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First Impressions Matter: Feeling Welcome and Onward Migration Intentions of Highly Skilled Migrants

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Abstract
In the context of the global competition for highly skilled migrants, policy makers follow different approaches to attract and retain this highly sought-after group. One common assumption is that the establishment of a welcoming culture can facilitate the retention of highly skilled migrants. Relatively little is known, however, about the impact such policies can have on highly skilled migrants' decisions to remain in the destination country. We address this gap by analysing the association between feeling welcome and highly skilled migrants' spatial intentions. We use a mixed methods approach that combines a survey conducted among highly skilled migrants in the Euregio Meuse-Rhine ($n=410$) and two rounds of semi-structured interviews (wave 1: $n=67$; wave 2: $n=49$). Our results suggest that respondents who feel welcome are more likely to have the intention to stay in the region permanently. This association is stronger for migrants with relatively more agency. The paper underlines the importance of early experiences in the host country and the role of subjective and intangible factors like feeling welcome in migration decision-making.

Keywords Highly skilled migrants · Feeling welcome · Migration intentions · Onward migration · Agency

Introduction

A better understanding of the determinants of different forms of migration helps to predict future migration flows and to inform policy-making. In the context of the global competition for talent, countries around the world are trying to create a competitive advantage in attracting and retaining highly skilled migrants (Czaika, 2018; Skeldon, 2018; Czaika & Parsons, 2018). One assumption is that creating a welcoming

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environment for this highly mobile group can increase a place's attractiveness and facilitate migrant retention (Föbker et al., 2014). However, there is little scientific evidence to support such policies. In addition, knowledge about the factors contributing to the retention of highly skilled migrants more generally (Fink & Miguelez, 2017) and the role of initial experiences in the host country specifically (Diehl et al., 2016) is scarce.

We analyse highly skilled migrants' spatial intentions in the host country and how these intentions are associated with feelings of being welcome.[1] We choose this measure because efforts to create a welcoming culture usually focus on the reception phase and on facilitating the migration and settling-in process of highly skilled migrants. Following the assumption that creating a welcoming environment will assist attracting and retaining highly skilled migrants, this concept also lends itself to studying whether feeling welcome indeed contributes to increased retention rates.

We answer the following research question: How do feelings of being welcome in the host country influence migrants' spatial intentions? We argue that migrants' feelings of being welcome in the host country can influence how they evaluate their situation in the host country and therefore influence their spatial intentions, especially if they have comparatively more agency.

Our paper applies a mixed methods research design, combining a survey conducted with highly skilled migrants in the Euregio Meuse-Rhine (EMR) ($n=410$) and serial interviews with a sub-sample of survey respondents (wave 1: $n=67$; wave 2: $n=49$). The survey measures whether migrants felt welcome when they arrived in the region. We assume that respondents considered the first year spent in the region, when answering the question so that they had time to adjust to their new situation. The interviews consider the migrants' entire stay in the region. Through combining both data sources, we get a realistic account of the perceived welcoming environment and its association with highly skilled migrants' spatial intentions (i.e. intending to remain in the host country permanently, intending to remain temporarily/being uncertain and intending to migrate onward). We consider staying and leaving as equivalent options worth studying to contribute to moving away from the mobility bias in migration studies (Carling, 2014; Carling & Schewel, 2018; Schewel, 2019). We analyse spatial intentions which are considered good predictors of actual spatial behaviour (Author et al., 2020), although our longitudinal qualitative data allows us to also see (some) of the latter.

The EMR is a European border region with structural cooperation between its five partner regions spanning three EU member states: the German Region Aachen, the Dutch Province of Limburg, the Belgian Provinces of Limburg and Liege and the German-speaking Community of Belgium. The EMR is an interesting case study as few studies on highly skilled retention (or migration more generally) look at the regional level and the EMR would like to be better at attracting and retaining highly skilled migrants (for more information about the EMR, see Reinold (2023).

To our knowledge, this is the first study focusing on the link between migrants' feelings of being welcome and their spatial intentions. In doing so, it contributes to the literature on high-skilled migration, especially migrants' experiences in the host

[1] This article is based on chapter 4 of the doctoral dissertation of the first author (chapter 4).

country and spatial intentions, in two main ways. First, it contributes to better understanding of how initial experiences in the host country shape migrants' trajectories (Diehl et al., 2016; Ette et al., 2021), which is especially interesting because the onward migration of highly skilled migrants remains relatively under-studied, while they are among the most mobile (Weinar & Klekoswski van Koppenfels). It furthermore adds to the human face of high-skilled migration (Povrzanović Frykman et al., 2019), by zooming into feelings of being welcome as softer and less tangible factors in decision-making, which the traditional migration literature has largely overlooked (Hagen-Zanker et al., 2023; Ahrens et al., 2016).

Theoretical Framework and Literature Review

Diehl et al. (2016) argue that initial experiences in the host country have "important implications for what happens later" (p. 157). In this study, we look at the association of highly skilled migrants' initial experiences in the host country with their spatial intentions. We integrate aspirations-capabilities frameworks (De Haas, 2014) with other relevant migration theories to explain spatial intentions of highly skilled migrants. Second, we review the relevant empirical literature on migrants' initial experiences in the host country and how these shape migrants' spatial intentions.

For this paper, highly skilled migrants are defined as those having completed or enrolled in tertiary education. Regarding initial experiences, we focus on feelings of being welcome and related concepts (e.g. perceived discrimination; perceived (group) acceptance). We look at migrants' spatial intentions in the host country, and see staying and onward migrating as equivalent options. Onward migration is defined as "a spatial trajectory that involves extended stays in two or more destination countries" (Ahrens & King, 2022, p. 5).[2] While our focus is on spatial intentions and related concepts (Carling, 2019), we also take into account drivers of actual spatial behaviour where relevant, since intentions are good predictors of behaviour and both are subject to similar determinants (Author et al., 2020).

Migration Theories

The field of migration remains under-theorised (De Haas, 2014) and a theory explaining high-skilled migration or onward migration specifically has not been developed thus far (Castles et al., 2014). Aspiration-capabilities models are meta-theoretical frameworks that allow for combining different migration theories to better understand different kinds of migration (De Haas, 2014).

[2] Onward migration is often used synonymously with re-migration, stepwise migration, repeat migration, multinational migration, twice migration, sequential migration and serial migration among others (Ahrens & King, 2022). In some cases, the term onward migration is reserved for individuals from third-country who first migrate to a European Union country and then move onward to another European country after having acquired European citizenship and the right to free movement in the first country (Della Puppa et al., 2021). We prefer the broader definition that includes a wider range of individuals and countries.

According to de Haas (2014), "[m]igration aspirations are a function of people's general life aspirations and perceived spatial opportunity structures" (p. 23). Migration aspirations result from comparing places (e.g. the current place of residence and potential next destinations) and individuals' subjective perceptions about better opportunities elsewhere (Carling, 2014; De Haas, 2011, 2014). Capabilities can be defined as individuals' "ability […] to lead lives they have reason to value" (De Haas, 2014, p. 24). Migration can only occur if individuals have both aspirations and capabilities to migrate. Aspiration-capabilities models simultaneously account for structure and agency in migration decision-making (Castles et al., 2014; De Haas, 2011, 2014). Migrants' agency refers to the ability to choose whether to move and where to move (Carling, 2002; De Haas, 2014). Structures come in the form of negative liberty (i.e. absence of barriers) and positive liberty (i.e. control over one's life) and influence individuals' migratory agency. High-skilled migration can be categorised as relatively "free migration" because of less constrained migration policies (i.e. high negative liberty) and indidviduals' comparatively greater access to economic, human and social capital (i.e. high positive liberty) (De Haas, 2014). High-skilled individuals are also assumed to be better at finding and processing information, which makes it easier to understand where the more favourable locations are (Coletto & Fullin, 2019; DaVanzo, 1983). This also means that the high-skilled can be more picky about where they live compared to other migrant groups and consider a broader range of (softer) factors when deciding whether and where to move (Ette et al., 2021; Author et al., 2017; Chindarkar, 2014). For these reasons, neoclassical theory may be helpful in explaining spatial intentions of highly skilled migrants in the host country.

Micro-level neoclassical theory assumes that migrants act rationally and that the migration decision is voluntary and based on a cost–benefit calculation (Castles et al., 2014; Massey et al., 1993; Sjaastad, 1962; Todaro, 1969). The costs of moving refer to financial, social and psychological aspects (e.g. travel costs, investments to find a new job, build new networks and leave old ones behind, learn a new language and get to know a new culture), while the benefits of moving are traditionally associated with the maximisation of one's income (Massey et al., 1993). Human capital theory, one strand of neoclassical theory, holds that the benefits of migration may also include non-financial considerations, for example increased career and personal opportunities (Sjaastad, 1962). Micro-level neoclassical models offer an explanation for why the high-skilled are more mobile (Borjas, 1987), namely because for them the returns to migration are comparatively higher due to greater employment opportunities, higher (financial) remuneration and lower migration costs (i.e. favourable policies, access to various forms of capital). Neoclassical theory has also been applied to better understand decisions of migrants to remain in the host country (Ette et al., 2016, 2021) or return home (de Haas et al., 2015; Kunuroglu et al., 2018; Tezcan, 2019). If migrants assess migration as a "success",[3] neoclassical

[3] We disagree with the framing of staying as success and leaving as failure. As migration trajectories are not linear, re-migrating or return could have been the migrant's goal to begin with. Furthermore, re-migration intentions can also be the result of changing preferences and aspirations, for example due to important life course transitions (Ette et al., 2021) or because of unexpected events and opportunities (Hooijen et al., 2020).

theory assumes that they remain in the host country because leaving again would involve greater costs. Less successful migration is associated with onward migration or return because "the previous cost–benefit calculation has not materialised" (Ette et al., 2021, p. 101). However, studies testing this logic do not always find support for it (Ette et al., 2016, 2021).

Another theory that could be especially useful for understanding spatial intentions of highly skilled migrants is the theory of the creative class (Florida, 2003). It acknowledges migrants' agency and highlights the importance of non-economic factors including amenities in attracting (and retaining) the highly skilled. In particular, the presence of technology, talent and tolerance is seen as crucial to understand location decisions of high-skilled individuals. The theory of the creative class is often criticised for not being equally applicable to different country contexts and empirical evidence on the theory is mixed (Brown, 2015; Musterd & Gritsai, 2012; Niedomysl & Hansen, 2010).

Combining the aspirations-capabilities framework with neoclassical theory and the theory of the creative class can be especially useful to better understand high-skilled migration: Highly skilled migrants' spatial intentions are expected to depend on cost–benefit calculations to maximise opportunities of different kinds. Therefore, we examine whether migrants who feel welcome are more likely to intend to remain in their current place of residence because they would gain relatively less from moving. We examine whether feelings of being welcome are more decisive for individuals with more agency as they can be more selective in choosing their residency.

Empirical Literature

Early experiences of migrants in the host country can have "important implications for what happens later in the adaptation process" (Diehl et al., 2016, p. 157). Nevertheless, highly skilled migrants' initial experiences in the host country are rarely the focus of existing studies. In general, relatively little is known about the timing of positive or negative experiences in the host country and more long-lasting effects, for example on onward migration (intentions).

There are more and more initiatives in host countries to create a welcoming environment for highly skilled migrants (Author, 2021; Föbker et al., 2014). We understand the concept of being welcome as migrants being "greeted with hospitality and courtesy and that [their] presence is accepted with pleasure" (Lauring & Selmer, 2015, p. 126). On a local and institutional level, efforts to welcome highly skilled migrants often include services to support migrants during the migration process and upon arrival in the host country through information provision and advice (Föbker et al., 2014) and the organisation of welcome events to facilitate networking and getting to know the new place of residence (Author, 2021). Perceptions of institutional and societal factors in the host country as well as the migrants' personality traits are associated with their feelings of being welcome. The societal component is relatively more important than the other two (Author, 2023). Experiences of exclusion and social distance to the native population can negatively affect migrants' feelings of being welcome (Author, 2023). Feeling unwelcome can have a negative

impact on migrants' experiences in the host country and their general well-being (Ahrens et al., 2016).

Migration aspirations (and decisions) are subject to a variety of complex and interrelated factors. Whereas there is a wealth of information regarding the determinants of initial migration aspirations (for an overview see Aslany et al., 2021), the drivers of onward migration remain under-researched even though it seems to be a fairly common phenomenon (Ahrens & King, 2022; Aslany et al., 2021; Della Puppa et al., 2021). While initial and onward migration share some drivers, there are also important differences between the two, for example, in terms of migrants' characteristics like educational level (Della Puppa & King; 2019; Salamońska & Czeranowska, 2021). In general, onward migration (intentions) are determined by economic and career-related factors, migrants' personal characteristics and family composition, and time (Ahrens & King, 2022; Ahrens et al., 2016; Della Puppa & King, 2019; Della Puppa et al., 2021; Ette et al., 2016, 2021; Kelly & Hedman, 2016; Salamońska & Czeranowska, 2021).

Research on the onward migration of highly skilled migrants is especially scarce (Ette et al., 2021), which is rather surprising because this group of migrants is among the most mobile (Aslany et al., 2021; Salamońska & Czeranowska, 2021; Czaika, 2018; Ette et al., 2016). Carling and Pettersen (2014) find that migrants from less developed countries living in Norway are more likely to intend to stay in the country, when they are highly skilled. In contrast, high-skilled Iranian refugees in Sweden (Kelly & Hedman, 2016), highly skilled migrants in the USA (Massey & Redstone Akresh, 2006) and German migrants abroad (Ette et al., 2021) are more likely to (intend to) leave the host country with increased educational level. A possible explanation for this is that for voluntary highly skilled migrants, "international migration is a more functional biographical trajectory to acquire certain skills" (Ette et al., 2021, p. 112).

In addition, we know little about the link between host country effects (e.g. reception climate, welcoming environment) and onward migration intentions (Ette et al., 2021). In the following, we focus on aspects related to the welcoming environment and how they could be linked to onward migration (intentions). Social integration (e.g. speaking the host country language, having friends) in the host country is assumed to reduce onward migration intentions (Ette et al., 2021). Positive intergroup contact between migrants and natives has been related to feelings of being welcome and reduced onward migration intentions, for example in the case of (high-skilled) migrants in Australia (Sapeha, 2016), high-skilled refugees in the Netherlands (Di Saint Pierre et al., 2015) and Moroccan migrants in Europe (de Haas et al., 2015) due to increased costs of leaving again. Negative intergroup contact with natives (e.g. social isolation, exclusion, perceived discrimination, racism, marginalisation and xenophobia) can lead to onward migration (intentions) (Ahrens et al., 2016; Caron, 2020; de Haas et al., 2015; Della Puppa et al., 2021; Di Saint Pierre et al., 2015; Kunuroglu et al., 2018; Mohamed & Abdul-Talib, 2020; Sapeha, 2016; Serra Mingot, 2022; Tezcan, 2019). This can also have to do with the political climate in the country and the rhetoric surrounding it. For example, if there is growing support for political parties (i.e. via voting) sending the "message that immigrants are not welcome" (Ahrens et al., 2016, p. 92), this may be a reason to

leave. In this case, and since (onward) migration intentions are usually the result of comparing one place to another (Carling, 2014), migrants may (intend to) re-migrate to a place that they perceive as more open, tolerant, inclusive, acceptant and cosmopolitan (Ahrens et al., 2016; Della Puppa & King, 2019). Perceived better opportunities elsewhere are general determinants of onward migration (intentions) (Montagna et al., 2021; Della Puppa et al., 2021). Not feeling welcome or accepted in the current place of residence (anymore) and a perceived more welcoming environment elsewhere can thus motivate onward migration (Ahrens et al., 2016; Della Puppa & King, 2019). This can even outweigh the costs of leaving as Ahrens et al.'s (2016) example of a Somali woman living in the Netherlands shows. Despite being happy in the Netherlands, having a Dutch partner and a good job and actively participating in and contributing to the society, she decided to re-migrate, when she did not feel welcome anymore (Ahrens et al., 2016).

Contribution

Our review of the empirical literature has identified gaps in the literature that we aim to address through this research. There is limited knowledge about early experiences of migrants in the host country and how they relate to migrants' spatial intentions (Diehl et al., 2016; Ette et al., 2021). We contribute to this by analysing how early experiences in the host country, measured as migrants' feelings of being welcome in the host country, are associated with spatial intentions. While feelings of being welcome in the host country have been mentioned in the literature as reasons for onward migration sporadically (Ahrens et al., 2016), to our knowledge, the association between the two has not been studied in depth thus far. In doing so, this research contributes to the emerging literature on high-skilled migration and onward migration more generally (Ette et al., 2021; Weinar & Klekowski van Koppenfels, 2020) and on the role of less tangible factors in migration decision making specifically (Hagen-Zanker et al., 2023). We combine the aspirations-capabilities framework (De Haas, 2014) with micro-level neoclassical theory (Sjaastad, 1962; Todaro, 1969) and the theory of the creative class (Florida, 2003) to better understand how feelings of being welcome relate to perceived geographical opportunity structures and thus spatial intentions. We examine whether migrants who feel more welcome (i.e. theory of the creative class) would gain relatively less from re-migrating (i.e. neoclassical theory) and are therefore more likely to intend to remain in the host country. In addition, we examine whether the influence of feeling welcome on spatial intentions depends on migrants' agency.

Data and Methodology

Mixed Methods Design

We use a mixed methods design combining quantitative survey data ($n=410$) and qualitative serial interviews ($n=67$ and $n=49$ for the first and second round of interviews

respectively).[4] We apply a nested design, meaning that the quantitative and qualitative data were collected after one another and cover the same participants (Small, 2011). The quantitative and qualitative component were integrated at various moments throughout the research process and are equally important for the analysis (Schoonenboom & Johnson, 2017). The mixed methods design serves three purposes, namely to triangulate, complement and expand research findings. This allows us to arrive at a more nuanced and complete understanding of the linkages between feeling welcome and spatial intentions.

Quantitative

Survey Design and Implementation

The quantitative component is based on an online survey that we designed, piloted and implemented ourselves using convenience sampling and snowballing techniques. The data is thus not representative and self-selection could be an issue. Three inclusion criteria were applied for individuals to participate: (1) being highly skilled (i.e. having obtained or being enrolled in at least a Bachelor's degree); (2) living in the EMR when taking the survey; and (3) having migrated to the EMR crossing an international border. The survey (available in English, Dutch, German and French) covers detailed information on respondents' background and personal characteristics, migration history and reasons for migrating to the EMR, experiences living in the EMR and spatial intentions. The complete questionnaire is available from the authors upon request. We use a sub-sample of 410 respondents.

Variables

Our main dependent variable measures highly skilled migrants' spatial intentions, distinguishing between three outcomes: (1) intending to stay in the EMR permanently, (2) intending to stay temporarily or being uncertain and (3) intending to migrate onward or return (Author et al., 2017; Sapeha, 2016). It is thus a nominal variable with three possible outcomes. It was created based on the survey question "Which statement describes your future mobility intention best?" with six different answer possibilities (stay permanently, stay temporarily, move to another region in the same country, return home, re-migrate to another country, uncertain). The answer categories were combined based on Wald tests according to which the combined alternatives are indistinguishable (Long & Freese, 2006).

The focal independent variable is binary and measures whether respondents felt welcome in the region or not. It is based on the backward looking survey question "When arriving to the region, did you feel welcome?" which was measured on a 5-point-Likert scale (1 = definitely yes; 5 = definitely no). One shortcoming of the data is that the timing is not clearly defined. We assume that respondents considered the first year in the host country when answering the question so that they have had sufficient opportunities to get to know the new environment. This assumption is supported by the information migrants

[4] We received ethical approval from our University's Ethics Review Committee to conduct this research.

shared with us during interviews. They usually recall experiences that contributed to their feelings of being (un)welcome very well and mentioned different examples ranging from initial experiences during the migration process to later experiences at work and with the host society. We use migrants' initial reason for moving to the EMR as proxy for agency and categorise individuals who migrated for work as having relatively more agency compared to individuals who migrated for education or to join their partner. International higher education graduates, for example, are more likely to base their decisions on job opportunities (Author et al., 2017, 2020), while spatial intentions of those who moved for their partner can be expected to continue depending on the partner. In addition, we include three sets of control variables in our models: migrant characteristics, as well as information about the respondent's previous and current residence. Migrant characteristics include the respondent's age, gender, whether or not they have a partner in the EMR, having children below the age of 18 and income categories. To control for the migrants' origin, we include a binary variable indicating if the respondents are European or third-country nationals (TCNs). Moreover, we include a binary variable comparing the Human Development Index (HDI) of the previous country of residence to the HDI of the current country of residence to establish if respondents have moved from a more or less developed country. Furthermore, we include a variable about the respondent's previous migration experience, indicating in how many different places they have lived for more than six months since their 16th birthday. We furthermore control for the time spent in the EMR and respondents' proficiency in the local language.

Empirical Model

Since our main dependent variable measuring spatial intentions is a categorical variable, we apply multinomial logit models (MNLM) using Stata 17. Having the intention to remain in the EMR permanently is set as the base category. Appendix 1 provides descriptive statistics and pairwise correlations of our sample. There are no concerns about multicollinearity as the low variance inflation factors suggest (mean VIF, 1.34; highest VIF (for age), 2.08). We ran a suest-based Hausman test, suggesting that the Independence of Irrelevant Alternatives assumption (IIA) is met, which was further confirmed by conducting separate logistic regressions (Appendix 2). Findings from the MNLM and logit models are generally consistent except that the association between spatial intentions and feeling welcome loses its statistical significance, when comparing those who intend to stay permanently and those who intend to re-migrate ($p=0.14$). There are concerns related to potential endogeneity and omitted variable bias. We do not consider these too problematic because we are not trying to establish causality, which would be especially difficult because of the subjective character of the measures.

Qualitative

Serial Semi-structured Interviews

Survey respondents, who had indicated at the end of the survey that they would be interested in supporting further research and provided us with their contact details,

were invited for participation in interviews. The first round of interviews ($n = 67$) was conducted between February and July 2019 and the second round ($n = 49$) between June and December 2020.[5] While the first round was conducted mostly in person, the second round was conducted remotely due to COVID-19 restrictions. Most interviews were conducted in English and sometimes German.[6] Serial interviews are useful to understand how perceptions and aspirations of interviewees change over time and to verify and expand the information shared earlier (Read, 2018). Like the survey, interviews covered the interviewee's background, migration history, experiences living in the EMR and spatial intentions. We refer to interviews indicating the interviewee number and wave when quoting directly (e.g. 1.2 refers to the first interviewee in the second round and 4.1 to the fourth interviewee in round one, so 1.1 and 1.2 are the same person interviewed at different points in time).

Issue-focused Analysis

We transcribed all interviews using a clean verbatim style. After familiarising ourselves with the data (i.e. reading and re-reading the transcripts), we conducted an issue-focused analysis (Weiss, 1995) using the qualitative data analysis software ATLAS.ti. This means that, guided by our research question, the theoretical and empirical literature, we focused our analysis on what interviewees told us about specific issues. In particular, we concentrated on what interviewees told us about their feelings of being welcome in the EMR, their spatial intentions (and where applicable also spatial behaviour) and how these spatial intentions came about (e.g. cost–benefit analyses, comparisons with other places/perceived geographical opportunity structures). We used a hybrid approach, combining deductive and inductive coding to make sure that we caught the relevant information, while also remaining open to new information. In line with the relevant sections of the analysis, all codes were then organised and key issues linked to one another. Finally, the qualitative data was integrated with the quantitative data.

Results

Descriptive Insights

Based on the survey data, Table 1 presents descriptive statistics of our main variables, including a disaggregation by migration intention (i.e. stay permanently, stay

[5] Comparing key characteristics of individuals who only participated in the survey and individuals who participated in survey and interviews, we did not find statistically significant differences, except that individuals who participated in survey and interviews have more migration experience ($p < 0.01$) and had spent more time in the EMR ($p < 0.1$) compared to individuals who only participated in the survey.

[6] Language use could have led to biased results because experiences of French-speaking migrants living in the Province of Liege, for example, may be very different which is not reflected in our study and thus a potential limitation.

Table 1 Descriptive statistics of variables of interest

	Survey data				Interview data
	Spatial intentions				
	Stay permanently	Stay temporarily/uncertain	Migrate onward	Total	Total
Felt welcome	68.42%	61.19%	58.65%	61.71%	68.12% ($n=66$)
Age (mean)***	37.37%	32.68%	31.31%	33.10%	35.85% ($n=66$)
Gender (female)	56.58%	56.72%	53.38%	55.61%	59.09% ($n=66$)
Partner in EMR***	78.95%	57.71%	42.86%	56.83%	63.64% ($n=66$)
Children < 18 (yes)***	42.11%	19.40%	18.80%	23.41%	31.82% ($n=66$)
HH income category (mean)**	5.08	4.87	4.08	4.65	5.05 ($n=63$)
TCN	55.26%	48.26%	51.88%	50.73%	56.06% ($n=66$)
HDI improved	80.26%	81.59%	77.44%	80.00%	80.00% ($n=65$)
Years spent in EMR (mean)***	8.68	5.92	6.11	6.49	8.23* ($n=66$)
Previous migration (mean)	4.29	3.74	3.92	3.90	4.85*** ($n=66$)
Local language (mean)***	3.09	2.57	2.62	2.68	2.8 ($n=65$)
n	76	201	133	**410**	**67**

We applied one-way analysis of variance (ANOVA) tests, and a subsequent Bartlett's tests for continuous variables, and χ^2 tests for binary variables to establish if there are statistically significant differences based on spatial aspiration and between interviewees and non-interviewees. The information about interviewees is calculated based on the survey data and hence refers to the time of taking the survey. Since one interviewee could not be identified and because not all interviewees answered all survey questions, the information presented in the table is based on 66–63 rather than 67 interviewees. ***$p<0.01$; **$p<0.05$; *$p<0$

temporarily/uncertain, re-migrate) and a separate column for interviewees.[7] Almost one fifth of our survey respondents ($n=76$; 18.54%) intended to remain in the EMR permanently, 49.02% ($n=201$) intended to remain in the EMR temporarily or are uncertain and roughly one third ($n=133$; 32.44%) intended to re-migrate. Of all interviewees who participated in the first round of interviews, 22.22% ($n=14$) intended to remain in the region permanently, 49.21% ($n=31$) intended to remain temporarily or were uncertain and 28.57% ($n=18$) intended to re-migrate at the time of taking the survey. The interviews showed that many migrants are weighing different option simultaneously and that they are in fact constantly comparing different scenarios.

[7] The information about interviewees is based on the survey data and not on the information shared during interviews for the sake of simplicity and because this allows us to compare if there are statistically significant differences between interviewees and non-interviewees. The statistics for interviewees' spatial aspirations are based on a slightly smaller sample ($n=58$).

The majority of survey respondents ($n = 253$; 61.71%) felt welcome in the region in the first year upon arrival. Of all survey respondents who intended to stay permanently, 68.42% felt welcome, compared to 61.19% of those who intended to stay temporarily/were uncertain and 58.65% of those who intended to re-migrate. Of those participants who participated in the survey and the interviews, 68.12% indicated feeling welcome in the EMR in the survey.

Variables that show statistically significant differences between the three groups are age ($p < 0.01$), having a partner in the EMR ($p < 0.01$), having children ($p < 0.01$), yearly household income ($p < 0.05$), years spent in the EMR ($p < 0.01$) and proficiency in the local language ($p < 0.01$). Respondents who intended to stay permanently are on average older and more often have a partner in the region as well as children below the age of 18. On average, respondents who intended to settle report a higher household income, have spent more years in the EMR and are more proficient in the host country language. Comparing interviewees and non-interviewees, the former have spent more years in the EMR ($p < 0.1$) and have more migration experience ($p < 0.01$).

Regression and Issue-focused Analysis

Table 2 presents the results of our MNLMs, reporting relative risk ratios (RRR), which indicate the probability of the independent variable compared to the probability of the dependent variable. If RRRs are below 1, it is more likely that respondents choose for the base category (i.e. intending to stay permanently) rather than the focal category.

Model 1 includes only control variables. Compared to the base category, intending to stay permanently, respondents were 3.5% less likely to have the intention to stay temporarily/be uncertain with increased age ($p < 0.1$) and 56.0% less likely to intend to stay temporarily/be uncertain if they have a partner in the EMR ($p < 0.05$). Having children reduces the risk of intending to stay temporarily/being uncertain by 61.4% ($p < 0.01$). Respondents with more household income were 16.3% more likely to have the intention to stay temporarily/be uncertain ($p < 0.05$). TCNs were 45.7% less likely to intend to stay temporarily/be uncertain ($p < 0.05$) and being more proficient in the host country language reduces the risk of intending to stay temporarily/being uncertain by 32.4% ($p < 0.01$) compared to the base outcome. Next, we compare those who intend to stay permanently and those who intend to re-migrate. Compared to the base category, respondents were 6.4% less likely to intend to re-migrate with increased age ($p < 0.01$) and 72.0% less likely to re-migrate if they have a partner in the EMR ($p < 0.01$). Finally, participants were 33.0% less likely to intend to re-migrate if they are more proficient in the host country language ($p < 0.01$).

Model 2 introduces the focal independent variable feeling welcome. Feeling welcome increased the likelihood of having the intention to stay in the EMR permanently. Respondents who felt welcome were 41.6% less likely to intend to stay temporarily/be uncertain ($p < 0.1$) and 49.3% less likely to have re-migration intentions compared to the base category ($p < 0.05$). The effects of control variables are consistent with those of model 1.

Table 2 Multinomial logit model of migrants' spatial intentions (base category: intention to stay permanently)

	Model 1				Model 2			
	Stay temporarily/ uncertain		Re-migrate		Stay temporarily/ uncertain		Re-migrate	
	RRR	RSE	RRR	RSE	RRR	RSE	RRR	RSE
Welcome at arrival					0.584*	(0.188)	0.507**	(0.173)
Age	0.965*	(0.021)	0.934***	(0.024)	0.963*	(0.021)	0.933***	(0.024)
Female	1.082	(0.317)	1.043	(0.325)	1.057	(0.307)	1.022	(0.317)
Partner in EMR	0.440**	(0.159)	0.280***	(0.108)	0.436**	(0.159)	0.278***	(0.108)
Having children	0.386***	(0.135)	0.652	(0.247)	0.377***	(0.132)	0.636	(0.243)
Household income	1.163**	(0.069)	1.070	(0.069)	1.162**	(0.070)	1.065	(0.070)
TCN	0.543**	(0.168)	0.627	(0.211)	0.508**	(0.160)	0.581	(0.198)
HDI improved	1.071	(0.4030	0.885	(0.353)	1.037	(0.391)	0.855	(0.345)
Years spent in EMR	0.974	(0.027)	1.023	(0.033)	0.971	(0.026)	1.020	(0.033)
Previous migration	0.932	(0.064)	1.031	(0.073)	0.931	(0.065)	1.029	(0.073)
Local language	0.676***	(0.095)	0.670***	(0.102)	0.670***	(0.094)	0.663***	(0.102)
Constant	62.117***	(57.106)	107.348***	(107.416)	108.116***	(107.798)	209.980***	(229.176)
Observations	410				410			
Pseudo $R2$	0.082				0.087			
AIC	817.319				816.883			
BIC	905.675				913.271			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain and (3) the intention to leave. Staying permanently is set as the base category. ***$p<0.01$; **$p<0.05$; *$p<0.1$

Next, we ran separate models for respondents who migrated to the EMR for work-related reasons and those who migrated for other reasons (i.e. education, family, etc.), assuming that the former group has comparatively more agency in choosing their residency (Table 3). Indeed, we found a statistically significant association between feeling welcome and migration intentions in the case of labour migrants ($p<0.05$). Compared to the base category (i.e. intending to stay permanently), labour migrants were 77.4% less likely to have the intention to stay temporarily/be uncertain and 82.3% were less likely to intend to re-migrate if they felt welcome. These influences were larger than the average influences for the full sample. In sharp contrast, within the sample of those who migrated to the region for other reasons than work ($n=252$), there was no significant systematic relationship between feeling welcome and spatial intentions. The coefficients in the two subsamples for the effect

of feeling welcome on the probability of intending to re-migrate (vs. intending to stay permanently) were significantly different ($p < 0.1$; $p = 0.096$). The coefficients for intending to stay temporarily/being uncertain (vs. intending to stay permanently) did not reach that significance level ($p = 0.125$). These findings provide qualified support for the notion that feelings of being welcome and thus more subjective and intangible factors have a larger influence on the spatial intentions of migrants with more agency.

Turning to the qualitative findings, interviews suggest that migration decisions and spatial intentions are often the result of a cost–benefit analysis. Interviewees were usually aware of what they would lose or gain if they re-migrated. This is in line with neoclassical theories. It is important to emphasise, however, that costs and benefits associated with migration were not only of economic nature as the traditional theory would suggest and that soft factors were also considered. Softer costs of leaving and moving somewhere else include being further away from family, having to establish social contacts again, finding out how things work in the new place and investments in having learned the official language of the current host country. Costs of migrants' children having to change schools also played a role, which is why several interviewees mentioned that they will wait to re-migrate until their children finish high school or that they will leave before their children become school aged. In some cases, the social costs of leaving can even outweigh the financial benefits of re-migration. Migration can also mean giving up career prospects for one of the partners, and having to "start all over again" (20.1) in the new destination. For TCNs, the costs of re-migrating to another European Union (EU) country are especially high because they do not enjoy the right to free movement within the EU. That means that if they were to start a job in another EU Member State, they would "have to start from zero" (13.1) with respect to getting a work and residence permit and also regarding years built up to become eligible for naturalisation.

Interviewees' perceptions of living in the EMR usually depended on comparing their current situation to past situations (i.e. perceived geographical opportunity structures). This included their living situations in their home countries as well as other places, where they have resided prior to moving to the EMR. This implies that depending on where individuals lived before, their assessments of certain locational factors, including the perceived welcoming culture, can be very different. For example, an interviewee reported that locals in the EMR were less welcoming than Canadians, while someone else reported that they were more welcoming than Ukrainians.

The interview findings confirmed the survey results in several ways. First, they confirmed that those intending to re-migrate feel relatively less welcome. Table 4 summarises the co-occurrence of feeling welcome and spatial intentions of all interviewees from wave 1. Most interviewees who intended to re-migrate had mixed experiences with feeling welcome or felt unwelcome (46.67% and 13.33% respectively). This share is higher compared to those intending to stay permanently, temporarily and uncertain individuals. Of all interviewees who intended to stay temporarily or were uncertain, 58.33% felt mostly welcome compared to 57.14/33.33% of those intending to stay permanently/ re-migrate. Figure 1 visualises these linkages in a Sankey diagramme.

In line with our expectations, some interviewees intended to leave the region partly because they did not feel welcome, lending support to the theory of the

Table 3 Multinomial logit model of migrants' spatial intentions, split sample (base category: intention to stay permanently)

	Model 3: Migrated for work-related reasons				Model 4: Migrated for other reasons			
	Stay temporarily/uncertain		Re-migrate		Stay temporarily/uncertain		Re-migrate	
	RRR	RSE	RRR	RSE	RRR	RSE	RRR	RSE
Welcome at arrival	0.226**	(0.166)	0.177**	(0.132)	0.817	(0.332)	0.744	(0.326)
Age	0.947	(0.053)	0.887*	(0.061)	0.966	(0.025)	0.946**	(0.027)
Female	1.662	(0.886)	1.642	(0.985)	0.841	(0.332)	0.751	(0.315)
Partner in EMR	0.556	(0.361)	0.368	(0.268)	0.445*	(0.216)	0.247***	(0.126)
Having children	0.450	(0.326)	1.509	(1.202)	0.462*	(0.194)	0.520	(0.243)
Household income	1.176	(0.137)	1.034	(0.136)	1.134	(0.092)	1.088	(0.097)
TCN	0.257**	(0.169)	0.268*	(0.192)	0.762	(0.307)	0.810	(0.357)
HDI improved	1.598	(1.028)	1.385	(1.005)	0.706	(0.402)	0.562	(0.339)
Years spent in EMR	0.941	(0.076)	1.018	(0.097)	0.983	(0.031)	1.021	(0.036)
Previous migration	0.886	(0.097)	0.984	(0.104)	0.954	(0.087)	1.070	(0.097)
Local language	0.616*	(0.173)	0.702	(0.201)	0.668**	(0.119)	0.580***	(0.115)
Constant	549.389***	(1325.992)	1800.508***	(4676.614)	82.132***	(111.142)	183.718***	(264.565)
Observations	158				252			
Pseudo $R2$	0.135				0.084			
AIC	314.677				533.220			
BIC	388.179				617.926			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain and (3) the intention to leave. Staying permanently is set as the base category. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table 4 Co-occurrence feeling welcome and migration intentions in interviews (wave 1)

	Stay permanently		Stay temporarily/ uncertain		Re-migrate		All interviewees	
	N	%	*N*	%	*N*	%	*N*	%
Mostly welcome	16	57.14%	14	58.33%	5	33.33%	35	52.24%
Neutral/mixed experiences	4	14.29%	9	37.50%	7	46.67%	20	29.85%
Unwelcome	2	7.14%	1	4.17%	2	13.33%	5	7.46%
Unclear	6	21.43%	0	0%	1	6.67%	7	7.46%
Total	28	100%	24	100%	15	100%	67	100%

The information provided here was calculated based on the qualitative data, which is why the numbers may diverge from those in Table 1. For seven respondents, we do not have information about whether or not they feel welcome from the first round of interviews. We nevertheless include them in this study because there is information on their feelings of being welcome in wave 2

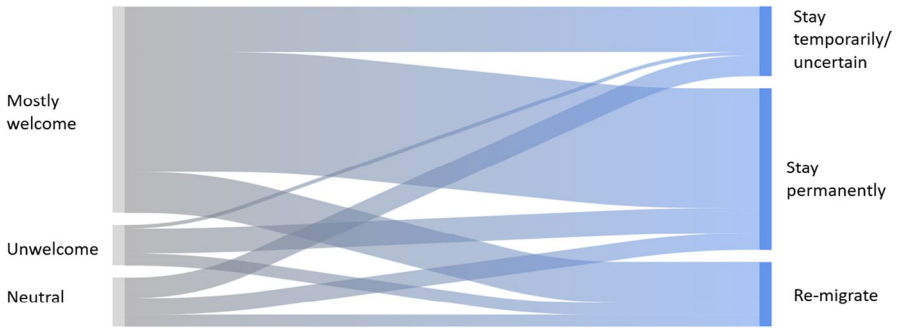

Fig. 1 Sankey diagramme of migrants' feelings of being welcome and spatial intentions

creative class, which emphasises tolerance as one important factor for attracting and retaining migrants. For example, one interviewee, who did not feel welcome mostly because she perceived the German culture as too cold and individualistic, planned to leave after she finishes her current job. For her, "the thing that gives life value are the people around you" (11.1) and this to her was lacking in Aachen. For another respondent not feeling welcome was directly linked to his intention to leave, also because the lacking welcome culture was not in line with the values (i.e. "looking out for people and helping people" (27.1)) that he would like to teach his children. The interviewee went on to explain that "[his] people are […] famous throughout the world for being welcoming, and [they] like to see [themselves] in that capacity; and sometimes [he and his partner] can see this kind of fracture between [them] and [their] kids, because they're growing up in a different environment" (27.1). By the time of the second interview, the family had realised their intention to leave.

At the same time, interviews suggest that the link between feeling welcome and migration intentions is more complex. Positive perceptions of the welcoming environment can also encourage migrants to re-migrate because the current migration

experience was such a good one. This can be linked to previous studies, which found that having previous migration experience increases the likelihood of onward migration (Della Puppa et al., 2021; Ette et al., 2021). Migrants furthermore sometimes deal with negative perceptions of the welcoming culture by turning more towards the international community, for example if interaction with locals is limited (Author et al., 2024; Plöger & Kubiak, 2019). There are also examples of participants who considered moving within the EMR, for example from the German to the Dutch part because of the perception that the Dutch are more open, which we interpret as more welcoming. This is not captured by our main dependent variable in the quantitative data, which would categorise intentions to move internally as intention to stay in the EMR.

Interviews furthermore support our decision to group respondents who intend to stay temporarily and those who are uncertain together. Oftentimes, interviewees considered various spatial options simultaneously. Their intentions rarely seem final and usually involve some degree of uncertainty as the following quote illustrates: "I really don't know [what our future plans are]. For the moment, it looks likely [that we will stay] […]; but [me and my partner] are both fairly mobile, and I think if there's an attractive offer somewhere else, we would just go somewhere else" (5.1). This confirms the assumption of aspirations-capabilities models, which holds that spatial intentions and/or behaviour depend on perceived geographical opportunity structures, for example, in terms of economic or career opportunities in the EMR and elsewhere, which are hard to predict.

Thanks to serial interviewing, we were also able to follow migrants over time to see if their spatial intentions were implemented. Among the nine interviewees who had left the region at the time of the second interview, four mentioned factors related to feelings of being unwelcome as reasons for leaving the region in the second round of interviews. These included not being able to connect with the local community and their children feeling unwelcome or excluded at school and kindergarten.

Sensitivity Analysis

To check the robustness of our quantitative findings, we conducted additional analyses (Appendix 3). First, we added country dummies to our main models because some interviews suggested that the welcoming environment differs per sub-region of the EMR. In the model with the full sample, dummies did not reach significance, but the association between feeling welcome and spatial intentions is weakened. The same is true for the models in which we split the sample into respondents who migrated for work-related reasons and respondents who came for other reasons. In addition, we run the same MNLM for a subsample of respondents who arrived in the EMR within six years[8] prior to participation in the survey. In this specification,

[8] Six years are chosen because that is the average amount of time respondents have spent in the region before taking the survey.

the main effect of feeling welcome still held, but is not statistically significant anymore. The only qualitatively similar results could be due to the smaller sample size ($n = 281$) of this model. The same is true for the models in which we split the sample into respondents who migrated for work-related ($n = 113$) vs. other reasons ($n = 168$).

Conclusion and Discussion

The main purpose of this paper is to explore the links between highly skilled migrants' feelings of being welcome in a new location and their spatial intentions (i.e. intending to stay permanently, intending to stay temporarily/being uncertain and intending to re-migrate). Using a mixed methods approach combining an online survey ($n = 410$) and serial interviews (wave 1: $n = 67$; wave 2: $n = 49$) with highly skilled migrants in the EMR, we found that respondents are more likely to intend to remain in the EMR permanently, if they felt welcome (upon arrival) in the EMR. Feelings of being welcome have a larger influence on the spatial intentions of migrants with more agency. The qualitative findings generally confirm the regression analysis. In some cases, participants who did not feel as welcome in the region had even implemented their intentions to re-migrate by the time of the second interview. In addition, the interviews add more depth and nuance to the link between feeling welcome and spatial intentions, which our quantitative component could not capture. For example, feeling welcome and positive experiences living in the EMR can also motivate migrants to re-migrate to repeat these positive experiences elsewhere. At the same time, moving between sub-regions of the EMR can be an opportunity to overcome feelings of being unwelcome, which would not be captured by the quantitative analysis.

These findings contribute to the literature on high-skilled migration, early experiences in the host country and spatial intentions in several ways. First, they underline that highly skilled migrants indeed take softer factors like the welcoming environment into account when choosing their residency (Hagen-Zanker et al., 2023). The effect is stronger for migrants with comparatively more agency. While highly skilled migrants are generally seen as having more agency compared to other migrant groups, this highlights that there are also important variations between highly skilled migrants themselves, adding another layer of heterogeneity to a very diverse group (Koskela, 2019). Keeping in mind that societal aspects are especially important in making migrants feel welcome in the host country (Author et al., 2024), the findings

also emphasise the human face of high-skilled migration (Plöger & Kubiak, 2019; Povrzanović Frykman et al., 2019), and that one should not only concentrate on harder factors like economic and career opportunities to attract and retain migrants. Finally, the findings point to the fact that early experiences in the host country are indeed important for migrants' further trajectories (Diehl et al., 2016; Ette et al., 2021). Applying the aspirations-capabilities framework (De Haas, 2014) in combination with neoclassical theory (Sjaastad, 1962; Todaro, 1969) and the theory of the creative class (Florida, 2003) has been useful to better understand highly skilled migrants' spatial intentions in the host country. Spatial intentions depend on perceived geographical opportunity structures resulting from constant comparisons of places (Carling, 2014; De Haas, 2014). The fact that migrants are more likely to intend to stay permanently if they feel welcome lends support to the theory of the creative class (Florida, 2003), which stresses the importance of tolerance (i.e. a welcoming environment) among other factors in attracting and retaining talent. Accordingly, migrants who feel welcome would gain relatively less from leaving, which is in line with neoclassical theories. The findings highlight the importance of subjective and intangible factors like feelings in migration decision-making of highly skilled migrants abroad (Hagen-Zanker et al., 2023). These factors play a greater role in decision-making if migrants have more agency, which is in line with aspirations-capabilities models.

Our research shows that feeling welcome in the destination is important for decisions to stay in a locality. That means that policies to welcome new migrants and a general welcoming environment are important for retaining talent. These should also involve locals as contact with locals is especially important in making migrants feel welcome (Author, 2023) and can be a way to mitigate perceived discrimination and associated negative effects on wellbeing (García-Cid et al., 2020).

Future research should study the association between feelings of being welcome and spatial intentions or behaviour of other migrant groups, which are usually portrayed as less wanted (e.g. economic and lower educated migrants, migrants from more distant cultures, refugees) (Turper et al., 2015; Wyszynski et al., 2020). As these groups can be expected to feel less welcome, it would be interesting to analyse if there is a stronger association between feeling welcome and spatial intentions. At the same time, other migrant groups are assumed to have less agency in deciding when and where to move, which could result in a weaker association between feeling welcome and spatial intentions. It could therefore also be interesting to study in more depth if and under what circumstances migrants choose different ways of dealing with unwelcoming environments.

Appendix 1

Table 5 Descriptive statistics and pairwise correlations of key variables for our main sample ($n = 410$)

		Mean	SD	Min	Max	1	2	3	4
1	Spatial aspiration	1.139	0.701	0	2	1.000			
2	Felt welcome	0.617	0.487	0	1	-0.066	1.000		
3	Age	33.102	8.561	18	65	-0.229	-0.087	1.000	
4	Gender	0.556	0.497	0	1	-0.026	0.013	0.054	1.000
5	Partner in the region	0.568	0.496	0	1	-0.249	-0.028	0.387	0.153
6	Children below the age of 18	0.234	0.424	0	1	-0.167	-0.015	0.365	0.077
7	Household income	4.649	2.976	1	12	-0.128	-0.098	0.483	0.124
8	Third-country national	0.507	0.501	0	1	-0.013	-0.064	-0.054	-0.134
9	HDI improved	0.800	0.400	0	1	-0.031	-0.030	-0.041	-0.054
10	Years since arrival in EMR	6.493	5.585	1	39	-0.136	-0.080	0.559	0.082
11	Previous migration experience	3.900	2.125	1	10	-0.043	-0.082	0.341	0.018
12	Local language skills	2.683	1.148	1	5	-0.121	-0.003	0.143	0.087

		5	6	7	8	9	10	11	12
1	Spatial aspiration								
2	Felt welcome								
3	Age								
4	Gender								
5	Partner in the region	1.000							
6	Children below the age of 18	0.354	1.000						
7	Household income	0.436	0.343	1.000					
8	Third-country national	-0.041	-0.008	-0.123	1.000				
9	HDI improved	0.057	0.046	-0.053	0.142	1.000			
10	Years since arrival in EMR	0.210	0.125	0.285	-0.093	-0.111	1.000		
11	Previous migration experience	0.096	0.129	0.288	-0.092	-0.121	0.141	1.000	
12	Local language skills	0.094	0.047	0.070	-0.239	-0.122	0.377	0.125	1.000

Appendix 2: Logit Models

Table 6 Logit model of migrants' spatial intentions (base category: intention to stay permanently)

	Temporary/Uncertain		Re-migrate/Return	
	OR	RSE	OR	RSE
Welcome at arrival	0.556*	(0.189)	0.594	(0.209)
Age	0.965	(0.022)	0.937**	(0.024)
Female	1.050	(0.3120	0.958	(0.322)
Partner in EMR	0.467**	(0.172)	0.274***	(0.110)
Having children	0.419***	(0.141)	0.584	(0.227)
Household income	1.134**	(0.069)	1.087	(0.080)
TCN	0.482**	(0.163)	0.623	(0.214)
HDI improved	1.050	(0.413)	0.837	(0.362)
Years spent in EMR	0.967	(0.029)	1.016	(0.030)
Previous migration	0.937	(0.063)	1.031	(0.076)
Local language	0.690**	(0.103)	0.687**	(0.105)
Constant	104.259***	(108.056)	142.246***	(161.643)
Observations	277		209	
Pseudo R2	0.144		0.175	

Odds ratios (OR) and robust standard errors (RSE) are presented. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 7 Logit model of migrants' spatial intentions (base category: intention to stay temporarily)

	Re-migrate	
	OR	RSE
Welcome at arrival	0.852	(0.207)
Age	0.963	(0.023)
Female	0.993	(0.238)
Partner in EMR	0.631*	(0.171)
Having children	1.905*	(0.679)
Household income	0.919	(0.047)
TCN	1.175	(0.291)
HDI improved	0.814	(0.242)
Years spent in EMR	1.053	(0.035)
Previous migration	1.107	(0.072)
Local language	0.978	(0.115)
Constant	2.243	(1.704)
Observations	334	
Pseudo R2	0.034	

Odds ratios (OR) and robust standard errors (RSE) are presented. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix 3: Sensitivity Analysis

Table 8 Multinomial logit model of migrants' spatial intentions including country dummies, full sample (base category: intention to stay permanently)

	Stay temporarily/Uncertain		Re-migrate	
	RRR	RSE	RRR	RSE
Welcome at arrival	0.591	(0.194)	0.524*	0.182
Age	0.967	(0.021)	0.935***	(0.024)
Female	1.167	(0.355)	1.132	(0.366)
Partner in EMR	0.447**	(0.164)	0.283***	(0.110)
Having children	0.357***	(0.127)	0.611	(0.234)
Household income	1.180***	(0.073)	1.083	(0.073)
TCN	0.485**	(0.155)	0.553*	(0.191
HDI improved	0.861	(0.370)	0.670	(0.314
Years spent in EMR	0.971	(0.026)	1.021	(0.033)
Previous migration	0.931	(0.065)	1.026	(0.074)
Local language	0.630***	(0.099)	0.612***	(0.104)
NL	0.742	(0.339)	0.601	(0.297)
GER	1.431	(0.641)	1.170	(0.550)
Constant	124.200***	(148.360)	315.256***	(414.728)
Observations	410			
Pseudo R2	0.091			
AIC	821.287			
BIC	933.739			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain, and (3) the intention to leave. Staying permanently is set as the base category. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9 Multinomial logit model of migrants' spatial intentions including country dummies, split sample (base category: intention to stay permanently)

	Respondents who migrated for work reasons				Respondents who migrated for non-work reasons			
	Stay temporarily/Uncertain		Re-migrate		Stay temporarily/Uncertain		Re-migrate	
	RRR	RSE	RRR	RSE	RRR	RSE	RRR	RSE
Welcome at arrival	0.228**	(0.167)	0.188**	(0.141)	0.839	(0.345)	0.780	(0.346)
Age	0.942	(0.055)	0.879*	(0.063)	0.968	(0.026)	0.949*	(0.028)
Female	1.695	(0.919)	1.698	(1.041)	0.985	(0.413)	0.877	(0.389)
Partner in EMR	0.515	(0.343)	0.337	(0.250)	0.465	(0.230)	0.252***	(0.132)
Having children	0.498	(0.375)	1.752	(1.455)	0.434**	(0.184)	0.481	(0.225)
Household income	1.176	(0.139)	1.041	(0.139)	1.146*	(0.094)	1.105	(0.100)
TCN	0.248**	(0.163)	0.250*	(0.178)	0.696	(0.290)	0.736	(0.334)
HDI improved	1.328	(0.853)	0.960	(0.723)	0.640	(0.409)	0.476	(0.334)
Years spent in EMR	0.953	(0.081)	1.040	(0.105)	0.983	(0.031)	1.020	(0.037)
Previous migration	0.887	(0.096)	0.982	(0.101)	0.951	(0.086)	1.065	(0.102)
Local language	0.557*	(0.191)	0.609	(0.211)	0.635**	(0.124)	0.539***	(0.121)
NL	0.564	(0.504)	0.385	(0.368)	0.977	(0.570)	0.677	(0.440)
GER	0.641	(0.475)	0.536	(0.434)	2.063	(1.195)	1.417	(0.877)
Constant	1444.819**	(4342.367)	7721.138***	(25,072.19)	69.158**	(111.880)	233.037***	(419.082)
Observations	158				252			
Pseudo R2	0.139				0.091			
AIC	321.404				537.720			
BIC	407.157				636.544			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain, and (3) the intention to leave. Staying permanently is set as the base category. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 10 Multinomial logit model of migrants' spatial intentions – only for recent arrivals (base category: intention to stay permanently)

	Stay temporarily/ Uncertain		Re-migrate	
	RRR	RSE	RRR	RSE
Welcome at arrival	0.693	(0.291)	0.514	0.229
Age	0.940**	(0.025)	0.915***	(0.030)
Female	1.282	(0.501)	1.222	(0.512)
Partner in EMR	0.730	(0.305)	0.455*	(0.208)
Having children	0.381**	(0.187)	0.518	(0.273)
Household income	1.143	(0.102)	0.991	(0.097)
TCN	0.503	(0.226)	0.444	(0.213)
HDI improved	2.023	(0.979)	1.261	(0.657)
Years spent in EMR	1.015	(0.167)	1.204	(0.207)
Previous migration	1.109	(0.134)	1.130	(0.140)
Local language	0.536***	(0.104)	0.600**	(0.125)
Constant	62.117***	(57.106)	162.576***	(220.182)
Observations	281			
Pseudo R2	0.099			
AIC	549.262			
BIC	636.583			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain, and (3) the intention to leave. Staying permanently is set as the base category. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 11 Multinomial logit model of migrants' spatial intentions – only for recent arrivals, split sample (base category: intention to stay permanently)

	Respondents who migrated for work reasons				Respondents who migrated for non-work reasons			
	Stay temporarily/ Uncertain		Re-migrate		Stay temporarily/ Uncertain		Re-migrate	
	RRR	RSE	RRR	RSE	RRR	RSE	RRR	RSE
Welcome at arrival	0.125	(0.172)	0.104	(0.144)	1.135	(0.583)	0.767	(0.432)
Age	0.952	(0.086)	0.903	(0.091)	0.945*	(0.030)	0.936*	(0.032)
Female	3.379*	(2.327)	3.299	(2.533)	0.977	(0.477)	0.884	(0.467)
Partner in EMR	0.874	(0.871)	0.622	(0.655)	0.784	(0.433)	0.358*	(0.221)
Having children	0.284	(0.314)	1.019	(1.124)	0.545	(0.313)	0.376	(0.241)
Household income	1.196	(0.180)	1.015	(0.173)	1.061	(0.118)	0.954	(0.118)
TCN	0.243	(0.226)	0.238	(0.235)	0.773	(0.416)	0.642	(0.379)
HDI improved	4.895*	(4.255)	4.388	(4.169)	1.229	(0.936)	0.581	(0.488)
Years spent in EMR	1.187	(0.452)	1.898	(0.826)	1.001	(0.198)	1.023	(0.214)
Previous migration	1.033	(0.186)	1.027	(0.195)	1.107	(0.175)	1.094	(0.178)
Local language	0.384**	(0.156)	0.479*	(0.199)	0.574**	(0.147)	0.565**	(0.155)
Constant	200.523	(679.174)	160.692	(555.809)	51.691**	(80.955)	315.450***	(535.818)
Observations	113				168			
Pseudo R2	0.183				0.100			
AIC	219.889				356.911			
BIC	285.346				431.886			

Relative risk ratios (RRR) and robust standard errors (RSE) are presented. The dependent variable measures spatial intentions distinguishing between (1) the intention to stay permanently, (2) the intention to stay temporarily or being uncertain, and (3) the intention to leave. Staying permanently is set as the base category. *** $p<0.01$, ** $p<0.05$, * $p<0$

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Declarations

This research was approved by the Ethics Review Committee Inner City Faculties of Maastricht University (reference: ERCIC_065_27_02_2018). Informed consent was obtained from survey respondents and interviewees before participation in the study.

Competing Interests The authors declare no competing interests.

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