

## **Research conditions, and nothing else matters? - International researcher's rationales for choosing host institutions (0168)**

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### **Abstract**

The ability to attract skilled researchers in an international competition is an important issue for science policy and comes along with a growing interest to quantify stocks and flows of cross-border researcher mobility and identify mobility drivers. Researcher surveys consistently highlight research conditions, expertise of research personnel and reputational factors as relevant criteria for favouring specific host institutions or countries. However, systematic insights into researchers' mobility decisions and interrelations between personal and academic reasons, as well as opportunity structures such as job or scholarships offers are limited.

Based on survey data about foreign-educated post-doctoral researchers at German Higher Education Institutions and qualitative interviews, I analyse researchers' rationales for choosing specific destinations. By applying a triangulation approach, I (1) identify five distinct motivational profiles, (2) characterise them with regard to their basic orientation and (3) show how they relate to researchers' perceived career perspectives, previous mobility, and their private living situation.

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### **Introduction**

The ability to attract skilled researchers in an international competition is an important issue for science policy and Higher Education Institutions (HEI). The brain-drain-brain-gain debate comes along with a growing interest to quantify stocks and flows of cross-border researcher mobility, describe mobility patterns with regard to space and time (e.g. Boring et al. 2015, MORE 2010, Ackers 2010, King 2002), and explore mobility drivers and obstacles.

Studies about academic mobility refer to a wide range of structural and individual reasons why researcher become mobile and opt for a specific destination. First of all, researcher surveys consistently highlight research conditions, expertise of research personnel and reputational factors as the most relevant criteria for favouring specific mobility destinations (Franzoni et al. 2012, Otto & Temme 2012). While studies about foreign graduate and PhD students suggest that funding options and scholarship programmes strongly influence the choice of mobility destinations (Stephan et al. 2014, Aslanbeogio & Monticinos 1998), the role of funding opportunities has hardly been scrutinised for researchers. Further factors channeling or driving mobility decisions discussed in literature are the necessity to go abroad in order to acquire specific skills or use specific research infrastructure (e.g. Stephan 2012,

Ganguli 2012, Becker & Toppel 2012), career-facilitating effects of research stays abroad (e.g. Cantwell 2011, Morano-Foadi 2005, Musselin 2004, Guth & Gill 2008, Scheibelhofer 2006), unfavourable working conditions and career perspectives in the country of origin (e.g. Pellens 2012, Ackers 2005, Ackers et al. 2007, Hunter, Oswald & Charlton 2009), and last but not least private reasons (e.g. Neusel et al. 2014, Otto & Temme 2012, Jöns 2003).

Despite the growing body of literature about academic mobility and its determinants, an empirically-based typology of researchers' individual rationales to become mobile respectively to choose a mobility destination is still lacking. Based on a sample of foreign-educated post-doctoral researchers at German HEI, this paper addresses the following questions:

- (1) Whether and how do distinct private or academic motives interact in decision-making processes about mobility destinations?
- (2) Which characteristic motivational profiles do show up?
- (3) How do these motivational profiles relate to researchers' perceived career perspectives, previous mobility, and their private living situation?

The subsequent sections provide a brief introduction of the data base, outline the methodological approach for developing the motivation typology, and present key findings of the analysis.

### **Research design, data base and methodological approach**

The following analysis draws on data from the study „Motivations of international researchers at German Higher Education Institutions“ (MIND) which was conducted between July 2014 and July 2015.<sup>1</sup> The target population of the study encompassed (1) PhD-holding foreign-educated scientific and artistic personnel at German Higher Education Institutions (excluding professors) and (2) PhD-holding visiting scholars and scholarship holders residing at German HEIs at the point of time of the survey. The study comprised a standardised online-survey as well as 16 qualitative interviews. The validated sample consist of 1,532 persons. The analysis of motivational profiles excludes respondents which still hold an employment contract with a HEI or research organisation outside Germany.

The respondents have been asked to rate 18 standardised items concerning the importance for their mobility decision on a five-point Likert scale. In order to construct a typology of motivational rationales, I apply a four step procedure. Firstly, principal component analysis (PCA) is applied to identify six basic motivational dimensions based on the set of standardised items. Secondly, cluster analysis is used to group researchers according to similarity on the six motivational dimensions. In order to arrive at an interpretable, subjectively meaningful decision-making rationale and validate the statistically derived cluster solution, results are triangulated by findings from the qualitative interviews in a third step. In the fourth step, I draw on interview data and additional survey-data to characterise the basic rationale of each motivational type and explore how these rationales relate to

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<sup>1</sup> The study was conducted on behalf of the German Academic Exchange Service (DAAD) and the German Rectors' Conference (HRK) and funded by the German Federal Ministry of Education and Research.

researchers' assessments of their perceived career perspectives, previous mobility and their private living situation.

## **Results**

By applying the triangulation approach described above, I identify five distinct motivational types, which differ according the focus of their search behavior, previous mobility experiences and their career perspectives:

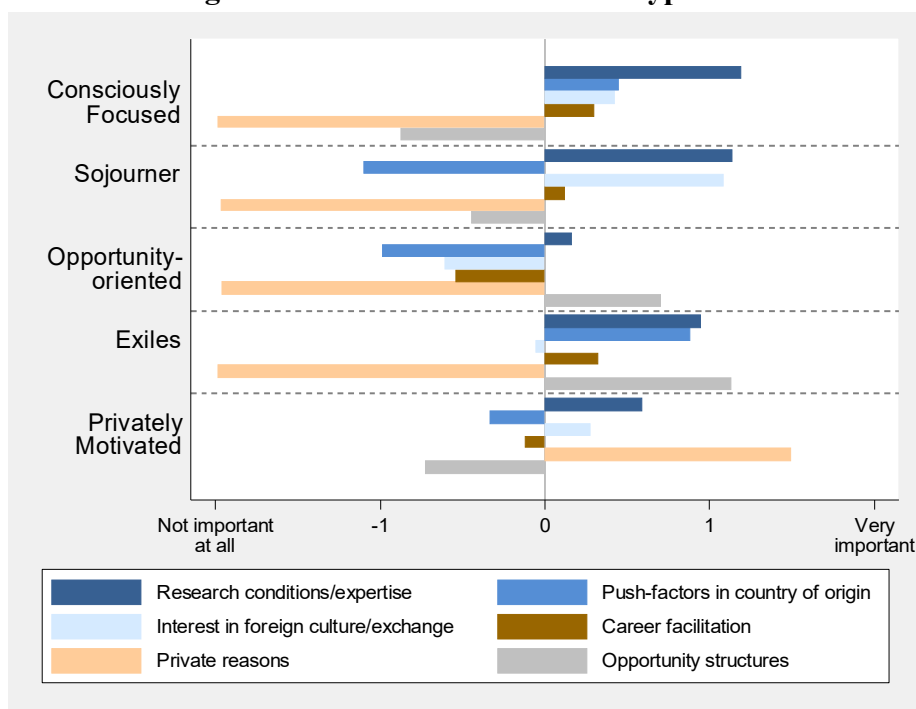
- (1) The "Consciously focused" based their decision for a German host institution on a conscientious assessment of the research conditions and expertise offered there. Although 60% consider an academic career in the country of origin realistic, almost half of them intend to stay in Germany for more than three years.
- (2) For the "Sojourners", their research stay in Germany primarily poses a stepping stone for a research career in the country of origin. For 42% of the "Sojourners" the current stay is also the first academic stay abroad.
- (3) The "Opportunity-oriented": Their decision to come to Germany was triggered by a specific job or scholarship offer and was not necessarily driven by the desire or intention to go abroad.
- (4) For the "Exiles", migration was without any alternative in order to pursue an academic career. Many of them left their country of origin already before post-doctoral phase. They took a wide range of locations into account but based their final decision for a German HEI on local researchers' expertise and favourable research conditions.
- (5) The "Privately motivated" based their choice on the fact that their partner or family already lived in Germany. Favourable research conditions have been relevant for their decision as well but of minor importance. Most of them feel well integrated and intend to pursue their academic career in Germany.

Figure 1 illustrates the profiles by depicting the average relevance of each motivational dimension across the motivational types.

## **Conclusion**

The results help to gain a better understanding of researchers' decision-making criteria and how mobility decisions at a specific point of time should be interpreted from a life-course perspective. The findings may support decision-makers in designing tailored strategies to address groups of researchers with distinct motivational profiles and to anticipate potential group-specific long-term trends such as diverging propensities for return migration and intentions to stay.

**Figure 1: Profiles of motivational types**



Source: MIND online survey, N=1,248, displayed are cluster-specific averages of unweighted factor loadings

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