



**LOCALITY AND TRANSNATIONAL MOBILITY
IN THE EARLY STAGES OF ACADEMIC CAREERS :
THE IMPORTANCE OF FAMILY
AND PROFESSIONAL NETWORKS**

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Preliminary remarks and abstract

This paper is part of the research project entitled 'Transnational Mobility of Academics in the Early Stages of their Careers: Transforming or Reproducing Gender Regimes?' funded by the Swiss National Science Foundation. We present here results from an online survey we conducted in 2013 as regards the early-career academics' experiences of international mobility within a broader social context. The paper focuses on academics' reasons for becoming or not becoming mobile, on their professional and family trajectories, and on how mobility affects their careers and family lives. Our results show that mobile respondents from the Universities of Cambridge and Zurich have relatively different family trajectories and networks, but also more precarious academic paths, than their non-mobile counterparts. Furthermore, mobility does not really benefit these academics' family life, and many academics pursue their careers without being mobile.

Keywords

academics

(non-)mobility

careers

family

networks

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1. Introduction

In many European countries, international mobility is considered indispensable for academics who wish to pursue a successful career, mainly because it is expected to enable them to develop new scientific skills, broaden their scientific horizons and develop transnational networks. But mobility can also take place in a rather precarious context, especially in terms of employment security, as young academics try to stay within academia by accepting temporary positions in several universities in different countries.

At the same time, some studies have demonstrated that skilled migration in general, and this specific form of it in particular, is highly gendered (e.g. Kofman and Raghuram 2005, Jöns 2011). Several authors have linked the 'academic mortality' of women (Krais 2002) and the 'leak in the pipeline' throughout the different stages of the academic career (Leemann et al. 2010, Van Anders 2004) to the new norm of mobility for young researchers: to stay and progress within academia, one should become internationally mobile. However, female academics have been shown to be less geographically mobile than their male colleagues (e.g. Moguérou 2004, Shaumann and Xie 1996), mainly due to family obligations (see also Ackers 2003, Ward and Wolf-Wendel 2004), which in turn can have a decisive influence on their career advancement (e.g. Ackers and Bryony 2008, Leemann 2010, Le Feuvre 2009, Fassa and Kradolfer 2010, Rosende 2010, Shen 2013).

Furthermore, compared to male academics, female scientists more frequently follow their partners to a new location as tied migrants (Bronstein 2001; Ledin et al. 2007), without always finding a job corresponding to their qualifications and experiencing a devaluation of their scientific knowledge (e.g. Riaño and Baghdadi 2007). Female scientists are also more likely than men to be married to other scientists and to face a dual science career situation in which they and their partners – both confronted with a high demand for mobility – have to coordinate their career plans (McNeil and Sher 1999; Rusconi and Solga 2007). At the same time, a 'feminization process' is taking place in academia, which makes it necessary to expressly include women in the study of mobility and access to high-rank academic positions (e.g. Le Feuvre 2009).

Most studies on academic mobility have concentrated on the workplace and on careers, leaving aside familial relations and wider social networks (as pointed out by Kofman and Raghuram 2005: 151; with some exceptions, e.g. Riaño 2011). More generally, the body of work that has focused on the highly skilled has largely ignored family migration, tied migration and broader social networks, issues that have been theorized in the gender and international migration literature (e.g. Kofman 1999, Morokvasic-Müller et al. 2003, Mahler and Pressar 2006; Lutz 2010, etc.). In order to tackle these shortcomings and obtain new insights into academics' experiences of mobility, we need to consider women's and men's practices in their diversity, within and beyond the university. In particular, we need to take into account academics' social networks, as both a pre-condition and an effect of transnational mobility.

This paper aims to contribute to a better understanding of what is at stake when academics decide whether to become internationally mobile, by considering some of their family and professional relations through a gender perspective. How is the decision of whether to be mobile made? How is mobility related to their professional and family trajectories? How does mobility affect their careers and their family lives? To explore these issues, we ask the following specific questions: What motivates and supports women and men academics to become internationally mobile; and conversely what discourages and hinders their mobility? Who moves and who does not? Do mobile and non-mobile academics, women and men, have different trajectories as regards both their professional and family lives? What effects does mobility have not only on their academic careers, but also for their partners' professional situation and their family lives? Do mobile and non-mobile early-career academics ultimately have different career networks?

Because the requirement to be mobile applies more to recent cohorts, we decided to conduct our research on academics who obtained their PhDs in the ten years preceding our study. We thus defined early-career academics as scholars who had obtained their PhD from 2003 onwards and who held an academic position (from a postdoc to a professorship) in one of the universities participating in our research study for the academic year 2013-2014. We are interested in relatively long-term experiences of mobility, which could imply changes in or a specific organization of mobile academics' professional and family lives. It is for this reason that we have focused on academics' postdoctoral experiences of mobility for academic purposes of at least one year in a country other than the one in which they obtained their PhD.

In the first part of this paper, we present the two universities chosen as a case study here, as well as the data and sample we draw on. After clearly delineating the specific type of mobility under study, we look at the professional and family considerations involved in deciding whether to become internationally mobile, then at some characteristics and the trajectories of mobile and non-mobile respondents. The second part focuses on the specific effects of mobility on academics' careers, on their partners' professional situation, and on other family-related effects of mobility. Finally, we compare mobile and non-mobile academics' core professional networks, especially in terms of transnational social relationships.

Our paper focuses on the drivers and effects of mobility, and it considers both academics' careers and family trajectories. We intend to contribute to the existing literature by shedding new light not on the 'work versus family' hypothesis, the forced choice between work and family (e.g. Mason and Goulden 2002, Sanchez-Mazas and Casini 2010), but on the *work and family* conditions under which both women and men who remain employed in academia potentially engage in mobility, and on how their academic careers and family lives are affected by mobility. Special attention is paid to social networks, at both the personal and professional levels, as a missing link in the existing literature on skilled migration and gender, an important element in understanding the (non-)mobility of early-career academics.

2. Case Study: The Universities of Cambridge and Zurich

Academics' careers and mobility patterns depend on their own biographical experiences and social networks, but they are also related to more structural aspects of academia as a specific social field in Bourdieu's sense (1979, see also Kraus 2002). According to Bourdieu, each field has its own logic, determined by specific rules and the resources, the forms of capital (Bourdieu 1986), one can bring into play. In some ways, academia is inherently transnational (e.g. the claim for the universalism of scientific knowledge, Meyer et al. 2010; 'the struggle for excellence', Münch 2014), but in other regards it remains locally anchored at a national or university level (e.g. support resources, funding structures, recruitment).

For our research study, we selected the participating universities in a way that assured a good level of diversity in terms of academic contexts, including disciplines, rankings, international staff, funding and mobility programs. The case study here consists of two universities that are quite distinct in some regards, the University of Cambridge and the University of Zurich.¹ Both are among the largest and most renowned universities in their respective countries, in both the natural and social sciences. The former is among the leading universities in the world, while the latter is among the leading universities in Europe and in the world's top 100 universities. They are both highly internationalized universities, with an important share of international students and sometimes staff.² However, these universities also have quite distinct funding and recruitment systems, including programs for

¹ For more information about the two universities, see their websites: <http://www.cam.ac.uk/> and <http://www.uzh.ch/en/about/portrait.html>, last viewed on January 19, 2016.

² For more details, see: <http://www.undergraduate.study.cam.ac.uk/international-students> and <http://www.studyinginswitzerland.ch/uzh/university-description?id=8>, last viewed on January 20, 2016.

international mobility: for instance, in Switzerland most further funding possibilities after a PhD and the possibility of obtaining a professorship require going abroad,³ while this does not appear to be a formal requirement in the UK. Thus, we can expect noteworthy differences in the practices of international mobility at the two universities, representative of the two European countries in which they are located.

3. Data and Sample

For the analysis presented in this paper, we use data from an online survey we conducted in 2013.⁴ The questionnaire asked about respondents' academic positions, their partnership and family life, their professional trajectories and networks, their academic environment, and about their past, present and planned mobility. We gathered information about the respondents' reasons for becoming or not becoming mobile; and for those who became mobile, about how their mobility was organized, difficulties during the mobility and the effects of mobility on their careers, their partner's professional situation and their family life.

The questionnaire was entirely completed by 150 early-career academics from the University of Cambridge (75 women and 75 men) and 131 from the University of Zurich (68 women and 62 men). Although in the end we had as many women as men among the respondents at the University of Cambridge, and not very different numbers at the University of Zurich, the overall response rate (including all respondents, not only those we defined as early-career academics) varied according to sex: it was higher for women than for men (12.5% versus 7.4% at the University of Cambridge, 10.3% versus 8.0% at the University of Zurich). Our sample ultimately represents almost 8 percent of all the women and 6 percent of all the men to whom the survey was sent at the University of Cambridge, and almost 3.5 percent of the academic staff at the University of Zurich. It is relatively well balanced by sex in both universities.

At the University of Cambridge, we had additional information about the representativeness of our sample by field, academic position and age. The male early-career academics in our sample were employed slightly less often in the biological and physical sciences than the overall academic staff at their university; among the female early-career academics in our sample, the same was true in the humanities and social sciences. Nevertheless, all the fields remained well represented, and our sample is even more diversely distributed than the overall population. In terms of academic positions, the sample contains fewer professors, which might be because professors and men may have felt less concerned about research into the early stages of academic careers from a gender perspective. Although these criteria were not mentioned in the invitation email to our survey, they could be found on the project's website.⁵ In addition, the women respondents were younger than the all-female academic staff of the university, while the men respondents were older, on average by around two years for both groups. Overall, despite these slight differences by field, academic position and age, the sample from the University of Cambridge remains representative of the entire academic staff according to these criteria as well.

4. Results

4.1. Internationally mobile groups

Among the early-career respondents surveyed, we can distinguish three groups who experienced international mobility of at least one year (Figure 1). The first consists of those

³ For more details, see: <http://www.nsf.gov/about/history/annual-reports.jsp>, last viewed on January 20, 2016.

⁴ The online survey was conducted from October 1 to November 15, 2013 in three universities: the University of Cambridge, the University of Zurich and the University of California, Los Angeles. In this paper, we restrict our analysis to the European context and thus consider only the Universities of Cambridge and Zurich.

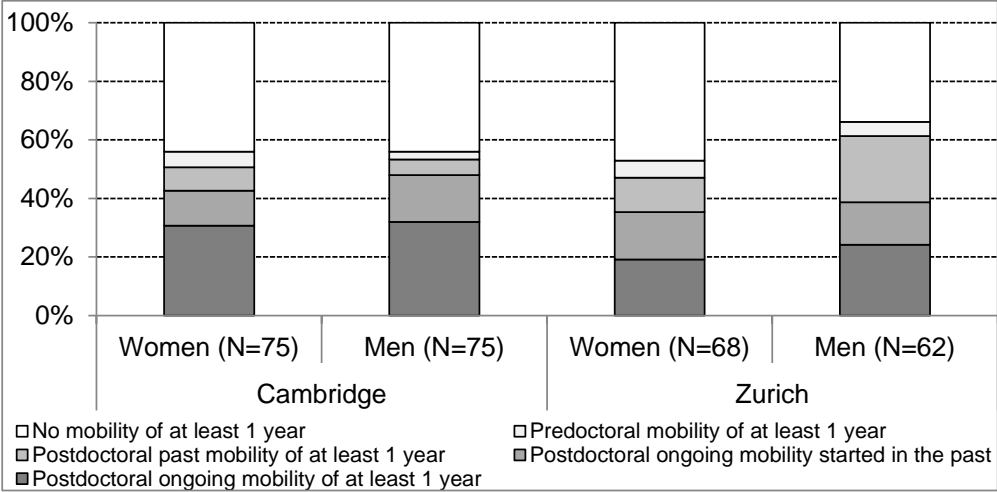
⁵ Project website: <http://www2.unine.ch/cms/lang/fr/pid/28356>, last viewed on January 19, 2016.

whose current position represents an ongoing postdoctoral mobility in a country other than the one in which they obtained their PhD. The second consists of those whose ongoing postdoctoral mobility in a country other than their PhD began with a previous postdoctoral position in the same country as the current one. The third, which consist of fewer respondents, but more men at the University of Zurich, is comprised of those who had engaged in past postdoctoral mobility (an experience abroad of at least one year after the PhD) and were now back in the country in which they obtained their PhD.

These three groups together are hereafter considered the 'mobile respondents'. They represent around 45 percent of the women and 55 percent of the men who participated in our survey at the Universities of Cambridge and Zurich. As in previous research, women appear to be less mobile than men (see also Moguérou 2004, Shaumann and Xie 1996). Meanwhile, there are important differences between the two universities: at Cambridge, women are almost as often mobile as men, while at Zurich they are mobile to a lesser extent. This is a rather unexpected result, given the mobility framework in Switzerland, but the University of Cambridge is one of the most well-known and internationalized universities in the world.

Very few respondents (less than 6% in each case) had experienced a period of international mobility of at least one year before completing their PhD but no other period of international mobility of at least the same duration afterwards. Together with those who experienced no period of international mobility of at least one year, these respondents are considered 'non-mobile'. Hereafter, when we refer to mobile and non-mobile respondents, we distinguish between these two broad groups: respondents who had experienced international mobility of at least one year after their PhD and those who had not.

Figure 1. Internationally mobility groups, by university and sex (%)



Source: TRAMA 2013 online survey.

4.2. Professional considerations in deciding whether to become mobile

What motivates and supports early-career academics to become mobile, and what discourages and prevents them from doing so? Regarding the professional considerations involved, almost all mobile respondents (Table 1) declared that they were attracted by the 'reputation of the university or of a particular academic' and by 'working conditions favorable to [their] career advancement'. Also, a large majority of mobile women and men in both universities believed that 'experience abroad was a requirement for pursuing an academic career'. However, fewer respondents mentioned that their 'professional network encouraged/supported [them] to go abroad' and even fewer that they were 'attracted by the financial conditions [...]'.

Table 1. Professional considerations regarding the decision to become mobile, by university and sex (%)

Professional considerations regarding the decision to be internationally mobile: completely agree + somewhat agree (%)	Cambridge		Zurich	
	Women	Men	Women	Men
I was attracted by the reputation of the university or of a particular academic in my research field	97.1	94.7	86.2	94.3
I was attracted by the financial conditions (incl. when source of funding comes from a fellowship or from another institution/country)	55.9	31.6	64.3	51.4
I was attracted by working conditions favorable to my career advancement	91.2	84.2	89.3	82.9
I felt that experience abroad was a requirement for my pursuing an academic career	79.4	78.9	58.6	80.0
My professional network encouraged/supported me to go abroad	67.6	52.6	55.2	54.3

Source: TRAMA 2013 online survey.

As can be seen from Table 2, a majority of non-mobile academics, especially the respondents at the University of Cambridge, were also attracted by the reputation of the university or of a particular academic when they decided to apply for jobs only in the country in which they had obtained their PhD, whether the UK and Switzerland. All groups of non-mobile respondents also declared greater satisfaction with the financial conditions of the positions they had held in these two countries so far. Among the non-mobile respondents fewer 'did not think about applying abroad' or, except for the women at the University of Zurich, 'did not feel that experience abroad was a requirement for pursuing an academic career in the country where [they] had obtained [their] PhD'. Also, very few, and even fewer at the University of Cambridge, mentioned that their 'professional network advised [them] against/discouraged [them] from going abroad'. A large majority of all non-mobile respondents declared that their professional network helped them pursue an academic career in the country in which they received their PhD.

Table 2. Professional considerations regarding the decision not to become mobile, by university and sex (%)

Professional considerations regarding the decision to apply only in the country of PhD: completely agree + somewhat agree (%)	Cambridge		Zurich	
	Women	Men	Women	Men
I was attracted by the reputation of the university/ies or of particular academic/s in the country where I had obtained my PhD	100.0	90.9	56.0	72.2
I was satisfied with the financial conditions of the position/s I have been holding so far in the country where I had obtained my PhD (incl. when source of funding comes from a fellowship or from another institution/country)	78.3	81.8	80.0	72.2
I did not feel that experience abroad was a requirement for my pursuing an academic career in the country where I had obtained my PhD	47.8	59.1	4.0	44.4
My professional network helped me pursue my academic career in the country where I had obtained my PhD	82.6	72.7	80.0	83.3
My professional network advised me against/discouraged me from going abroad	4.3	9.1	16.0	33.3
I just did not think about applying abroad	26.1	31.8	25.0	27.8

Source: TRAMA 2013 online survey.

These results mainly demonstrate the importance of professional networks in one's pursuit of an academic career, be it in the country of one's PhD or abroad. Indeed, several studies have highlighted the importance of so-called 'political capital', 'ties with influential actors with respect to recruitment/promotion decisions' (Pezzoni et al. 2012: 704) and the 'friendship bonus' (Wenneras and Wold 1997), which have been demonstrated to be necessary in order to progress within academia. A question to be investigated further is whether professional-network capital, which consists of resources mobilized in order to pursue an academic career, is locally anchored, and subsequently whether academics who do not have (as much of) this type of capital more often become internationally mobile or leave academia. At the same time, young researchers also rely upon networks within academia to find a position

abroad - or even to return to a country in which they had previously worked, especially because they can face 're-entry problems' (Balter 1999).

4.3. Family considerations in deciding whether to become mobile

We also asked respondents questions regarding family-based considerations in their decision on whether to become internationally mobile. On the one hand (Table 3), many mobile academics, and women in particular, declared that their current partner or the one they had when deciding about their (previous) mobility encouraged/supported them to go abroad. Other family members also largely encouraged/supported the respondents, especially women. This emotional support appears to be an important element in academics' decision to become internationally mobile - for women, but also for men. At the same time, the majority of respondents who had experienced at least a year of mobility in a country other than the one in which they had completed their PhD 'felt [they] could satisfactorily accommodate [their] life as a couple and a family with [their] position abroad' and 'did not feel that having a child/children was an obstacle to taking up this position abroad', which indicates that they felt rather prepared for such an experience.

Table 3. Family considerations regarding the decision to become mobile, by university and sex (%)

Family considerations regarding the decision to be internationally mobile: completely agree + somewhat agree (%)	Cambridge		Zurich	
	Women	Men	Women	Men
My (former) partner encouraged/supported me to go abroad	84.6	64.3	82.1	79.3
Other family members encouraged/supported me to go abroad	82.9	51.4	57.1	47.1
I did not feel that having a child/children was an obstacle to taking up this position abroad	50.0	75.0	75.0	N/A
I felt that I could satisfactorily accommodate my life as a couple and a family with my position abroad	62.9	59.5	62.1	76.5

Source: TRAMA 2013 online survey.

On the other hand (Table 4), fewer than half of all non-mobile respondents declared that their current or former partner discouraged them from applying/going abroad, but there are noteworthy differences between women and men in this respect as well, especially at the University of Cambridge. Less than a quarter of non-mobile respondents, but twice as many women as men, mentioned discouragement from other family members. Much more often, non-mobile academics, especially women, 'felt that having a child/children was a substantial obstacle to applying/moving abroad', and that 'it would not have been possible to satisfactorily accommodate [their] life as a couple with a position abroad'.

Table 4. Family considerations regarding the decision not to become mobile, by university and sex (%)

Family considerations regarding the decision to apply only in the country of PhD: completely agree + somewhat agree (%)	Cambridge		Zurich	
	Women	Men	Women	Men
My (former) partner discouraged me from applying/going abroad	31.6	52.9	41.2	37.5
Other family members discouraged me from applying/going abroad	26.1	13.6	23.1	11.1
I felt that having a child/children was a substantial obstacle to applying/moving abroad	100.0	N/A	88.9	83.3
I felt that it would not have been possible to satisfactorily accommodate my life as a couple with a position abroad	69.6	63.6	77.8	88.9

Source: TRAMA 2013 online survey.

This finding confirms previous findings showing that family obligations, mainly having children, are important constraints to becoming internationally mobile, especially for women (e.g. Ackers 2003, Ward and Wolf-Wendel 2004). However, our findings also indicate that men too take children and their relationship with their partner seriously into account when deciding whether to apply for an academic position abroad. This finding is quite unusual in

the literature and shows that mobility can lead to new couple arrangements and configurations. We can further ask whether mobile academics are in more egalitarian relationships than non-mobile academics, or whether they just more often have a partner who is able to accompany them or are better able to manage a long-distance relationship (see also Ackers 2004). It may also be that those who ultimately become mobile have fewer other family obligations/constraints.

4.4. Characteristics and trajectories of mobile versus non-mobile respondents

Finally, who became internationally mobile and who did not? Did mobile respondents have different characteristics than non-mobile respondents? Did they follow different professional and family trajectories?

At the time of the survey (Table 5), mobile women respondents were slightly younger than their non-mobile counterparts, while mobile men were a little bit older than their non-mobile counterparts. Mobile academics were more often in a relationship than non-mobile academics, except men at the University of Zurich; and a large majority of all respondents remained in the same relationship they had been in at the time they completed their PhD. More mobile women and men at the University of Cambridge had children than the average, while fewer did so at Zurich.

Many fewer respondents had had children when they obtained their PhD than at the time of the survey. Nonetheless, many more mobile than non-mobile respondents at the University of Cambridge had had children when they obtained their PhD, while at the University of Zurich the situation was the reverse. In summary, a very large majority of all respondents remained in the same relationship they had been in when they had obtained their PhD, and most of them had their children afterwards.

As expected, many more mobile than non-mobile respondents at the Universities of Cambridge and Zurich were born in a country other than the UK or Switzerland, respectively. However, among non-mobile respondents as well, almost half at Cambridge and a third at Zurich were also born abroad.

Table 5. Some characteristics of mobile and non-mobile respondents, by university and sex (%)

Socio-demographic characteristics	MOBILE				NON-MOBILE			
	Cambridge		Zurich		Cambridge		Zurich	
	Women	Men	Women	Men	Women	Men	Women	Men
Age at the time of survey								
average	34.3	34.4	36.1	37.0	34.7	32.5	37.9	36.5
median	33.5	34	36	37	33	31	37	35.5
Relationship status at the time of survey								
respondent currently in a relationship	81.6	90.0	90.6	92.1	81.1	82.9	77.8	95.8
respondent currently not in a relationship	18.4	10.0	9.4	7.9	18.9	17.1	22.2	4.2
Same relationship the year of PhD	86.8	90.0	90.6	76.3	83.8	85.7	88.9	95.8
Having child/ren at the time of survey								
respondent has children	39.5	32.5	37.5	39.5	35.1	14.3	41.7	50
respondent has no child	60.5	67.5	62.5	60.5	64.9	85.7	58.3	50
Having children the year of PhD	13.2	10.0	9.4	2.6	8.1	2.9	27.8	29.2
Country of birth								
Switzerland	0.0	5.0	25.0	42.1	0.0	0.0	61.1	70.8
UK	13.2	2.5	3.1	2.6	48.7	54.3	5.6	0.0
Other	86.8	92.5	71.9	55.3	51.4	45.7	33.3	29.2
N	38	40	32	38	37	35	36	24

Source: TRAMA 2013 online survey.

We now present some results regarding mobile and non-mobile respondents' professional trajectory following their PhD (Table 6). In terms of academic age - measured here as the number of years since the PhD - mobile early-career academics, men in particular, had obtained their PhD longer ago. At first glance, this appears to suggest that mobile respondents were a step forward in their academic career than their non-mobile

counterparts, but, with the exception of men at Cambridge, they were more likely to have fixed-term positions and less likely to have tenure-track or tenured positions.

Mobile and non-mobile respondents, women and men, took about the same amount of time to complete their PhD. For around a third of mobile respondents, less than for non-mobile respondents, their current academic position had started less than one year after their PhD. Among women respondents, those who were mobile were more likely to have obtained short-term positions (less than one year), whereas the opposite was the case for men. Finally, mobile respondents had sent more applications for academic positions after their PhD, and mobile women had sent almost twice as many as their non-mobile counterparts.

Altogether, these results indicate a rather more precarious situation after the PhD for those academics who ultimately became internationally mobile than for those who did not, especially among women. Moreover, it appears that mobile early-career academics have had quite different family and career trajectories than their non-mobile counterparts. It is difficult to determine whether these differences are a cause or an effect of mobility: for example, it may be that those who decided to become mobile did so because of a lack of opportunities in the country in which they had obtained their PhD, but it may also be that this more precarious situation emerged during the mobility or resulted from it.

Table 6. Elements of the professional trajectory for mobile and non-mobile respondents, by university and sex (%)

About the professional trajectory	MOBILE				NON-MOBILE			
	Cambridge		Zurich		Cambridge		Zurich	
	Women	Men	Women	Men	Women	Men	Women	Men
Length of the PhD (years)								
average	4.6	4.2	4.9	4.4	4.1	4.2	4.7	4.0
median	5	4	5	4	4	4	4	4
Years since the PhD								
average	4.7	4.8	4.8	5.5	4.6	3.7	3.2	3.3
median	5	5	4	5	4	3	2.5	3
Current status of the academic position								
fixed-term position	79.0	75.0	84.4	89.5	73.0	85.7	83.3	83.3
tenure-track position	7.9	12.5	3.1	2.6	2.7	2.9	2.8	0.0
permanent/tenured position	10.5	12.5	12.5	5.3	24.3	11.4	13.9	16.7
other	2.6	0.0	0.0	2.6	0.0	0.0	0.0	0.0
Years since the current academic position started								
average	2.2	1.9	2.1	1.9	2.5	2.2	2.4	3.3
median	1.5	1	1.5	1.5	2	1	2	2
Current position started less than 1 year after PhD								
yes	39.5	40.0	21.9	29.0	46.0	57.1	52.8	83.3
no	60.5	60.0	78.1	71.1	54.1	42.9	47.2	16.7
missing value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Academic positions of less than 1 year after PhD								
yes	23.7	22.5	31.3	26.3	21.6	22.9	19.4	41.7
no	76.3	77.5	68.8	73.7	78.4	77.1	80.6	58.3
missing value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Applications since current position started								
yes, for academic positions	36.8	30.0	28.1	50.0	16.2	22.9	16.7	20.8
yes, for non-academic positions	2.6	0.0	3.1	7.9	8.1	5.7	2.8	8.3
yes, for both academic and non-academic positions	2.6	5.0	15.6	5.3	5.4	2.9	16.7	8.3
no	57.9	65.0	53.1	36.8	70.3	68.6	63.9	62.5
missing value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: TRAMA 2013 online survey.

4.5. Specific effects of mobility on academics' careers

In an attempt to understand the causality involved, we looked at what the early-career academics declared regarding the specific effects of their (last) experience of mobility on their academic career. When asked whether the mobility had had specific positive and/or negative effects on their academic career, and to specify these effects, a large majority of

respondents, especially those at the University of Cambridge and even more the women, reported that the mobility had had specific positive effects (Table 7). At both universities, specific positive effects included having obtained a job/funds; becoming more competitive, experienced and tolerant; improving their skills (including language skills), expertise and reputation; knowing other academics; developing an international network and so on. Women more often cited positive effects like having obtained a new academic position/staying in academia and broadening their scientific knowledge, their way of working and thinking. Men more often mentioned positive effects such as obtaining a job in a previous country of residence, improving their skills and enlarging their network.

At the same time, however, many mobile respondents also believed that mobility had had specific negative effects on their academic careers, particularly at the University of Cambridge and even more so among women respondents at the University of Zurich (Table 7). These negative effects included losing time with administrative issues and in organizing the move, postponing applying for other jobs, instability in their professional and personal lives. Women mentioned being away from their families (including less help with childcare) and losing their network (in previous countries). Men more frequently mentioned commuting and difficulties in organizing their family lives, in particular difficulties regarding their partner's ability to find a job in their new country.

Table 7. Specific effects of mobility on academics' careers as declared by the respondents themselves, by university and sex (%)

Declared specific effects of mobility	Cambridge		Zurich	
	Women	Men	Women	Men
Specific positive effects				
yes	92.1	90.0	84.4	65.8
no	7.9	5.0	9.4	5.3
do not know	0.0	5.0	6.3	23.7
missing value	0.0	0.0	0.0	5.3
Specific negative effects				
yes	36.8	35.0	43.8	15.8
no	52.6	50.0	31.3	57.9
do not know	7.9	12.5	18.8	21.1
missing value	2.6	2.5	6.3	5.3

Source: TRAMA 2013 online survey.

Mobile respondents commonly cited specific positive effects of mobility on their careers, in particular developing new scientific skills and broadening their horizons. The positive effect of mobility on professional networks appears rather mitigated, however, as mobile respondents declared that they both developed new networks and lost their networks in previous countries. As for specific negative effects, they referred to both organizing their move and the consequences of mobility on their career. As well - and although the question specifically asked about the effects of mobility on their academic career - many respondents also cited negative effects that are not directly related to their academic career, but to their personal and family life, especially being away from their family or difficulties regarding their partner's ability to find a job. These responses again indicate that mobility is a family matter throughout the entire process, from deciding to become mobile to organizing the move to afterwards, when it continues to affect mobile academics' partners and family life.

4.6. Effects of mobility on partners' professional situation

To better understand the difficulties faced by the respondents' partners in finding a (suitable) job, we first looked at whether or not the partner's professional situation changed during the mobility. These changes were declared by the academics themselves and regarded only partners who had moved with them.

At least half of the mobile respondents at both universities mentioned that their partners had experienced an employment-related change as a result of the move, be it in their employment situation, the type of occupation or both (Table 8). Many fewer partners were employed full time during the mobility than beforehand or at the time of the survey, but more were partly employed or unemployed. For the partners of male respondents (almost all of whom were women) this was often 'due to childcare, housekeeping'. For those partners who remained employed, fewer of them were managers during the mobility, and the partners of women respondents (mostly men) became employed in academia to a greater degree. Our findings demonstrate that not only female partners, but also male partners underwent many changes in their professional situation during the mobility, especially the partners of those who were academics at the University of Cambridge.

However, when asked about the overall effect of mobility on their (former) partner's professional situation (Table 8), more than 40 percent and up to two-thirds of each of the four groups of respondents - men and women at Cambridge and Zurich - believed that the mobility had had a rather or significantly positive effect, while fewer of them, especially among female respondents at Zurich, considered it to have had a rather or significantly negative effect.

Table 8. Effects of mobility on partners' professional situation, by university and sex (%)

Effects of mobility on partners' professional situation	Cambridge		Zurich	
	Women	Men	Women	Men
Changes in the professional situation of the (former) partner				
change from one employment situation to another	10.5	25.0	33.3	19.0
change from one type of occupation to another	26.3	8.3	8.3	14.3
change in both employment situation and type of occupation	21.1	25.0	8.3	9.5
no change	42.1	41.7	50.0	57.1
Overall effect of mobility on (former) partner's professional situation				
significantly positive	31.6	8.3	33.3	19.1
rather positive	15.8	33.3	33.3	23.8
no impact	15.8	29.2	8.3	28.6
rather negative	31.6	25.0	8.3	23.8
significantly negative	5.3	4.2	8.3	4.8
do not know	0.0	0.0	8.3	0.0

Source: TRAMA 2013 online survey.

These findings appear to be inconsistent. A majority of partners who had been employed full time before the move became partially employed or unemployed during the period of mobility, and many partners who remained employed during the mobility could not maintain the same level of responsibilities, especially among those who had been employed as managers. The respondents were nonetheless more likely to believe that the move had had a positive overall effect on their partner's professional situation. Other studies have also pointed out difficulties for partners, especially among skilled women, in finding a job and having their human capital valued to the same degree as before (e.g. Bonney and Love 1991, Boyle et al. 2003, Riaño and Baghdadi 2007, Shihadeh 1991).

4.7. Other family-related effects of mobility

We also included some questions regarding the effect of mobility on respondents' relationship with their current partner or the one they had when they decided to become internationally mobile, and on their decision to have a first or another child (Table 9).

Regarding the overall effect of mobility on their relationship with their partner, when respondents were still in the same relationship they mostly mentioned a positive effect or no effect. When the relationship had ended, however, the move was often considered one of the causes of the break-up, but seldom the main cause. This indicates that mobility could

contribute to instability in some relationships, but the problems experienced by a couple could also occur before the mobility or independently of it.

Regarding the effects of mobility on the decision to have a first or another child, some respondents believed that the mobility had had a significantly or rather positive effect, while many more, especially women and respondents at the University of Zurich, declared a rather or significantly negative effect. These negative effects mainly involved postponing having a child or deciding not to do so.

Table 9. Other family-related effects of mobility, by university and sex (%)

Other family-related effects of mobility	Cambridge		Zurich	
	Women	Men	Women	Men
Effect of mobility on the relationship with current partner				
significantly positive	19.2	7.1	8.3	11.1
rather positive	30.8	32.1	29.2	51.9
no impact	34.6	35.7	41.7	25.9
rather negative	15.4	17.9	4.2	7.4
significantly negative	0.0	3.6	12.5	3.7
do not know	0.0	3.6	4.2	0.0
Effect of mobility on relationship with a former partner				
mobility was the main cause of the break-up	33.3	0.0	0.0	40.0
mobility was one of the causes of the break-up	66.7	50.0	71.4	20.0
mobility didn't contribute to the break-up	0.0	50.0	14.3	40.0
do not know	0.0	0.0	14.3	0.0
other	0.0	0.0	0.0	0.0
Effect of mobility on the decision to have a first or another child				
significantly positive	6.9	6.7	3.3	0.0
rather positive	13.8	6.7	6.7	12.5
no impact	27.6	40.0	16.7	37.5
rather negative	10.3	20.0	26.7	25.0
significantly negative	31.0	16.7	36.7	15.6
do not know	10.3	10.0	10.0	9.4

Source: TRAMA 2013 online survey.

To sum up, at the family level a majority of respondents who ultimately became mobile had felt at the beginning that they could satisfactorily accommodate their life as a couple and a family with a position abroad. However, during the mobility they encountered many family-related difficulties such as being away from their (extended) family and instability in their personal lives. In addition, the move was often considered one of the causes of their break-up with the partner they had had at the time of their move, and to have had a negative effect on their decision of whether to have a first or another child. Overall, it seems that mobility did not benefit respondents' family life or their partners' careers very much.

4.8. Academics' core professional network

What about how mobility has affected academics' own careers? We saw above that a large majority of mobile respondents considered the effects to have been positive, and few mentioned specific negative effects. We also saw that respondents reported positive effects regarding their professional networks in terms of developing an international network, and negative effects in terms of losing their network from previous countries.

Do mobile early-career academics have different professional networks than their non-mobile counterparts? In the questionnaire, we gathered information about the three persons the respondents considered the most important for their academic career so far, similarly to what Jungbauer-Gans did in her study about scholars who had completed their Habilitation from 1985 to 2005 at West German universities (e.g. Jungbauer-Gans and Gross 2013). For each

of these three persons, we asked their sex, whether they were academics and if so their academic position, the country in which they worked and their relationship with the respondent. These characteristics of what can be defined as academics' core professional network are presented below (Table 10).

Table 10. Characteristics of the three most important persons for the academic career of mobile and non-mobile respondents, by university and sex (%)

Characteristics	MOBILE				NON-MOBILE			
	Cambridge		Zurich		Cambridge		Zurich	
Sex	Women	Men	Women	Men	Women	Men	Women	Men
female	31.2	21.7	30.0	29.0	31.0	31.7	41.7	28.8
male	68.8	75.0	68.7	71.0	69.0	68.3	58.3	71.2
other	0.0	3.3	1.3	0.0	0.0	0.0	0.0	0.0
Relationship to respondent	Women	Men	Women	Men	Women	Men	Women	Men
supervisor	45.8	47.8	38.7	49.5	48.0	47.6	34.5	30.8
hierarchical superior	8.3	12.0	11.3	10.8	16.0	12.2	17.9	21.2
work colleague	11.5	14.1	15.0	7.5	12.0	15.9	9.5	7.7
peer	0.0	0.0	1.3	5.4	2.0	2.4	1.2	11.5
partner	20.8	14.1	22.5	17.2	14.0	12.2	19.0	17.3
family member	9.4	6.5	8.8	4.3	4.0	9.8	9.5	11.5
friend	2.1	1.1	2.5	5.4	4.0	0.0	7.1	0.0
private acquaintance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other	2.1	4.4	0.0	0.0	0.0	0.0	1.2	0.0
Main employment situation	Women	Men	Women	Men	Women	Men	Women	Men
fully employed (incl. self-employment)	86.3	79.2	71.3	76.9	78.0	84.1	74.5	65.4
partially employed due to childcare, housekeeping...	1.1	5.5	1.3	2.2	2.0	1.2	7.3	5.8
partially employed due to other reasons	4.2	1.1	2.5	6.6	3.0	1.2	3.6	9.6
parental leave	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
studying	0.0	1.1	0.0	0.0	1.0	2.4	0.0	1.9
unemployed due to childcare, housekeeping...	0.0	4.4	2.5	2.2	0.0	1.2	1.2	0.0
unemployed due to other reasons	0.0	1.1	1.3	1.1	0.0	2.4	1.2	1.9
retired	7.4	3.3	20.0	9.9	12.0	4.9	12.2	13.5
other	1.1	4.4	1.3	0.0	4.0	2.4	0.0	1.9
Person 1, 2 or 3 is an academic	74.0	80.4	62.5	74.2	73.0	73.2	70.2	73.1
Current academic position	Women	Men	Women	Men	Women	Men	Women	Men
department chair/vice chair/director	2.8	0.0	0.0	0.0	2.7	0.0	1.7	2.6
group leader/lab head/PI	4.2	2.7	4.0	1.4	2.7	1.7	0.0	0.0
professor (incl. emeritus)	57.7	70.3	76.0	75.4	56.2	50.0	72.9	68.4
reader	5.6	1.4	0.0	1.4	4.1	8.3	0.0	0.0
associate professor	5.6	2.7	0.0	1.4	0.0	0.0	0.0	0.0
assistant professor	0.0	1.4	6.0	0.0	0.0	1.7	0.0	5.3
lecturer	7.0	6.8	2.0	2.9	17.8	16.7	3.4	0.0
researcher	2.8	6.8	0.0	4.3	1.4	5.0	5.1	2.6
research associate	8.5	2.7	0.0	2.9	4.1	10.0	0.0	2.6
research assistant	0.0	0.0	0.0	2.9	1.4	0.0	1.7	0.0
postdoc	1.4	1.4	8.0	1.4	1.4	1.7	6.8	0.0
other	4.2	4.1	4.0	5.8	8.2	5.0	8.5	18.4
Country of work (if employed)	Women	Men	Women	Men	Women	Men	Women	Men
Switzerland	0.0	1.6	29.5	46.4	0.0	1.8	81.6	67.5
UK	32.8	37.5	9.1	8.7	86.9	80.0	4.1	2.5
Other	67.2	60.9	61.4	44.9	13.1	18.2	14.3	30.0

Source: TRAMA 2013 online survey.

Respondents' professional networks were predominantly composed of men, especially for mobile respondents. This finding confirms that the academic environment continues to be a male-dominated world in different European countries (see also Bourdieu 1998).

For the majority of respondents, the three most important persons were their supervisor, a work colleague or a hierarchical superior and, at a personal level, more often a partner or a family member. It is noteworthy that non-mobile respondents were much more likely to declare hierarchical superiors among their core professional network, which suggests that

they possessed a greater amount of 'political capital' (Pezzoni et al. 2012) than did mobile respondents.

When these persons were academics, as was usually the case, they were most often professors, especially so for mobile academics. As well, more of these persons were retired for the mobile than non-mobile respondents, although a large majority were still employed full time. Finally, when employed, more than half of mobile respondents' core professional network worked abroad, much more than for non-mobile academics.

Thus, mobile academics did indeed have a much more transnational network, and mobility probably contributed to this situation to a certain extent. At the same time, in order to find an academic position abroad, academics also count on their professional relationships, especially the transnational ones. From our study, it is not possible to determine the extent to which these career networks contribute to and/or are a result of international mobility. What is clear, however, is that the respondents who ultimately became mobile had a core professional network quite different from that of their non-mobile counterparts. A further question is whether this network can be maintained and remains useful in a third country, particularly when it also contains retired persons.

5. Conclusion

Using two European universities with quite different mobility frameworks as a case study - the University of Cambridge (UK) and the University of Zurich (Switzerland) - we have examined what is at stake when academics in the early stages of their careers decide whether to pursue international mobility for at least a year for academic purposes in a country other than the one in which they obtained their PhD. We have argued that a better understanding of academic careers requires that we consider broader social relationships - familial relationships and professional networks - as both a pre-condition for and an effect of mobility. This argument extends beyond the 'work versus family' hypothesis, which assumes that women have to make a choice between work and family, by paralleling the work and family conditions under which female and male early-career academics potentially engage in transnational mobility, and by considering how both their academic careers and their family lives are affected by their mobility.

We might begin answering this broad question by arguing that it is certainly important to consider women's and men's practices not only in academia, but also beyond the university, especially within the familial environment. Family surely matters from the very beginning in academics' decision to become or not become internationally mobile. Emotional support from one's partner and other family members is especially important when deciding whether to work abroad. The mobile respondents in our study also had quite different family trajectories than their non-mobile counterparts: they were more likely to be in a relationship and sometimes more likely to be parents, although they had had most of their children after obtaining their PhD and after becoming mobile. The effect of mobility on partners' professional situation was often rather negative, as many partners had experienced a professional change as a result of the move. In cases in which respondents had broken up with the partner they were with when they had moved abroad, mobility was also often cited as one of the causes of their break-up, and mobility also often led respondents to postpone having a child, or to decide not to do so.

On the professional side, academics who ultimately decided to become mobile felt the need to do so for the sake of their career more strongly than their non-mobile counterparts, and they also felt more prepared for it. Those who stayed in the country in which they had obtained their PhD were especially likely to declare that their professional network had helped them pursue an academic career there. Mobile respondents also seemed to find themselves in a more precarious situation. However, a large majority of mobile respondents, especially among women, declared that mobility had positive effects on their academic career, but they also mentioned specific negative effects. Although mobile academics

ultimately have a more transnational core professional network, that network is less likely to contain hierarchical superiors and more likely to contain retired persons, which would suggest that mobile academics possess a smaller amount of 'political capital' (Pezzoni et al. 2012) than their non-mobile counterparts.

Altogether, our study sheds light on how early-career academics try to reconcile their family life and academic career in the face of international mobility. Mobility did not generally benefit respondents' family life or their partners' careers. This is true overall for both universities examined here, although they do not have the same mobility system, which indicates that having numerous mobility programs at a national or local level, including the provision of extra funding for the relocation of partners and children, does not guarantee a better work-life balance.

Finally, our findings also demonstrate the importance of mobility, and especially of professional networks, in pursuing an academic career. Despite the widespread discourse about the need to be internationally mobile in order to remain and progress within academia, our study reveals many locally anchored trajectories in which the academics' professional network helped them pursue a career in the country in which they had received their PhD. Thus, in the first years after completing their PhD, many academics can pursue academic careers without being mobile. The question remains whether or not mobility is a pre-condition for success in later stages of an academic career, and whether mobility becomes a resource at a later point in the trajectory—whether it becomes what has been referred to as 'motility' (mobility as a capital, Kaufman et al. 2004).

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