportunity, neither big nor small, no career progression. After my PhD I've been always an assistant professor, I applied once for associate professor, there were 15 other candidates, I wasn't chosen, of course, I was approved in terms of merit on all categories, but the vacancy was filled by someone from outside the school. (Assistant professor in a public university, exact sciences)

On the other hand, in recent years, a growing number of young researchers have left the country without a "safety net", supported only by government fellowships. Some do manage, on return, to obtain a position fairly easily, but others face many difficulties, including spells of unemployment.

Post-doctoral fellowships are a recent solution, albeit temporary, for the integration in the scientific system of young highly trained researchers. Introduced by the Portuguese government in the nineties, the number of fellowships has grown significantly in the past few years: between 1994 and 2000 940 of these fellowships were awarded. Between 2001 and 2007 that number has increased to 3233. Although some are granted to researchers in foreign institutions, the majority (64 per cent) fund researchers in Portuguese institutions. These fellowships are not aimed exclusively at expatriate researchers wishing to return home<sup>7</sup>, but the distribution by country of PhD is not publicly available.

Though providing a reasonable salary and the opportunity to carry out full-time research (whereas university positions usually entail a fairly heavy teaching load), post-doctoral fellowships also have downsides: a limited duration (three to six years), scarce social welfare entitlements (since grant holders are not considered employees) and ill-defined links with the host institution.

For all the fellows interviewed, these positions were a "necessary evil", while waiting for better career opportunities:

Employment opportunities really don't exist (...) the situation abroad has nothing to do with it [situation in Portugal], the wages can be bad, the benefits can be bad, but we are employees, we have a contract, we pay taxes. Here we are like students, we have no workers rights, we are not entitled to unemployment benefits (post-doctoral fellow in a university research centre, natural sciences)

In universities, not only the openings have been scarce in recent years

<sup>7</sup> In fact, 34 per cent of post-doctoral fellowships have been granted to foreign researchers in Portuguese institutions (source: official statistics, see <http://alfa.fct.mctes.pt/estatisticas/bolsas/>, last accessed on August 2009).

(due to a fairly closed system, in which most academic jobs are "for life" and there is little transition between sectors and between institutions, as well as a decrease in the number of students and the Bologna reform) but also some returnee researchers complain of not have been treated fairly in job competitions:

In the beginning I tried two universities. I won't go into details, because you can guess... (...) I was applying to a position in artificial intelligence, my supervisor was the most famous researcher in the world in artificial intelligence (...) I have over 50 scientific papers published, which is more than many full professors here, after my PhD, I have an award for the best paper and I was nominated for another award. I know that in this specific case there were three positions, I know I was entitled to one of them. I didn't get it because anyone who has been abroad and returns to Portugal has to face the inbreeding. I'm convinced that who wants to go abroad for a PhD has less probabilities of getting a position here than someone who stays and does his PhD here with someone with whom he has been working for a long time and makes promises... It shouldn't be like this, staying or going shouldn't give an advantage, it should be based on skill. (Senior manager in a company, engineering sciences)

On the whole, it can be said that international mobility is just one of the factors influencing scientific careers. Going abroad only after securing a position in a Portuguese institution is the safest course of action, because it not only guarantees reintegration on return but also leaves open the possibility of staying abroad, if a better offer comes along. However, it does not warrant a swifter career progression, although the experience gained abroad does seem to improve the chances of reaching tenure.

Maintaining contacts with researchers in the home country does help reintegration even in non-permanent positions. However, new schemes that are managed by the central government rather than institutions themselves (post-doctoral fellowships, five-year contracts) seem to open the scientific labour market to returnee researchers without patronage links and even to foreign researchers.

Career prospects of mobile researchers can also be influenced by the ways in which scientific practice is affected by the exposure to different national work environments. And that is the subject of the next section.

## The Impact of Mobility on Scientific Work

Universalism lies at the core of science. Merton (1974) places it as the first institutional imperative of science. Shapin and Schaffer (1985) describe how in modern science the technologies for producing it became

eminently global: the instruments and equipments used in the production of experimental, observational or theoretical objects, the conventions and credibility devices applied on the results, the literary, inscription and representation technologies that allow the circulation of objects of knowledge. Crawford, Shinn & Sorlin (1992) trace trends in the denationalisation of science over the twentieth century, emphasising the standardisation of scientific work, in terms of cognitive homogeneity, communication practices and technical standards.

However, the place where the production of science occurs does matter. Laboratory studies (Latour & Woolgar 1986, Knorr-Cetina 1981) have shown that local practices, from the calibration of instruments to the interpretation of results, vary, that implicit knowledge is transmitted among researchers within laboratory walls, by observation and replication, that choices made during scientific work (theories, methods, techniques) are the product of institutional traditions and educational canons.

Both the survey of Portuguese scientists abroad and the interviews with returnee scientists give some information on the changes the researchers had felt in their scientific practice as a result of their mobility experience. Although these questions yielded a wealth of information, this section will focus on those issues that have a direct impact on careers. In theory, mobility provides researchers with some resources, namely scientific skills, publication proficiency and access to international networks, that give them an edge in competing for scientific employment and career progression.

[My scientific practice changed in terms of] the use of new techniques, more up-to-date and innovative; improvement in linguistic skills (English); more openness and scientific preparedness; acquisition of self-critical and more analytical spirit and meticulousness (PhD student, natural sciences, Germany)

The decision to go abroad often stems from the notion that it provides the opportunity to learn or do something new: when asked to assess a list of reasons for going abroad, 84 per cent of researchers surveyed rated learning new theories or methodologies as quite or very important and 68 per cent the opportunity to work in an under-developed area in Portugal.

The acquisition of specific technical skills is strongly related to the availability of resources, both physical resources (funding, equipment, machinery, supplies) and human resources (senior scientists and supervisors, colleagues, lab technicians). 65 per cent of researchers surveyed stated that accessing means or equipment not available in the home country was a quite or very important reason for going abroad.

Not surprisingly (given the host countries of many of the expatriate researchers, see above footnote 3), 93 per cent of researchers surveyed considered that they found more favourable conditions in the host country in terms of research resources.

It gave me the opportunity to come into contact and to work directly with great researchers in my area; it made my research easier because there is better access to scientific information and to reagents/equipment (PhD student, natural sciences, UK)

The resources I found in my lab/host institution (funding, seminars almost every day with Nobel prize winners and heads of top laboratories, computer support, almost no bureaucracy, fabulous libraries) aren't available anywhere in Portugal. (PhD student, natural sciences, US)

However, some scientists recognise that differences in the availability of resources may not be so determinant

In the first place, it made me realise that the research done in Portugal (at least the one I know of) is of good quality with fewer resources. We are in the right track. We (Portuguese) just need to be more ambitious and less modest. Personally, I learned a lot from the scientific and technical point of view, but that would also have happened in Portugal and probably with less effort. (PhD student, health sciences, US)

Other acknowledged that Portugal had changed considerably in the past few years, investing heavily in science, so the differences may not be so noticeable now:

in terms of practice, that is to say, everyday life at the laboratory, we in the exact sciences have pretty similar procedures everywhere. We use scientific equipment that is sold by multinational companies that produce scientific equipment and the rules of use are the same everywhere or the rule for producing samples or whatever (...) In material terms, in terms of facilities and equipment, this is the best place where I have ever worked in. Comparing with the place I was working in, in Oxford, it's much better (assistant researcher in a university research centre, exact sciences)

Though less easy to define than the availability of resources, work cultures also have a bearing on scientific practice. While only 11 per cent of respondents to the survey stated that adaptation to the work practices of the host team or institutions posed any kind of difficulty, several pointed out the differences felt in terms of organisation and precision regarding the host/home country.

My "practice" became more practical... Research projects are more closely aimed at objectives. The organisation of these projects is more structured in terms of deadlines, task allocation, etc. This demands more and more efficient work ability. And a more pragmatic approach, which at the same time allows projects to have a more practical application. It also demands team work, through which people, regardless of their academic title, collaborate on an equal footing and with mutual respect. Competition is higher but it's healthy competition, involving mutual help. More emphasis is placed on creativity and scientific innovation (senior researcher, social sciences, UK)

Work methods and means are incomparably better than the ones we have here in terms of organisation and planning (...) there's a severe lack of leadership and planning here. (senior researcher in a State Laboratory, engineering sciences)

Since publication is both the most important step for validating scientific results and one of the key elements for assessing a scientist's CV (and allowing him/her to progress in his/her career), the impact of mobility on publication proficiency cannot go unnoticed. 70 per cent of researchers surveyed considered that they found more favourable conditions in the host country for publishing articles in scientific journals:

The easiness in going to conferences and publishing articles in areas connected to biomedical engineering has a close relation to funding, which can only be obtained in this country. (PhD student, engineering sciences, US)

[I] learned a lot about writing for scientific publications. (PhD student, natural sciences, Germany)

[if I hadn't gone abroad] I wouldn't have published as easily as I did in the best publications, the best journals of the world, for sure. (CEO of a biotech company, natural sciences)

Success in publication is partially connected to the acquisition of English language skills, a byproduct of mobility experiences.

It has the advantage of speaking in English, of learning a little more, which is important if you want to study, to write papers and to publish (...) knowing English makes it easier to read and to write, especially for publishing in international journals. (assistant researcher in a State Laboratory, engineering sciences)

Finally, mobility has been promoted as a mean for generating and

sustaining international networks. Expatriate researchers that maintain contact with the home country and returnees that keep in touch with colleagues abroad become nodes in networks through which joint research is carried out and knowledge is transferred (Ackers 2005, Connel et al. 2005, Gill 2005, Mahroum 2000, Thorn & Holm-Nielsen 2006, Van de Sande et al. 2005, Teferra 2005).

According to the survey of Portuguese expatriate researchers, 76 per cent stated that the possibility of establishing scientific networks with researchers and teams from other countries was a quite or very important reason for going abroad.

It made possible to forge friendships with scientists of different nationalities that now lead research groups in top international institutions. (PhD student, health sciences, Switzerland)

88 per cent of researchers maintain some sort of connection with the Portuguese scientific system. However, informal contacts with colleagues are by far more common than actual joint scientific work: only 30 per cent write papers in co-authorship, 32 per cent take part in research projects, 29 per cent teach in a Portuguese institution and 30 per cent promote student exchanges. Not all of them have positive experiences:

Any activities I scheduled were carried out only once or twice. The difficulty in making or keeping contacts with Portuguese colleagues is huge, I've been trying for many years and I feel there is very little interest. (senior researcher, social sciences, The Netherlands)

As for returnee researchers, most keep in touch with former colleagues and host institutions and use these connections in their scientific activity:

Contact networks (...) in these institutions, since there is a group work environment, situations, contacts with the surrounding community are much easier, there are elements in the group that already know someone, who can act as a reference, someone in another country or another group, so it's much easier to build networks than here (assistant professor in a public university, engineering sciences)

One of the good things I brought from Florence were the good friends I made there and that I still keep in my emailing list because they are scattered throughout the country but I still keep in touch quite often (...) in the humble papers I keep publishing there is always the name of one of my former colleagues at the department, because I have this habit of, before sending an article for a journal, asking three or four of them to read it and criticize it. (assistant professor at a public university, social sciences)

However, some recognize that connections are lost over time and that the volatility of the scientific career and heightened mobility signify that former host institutions change their personnel quite frequently. Also, informal contacts do not always lead to collaborations and exchanges.

## Conclusion

Overall, international mobility does seem to have an impact on career outcomes and work practices of researchers. Based on the available data, there is some evidence that mobile researchers have better career opportunities, both abroad and upon the return home. Especially those with a foreign diploma seem to have little difficulty in pursuing a career outside the home country, finding employment and progressing towards tenure. Those that return seem to face few problems in reintegrating the S&T system, although that is especially true for an older generation that left the country temporarily, with strong ties to Portuguese institutions and an assured return. Many of them manage to reach the top echelons of the academic career, possibly in more favourable conditions than those who have never been abroad. Younger researchers do have more difficulties in finding stable positions, but that can be true regardless of the country in which they obtained their degree. Young doctorates with a Portuguese diploma may have a slight advantage due to inbreeding practices, but that can also be offset by some institutions favouring candidates from abroad due to the expertise they bring.

Indeed, all mobile researchers interviewed acknowledged the effects that an experience abroad has had on their work practices. Either by acquiring new theoretical or methodological skills or by profiting from the best out of different work cultures or by developing publishing and networking abilities, these researchers believe that mobility has brought an added-value to their activity. And that certainly has effects on the science that is currently produced in Portugal.

But the impact of mobility is not always linear and beneficial. Mobile scientists can also face insurmountable obstacles and constraints in their careers and activities. Expatriate researchers can be “locked out” of the home country, prevented from returning by lack of employment but also by inbreeding and mistrust in Portuguese institutions. Returnee researchers may find little use for their expertise in institutions that have not kept up with scientific innovations. Skills become outdated, contacts fade over time, networks get broken.

Therefore, though mobility should continue to be encouraged by policy measures and funding, some attention ought also to be paid to improving

the conditions for harvesting the benefits of mobility. Ensuring greater transparency and fairness in recruitment procedures, supporting the reintegration of returnee researchers, promoting the upkeep of international ties (financing regular short stays abroad and network building activities) are some of the actions that can be undertaken in this field.

Nevertheless, the findings described in this paper should be complemented with further studies using other methodologies and especially a more thorough and systematic comparison between mobile and non-mobile researchers, in order to more accurately assess the consequences of mobility.

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