Unsuccessful subjective well-being assimilation among immigrants: The role of faltering perceptions of the host society.

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Abstract

Immigrants in developed countries typically fail to assimilate in terms of subjective well-being, meaning that their happiness and life satisfaction do not substantially increase with their length of stay or across generations, and therefore their subjective well-being remains lower than that of natives. This contrasts with migrants' own expectations and the predictions of straight-line assimilation theory, along with the general improvement of immigrants' objective living conditions with their length of stay. Using European Social Survey data, we show that the subjective well-being assimilation of first-generation immigrants in developed European countries is impaired by the gradual development of less positive perceptions of the host country's economic, political, and social conditions. These faltering societal perceptions particularly affect immigrants whose societal conditions strongly improved by migration and immigrants who arrived after childhood. Faltering societal perceptions continue to impair subjective well-being assimilation across generations. However, compared with natives, first-generation immigrants derive a subjective well-being advantage from their more positive societal perceptions. We attribute these findings to immigrants' growing aspirations and expectations that follow from their habituation to better conditions in their host country and fewer (more) comparisons to inferior (better) conditions of the people in their home (host) country. Our findings suggest that delaying or decelerating the process of immigrants' faltering societal perceptions is a promising pathway to improved subjective well-being assimilation and reduced frustration about their perceived lack of progress.

1 Introduction

The subjective well-being of international migrants in developed countries generally does not increase as their length of stay in the host country progresses (Safi 2010; Obućina 2013; Stillman et al. 2015; Calvo and Cheung 2018; Hendriks et al., 2018). In addition, the second generation has no higher subjective well-being than their immigrant parents (e.g., Safi 2010). These outcomes imply that many immigrants fail to assimilate to the higher subjective well-being levels of native populations in developed host countries (Hendriks 2015).[1]

This would seem to run counter to many migrants' expectations. Often, migrants view moving abroad as an investment into theirs and their children's future. They may reasonably expect to face initial challenges, such as adjusting to a new culture, learning a new language, finding their desired job, and building a new social life, but overcoming these hardships is generally expected to lead to improvements in well-being in the long run. The non-improving level of subjective well-being also seemingly contradicts the notion of classical assimilation theory that after overcoming the frequently high socio-economic costs of migration (Sjaastad 1962), the objective well-being conditions of immigrants in developed countries tend to improve in a "straight line" over time and further progress across generations (Alba and Nee 1997). Encouragingly, the empirical literature generally confirms that the *average* immigrant and immigrant generation achieve *objective* progress in many important well-being domains, including improvements in economic mobility (Chiswick et al. 2005), educational and occupational attainment (Farley and Alba 2002; Zuccotti et al. 2017), social integration (Depalo

[1] Broadly defined, assimilation refers to "the decline, and at its endpoint the disappearance, of an ethnic/racial distinction and the cultural and social differences that express it" (Alba and Nee 1997, p. 863). Subjective well-being refers to the subjective enjoyment of one's life (Veenhoven 2012), which covers both the extent to which an individual experiences affectively pleasant feelings (i.e., an affective component) and perceives oneself as obtaining what one wants from life (i.e., a cognitive component). Commonly used subjective well-being measures are global self-report measures of happiness or life satisfaction. Although life satisfaction taps more (less) into the cognitive (affective) component, it is closely related to happiness, both conceptually and empirically. Accordingly, the theoretical and empirical insights of this study hold for happiness, life satisfaction, and subjective well-being.

et al. 2006), and acculturation (Manning and Roy 2010), even if progress is not experienced by all immigrant groups (Portes and Zhou 1993) and in every life domain (Rumbaut 1997). It is apparent that immigrants' *objective* reality differs considerably from their *subjective* reality in terms of well-being assimilation – a distinction that Stillman et al. (2015) directly observe by comparing immigrants' steeply rising earnings to their declining subjective well-being.

The lack of subjective well-being assimilation is undesirable not only for immigrants themselves, but also for hosting countries. For immigrants, perceptions of experiencing inferior conditions compared with the native population, along with limited progress in realizing their aspirations, can be a source of dissatisfaction and frustration. Less satisfied immigrants may acculturate less (Richardson 1967), exhibit negative attitudes and behaviours towards society (Johnson and Fredrickson 2005), and contribute less to society (De Neve et al. 2013). In a rapidly globalizing world with an ever expanding immigrant population, and in light of these likely negative consequences of limited subjective well-being assimilation, it is crucially important to understand why immigrants do not perceive their lives to be improving over time.

Assimilation has a positional and a progress component. The focus of the literature on migrant well-being has been on the positional component of assimilation. This literature offers various explanations for the lower subjective well-being levels of immigrants compared to native populations in developed countries, including their perceived discrimination (Safi 2010), less prosperous living conditions, stronger feelings of social isolation (De Vroome and Hooghe 2014), and cultural heritage (Senik 2014). However, the current literature has bypassed the question why immigrants tend to experience a stagnant level of subjective well-being (i.e., the progress component).

Piore (1979) discussed one possible reason for the lack of progress in subjective well-being in his work on labour migrants in the US in the mid-20th century. Piore posited that initially positive evaluations of one's migration experience disappeared or at least diminished

over time and across generations as migrants began to evaluate their conditions in the host country through an increasingly critical lens, and therefore gradually developed less positive perceptions of their life circumstances in the host country. However, Piore's thesis that declining perceptions of the host society impair subjective well-being assimilation has remained untested.

This paper aims to fill this void in the literature on migrant well-being by theorizing and exploring the extent to which – and under what conditions – faltering perceptions of the host country's societal conditions hinders the subjective well-being assimilation of immigrants in developed European countries over time and across generations. The societal conditions considered here are the country's economic, political, and social macro-environment. While the development of host country perceptions and well-being over time and across generations is of primary interest (i.e., the progress component), we additionally investigate how differences in societal perceptions between natives and immigrants affect the immigrant-native gap in subjective well-being (i.e., the positional component).

The remainder of this paper is organised as follows. In Section 2, we discuss why migrants' perceptions of host country conditions may falter and in turn, why this may impair their subjective well-being assimilation. Section 3 outlines the data and empirical strategy, while the empirical results are presented in section 4. Section 5 concludes the paper with a brief discussion of our findings.

2 Theoretical background

2.1. Changing societal perceptions and its influence on subjective well-being

According to adaptation theories of well-being (Michalos 1985; Diener et al. 2006; Luhmann et al. 2012), subjective well-being depends on an individual's *perceptions* of his or her objective situation. Perceptions are important and unique determinants of subjective well-being

because subjective interpretations of reality can differ considerably from objective reality (Jahedi and Méndez 2014). For instance, the objective quality of the environment can strongly diverge from perceptions of that environment (Okulicz-Kozaryn 2013) and perceptions of economic mobility do not necessarily reflect actual economic mobility (Graham and Pettinato 2001). Perhaps the most pre-eminent example illustrating the importance of this "relative" dimension of subjective well-being concerns individual income. Once an individual's financial needs are met, their happiness depends much more on the relative perception of their income in relation to past income and to the perceived incomes of their peers than on their absolute income level (Easterlin 2001; Clark et al. 2008). Immigrants are no exception in this regard. Immigrants' subjective well-being also depends more strongly on their relative income position than on their absolute income (Vohra and Adair 2000; Gokdemir and Dumludag 2012).

These insights suggest that immigrants' perceptions of their conditions could play a pivotal role in determining their subjective well-being assimilation if these perceptions change over time. In line with Piore's (1979) thesis, qualitative research documents that immigrants initially have extraordinarily positive perceptions of the hosting societies. For instance, their perceived educational opportunities in hosting countries may markedly exceed those of native populations (Suarez-Orozco 1987). Quantitative research also confirms that immigrants in developed countries initially have much higher levels of trust in the host country's public institutions (Michelson 2003; Röder and Mühlau 2012) and satisfaction with the host country's government (Maxwell 2010) than the native population does. However, these studies also show that immigrants' trust in public institutions and government satisfaction declines with their length of stay, suggesting that their initial enthusiasm about societal conditions in the host country fades over time. Obućina's (2013) finding that immigrants' satisfaction with their income declines as their length of stay in the host country progresses also suggests that immigrants' perceptions of (certain) personal conditions may gradually become less positive.

Based on the above considerations we formulate the following hypothesis:

Hypothesis 1: *Declining perceptions of the host society, as measured by an index of migrants' economic satisfaction, government satisfaction, trust in public institutions, and social trust, negatively mediate the relationship between immigrants' length of stay and subjective well-being.*

2.2 Channels and conditions

Most of the research on migrants' declining perceptions use static research designs that compare perceptions of recent and established migrants at the same point in time. Therefore, the declining societal perceptions are unlikely to be caused by declining objective conditions because, at a given point in time, all immigrants share a similar macro environment. Alternative processes that may affect perceptions of host country conditions include changes in preferences (e.g., political and cultural preferences), values, and aspirations (Piore 1979). The migration and subjective well-being literatures discussed below suggest that changing aspirations are a particularly likely explanation for migrants' declining societal perceptions.

Piore (1979) posited that changing perceptions may occur due to the higher aspirations and expectations immigrants gradually develop as they grow accustomed to the better conditions in their host country and compare those conditions less often with the inferior conditions in their home country. Consequently, according to Piore, "the disjuncture between aspirations and opportunities is likely to occur […] in settled migration communities and in the second generation" (1979; p. 171). Initial empirical evidence confirms that the migration experience increases migrants' aspirations, including their economic and educational aspirations (Czaika and Vothknecht 2014; Böhme 2015).

Adaptation theories of well-being (e.g, Luhmann et al. 2012) suggest that changing aspirations can change the way people experience and evaluate their lives because perceptions are mostly based on the gap between what one wants (aspirations) and what one has (objective

living conditions). Accordingly, unmet aspirations tend to lead to dissatisfaction with one's situation and lower subjective well-being (see, for instance, the tunnel-effect described by Hirschman and Rothschild 1973). In turn, aspirations depend on reference points, and these reference points are drawn from comparisons to specific reference groups (social comparisons; Festinger 1954) as well as from comparisons to past situations (adaptation or habituation; Helson 1964). Generally, upward comparisons lead to more critical evaluations and decreased subjective well-being, while downward comparisons lead to less critical evaluations and increased subjective well-being (Luttmer 2005). The negative impact of upwardly moving reference points on subjective well-being also holds for migrants specifically. For instance, the subjective well-being of migrants is negatively related to the incomes of comparison groups in the host and home countries (Vohra and Adair 2000; Gokdemir and Dumludag 2012), and to economic growth in their home country (Akay et al. 2017).

Various migration theories posit that immigrants' orientations and, in turn, their frames of reference do indeed change over time. The related literatures on acculturation (Berry et al. 2006) and assimilation (Alba and Nee 1997) observe that most migrants are open to adopting the cultural values of the host society. They seek interactions with the host country's native population while possibly maintaining their cultural heritage and social networks from their home country. Similarly, the literature on immigrant transnationalism (Vertovec 2009) theorizes that many immigrants gradually develop economic and socio-cultural ties in the host country while maintaining their social, economic, and political ties to their home country. However, traditional labour migration theories posit that immigrants initially compare themselves only to people in their home country. For instance, the "new economics of labour migration" (Stark and Taylor 1991) states that many migrants plan to move only temporarily, as their move is partially motivated by a desire to overcome the relative deprivation in their home country. Nonetheless, labour migration theories generally recognize that many labour

migrants ultimately settle permanently and then start orienting themselves more towards the host society as their ties with the home society weaken (see, e.g., Stark and Taylor 1991 on "reference group substitution").

The implication of these shifting orientations is that many immigrants engage increasingly less in activities that stimulate comparisons to the home country. They may visit and communicate less with friends and family in their home country, or stop following the news about the home country. This suggests that immigrants compare the host country's societal conditions less with the conditions of their home country over time. Additionally, the idea from adaptation-level theory (Helson 1964) that people mostly compare their current conditions to those of the *recent* past suggests that immigrants who reside in the host country for longer periods compare the host society's current societal conditions more to past conditions that they experienced in the *host* country as opposed to past conditions that they experienced in the *home* country. The shifting orientations of immigrants thus lead to new frames of reference that shift partially from home countries to host countries over time, resulting in a dual frame of reference.

Qualitative evidence mostly supports the idea of the development of a dual frame of reference, as most immigrants refer to the situations of others in both the home and the host countries when evaluating their situations in the host country (Reese 2001; Menjívar and Bejarano 2004). In a small-scale quantitative study, Franzini and Fernandez-Esquer (2006) show that immigrants' frame of reference is increasingly based in the host country; they find that Mexican immigrants in Texas predominantly compare their situations to those of natives and other Mexican immigrants rather than to those of Mexicans in Mexico, which is especially true for better-acculturated immigrants. In the absence of large-scale data on immigrants' reference groups, Gelatt (2013) has used an indirect approach to empirically test immigrants' frame of reference. She argues that immigrants hold a dual frame of reference because their

subjective well-being is simultaneously affected by their subjective social status in their host and home countries. In addition, she also finds that the relationship between subjective social status in the host country and mental health/likelihood of depression becomes stronger over time, which provides some evidence that this dual frame of reference gradually develops with the length of stay. Similarly, Akay et al. (2017) illustrate that the influence of the home country's economic situation on the migrant's subjective well-being decreases with length of stay, which they attribute to the declining use of the home country as a frame of reference.

The process outlined above suggests that perceptions of the host society may decline more for some migrants than for others. A likely contingent factor in this respect is the development gap between the host and the home country. Shifting reference points will affect aspirations and perceptions more when there is a wider gap between the level of the old reference points (situated in the home country) and the new reference points (increasingly situated in the host country). This gap in reference points is larger for migrants whose societal conditions objectively improve more by migrating (i.e., the home country provides migrants from less developed countries with lower reference points). These downward comparisons to the home country lead them, at least initially, to evaluate the societal conditions in the host country more positively (Röder and Mühlau 2012). However, this relative "advantage" of migrants from less developed countries can be expected to decline with the length of stay because of decreasing comparisons with the inferior conditions in their home country. Therefore,

Hypothesis 2a: *The indirect effect of immigrants' declining perceptions of the host society on their subjective well-being assimilation is moderated by the development gap between the home and host country.*

The process outlined above also suggests that perceptions may falter less for migrants whose reference points shift less. A notable group in this respect are migrants who arrived in the host

country at a young age. They tend to have fewer memories of and connections with the home country than migrants who arrived as adults. Therefore, migrants who arrived at a young age, particularly those who arrived before adolescence (the so-called 1.5 and 1.75 generations; Rumbaut 2004), may compare their situation less often to the situation in their home country regardless of their length of stay, implying that their reference points shift less. Therefore,

Hypothesis 2b: *The indirect effect of immigrants' declining perceptions of the host society on their subjective well-being assimilation is moderated by age at migration (during vs. after childhood).*

Adaptation theories of well-being suggest that the process of shifting reference points and aspirations is a mostly automatic and universal process that occurs at a similar pace and to a similar extent for all socio-demographic groups (Diener et al. 2006; Luhmann et al. 2012). These features of the adaptation process suggest that the process of faltering societal perceptions is widespread among migrants whose reference points significantly shift and whose reference points differ considerably between the host and home country. Therefore,

Hypothesis 2c: *The indirect effect of immigrants' declining perceptions of the host society on their subjective well-being assimilation holds regardless of their socio-economic characteristics (the migrant's gender, education level, income, and domicile).*[2]

2.3 The second generation and natives

Most second-generation immigrants rarely compare their country of residence to the home country of their parents, meaning that their frame of reference tends to be closer to that of the native population (a *single* "country of residence" frame of reference) than the *dual* frame-of-reference of first-generation immigrants (Maxwell 2010). By implication, second-generation

[2] In the absence of data on migrants' aspirations and reference points (Gelatt 2013), testing the underlying channels is beyond this article's scope. We acknowledge the possible existence of other moderators that are not considered in this study due to data limitations, such as the migrant's degree of acculturation, the difference between circular and non-circular migrants, and the reasons for migration.

immigrants and the native population can be expected to have higher reference points and aspirations – and thus less positive perceptions of similar living conditions – than the majority of first-generation immigrants who originate from less developed countries. In other words, second-generation immigrants and natives can be expected to take the typically good societal conditions in developed host countries for granted more than most first-generation immigrants. Indeed, the positive perceptions of society seem to continue faltering across generations, as the second generation generally has lower levels of social trust (Dinesen and Hooghe 2010) and government satisfaction (Maxwell 2010) than first-generation immigrants do. Therefore,

Hypothesis 3: *Their more positive perceptions of the host society provide first-generation migrants with a happiness advantage over second-generation immigrants.*

Hypothesis 4: *Their more positive perceptions of the host society provide first-generation migrants with a happiness advantage over natives.*

3 Data and methodology

In the absence of long-running panel databases that track immigrants' perceptions, the broad assimilation literature commonly resorts to cross-sectional data or panel data that cover only a few years (e.g., Chiswick et al. 2005). Given our interest in assimilation over the life course, cross-sectional, multi-country data taken from the 2010-2016 period (rounds 5-8) of the bi-annual European Social Survey (ESS) are used. This dataset is particularly suitable to test our hypotheses because it contains a considerable amount of information on the migrant's length of stay, origin, subjective well-being, and evaluations of various host country conditions. The analysis sample includes respondents residing in 17 developed European countries, including the EU15 (minus Luxembourg) and three EFTA countries (Iceland, Norway, and Switzerland).

The analysis is divided into four parts. In the first part, we test hypothesis 1 by exploring how the changing societal perceptions of first-generation migrants affect their subjective well-

being development. The second part tests hypothesis 2 by exploring the extent to which the mediating role of changing societal perceptions is conditional on various migrant characteristics. The third part tests hypotheses 3 and 4 by exploring how societal perceptions affect the subjective well-being assimilation of second-generation immigrants and the subjective well-being gap between immigrants and natives. The fourth part includes various robustness checks.

3.1 Outcome variable

The ESS includes two self-report measures of subjective well-being: life satisfaction and global happiness. The main analysis employs the more commonly used life satisfaction variable, which is formulated as "All things considered, how satisfied are you with your life as a whole nowadays?". The numerical response scale ranges from 0 (extremely dissatisfied) to 10 (extremely satisfied). The global happiness variable is used to conduct a robustness check.

3.2 Explanatory variables

First-generation immigrants are defined as individuals who were born abroad to foreign-born parents and second-generation immigrants are defined as individuals who were born in the country of residence to foreign-born parents. All first and second-generation immigrants who responded to the survey are included regardless of their country of origin. Natives are defined as individuals who were born and whose parents were born in the country of residence. Foreign-born children with native parents and individuals with mixed parental backgrounds (the 2.5 generation) are excluded from the sample due to their ambiguous immigrant status. In ESS rounds 5-8, participants indicate the exact year of their migration. Years since migration is calculated by subtracting the exact year of migration from the year of survey completion. We use this continuous length of stay variable for the first two parts of our analysis. In ESS rounds 1-4, immigrants are given five possible answers to indicate how long ago they migrated to their

country of residence: (a) within the last year, (b) 1-5 years ago, (c) 6-10 years ago, (d) 11-20 years ago, or (e) more than 20 years ago. A robustness check is performed in which we reclassified the answers from rounds 5-8 into the five length-of-stay categories used in ESS rounds 1-4 to utilize all survey rounds.

3.3 Mediator variable

The mediator variable is a self-constructed index of the immigrant's reported perceptions of the host country's societal conditions that includes four indicators and spans three dimensions. *Economic satisfaction* captures the immigrant's perceptions of the economic environment of the host country; *government satisfaction* and *trust in public institutions* capture his or her perceptions of the institutional environment of the host country; and *social trust* captures his or her perceptions of the social environment of the host country. The exact measures of these indicators are presented in Table 1. We integrated these four indicators into an index based on equally weighted scores because we expect a downward trend for each component and because their high statistical correlation raises multicollinearity issues when considered separately (Cronbach's $\alpha = 0.76$). In an auxiliary analysis, we will explore the mediating role of the separate components.[3]

[Insert Table 1 here]

3.4 Control variables

[3] We focus in this paper on immigrants' societal perceptions rather than their perceptions of their personal conditions for three reasons. First, the *immediate* societal "shock" experienced by *all* immigrants upon arrival in the host country reveals the exact pattern of changing perceptions of the host country from the moment of arrival, whereas progress in personal conditions frequently appears only in the long run. Second, the objective difference between the host and home countries' societal conditions can be derived for every immigrant, while this difference is more ambiguous for personal conditions due to the missing information regarding the immigrant's pre-migration personal conditions. Third, evaluations of societal conditions are available in all survey rounds, while evaluations of personal conditions (job satisfaction and satisfaction with one's living standard) are only available in specific rounds. Moreover, the ESS and other relevant datasets include limited information about the respondents' objective financial and job characteristics, which would constrain us in distinguishing whether changing perceptions follow from changing objective financial/job characteristics or changing evaluation criteria.

To mitigate the confounding role of spatial distribution on the perceptions and life satisfaction of respondents, we control for respondents' *domicile, region of residence,*[4] *and country of residence*. A second set of control variables aims to address the possibility that migration flows vary with the length of stay and bias the associations between our variables of interest. Therefore, we include *country-of-origin dummies* and *migration flow dummies* (interacting country-of-residence dummies and region-of-origin dummies)[5]; the latter capture the possibility that migrants who arrived more recently engage in more "happiness-efficient" migration streams.[6] We also control for whether the immigrant comes from a former colony of the host country because a *colonial tie* may affect immigrants' perceptions of the host country. A third set of control variables addresses potential biases due to the pooling of multiple survey rounds. We include *year dummies* to capture time-related shocks that are common to all host countries and *country-specific (linear) time trends* that capture differences in time trends between countries. The fourth and final set of control variables includes socio-demographic controls that are usually included in subjective well-being regressions: *age, age squared, gender*, having a *partner* and/or *children, perceived health, employment status, household income (ln)*, and *years of education (ln)*.[7] The measures and summary statistics of all individual-level control variables and the sample composition are presented in Appendices A and B.

3.5 Moderator variables

The *development gap* between the home and the host country is calculated using the difference

[4] NUTS 2 data are used for countries in which this information is consistently available across survey rounds. These countries are Austria, Switzerland, Denmark, Spain, Netherlands, Norway, Portugal, and Sweden. NUTS 1 data are used for the other countries.
[5] The migration flow dummies are based on region-of-origin dummies (see appendix B for the considered origin regions) instead of country-of-origin dummies because the excessive number of possible combinations when interacting the origin and destination countries will lead to model estimation problems.
[6] For instance, immigrants who migrated after their home country became part of the European Schengen area have more (and thus potentially better-fitting) host countries to select from than earlier migrants did.
[7] Senik (2014) argues that the ESS education measures suffer from substantial measurement error when it comes to immigrants. We verified that the exclusion of education level has no noteworthy effect on our results.

in the home and the host countries' score on the human development index (HDI) in the year of the interview. The HDI, ranging from zero to one, comprises three domains – health, education, and standard of living – that together provide a good overview of a country's societal environment. For *age at migration*, we follow Rumbaut's (2004) approach by distinguishing migrants who arrived during childhood (before 13 years old) from those who arrived as adolescents or adults (13 years or older). The socio-demographic moderator variables are based on the variables described in section 3.4.

3.6 Empirical methodology

Our baseline model shows the relationship between the immigrant's length of stay and subjective well-being by estimating an ordinary least squares (OLS) model with robust standard errors clustered at the country-year level.[8] This model has the following specification:

$$SWB_{ijot} = \beta_1 YSM_{ijot} + \Theta X_{ijot} + \varepsilon_j + \tau_t + \varepsilon_j \tau_t + \lambda_o + \lambda_o \varepsilon_j + \mu_{ijot} \quad (1)$$

In this model, SWB_{ijot} denotes the overall life satisfaction of immigrant i in country j from origin o in year t. YSM_{ijot} represents years since migration. Vector X_{ijot} includes the individual-level controls; vector ε_j includes the country-of-residence dummies; vector τ_t contains the year dummies; vector $\varepsilon_j \tau_t$ includes the country-specific time trends; vector λ_o includes the country-of-origin dummies; and vector $\lambda_o \varepsilon_j$ includes the migration flow dummies. Finally, μ_{ijot} is a residual error.

To examine the role of perceived societal conditions in subjective well-being assimilation, we assess whether the relationship between length of stay and subjective well-

[8] We implicitly presume cardinality for our life satisfaction variable, which is a common assumption in happiness economics because linear and ordinal estimation techniques produce similar results in most cases, while linear models are easier to interpret (Ferrer-i-Carbonell and Frijters 2004).

being changes when also controlling for the immigrant's societal perceptions. This second model has the following specification:

$$SWB_{ijot} = \beta_1 YSM_{ijot} + \boldsymbol{\Omega}\, \boldsymbol{PHS_{ijot}} + \Theta\, X_{ijot} + \varepsilon_j + \tau_t + \varepsilon_j\tau_t + \lambda_o + \lambda_o\varepsilon_j + \mu_{ijot} \qquad (2)$$

Compared with eq. 1, this model additionally includes the predictor variable PHS_{ijot}, which constitutes the index of perceptions of the host society. A comparison of the first model and the second model will show the association between immigrants' societal perceptions and their subjective well-being development over time. The OLS models are complemented by mediation tests that examine the extent to which perceptions of the host society mediate the relationship between the immigrant's length of stay and subjective well-being. Given our multilevel data, we estimate these indirect effects using the "ml_mediation" command in Stata with bias-corrected bootstrapped standard errors clustered at the country-year level (Ender 2012).

In part 2, interaction terms between years since migration and migrant characteristics will be added to these baseline specifications to explore whether the hypothesized mediation effect is moderated by these migrant characteristics. We calculated the conditional indirect effects using the moderated mediation procedure proposed by Hayes (2013; Model 2) and with bias-corrected standard errors clustered at the country-year level.[9] In part 3, migrant status dummies distinguishing natives, first-generation immigrants, and second-generation immigrants will replace the YSM-variable.

Given that our dataset only contains 18 units at the highest clustering level (host countries), clustering our standard errors at the country level will lead to downward biased standard errors (Cameron et al. 2008). We partly avoid this issue by clustering at the country-year level, although we acknowledge that this approach may still produce slightly downward

[9] See https://stats.idre.ucla.edu/stata/faq/how-can-i-do-moderated-mediation-with-a-categorical-moderator-in-stata/ for a more detailed explanation of our calculation procedure. *Suest* was used instead of *sureg* to account for the multilevel structure of our data.

biased standard errors. Therefore, our statistical inference (p-values) in the OLS regressions is based on the wild cluster bootstrap method (Cameron et al. 2008). The wild bootstrap clustered p-values are computed with 1,000 bootstrap iterations.

4 Results

4.1 Descriptive statistics

Figure 1 depicts how the life satisfaction and host country perceptions of first-generation immigrants vary with their length of stay, net of controls that are exogenous to the migration experience. As expected, no positive life satisfaction trend is observed, while first-generation immigrants gradually develop less favourable perceptions of the host country's societal environment.

[Insert Figure 1 here]

4.2 Main results

4.2.1 First-generation immigrants

We continue this first part of our analysis by exploring the extent to which these faltering perceptions of the host society are associated with immigrants' subjective well-being development. Columns 1-2 of Table 2 follow *eq. 1* and provide an alternative presentation of the results presented in Figure 1. The results of Columns 1-2 show that there is no positive linear or curvilinear relationship between migrants' life satisfaction and length stay, net of all exogenous controls. Following *eq. 2*, the index of immigrants' perceptions of the host society is added as a predictor variable in Columns 3-4 of Table 2. The positive coefficient of this index indicates that favourable perceptions of the host society are positively associated with life satisfaction. When controlling for these societal perceptions, length of stay has a linear positive association with life satisfaction. This finding suggests that immigrants' faltering

enthusiasm about the host country helps explain why their subjective well-being does not improve over time. A mediation test confirms that the declining perceptions of the host society significantly and negatively mediate the relationship between length of stay and life satisfaction (m = -0.12, SE = 0.01; $p < 0.01$).

To alleviate the concern that our results are driven by omitted variable bias, Columns 5-8 present the results when using the full set of control variables. Our observation that length of stay and life satisfaction have a non-positive relationship is robust to the inclusion of the addittional controls (see Columns 5-6). A positive curvilinear association emerges when controlling for immigrants' declining societal perceptions (see Columns 7-8). A mediation test confirms that immigrants' declining societal perceptions significantly suppress their life satisfaction development (m = -0.10, SE = 0.01; $p < 0.01$), albeit to a somewhat lesser extent compared with the model that only includes controls that are exogenous to migration.

[Insert Table 2 here]

4.2.2 Conditional indirect effects

In this second part of the analysis, we will examine whether the mediating role of host country perceptions is conditional on various migrant characteristics. The conditional indirect relationships are presented in Figure 2. The negative role of declining perceptions of the host society holds for all considered subgroups, including migrants moving between relatively similarly developed countries and migrants moving at a young age. However, the indirect role of faltering perceptions is significantly smaller for migrants moving between more similarly developed countries (p = 0.02). Conditional indirect effects by origin region are included in Figure 2 to illustrate that the mediating role of faltering societal perceptions is consistently stronger for migrants from less developed world regions (South Asia, sub-Saharan Africa, Middle East and North Africa, East Asia and the Pacific, and Latin America and the Caribbean)

than for migrants from relatively developed world regions (particularly developed Europe and the non-European Anglo-Saxon countries). In addition, we observe a marginally significant weaker mediating role of faltering host country perceptions for migrants arriving in the host country as children vis-à-vis migrants arriving as adolescents or adults (p = 0.07). No significant differences are observed between other migrant subgroups. These findings are broadly in line with hypothesis 2.

[Insert Figure 2 here]

4.2.3 The second generation and the migrant-native gap

When controlling for non-migrant-specific exogenous controls (age, gender, country of residence and year dummies), natives and the second generation have less positive perceptions of the host society than first-generation migrants (M_{gen1} = 5.40, *95% CI* [5.37, 5.43]; M_{gen2} = 4.88, *95% CI* [4.81, 4.94]; $M_{natives}$ = 5.00, *95% CI* [4.99, 5.01]), while natives are more satisfied with life than both migrant generations (M_{gen1} = 7.20, *95% CI* [7.16, 5.25]; M_{gen2} = 7.13, *95% CI* [7.04, 7.21]; $M_{natives}$ = 7.42, *95% CI* [7.41, 7.43]). Table 3 includes our full set of control variables and shows that the less positive societal perceptions of second-generation migrants provides them with a happiness disadvantage of 0.18 on the 0-10 scale compared with first-generation migrants, meaning that subjective well-being assimilation across generations is significantly impaired by faltering perceptions of host country conditions. Likewise, the more positive perceptions of first-generation migrants provide them with a happiness advantage of 0.18 compared with natives. This finding implies that the immigrant-native gap widens considerably when controlling for the more positive societal perceptions of first-generation immigrants. These findings are in line with hypotheses 3 and 4.

[Insert Table 3 here]

4.3 Robustness checks

We first investigated the sensitivity of our results to sample selection by re-estimating our results including immigrants from all eight survey rounds using the categorical length-of-stay variable. The results of this alternative model specification is reported in appendix E and show that faltering societal perceptions consistently impair subjective well-being assimilation during at least the first twenty years after migration. The patterns of the conditional indirect effects are in line with those of our main results.

Next, we conducted various robustness checks to verify that our results are not driven by omitted variable bias. One concern in this regard is that both life satisfaction and perceptions of the host society are subjective in nature. The measurement errors of these variables may be correlated, as certain individuals may have a general tendency towards more positive or negative perceptions and/or response patterns for subjective measures. Following Graham and Nikolova (2015) and Arampatzi et al. (forthcoming), we control for this potential bias to the greatest extent possible by including mood and optimism controls, which are jointly available in ESS rounds 3, 5 and 6. These variables capture a substantial amount of this potential endogeneity bias because being in a good mood or being an optimistic person are principal determinants of the tendency to answer subjective questions more positively. The inclusion of mood and optimism controls has a limited effect on the observed indirect effects of societal perceptions (see Appendix F), meaning that our main results hold: more positive perceptions of the host society provide recently arrived immigrants with a life satisfaction advantage compared with more established immigrants, the second generation, and natives.

Likewise, our main results might pick up a broader association between changing perceptions and subjective well-being than changing perceptions of societal conditions alone. In particular, one might think about changes in one's perceptions of personal conditions. We test this possibility by expanding our main models to include two control variables relating to the respondents' perceptions of personal conditions: job satisfaction (available in ESS rounds

5 and 6) and satisfaction with one's living standard (available in ESS round 3). The results, reported in Appendices G and H, show that job satisfaction and satisfaction with one's living standard are not major drivers of the mediating role of the societal perceptions index.[10] Nevertheless, with the data available, we cannot completely rule out that our index picks up faltering perceptions of other personal conditions.

Our results are also robust to the alternative specification of variables. Our results hold when assessing subjective well-being using the global happiness measure instead of the life satisfaction measure (Appendix I). The results also hold for each of the index components independently, although the magnitudes of the indirect effects vary between the index components, with particularly strong indirect effects of economic satisfaction and relatively weak indirect effects of social trust (Appendix J). Moreover, the non-significant interaction terms between length of stay and societal perceptions presented in Appendix K indicate that subjective well-being development is not further impaired by the declining returns (i.e., declining importance) of societal perceptions for subjective well-being.

One potential validity threat that cannot be addressed empirically in our study are cohort effects.[11] This concern is alleviated by the inclusion of a rich set of control variables in our models that are likely to capture the main drivers of cohort differences in subjective well-being and perceptions of host society conditions. Particularly important control variables in this regard are the migrant's age, country of origin, and migration flow dummies. Another potential threat that cannot be addressed empirically is that of re-migration patterns. We expect the bias of re-migration to be small because re-migration resulting from having successfully achieved

[10] Auxiliary analyses showed that optimism, job satisfaction, and satisfaction with one's living standard did not negatively mediate the relationship between the migrant's subjective well-being and length of stay.

[11] While some variation between length of stay and migrant cohorts results from our pooling of survey rounds, this proved insufficient to disentangle the effects of length of stay from possible cohort effects, even when additionally considering rounds 1-4. A major reason is that rounds 1-4 cannot be included simultaneously as the categorical length-of-stay variable does not allow for classifying migrants from these rounds into a consistent set of cohorts. When using a subset of survey rounds (e.g., rounds 1 and 5-8 or only rounds 5-8), multicollinearity issues arise between the cohort fixed effects and length of stay variable (variance inflation factors > 10).

one's migration goals is to some extent counterbalanced by re-migration resulting from a disappointing migration experience (De Haas et al. 2015).

5. Discussion and conclusions

The subjective well-being of immigrants in developed European countries generally does not improve with their length of stay or across generations, despite objectively improving living conditions and contrasting their own expectations and the rationale of "straight-line" assimilation theory. The main finding of this paper is that faltering perceptions of host country conditions impair the subjective well-being assimilation of a wide variety of first-generation immigrants in developed European countries, and particularly strongly for immigrants whose societal conditions strongly improved by migration and immigrants who arrived after childhood. The process of faltering societal perceptions continues to impair subjective well-being assimilation across generations. Finally, we find that compared with natives, first-generation immigrants derive a subjective well-being advantage from their more positive perceptions of the host society. Paradoxically, therefore, immigrants *do not* assimilate in terms of subjective well-being because their perceptions of societal conditions *do* assimilate to the less positive societal perceptions of natives.

Our findings provide useful input for policy initiatives that seek to improve the subjective well-being of immigrants and/or reduce the subjective well-being inequality between first-generation immigrants and natives. In particular, our findings suggest that a potential path towards more successful subjective well-being assimilation among immigrants would involve delaying or decelerating the process of immigrants' shifting frames of reference and faltering perceptions of host societies. This intervention could reduce immigrant frustrations about their perceived lack of progress in realizing their aspirations. Greater subjective well-being assimilation could also be instrumental in creating other benefits, such as better immigrant integration (Richardson 1967; De Neve et al. 2013). Therefore, an

important question for future research and policymakers is how to delay or decelerate the changing frame of reference to benefit both immigrants and the host society. Possible opportunities include managing expectations (before and upon arrival as well as during the post-migration period) and encouraging migrants to adopt a dual frame of reference rather than abandoning all ties to the home country.

Building on Piore (1979), we suggest that an important reason for migrants' faltering perceptions of the host society is the development of growing aspirations that follow from their habituation to better conditions in their host country and fewer (more) comparisons to inferior (better) conditions of the people in their home (host) country. A limitation of this research is that in the absence of data on migrants' reference points and aspirations (Gelatt 2013), we could not verify this rationale, and therefore call for more research and better data sources that capture changes in immigrants' evaluation standards and frames of reference to examine this potentially pertinent process of shifting reference points and aspirations.

While this paper highlighted one specific mechanism that impairs subjective well-being assimilation, there may be additional mechanisms that impair migrants' subjective well-being assimilation. For example, Piore (1979) also argued that non-pecuniary factors became more salient once (labour) migrants were settled, including social exclusion, social networks, housing conditions, cultural/identity issues, and social status in the host country. To the extent that this involves a shift toward less positive aspects of life in the host society, this may be an additional explanation for why migrants' happiness growth will lag behind their objective gains. Future research could explore such additional mechanisms to develop a more all-encompassing explanation for migrants' stagnant level of subjective well-being.

We also call for more research and better data sources that can address additional limitations of our study. First, the role of subjective dimensions other than immigrants' perceptions of the institutional, economic, and social environment merit further attention. For

instance, perceptions of other societal conditions (e.g., perceptions of the host society's cultural environment), broader macro conditions (e.g., perceptions of the natural environment), and personal conditions (e.g., perceptions of income) may also affect subjective well-being assimilation. Second, longitudinal or experimental studies can establish the direction of causality between immigrants' subjective well-being assimilation and their perceptions of their situations and circumvent some endogeneity issues that may be present in our cross-sectional study, including potential biases from re-migration patterns and cohort effects. Third, our immigrant sample may not be completely representative of the immigrant population in the considered destination countries because the employed dataset is not specifically oriented towards migrants. These limitations are typical in the international migration literature due to the lack of data collections that follow immigrants over time or that are representative for immigrant populations (Willekens et al. 2016). Although progress is being made (e.g., the migrant sample of the German Socio-Economic Panel), the time spans of the available longitudinal datasets are currently too short for meaningful analyses of the within-person process of subjective well-being assimilation. Fourth, the extent to which the mediating role of faltering perceptions is conditional on various other migrant characteristics that could not be explored with our data merits further attention. One can, for example, think here of the role of acculturation and reasons for migration. Despite its limitations, the present study represents an important step towards developing an understanding of why immigrants in developed countries do not perceive their lives to be improving over time.

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Table 1 Variable definition of the 'perceptions of the host society' index

Indicator	*Measure*	*Scale*
Economic satisfaction	On the whole how satisfied are you with the present state of the economy in [country of residence]?	extremely dissatisfied (0) – extremely satisfied (10)
Government satisfaction	Now thinking about the [country of residence] government, how satisfied are you with the way it is doing its job?	extremely dissatisfied (0) – extremely satisfied (10)
Trust in public institutions	Equally weighed index (Cronbach's α=0.86) of answers to the question: how much do you personally trust each of the [following] institutions: a) the country of residence's parliament b) the legal system c) the police d) politicians e) political parties	no trust at all (0) – completely trust (10)
Social trust	Equally weighed index (Cronbach's α=0.70) of:	
	a) Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?	you can't be too careful (0) – most people can be trusted (10)
	b) Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?	most people would try to take advantage of me (0) – most people would try to be fair (10)
	c) Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?	people mostly look out for themselves (0) – people mostly try to be helpful (10)

Figures and tables

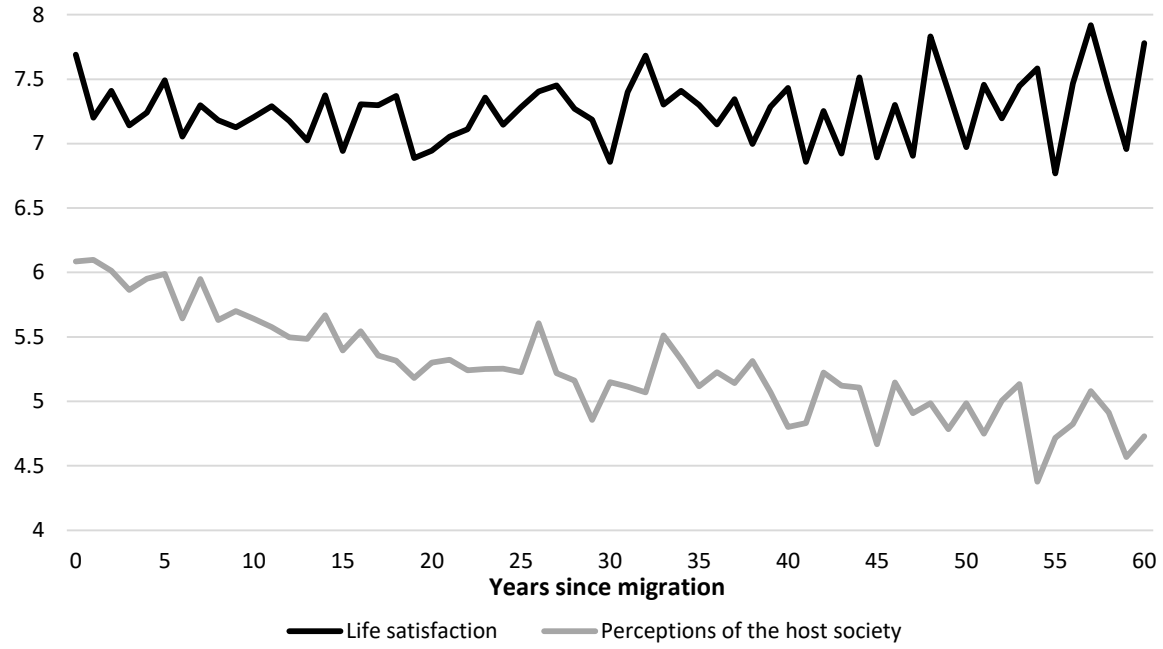


Figure 1 Life satisfaction and perceptions of the host society by length of stay.
Note: N=7,044. Means are adjusted for the following control variables: age, age^2, gender, year dummies, country of residence, country-specific time trends, colonial ties, country of origin, and migration flow dummies. In this figure, but not in our subsequent analyses, years since migration is truncated at 60 years by adding migrants who arrived more than 60 years ago to the group of immigrants who arrived 60 years ago because there are too few respondents who arrived more than 60 years ago to give reliable averages.

Table 2 The indirect effect of host society perceptions on subjective well-being assimilation.

Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years since migration	0.00	-0.03	0.12**	0.19**	-0.01	0.00	0.09**	0.19**
	(0.03)	(0.07)	(0.03)	(0.06)	(0.03)	(0.06)	(0.03)	(0.06)
Years since migration^2		0.06		-0.13		-0.02		-0.17*
		(0.09)		(0.09)		(0.08)		(0.08)
Perceptions of the host society			0.55**	0.55**			0.48**	0.48**
			(0.02)	(0.02)			(0.02)	(0.02)
Age	-0.05**	-0.05**	-0.04**	-0.05**	-0.06**	-0.06**	-0.06**	-0.07**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age^2	0.05**	0.05**	0.04**	0.04**	0.07**	0.08**	0.06**	0.07**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male	-0.03	-0.03	-0.06	-0.06	-0.11*	-0.11*	-0.12**	-0.12*
	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)
Colonial ties	-0.05	-0.05	-0.01	0.00	0.04	0.04	0.06	0.06
	(0.12)	(0.12)	(0.12)	(0.12)	(0.13)	(0.13)	(0.13)	(0.13)
Employment status *(ref. employed)*								
Unemployed					-0.63**	-0.63**	-0.54**	-0.54**
					(0.10)	(0.10)	(0.09)	(0.09)
Not in the labour force					-0.02	-0.02	-0.05	-0.04
					(0.06)	(0.06)	(0.06)	(0.06)
Household income (ln)					0.42**	0.42**	0.35**	0.35**
					(0.06)	(0.06)	(0.05)	(0.05)
Years of education (ln)					-0.03	-0.03	-0.05	-0.05
					(0.07)	(0.07)	(0.07)	(0.07)
Perceived health					0.54**	0.55**	0.44**	0.44**
					(0.04)	(0.04)	(0.03)	(0.03)
Partner					0.41**	0.41**	0.39**	0.40**
					(0.05)	(0.05)	(0.06)	(0.06)
Children					-0.01	-0.01	-0.02	-0.02
					(0.06)	(0.06)	(0.06)	(0.06)
Domicile *(ref: big city)*								
Suburb/town/small city					-0.04	-0.04	0.02	0.02
					(0.07)	(0.07)	(0.06)	(0.07)
Rural area					0.09	0.09	0.17*	0.17*
					(0.08)	(0.08)	(0.07)	(0.07)
Country of residence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NUTS region of residence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,044	7,044	7,044	7,044	7,044	7,044	7,044	7,044
R^2	0.15	0.15	0.28	0.28	0.26	0.26	0.36	0.36

Notes: Regression coefficients are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. In the above models, and all subsequent analyses, years since migration is divided by 10 for interpretation purposes, meaning that the coefficients indicate the difference in life satisfaction for a 10-year difference in length of stay. For a similar reason, years since migration^2 and age^2 are divided by 100.

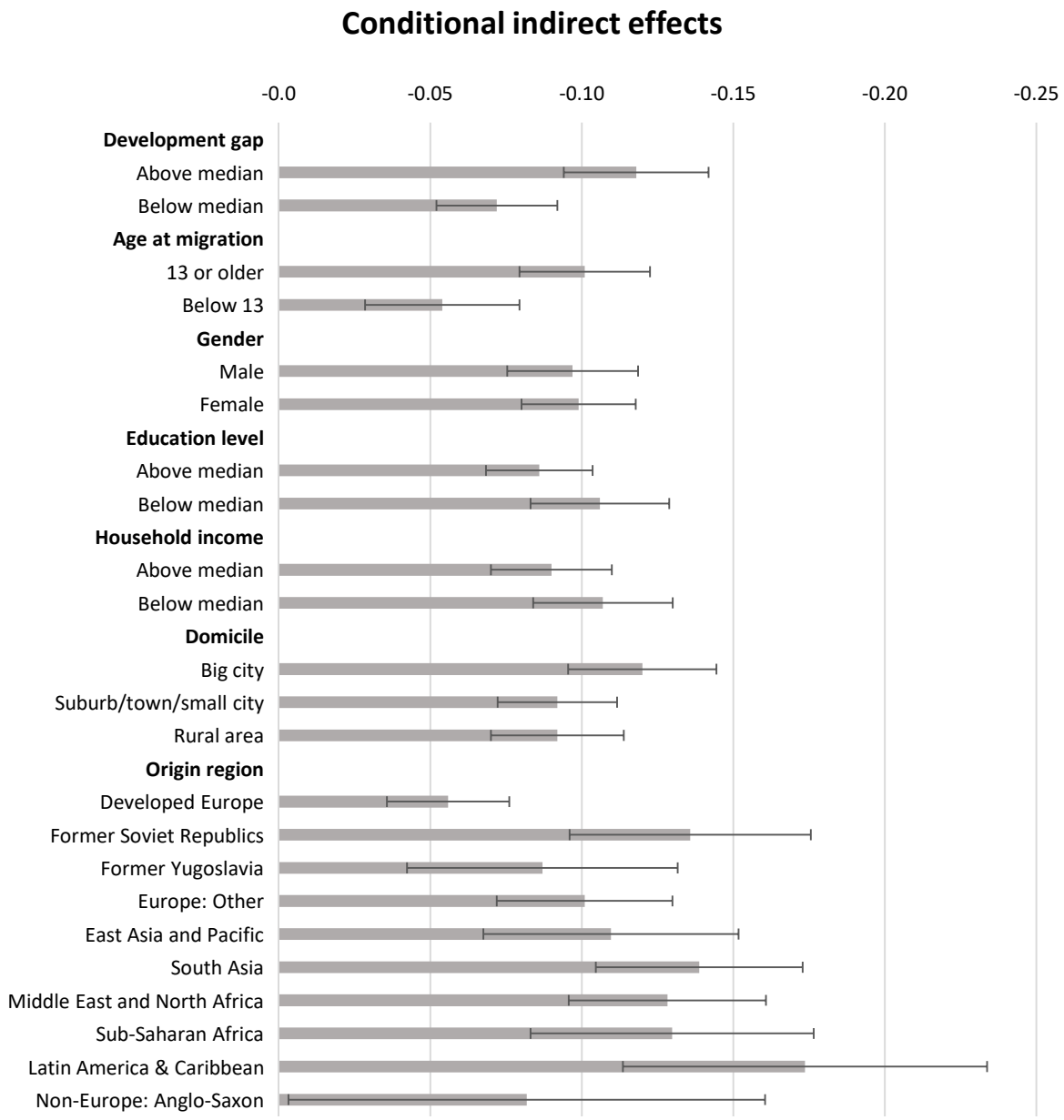


Figure 2 Conditional indirect effects.
Note: N=7,044. 95% confidence intervals are presented. The control variables are as in Columns 5-8 of Table 2, except for the exclusion of country of origin, migration flow, and colonial ties in the analyses exploring the conditional role of the development gap because these variables strongly overlap with the development gap. The mean HDI level of the origin region was imputed for some small islands or microstates with unknown HDI levels. The average host-home country difference in the HDI-score for immigrants with a below-median and above-median development gap is 0.04 and 0.23, respectively. Similar results are observed when excluding variables that are not exogenous to migration as in Columns 1-4 of Table 2 (see Appendix C).

Table 3 The role of host society perceptions in the subjective well-being gap between immigrants, the second generation, and natives.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Generation 2	-0.10	0.08			-0.18**	
	(0.05)	(0.05)			(0.02)	
Natives			0.05	0.23**		-0.18**
			(0.03)	(0.03)		(0.02)
Perceptions of the host society		0.46**		0.36**		
		(0.02)		(0.01)		
Observations	8,876	8,876	78,792	78,792		
R^2	0.25	0.34	0.26	0.32		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The control variables are as in Columns 5-8 of Table 2, except for the exclusion of immigrant-specific controls (country of origin, colony, and migration flow) in Columns 3-4. Similar results are observed when excluding variables that are not exogenous to migration as in Columns 1-4 of Table 2 (see appendix D).

Appendices

Appendix A - Variable definitions of individual-level control variables.

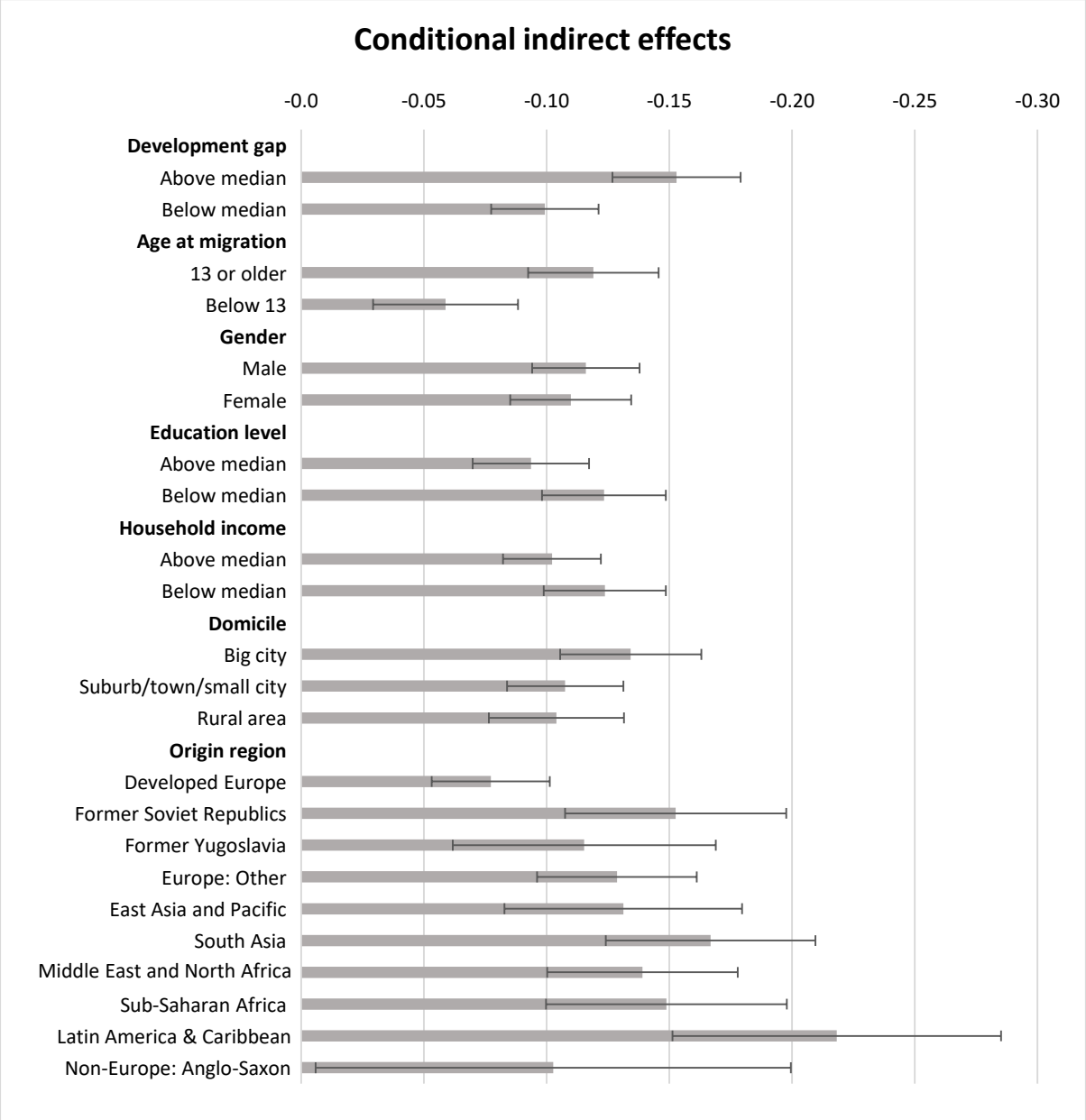
Indicator	*Measure*	*Scale*
Domicile	Which phrase best describes the area where you live?	a) a big city b) suburb/town/small city c) rural area
Household income (ln)	Income is log-transformed because the relationship between income and well-being is marginally decreasing. The survey question is: Please tell me which letter describes your household's total income, after tax and compulsory deductions, from all sources?	lowest income decile (0) – highest income decile (10)
Employment status	Main activity last seven days	a) employed b) unemployed c) not in the labor force
Partner	Interviewer code	1 = Lives with partner at household grid; 0 = Does not
Children	Interviewer code	1= lives with children at household grid; 0 = Does not
Perceived health	How is your health in general?	reverse coded: very bad (1) – very good (5)
Years of education (ln)	Years of education is log-transformed to reduce the influence of outliers. The survey question is: About how many years of education have you completed, whether full-time or part-time?	In full-time equivalents
Gender		0 = female; 1= male
Age & age^2	Age^2 captures the curvilinear relation between subjective well-being and age	in years
Colonial ties	Self-developed measure based on the respondent's home and host country	0 = no; 1 = yes

Appendix B - Sample composition and summary statistics

	First-generation immigrants (n=7,044)	Second-generation immigrants (n=1,832)	Natives (n=71,748)
	Means (SD)/percentages	*Means (SD)/percentages*	*Means (SD)/percentages*
Years since migration	21.1 (16.4)	N.A.	N.A.
Age (in years)	44.7 (15.6)	41.0 (17.7)	50.7 (18.1)
Perceived health (1-5)	4.0 (0.9)	4.0 (0.9)	3.9 (0.9)
Household income (1-10)	4.8 (2.7)	5.2 (2.7)	5.3 (2.8)
Years of education	13.5 (4.4)	13.1 (3.7)	13.1 (4.2)
Male (%)	49	50	49
Partner (%)	66	62	50
Child at home (%)	47	35	35
Employment status (%)			
Employed	57	54	51
Unemployed	10	9	6
Not in the labor force	33	37	43
Domicile (%)			
Big city	27	25	15
Suburb/town/small city	49	52	45
Rural area	24	23	40
Country (%)			
Austria	3	5	3
Belgium	10	13	7
Switzerland	15	14	4
Germany	11	16	11
Denmark	2	2	4
Spain	7	11	7
Finland	3	0	10
France	8	17	7
United Kingdom	7	11	8
Greece	2	3	2
Ireland	10	2	8
Iceland	1	0	2
Italy	1	0	2
Netherlands	6	6	7
Norway	4	1	7
Portugal	1	1	4
Sweden	9	8	7
Colonial ties (%)	12	14	N.A.
Region of origin (%)			
Developed Europe	27	36	N.A.
Former Soviet Republics	9	3	N.A.
Former Yugoslavia	7	7	N.A.
Europe: Other	20	23	N.A.
East Asia and Pacific	4	4	N.A.
South Asia	5	5	N.A.
Middle East and North Africa	11	14	N.A.
Sub-Saharan Africa	8	4	N.A.
Latin America & Caribbean	8	4	N.A.
Non-Europe: Anglo-Saxon	1	0	N.A.

Note: N.A. = Not Applicable. The division of immigrants by region of origin is based on the country classifications of the World Bank. "Developed Europe" includes 17 destination countries and Western European microstates (e.g., Monaco). "Europe: other" includes European countries that do not belong to developed Europe, former Soviet Republics, or the former Yugoslavia; these countries are situated in Central and South-Eastern Europe. "Non-Europe: Anglo-Saxon" comprises the US, Canada, Australia, and New Zealand.

Appendix C - Conditional indirect effects (exogenous covariates only).



Note: N=7,044. 95% confidence intervals are presented. The control variables are as in Columns 1-4 of Table 2, except for the exclusion of country of origin, migration flow, and colonial ties in the analyses exploring the conditional role of the development gap because these variables strongly overlap with the development gap.

Appendix D - The role of host society perceptions in the subjective well-being gap between immigrants, the second generation, and natives (exogenous covariates only).

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Generation 2	-0.09	0.11			-0.20**	
	(0.06)	(0.06)			(0.03)	
Natives			0.22**	0.41**		-0.19**
			(0.03)	(0.03)		(0.02)
Perceptions of the host society		0.53**		0.47**		
		(0.02)		(0.02)		
Age	-0.05**	-0.05**	-0.04**	-0.02**		
	(0.01)	(0.01)	(0.01)	(0.00)		
Age^2	0.05**	0.04**	0.04**	0.02**		
	(0.01)	(0.01)	(0.01)	(0.00)		
Male	-0.06	0.07	0.00	-0.04		
	(0.04)	(0.04)	(0.02)	(0.02)		
Colonial ties	-0.04	0.02				
	(0.11)	(0.10)				
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		
Country of origin	Yes	Yes	No	No		
Migration flow	Yes	Yes	No	No		
Observations	8,876	8,876	78,792	78,792		
R^2	0.14	0.26	0.11	0.22		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01.

Appendix E - Robustness check: Categorical length-of-stay variable (rounds 1-8).

Table E1 Robustness check for hypothesis 1: Categorical length-of-stay variable (rounds 1-8).

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Length of stay (*ref. 20+ years)*						
<1 year	0.18	-0.36**	0.17	-0.31**	0.54**	0.48**
	(0.13)	(0.12)	(0.12)	(0.12)	(0.04)	(0.04)
1-5 years	-0.04	-0.43**	-0.05	-0.39**	0.40**	0.34**
	(0.08)	(0.08)	(0.08)	(0.07)	(0.03)	(0.03)
6-10 years	-0.10	-0.37**	-0.12	-0.35**	0.27**	0.23**
	(0.08)	(0.07)	(0.07)	(0.07)	(0.03)	(0.03)
11-20 years	-0.06	-0.20**	-0.08	-0.19**	0.14**	0.12**
	(0.06)	(0.06)	(0.06)	(0.06)	(0.02)	(0.02)
Perceptions of the host society		0.55**		0.49**		
		(0.01)		(0.01)		
Age	-0.05**	-0.05**	-0.06**	-0.06**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Age^2	0.05**	0.05**	0.07**	0.07**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Male	-0.02	-0.07*	-0.11**	-0.15**		
	(0.04)	(0.03)	(0.03)	(0.03)		
Colonial ties	-0.19	-0.15	-0.17	-0.14		
	(0.11)	(0.10)	(0.11)	(0.11)		
Employment status *(ref. employed)*						
Unemployed			-0.64**	-0.54**		
			(0.09)	(0.08)		
Not in the labor force			-0.04	-0.05		
			(0.05)	(0.04)		
Household income (ln)			0.35**	0.28**		
			(0.04)	(0.03)		
Years of education (ln)			-0.09*	-0.09*		
			(0.04)	(0.04)		
Perceived health			0.36**	0.47**		
			(0.05)	(0.02)		
Children			-0.05	-0.08		
			(0.04)	(0.04)		
Partner			0.59**	0.40**		
			(0.03)	(0.04)		
Domicile *(ref: big city)*						
Suburb/town/small city			-0.00	0.04		
			(0.05)	(0.05)		
Rural area			-0.01	0.05		
			(0.07)	(0.06)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		

Country-specific time trends	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes
Observations	13,886	13,886	13,886	13,886
R^2	0.13	0.26	0.23	0.32

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. As commonly used methods for multilevel meditation tests such as *ml_mediation* and *medeff* cannot handle categorical independent variables, we estimated the indirect effects here using a seemingly unrelated regression (SUR) procedure, implemented via Stata's *suest* command. SUR combines the regression estimates into one parameter vector and a simultaneous sandwich (robust) variance-covariance matrix. This information is used to construct the usual Wald-type test statistic for cross-model hypothesis tests. Next, we employ Stata's *nlcom* command to estimate the standard errors and confidence intervals using the delta method, an approximation appropriate in large samples. See http://www.ats.ucla.edu/stat/stata/faq/mediation_cativ.htm for a more detailed explanation of our approach to estimating mediation effects. The ESS income variable changed in round 4 from country-specific income categories to country-specific deciles. Following Deeming and Jones (2015), we unified the two assessments of income into a corresponding measure that classifies income in deciles.

Interpretation of results: The significant indirect effects derived from the mediation tests confirm that immigrants' faltering perceptions of the host society significantly suppress their life satisfaction development over time. For instance, the more positive societal perceptions of immigrants who arrived last year provides them with a life satisfaction advantage of 0.54 compared with the reference group of immigrants who arrived more than 20 years ago for the model excluding potentially endogenous controls (and 0.48 when including potentially endogenous controls). The magnitude of the indirect effects decreases with the length of stay, which indicates that the life satisfaction advantage originating from positive perceptions of the host society gradually decreases over time. The OLS regressions show that immigrants who arrived more than 20 years ago are not significantly happier than the various groups of more recently arrived migrants when not controlling for their less positive perceptions of the host society (see Columns 1 and 3). However, they are significantly happier than all other groups when controlling for these more negative perceptions (see Columns 2 and 4). Although not of main interest for our study, the results of Columns 2 and 4 suggest that the positive linear life satisfaction trend that emerges after controlling for societal perceptions is driven by immigrants who migrated more than 10 years ago. Exploring why this is the case is beyond the scope of this paper. However, possible explanations are the existence of other mechanisms that impair life satisfaction in the first years after migration (e.g., shifting preferences), our index may not capture all the changing perceptions that follow from a shifting frame of reference (e.g., perceptions of personal conditions), or it is simply due to chance (i.e., due to the imprecision of the estimates).

Table E2 Robustness check for hypothesis 2: Categorical length-of-stay variable (rounds 1-8).

Conditional indirect effects

	Development gap		**Age at migration**		**Gender**		**Education level**		**Household income**		**Domicile**		
Length of stay	Below median	Above median	Below 13	13 or older	Female	Male	Below median	Above median	Below median	Above median	Big city	Suburb/town/ small city	Rural area
<1 year	0.54**	0.44**	N.A.	0.46**	0.45**	0.50**	0.53**	0.39**	0.59**	0.32**	0.48**	0.49**	0.37**
	(0.06)	(0.05)		(0.04)	(0.06)	(0.05)	(0.07)	(0.04)	(0.05)	(0.05)	(0.09)	(0.05)	(0.08)
1-5 years	0.45**	0.28**	N.A.	0.33**	0.38**	0.30**	0.35**	0.29**	0.39**	0.26**	0.42**	0.35**	0.21**
	(0.04)	(0.03)		(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)	(0.04)
6-10 years	0.32**	0.20**	0.19	0.22**	0.28**	0.19**	0.27**	0.15**	0.26**	0.18**	0.26**	0.23**	0.20**
	(0.04)	(0.03)	(0.13)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)	(0.04)
11-20 years	0.16**	0.10**	-0.02	0.11**	0.12**	0.12**	0.16**	0.06**	0.13**	0.09**	0.13**	0.15**	0.06
	(0.03)	(0.02)	(0.06)	(0.02)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)
20+ years	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.

Table E2 continued.

	Origin region									
Length of stay	Developed Europe	Former Soviet Republics	Former Yugoslavia	Europe: Other	East Asia & Pacific	South Asia	Middle East & North Africa	Sub-Saharan Africa	Latin America & Caribbean	Non-Europe: Anglo-Saxon
<1 year	0.39**	0.65**	-0.10	0.50**	0.42*	0.82**	0.30*	0.37*	0.50**	-0.00
	(0.06)	(0.16)	(0.27)	(0.11)	(0.19)	(0.19)	(0.13)	(0.19)	(0.14)	(0.24)
1-5 years	0.22**	0.43**	0.30**	0.30**	0.64**	0.47**	0.35**	0.48**	0.27**	-0.02
	(0.04)	(0.09)	(0.12)	(0.06)	(0.15)	(0.12)	(0.04)	(0.11)	(0.10)	(0.16)
6-10 years	0.14**	0.16	0.30**	0.24**	0.39**	0.24*	0.27**	0.39**	0.18*	0.07
	(0.02)	(0.09)	(0.13)	(0.06)	(0.13)	(0.11)	(0.04)	(0.11)	(0.09)	(0.19)
11-20 years	0.09**	0.03	0.16	0.11*	0.12	0.15	0.16**	0.17*	0.05	-0.00
	(0.02)	(0.09)	(0.09)	(0.05)	(0.08)	(0.08)	(0.03)	(0.09)	(0.06)	(0.17)
20+ years	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.

Notes: Conditional indirect effects are displayed. The control variables are as in Figure 2.

Appendix F - Robustness check: Controlling for mood and optimism.

Table F1 Robustness check for hypothesis 1: Controlling for mood and optimism.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Years since migration	0.01	0.11	-0.01	0.09		
	(0.08)	(0.08)	(0.07)	(0.08)		
Perceptions of the host society		0.49**		0.44**	-0.10**	-0.11**
		(0.03)		(0.03)	(0.03)	(0.03)
Mood			0.62**	0.56**		
			(0.06)	(0.06)		
Optimism			0.34**	0.26**		
			(0.08)	(0.08)		
Age	-0.03	-0.04	-0.03	-0.03		
	(0.02)	(0.02)	(0.02)	(0.02)		
Age^2	0.05	0.04*	0.04	0.04		
	(0.02)	(0.02)	(0.02)	(0.02)		
Male	-0.05	-0.07	-0.07	-0.08		
	(0.10)	(0.08)	(0.09)	(0.08)		
Colonial ties	0.22	0.12	0.09	0.03		
	(0.42)	(0.37)	(0.32)	(0.30)		
Employment status *(ref. employed)*						
Unemployed	-0.31	-0.32	-0.37	-0.37*		
	(0.20)	(0.18)	(0.18)	(0.17)		
Not in the labor force	0.04	-0.04	-0.03	-0.09		
	(0.12)	(0.08)	(0.11)	(0.08)		
Household income (ln)	0.40*	0.34	0.28	0.24		
	(0.17)	(0.16)	(0.15)	(0.15)		
Years of education (ln)	-0.22	-0.27*	-0.22	-0.26*		
	(0.14)	(0.11)	(0.10)	(0.10)		
Perceived health	0.59**	0.52**	0.37**	0.34**		
	(0.07)	(0.06)	(0.06)	(0.06)		
Children	0.03	0.08	0.04	0.08		
	(0.16)	(0.14)	(0.14)	(0.13)		
Partner	0.48**	0.45**	0.37**	0.35**		
	(0.08)	(0.07)	(0.11)	(0.10)		
Domicile *(ref: big city)*						
Suburb/town/small city	-0.14	-0.08	-0.14	-0.09		
	(0.15)	(0.16)	(0.15)	(0.16)		
Rural area	0.11	0.21	0.05	0.15		
	(0.14)	(0.14)	(0.11)	(0.12)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Country of origin	Yes	Yes	Yes	Yes		
Migration flow	Yes	Yes	Yes	Yes		
Observations	1,894	1,894	1,894	1,894		
R^2	0.36	0.44	0.42	0.48		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * $p<0.05$, ** $p<0.01$. The analysis sample comprises immigrants from ESS round 6 as this is the only round in which the mood, optimism, and continuous length of stay variables are jointly available. Compared with our main analysis, the models here exclude country-specific time trends and year dummies because all respondents come from the same ESS round. Columns 1-2 show the results without mood and optimism controls, while Columns 3-4 show the results with mood and optimism controls. As shown above, the indirect effect remains significant when adding mood and optimism controls (m = -0.11; SE = 0.02) and is very similar as in the model excluding mood and optimism controls (m = -0.10; SE = 0.02). Mood is assessed with the following question: "How much of the time during the past week you were happy?" Optimism is assessed according to the respondent's agreement with the following statement: "I'm always optimistic about my future".

Table F2 Robustness check for hypotheses 3: Controlling for mood and optimism.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant generation (*ref. Generation 1)*						
Generation 2	-0.06	0.17	-0.05	0.15		
	(0.11)	(0.11)	(0.09)	(0.09)		
Perceptions of the host society		0.47**		0.41**	-0.23**	-0.19**
		(0.02)		(0.02)	(0.04)	(0.03)
Mood			0.61**	0.56**		
			(0.04)	(0.04)		
Optimism			0.43**	0.34**		
			(0.05)	(0.05)		
Age	-0.06**	-0.05**	-0.05**	-0.04**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Age^2	0.07**	0.06**	0.06**	0.05**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Male	-0.04	-0.07	-0.08	-0.10*		
	(0.06)	(0.05)	(0.05)	(0.05)		
Colonial ties	-0.02	-0.01	-0.09	-0.07		
	(0.26)	(0.23)	(0.25)	(0.22)		
Employment status *(ref. employed)*						
Unemployed	-0.31*	-0.30*	-0.29*	-0.29*		
	(0.15)	(0.13)	(0.14)	(0.12)		
Not in the labor force	0.08	0.03	0.03	0.01		
	(0.07)	(0.06)	(0.07)	(0.07)		
Household income (ln)	0.37**	0.31**	0.30**	0.26**		
	(0.09)	(0.08)	(0.08)	(0.07)		
Years of education (ln)	-0.06	-0.16	-0.06	-0.14*		
	(0.08)	(0.08)	(0.06)	(0.07)		
Perceived health	0.62**	0.51**	0.37**	0.31**		
	(0.05)	(0.05)	(0.05)	(0.04)		
Children	-0.11	-0.06	-0.08	-0.03		
	(0.10)	(0.09)	(0.09)	(0.08)		
Partner	0.48**	0.41**	0.33**	0.29**		
	(0.07)	(0.08)	(0.07)	(0.08)		
Domicile *(ref: big city)*						
Suburb/town/small city	0.03	0.06	0.01	-0.04		
	(0.09)	(0.09)	(0.09)	(0.09)		
Rural area	0.17	0.20*	0.10	0.13		
	(0.08)	(0.09)	(0.08)	(0.09)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		
Country of origin	Yes	Yes	Yes	Yes		
Migration flow	Yes	Yes	Yes	Yes		
Observations	4,120	4,120	4,120	4,120		
R^2	0.28	0.36	0.37	0.43		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises immigrants from ESS rounds 3 and 6 as these are the only rounds in which the mood and optimism variables are jointly available.

Table F3 Robustness check for hypotheses 4: Controlling for mood and optimism.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Natives	0.09	0.25**	0.12**	0.25**		
	(0.05)	(0.04)	(0.04)	(0.04)		
Perceptions of the host society		0.38**		0.32**	-0.16**	-0.12**
		(0.02)		(0.02)	(0.03)	(0.02)
Mood			0.64**	0.61**		
			(0.02)	(0.02)		
Optimism			0.41**	0.35**		
			(0.02)	(0.02)		
Age	-0.06**	-0.04**	-0.04**	-0.03**		
	(0.01)	(0.00)	(0.00)	(0.00)		
Age^2	0.06**	0.05**	0.05**	0.03**		
	(0.01)	(0.00)	(0.00)	(0.00)		
Male	-0.11**	-0.14**	-0.16**	-0.17**		
	(0.02)	(0.02)	(0.02)	(0.02)		
Employment status *(ref. employed)*						
Unemployed	-0.79**	-0.67**	-0.69**	-0.60**		
	(0.08)	(0.07)	(0.07)	(0.06)		
Not in the labor force	0.09**	0.09**	0.07**	0.07**		
	(0.03)	(0.02)	(0.02)	(0.02)		
Household income (ln)	0.38**	0.30**	0.31**	0.25**		
	(0.04)	(0.04)	(0.04)	(0.03)		
Years of education (ln)	0.05	-0.07	0.06	-0.04		
	(0.04)	(0.04)	(0.03)	(0.03)		
Perceived health	0.61**	0.50**	0.36**	0.30**		
	(0.02)	(0.02)	(0.02)	(0.02)		
Children	-0.10**	-0.11**	-0.07*	-0.08**		
	(0.03)	(0.03)	(0.03)	(0.03)		
Partner	0.42**	0.41**	0.25**	0.25**		
	(0.03)	(0.03)	(0.03)	(0.03)		
Domicile *(ref: big city)*						
Suburb/town/small city	-0.02	0.02	-0.03	-0.00		
	(0.04)	(0.04)	(0.03)	(0.03)		
Rural area	0.14**	0.16**	0.09**	0.11**		
	(0.04)	(0.03)	(0.03)	(0.03)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		
Observations	39,857	39,857	39,857	39,857		
R^2	0.25	0.32	0.36	0.40		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises immigrants from ESS rounds 3 and 6.

Appendix G - Robustness check: Controlling for job satisfaction.

Table G1 Robustness check for hypothesis 1: Controlling for job satisfaction.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Years since migration	0.02	0.10	0.02	0.09		
	(0.06)	(0.05)	(0.06)	(0.05)		
Perceptions of the host society		0.39**		0.34**	-0.08**	-0.07*
		(0.05)		(0.04)	(0.03)	(0.03)
Job satisfaction			0.25**	0.21**		
			(0.03)	(0.03)		
Contract (*ref. permanent contract*)						
Temporary contract	-0.09	-0.12	-0.05	-0.08		
	(0.21)	(0.20)	(0.21)	(0.20)		
No contract	-0.02	0.03	0.07	0.10		
	(0.22)	(0.22)	(0.23)	(0.22)		
Work autonomy	0.04**	0.04**	0.02	0.02		
	(0.01)	(0.01)	(0.01)	(0.01)		
Workplace democracy	-0.00	-0.02	-0.02	-0.03		
	(0.02)	(0.02)	(0.02)	(0.02)		
Age	-0.07	-0.07*	-0.06	-0.06		
	(0.04)	(0.04)	(0.04)	(0.03)		
Age^2	0.09*	0.08*	0.08	0.07		
	(0.04)	(0.04)	(0.05)	(0.04)		
Male	0.02	-0.03	0.07	0.02		
	(0.11)	(0.10)	(0.10)	(0.09)		
Colonial ties	0.31	0.24	0.13	0.10		
	(0.41)	(0.46)	(0.44)	(0.48)		
Household income (ln)	0.33**	0.32*	0.30*	0.29*		
	(0.14)	(0.13)	(0.13)	(0.12)		
Years of education (ln)	-0.03	-0.03	-0.01	-0.01		
	(0.02)	(0.02)	(0.02)	(0.02)		
Perceived health	0.39**	0.31**	0.30**	0.24**		
	(0.07)	(0.07)	(0.06)	(0.06)		
Children	0.08	0.06	0.11	0.09		
	(0.14)	(0.13)	(0.14)	(0.13)		
Partner	0.57**	0.49**	0.54**	0.47**		
	(0.12)	(0.12)	(0.12)	(0.12)		
Domicile *(ref: big city)*						
Suburb/town/small city	-0.17	-0.08	-0.17	-0.09		
	(0.14)	(0.14)	(0.13)	(0.13)		
Rural area	-0.09	0.01	-0.09	-0.00		
	(0.15)	(0.15)	(0.14)	(0.15)		
Occupation	Yes	Yes	Yes	Yes		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		

Country of origin	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes
Observations	1,781	1,781	1,781	1,781
R^2	0.38	0.43	0.42	0.46

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises employed immigrants from ESS rounds 5 and 6. Compared with our main models, the respondent's type of occupation (ISCO08), contract duration (temporary vs. permanent), work autonomy, and workplace democracy were added as control variables to limit the possibility that differences in job satisfaction are driven by differences in objective job characteristics. The question wording of the latter two variables is "How much does the management at your work allow you to (i) decide how your own daily work is organised and (ii) influence policy decisions about the activities of the organization". Job satisfaction is assessed with the following question: "How satisfied are you with your present/main job?". The 11-item scale ranges from extremely dissatisfied to extremely satisfied.

Table G2 Robustness check for hypothesis 3: Controlling for job satisfaction.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant generation (*ref. Generation 1)*						
Generation 2	-0.04	0.12	-0.04	0.09		
	(0.11)	(0.11)	(0.10)	(0.10)		
Perceptions of the host society		0.45**		0.39**	-0.16**	-0.13**
		(0.03)		(0.03)	(0.04)	(0.03)
Job satisfaction			0.27**	0.22**		
			(0.02)	(0.02)		
Contract (*ref. permanent contract*)						
Temporary contract	-0.21	-0.19	-0.17	-0.16		
	(0.12)	(0.11)	(0.12)	(0.11)		
No contract	-0.05	-0.04	-0.04	-0.04		
	(0.16)	(0.16)	(0.16)	(0.16)		
Work autonomy	0.04*	0.04**	0.01	0.02		
	(0.02)	(0.02)	(0.02)	(0.02)		
Workplace democracy	-0.00	-0.02	-0.02	-0.03*		
	(0.01)	(0.01)	(0.01)	(0.01)		
Age	-0.06*	-0.06*	-0.05	-0.05		
	(0.03)	(0.02)	(0.03)	(0.03)		
Age^2	0.07*	0.06*	0.05	0.05		
	(0.03)	(0.03)	(0.03)	(0.03)		
Male	-0.04	-0.10	-0.01	-0.07		
	(0.06)	(0.06)	(0.06)	(0.06)		
Colonial ties	-0.09	-0.12	-0.21	-0.22		
	(0.27)	(0.24)	(0.25)	(0.22)		
Household income (ln)	0.32**	0.30	0.29**	0.28**		
	(0.10)	(0.09)	(0.09)	(0.08)		
Years of education (ln)	-0.01	-0.01	0.01	0.00		
	(0.01)	(0.01)	(0.01)	(0.01)		
Perceived health	0.50**	0.39**	0.40**	0.32**		
	(0.06)	(0.06)	(0.05)	(0.05)		

Children	-0.08	-0.05	-0.04	-0.03
	(0.10)	(0.10)	(0.10)	(0.10)
Partner	0.53**	0.43**	0.48**	0.41**
	(0.09)	(0.09)	(0.09)	(0.09)
Domicile *(ref: big city)*				
Suburb/town/small city	-0.00	0.06	0.02	0.07
	(0.09)	(0.08)	(0.09)	(0.08)
Rural area	0.18	0.20	0.18	0.20*
	(0.11)	(0.10)	(0.10)	(0.10)
Occupation	Yes	Yes	Yes	Yes
Country of residence	Yes	Yes	Yes	Yes
NUTS region of residence	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes
Observations	3,178	3,178	3,178	3,178
R^2	0.30	0.37	0.35	0.41

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises employed first and second generation immigrants from ESS rounds 3, 5 and 6.

Table G3 Robustness check for hypothesis 4: Controlling for job satisfaction.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Natives	0.11*	0.25**	0.11*	0.24**		
	(0.05)	(0.04)	(0.04)	(0.04)		
Perceptions of the host society		0.35**		0.31**	-0.14**	-0.13**
		(0.02)		(0.02)	(0.02)	(0.02)
Job satisfaction			0.25**	0.22**		
			(0.01)	(0.01)		
Contract (*ref. permanent contract*)						
Temporary contract	-0.15**	-0.14**	-0.15**	-0.14**		
	(0.03)	(0.03)	(0.03)	(0.03)		
No contract	0.03	0.05	0.05	0.06		
	(0.05)	(0.05)	(0.05)	(0.05)		
Work autonomy	0.05**	0.05**	0.02**	0.02**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Workplace democracy	0.01*	0.00	-0.01	-0.01**		
	(0.00)	(0.00)	(0.00)	(0.00)		
Age	-0.09**	-0.08**	-0.07**	-0.07**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Age^2	0.10**	0.09**	0.08**	0.07**		
	(0.01)	(0.01)	(0.01)	(0.01)		
Male	-0.06*	-0.11**	-0.05	-0.09**		
	(0.03)	(0.02)	(0.03)	(0.03)		
Household income (ln)	0.39**	0.34**	0.35**	0.31**		
	(0.05)	(0.04)	(0.04)	(0.04)		
Years of education (ln)	-0.00	-0.01**	0.00	-0.00		
	(0.00)	(0.00)	(0.00)	(0.00)		
Perceived health	0.51**	0.43**	0.43**	0.37**		
	(0.02)	(0.02)	(0.02)	(0.02)		
Children	-0.00	-0.02	-0.02	-0.04		
	(0.03)	(0.03)	(0.03)	(0.02)		
Partner	0.40**	0.39**	0.42**	0.40**		
	(0.03)	(0.03)	(0.03)	(0.03)		
Domicile *(ref: big city)*						
Suburb/town/small city	-0.01	0.01	-0.01	0.02		
	(0.04)	(0.04)	(0.04)	(0.03)		
Rural area	0.09*	0.11**	0.07*	0.10**		
	(0.04)	(0.03)	(0.03)	(0.03)		
Occupation	Yes	Yes	Yes	Yes		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		
Observations	27,702	27,702	27,702	27,702		
R^2	0.23	0.29	0.29	0.34		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises employed first generation immigrants and natives from ESS rounds 3, 5 and 6.

Appendix H - Robustness check: Controlling for satisfaction with one's living standard.

Table H1 Robustness check for hypothesis 1: Controlling for satisfaction with one's living standard.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Length of stay *(ref. 20+ years)*						
<1 year	0.28	-0.04	0.46	0.22	0.32**	0.24**
	(0.38)	(0.35)	(0.33)	(0.32)	(0.13)	(0.09)
1-5 years	-0.28	-0.51*	-0.08	-0.27	0.23**	0.19**
	(0.20)	(0.23)	(0.17)	(0.18)	(0.07)	(0.06)
6-10 years	-0.33	-0.41	-0.00	-0.10	0.07	0.10
	(0.31)	(0.23)	(0.25)	(0.23)	(0.11)	(0.06)
11-20 years	0.03	-0.03	0.14	0.09	0.06	0.06
	(0.18)	(0.18)	(0.14)	(0.16)	(0.09)	(0.06)
Perceptions of the host society		0.56**		0.38**		
		(0.05)		(0.05)		
Satisfaction with living standard			0.55**	0.47**		
			(0.04)	(0.05)		
Age	-0.04	-0.03	-0.04	-0.03		
	(0.03)	(0.03)	(0.02)	(0.02)		
Age^2	0.05	0.03	0.04	0.03		
	(0.03)	(0.03)	(0.02)	(0.02)		
Male	-0.07	-0.22	-0.02	-0.13		
	(0.12)	(0.13)	(0.08)	(0.09)		
Colonial ties	0.45	-0.41	0.19	-0.20		
	(0.81)	(0.57)	(0.47)	(0.36)		
Employment status *(ref. employed)*						
Unemployed	-0.02	-0.10	0.12	0.05		
	(0.26)	(0.20)	(0.21)	(0.17)		
Not in the labor force	-0.01	-0.02	-0.13	-0.13		
	(0.20)	(0.18)	(0.19)	(0.18)		
Household income (ln)	0.35**	0.27*	-0.03	-0.02		
	(0.10)	(0.11)	(0.12)	(0.11)		
Years of education (ln)	-0.05	-0.14	-0.13	-0.17		
	(0.18)	(0.13)	(0.13)	(0.12)		
Perceived health	0.68**	0.51**	0.33**	0.27**		
	(0.07)	(0.05)	(0.08)	(0.06)		
Children	-0.12	-0.15	-0.08	-0.10		
	(0.22)	(0.19)	(0.17)	(0.16)		
Partner	0.23	0.18	0.05	0.04		
	(0.11)	(0.14)	(0.11)	(0.12)		
Domicile *(ref: big city)*						
Suburb/town/small city	0.20	0.17	0.12	0.11		
	(0.27)	(0.28)	(0.22)	(0.24)		
Rural area	0.07	0.05	-0.03	-0.03		
	(0.24)	(0.23)	(0.19)	(0.19)		
Country of residence	Yes	Yes	Yes	Yes		

NUTS region of residence	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes
Observations	1,411	1,411	1,411	1,411
R^2	0.38	0.46	0.53	0.56

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * $p<0.05$, ** $p<0.01$. The sample comprises immigrants from ESS round 3 and the categorical length-of-stay variable is used. Satisfaction with living standard is assessed with the following question: "How satisfied are you with your present standard of living?". The 11-item scale ranges from extremely dissatisfied to extremely satisfied.

Table H2 Robustness check for hypotheses 3: Controlling for satisfaction with one's living standard.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant generation (*ref. Generation 1)*						
Generation 2	0.09	0.32*	0.12	0.27		
	(0.15)	(0.13)	(0.17)	(0.16)		
Perceptions of the host society		0.54**		0.37**	-0.23**	-0.15**
		(0.04)		(0.04)	(0.08)	(0.05)
Satisfaction with living standard			0.56**	0.47**		
			(0.03)	(0.03)		
Age	-0.07**	-0.05*	-0.05*	-0.04		
	(0.01)	(0.02)	(0.02)	(0.02)		
Age^2	0.08**	0.06*	0.05*	0.04		
	(0.01)	(0.02)	(0.02)	(0.02)		
Male	-0.10	-0.19	-0.04	-0.12		
	(0.11)	(0.10)	(0.06)	(0.06)		
Colonial ties	-0.63	-0.58	-0.41	-0.40		
	(0.59)	(0.42)	(0.35)	(0.27)		
Employment status *(ref. employed)*						
Unemployed	0.01	-0.06	0.10	0.04		
	(0.22)	(0.18)	(0.21)	(0.19)		
Not in the labor force	0.05	-0.00	-0.09	-0.11		
	(0.15)	(0.14)	(0.15)	(0.14)		
Household income (ln)	0.36**	0.26*	-0.03	-0.04		
	(0.08)	(0.10)	(0.11)	(0.11)		
Years of education (ln)	0.04	-0.09	-0.06	-0.13		
	(0.17)	(0.14)	(0.10)	(0.10)		
Perceived health	0.67**	0.52**	0.34**	0.29**		
	(0.08)	(0.08)	(0.09)	(0.08)		
Children	-0.21	-0.18	-0.11	-0.10		
	(0.19)	(0.17)	(0.17)	(0.16)		
Partner	0.48**	0.40*	0.24	0.23		
	(0.15)	(0.15)	(0.14)	(0.14)		
Domicile *(ref: big city)*						
Suburb/town/small city	0.16	0.13	0.13	0.12		
	(0.19)	(0.21)	(0.17)	(0.19)		
Rural area	0.07	0.01	0.02	-0.00		
	(0.17)	(0.18)	(0.14)	(0.16)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Country of origin	Yes	Yes	Yes	Yes		
Migration flow	Yes	Yes	Yes	Yes		
Observations	1,772	1,772	1,772	1,772		
R^2	0.35	0.44	0.51	0.54		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises first and second generation immigrants from ESS round 3.

Table H3 Robustness check for hypotheses 4: Controlling for satisfaction with one's living standard.

	OLS regressions				Indirect effects	
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Natives	0.17	0.29**	0.08	0.17**		
	(0.07)	(0.06)	(0.04)	(0.04)		
Perceptions of the host society		0.40**		0.26**	-0.12**	-0.09**
		(0.03)		(0.03)	(0.04)	(0.02)
Satisfaction with living standard			0.47**	0.42**		
			(0.02)	(0.02)		
Age	-0.05**	-0.04**	-0.02**	-0.02**		
	(0.01)	(0.01)	(0.00)	(0.00)		
Age^2	0.06**	0.04**	0.03**	0.02**		
	(0.01)	(0.01)	(0.00)	(0.00)		
Male	-0.15**	-0.20**	-0.13**	-0.16**		
	(0.02)	(0.03)	(0.02)	(0.03)		
Employment status *(ref. employed)*						
Unemployed	-0.78**	-0.65**	-0.38**	-0.34*		
	(0.16)	(0.14)	(0.12)	(0.12)		
Not in the labor force	0.12**	0.10*	0.07	0.06		
	(0.05)	(0.04)	(0.03)	(0.03)		
Household income (ln)	0.34**	0.27**	0.07	0.05		
	(0.06)	(0.05)	(0.03)	(0.03)		
Years of education (ln)	0.07	-0.06	-0.06	-0.13*		
	(0.06)	(0.06)	(0.05)	(0.05)		
Perceived health	0.64**	0.52**	0.40**	0.35**		
	(0.03)	(0.03)	(0.03)	(0.02)		
Children	-0.04	-0.05	0.02	0.01		
	(0.03)	(0.03)	(0.03)	(0.03)		
Partner	0.39**	0.38**	0.19**	0.20**		
	(0.05)	(0.05)	(0.04)	(0.04)		
Domicile *(ref: big city)*						
Suburb/town/small city	0.04	0.06	0.03	0.04		
	(0.07)	(0.06)	(0.06)	(0.06)		
Rural area	0.19*	0.18*	0.13*	0.13*		
	(0.07)	(0.07)	(0.05)	(0.06)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Observations	19,583	19,583	19,583	19,583		
R^2	0.25	0.32	0.41	0.43		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. The analysis sample comprises first generation immigrants and natives from ESS round 3.

Appendix I - Robustness check: Global happiness as the outcome variable.

Table I1 Robustness check for hypothesis 1: Global happiness as the outcome variable.

	OLS regressions				Indirect effect
Dependent variable: Global happiness	(1)	(2)	(3)	(4)	(1) – (3)
Years since migration	0.04	0.06	0.11**	0.20**	
	(0.02)	(0.04)	(0.02)	(0.04)	
Years since migration^2		-0.04		-0.15**	
		(0.06)		(0.06)	
Perceptions of the host society			0.36**	0.36**	-0.07**
			(0.02)	(0.02)	(0.01)
Age	-0.05**	-0.05**	-0.05**	-0.06**	
	(0.01)	(0.01)	(0.01)	(0.01)	
Age^2	0.06**	0.06**	0.05**	0.05**	
	(0.01)	(0.01)	(0.01)	(0.01)	
Male	-0.11*	-0.11*	-0.12**	-0.12**	
	(0.04)	(0.04)	(0.04)	(0.04)	
Colonial ties	0.21	0.21	0.22	0.23	
	(0.16)	(0.16)	(0.16)	(0.16)	
Employment status *(ref. employed)*					
Unemployed	-0.39**	-0.39**	-0.32**	-0.32**	
	(0.09)	(0.09)	(0.09)	(0.09)	
Not in the labor force	-0.00	0.00	-0.02	-0.02	
	(0.06)	(0.06)	(0.06)	(0.06)	
Household income (ln)	0.32**	0.32**	0.27**	0.27**	
	(0.04)	(0.04)	(0.04)	(0.04)	
Years of education (ln)	-0.09	-0.09	-0.11	-0.10	
	(0.08)	(0.08)	(0.07)	(0.07)	
Perceived health	0.53**	0.53**	0.44**	0.45**	
	(0.03)	(0.03)	(0.03)	(0.03)	
Children	0.03	0.03	0.03	0.02	
	(0.05)	(0.05)	(0.05)	(0.05)	
Partner	0.47**	0.48**	0.46**	0.47**	
	(0.05)	(0.06)	(0.05)	(0.05)	
Domicile *(ref: big city)*					
Suburb/town/small city	0.01	0.01	0.05	0.05	
	(0.06)	(0.06)	(0.06)	(0.06)	
Rural area	0.11	0.11	0.16*	0.16*	
	(0.07)	(0.07)	(0.07)	(0.07)	
Country of residence	Yes	Yes	Yes	Yes	
NUTS region of residence	Yes	Yes	Yes	Yes	
Year dummies	Yes	Yes	Yes	Yes	
Country-specific time trends	Yes	Yes	Yes	Yes	
Country of origin	Yes	Yes	Yes	Yes	
Migration flow	Yes	Yes	Yes	Yes	
Observations	7,044	7,044	7,044	7,044	
R^2	0.23	0.23	0.30	0.30	

Notes: Regression coefficients and the indirect effect are displayed with cluster-robust standard errors in parentheses. *p<0.05, **p<0.01. Happiness is assessed with the following question: "Taking all things together, how happy would you say you are?". The 11-item scale ranges from extremely unhappy to extremely happy.

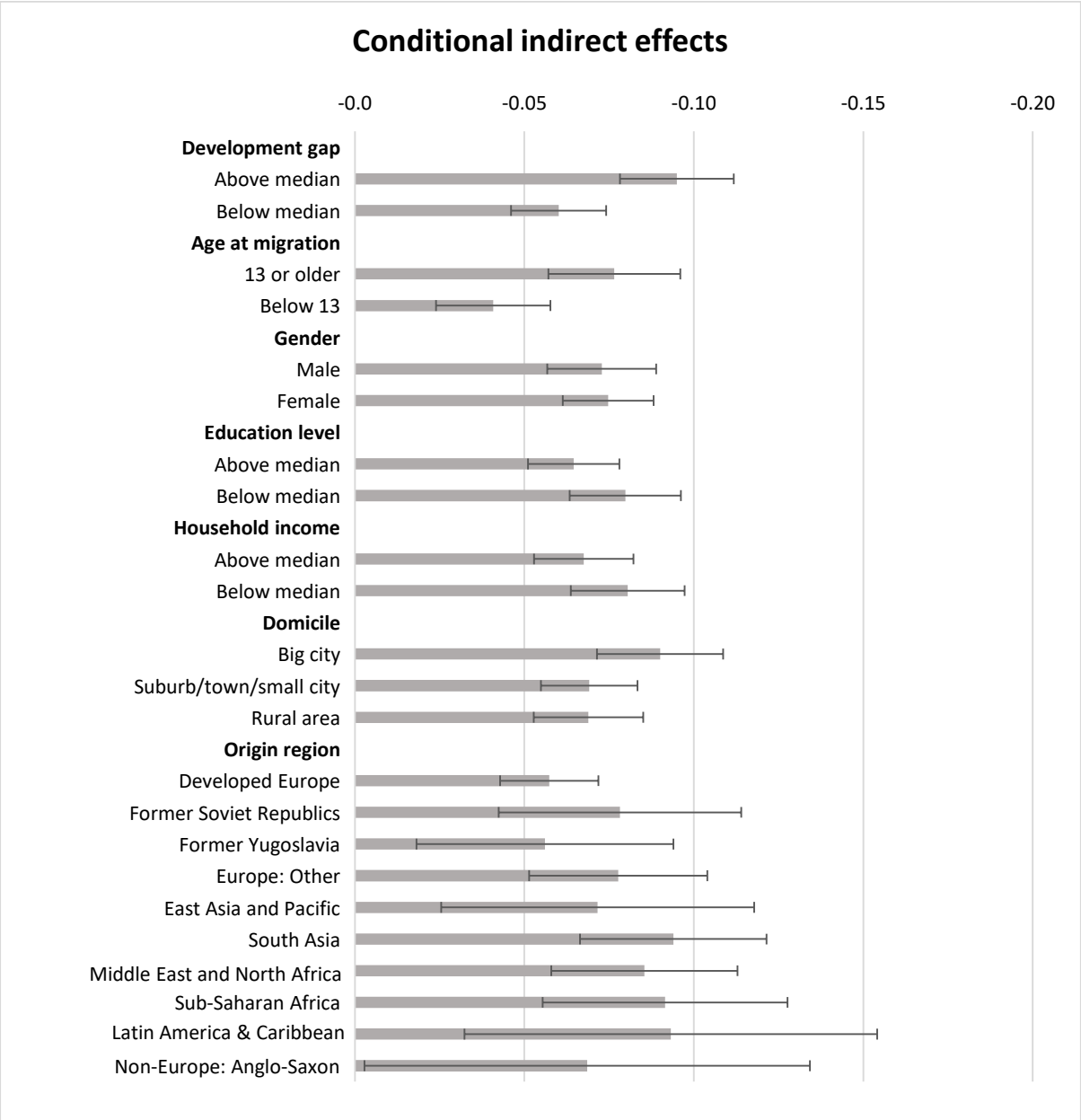


Figure I1 Robustness check for hypothesis 2: Global happiness as the outcome variable.
Note: N=7,044. 95% confidence intervals are presented. The control variables are as in Figure 2.

Table I2 Robustness check for hypotheses 3 and 4: Global happiness as the outcome variable.

	OLS regressions				Indirect effects	
Dependent variable: Global happiness	(1)	(2)	(3)	(4)	(1) – (2)	(3) – (4)
Migrant status (*ref. Generation 1)*						
Generation 2	-0.05	0.08			-0.13**	
	(0.06)	(0.06)			(0.02)	
Natives			-0.05	0.07**		-0.12**
			(0.03)	(0.03)		(0.01)
Perceptions of the host society		0.34**		0.25**		
		(0.02)		(0.01)		
Age	-0.05**	-0.05**	-0.05**	-0.04**		
	(0.01)	(0.01)	(0.00)	(0.00)		
Age^2	0.06**	0.05**	0.05**	0.04**		
	(0.01)	(0.01)	(0.00)	(0.00)		
Male	-0.12**	-0.12**	-0.11**	-0.13**		
	(0.04)	(0.04)	(0.01)	(0.01)		
Colonial ties	0.18	0.21				
	(0.13)	(0.13)				
Employment status *(ref. employed)*						
Unemployed	-0.39**	-0.31**	-0.48**	-0.40**		
	(0.08)	(0.08)	(0.05)	(0.05)		
Not in the labor force	0.02	0.00	0.05**	0.05**		
	(0.05)	(0.05)	(0.01)	(0.01)		
Household income (ln)	0.32**	0.28**	0.31**	0.23**		
	(0.03)	(0.03)	(0.02)	(0.02)		
Years of education (ln)	-0.04	-0.07	0.06	-0.02		
	(0.07)	(0.07)	(0.04)	(0.04)		
Perceived health	0.54**	0.45**	0.54**	0.47**		
	(0.03)	(0.03)	(0.01)	(0.01)		
Children	-0.02	-0.01	-0.04*	-0.04*		
	(0.04)	(0.04)	(0.02)	(0.02)		
Partner	0.48**	0.45*	0.57**	0.57**		
	(0.05)	(0.05)	(0.02)	(0.02)		
Domicile *(ref: big city)*						
Suburb/town/small city	0.01	0.05	-0.03	-0.00		
	(0.05)	(0.05)	(0.02)	(0.02)		
Rural area	0.11	0.16*	0.09**	0.11**		
	(0.07)	(0.07)	(0.02)	(0.02)		
Country of residence	Yes	Yes	Yes	Yes		
NUTS region of residence	Yes	Yes	Yes	Yes		
Year dummies	Yes	Yes	Yes	Yes		
Country-specific time trends	Yes	Yes	Yes	Yes		
Country of origin	Yes	Yes	Yes	Yes		
Migration flow	Yes	Yes	Yes	Yes		
Observations	8,876	8,876	78,792	78,792		
R^2	0.22	0.28	0.22	0.26		

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01.

Appendix J - Robustness check: Individual index components.

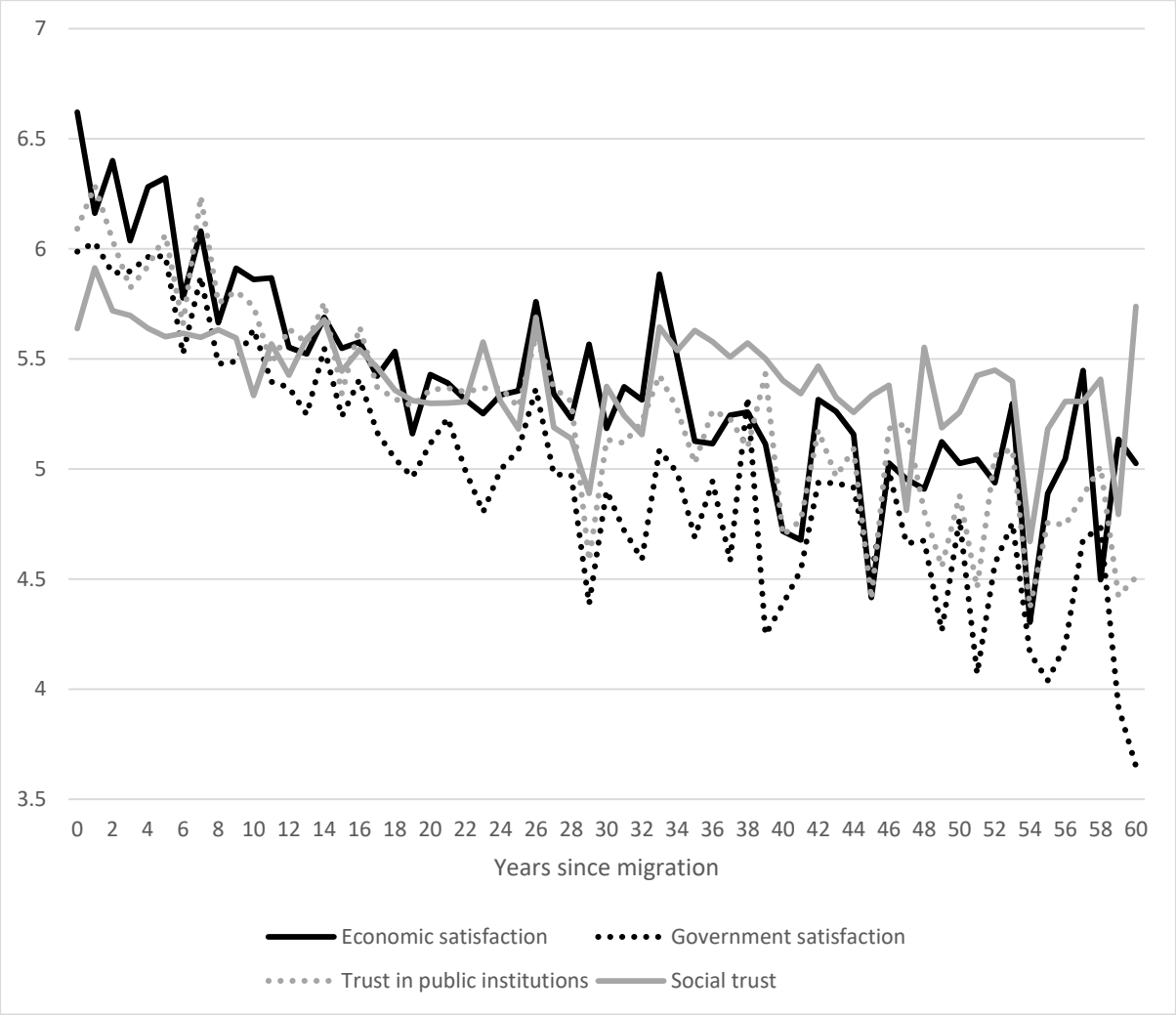


Figure J1 Perceptions of each index component by length of stay and generation.
Note: N=7,044. Means are adjusted as in Figure 1.

Table J1 Robustness check for hypothesis 1: Individual index components.

	OLS regressions					Indirect effects			
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(5)	(1) – (2)	(1) – (3)	(1) – (4)	(1) – (5)
Years since migration	-0.01	0.07**	0.06*	0.05	0.01				
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)				
Economic satisfaction		0.33**				-0.08**			
		(0.01)				(0.01)			
Government satisfaction			0.22**				-0.07**		
			(0.01)				(0.01)		
Trust in public institutions				0.24**				-0.06**	
				(0.01)				(0.01)	
Social trust					0.24**				-0.02*
					(0.01)				(0.01)
Age	-0.06**	-0.06**	-0.06**	-0.07**	-0.07**				
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)				
Age^2	0.07**	0.06**	0.07**	0.07**	0.07**				
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)				
Male	-0.11*	-0.15**	-0.11**	-0.12**	-0.09**				
	(0.05)	(0.04)	(0.03)	(0.03)	(0.03)				
Colonial ties	0.04	0.13	0.02	0.02	0.05				
	(0.13)	(0.07)	(0.08)	(0.11)	(0.12)				
Employment status *(ref. employed)*									
Unemployed	-0.63**	-0.47**	-0.60**	-0.61**	-0.62**				
	(0.10)	(0.09)	(0.10)	(0.09)	(0.10)				
Not in the labor force	-0.02	-0.01	-0.05	-0.04	-0.04				
	(0.06)	(0.07)	(0.07)	(0.07)	(0.07)				
Household income (ln)	0.42**	0.37**	0.40**	0.39**	0.38**				
	(0.06)	(0.05)	(0.06)	(0.06)	(0.06)				
Years of education (ln)	-0.03	-0.01	-0.01	-0.05	-0.08				
	(0.07)	(0.07)	(0.07)	(0.07)	(0.06)				
Perceived health	0.54**	0.44**	0.50**	0.51**	0.50**				
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)				
Children	-0.01	-0.01	-0.04	-0.02	0.00				

	(0.06)	(0.07)	(0.07)	(0.08)	(0.07)
Partner	0.41**	0.41**	0.41**	0.41**	0.38**
	(0.05)	(0.07)	(0.06)	(0.06)	(0.07)
Domicile *(ref: big city)*					
Suburb/town/small city	-0.04	0.01	-0.02	-0.00	0.01
	(0.07)	(0.06)	(0.05)	(0.05)	(0.05)
Rural area	0.09	0.14	0.13	0.14*	0.12
	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)
Country of residence	Yes	Yes	Yes	Yes	Yes
NUTS region of residence	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes	Yes
Observations	7,044	7,044	7,044	7,044	7,044
R^2	0.26	0.35	0.31	0.30	0.30

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01.

Table J2 Robustness check for hypothesis 3: Individual index components.

	OLS regressions					Indirect effects			
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(5)	(1) – (2)	(1) – (3)	(1) – (4)	(1) – (5)
Migrant status (*ref. Generation 1)*	-0.10	0.05	0.01	-0.00	-0.07				
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)				
Generation 2									
Economic satisfaction		0.32**				-0.15**			
		(0.01)				(0.02)			
Government satisfaction			0.21**				-0.11**		
			(0.01)				(0.01)		
Trust in public institutions				0.23**				-0.10**	
				(0.01)				(0.02)	
Social trust					0.24**				-0.02*
					(0.01)				(0.01)
Age	-0.07**	-0.06**	-0.06**	-0.07**	-0.07**				
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)				
Age^2	0.08**	0.07**	0.07**	0.07**	0.07**				
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)				
Male	-0.13**	-0.16**	-0.12**	-0.13**	-0.12**				
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)				
Colonial ties	0.02	0.13	0.02	0.02	0.01				
	(0.13)	(0.12)	(0.13)	(0.13)	(0.13)				
Employment status *(ref. employed)*									
Unemployed	-0.69**	-0.53**	-0.64**	-0.66**	-0.67**				
	(0.10)	(0.08)	(0.10)	(0.09)	(0.10)				
Not in the labor force	0.00	0.01	-0.01	-0.01	-0.02				
	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)				
Household income (ln)	0.41**	0.37**	0.40**	0.39**	0.37**				
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)				
Years of education (ln)	0.02	0.02	0.03	-0.05	-0.04				
	(0.06)	(0.07)	(0.06)	(0.07)	(0.06)				
Perceived health	0.58**	0.47**	0.53**	0.53**	0.52**				
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)				

Children	-0.03	-0.02	-0.04	-0.03	-0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Partner	0.40**	0.38**	0.38**	0.38**	0.36**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Domicile *(ref: big city)*					
Suburb/town/small city	-0.00	0.02	0.01	0.03	0.04
	(0.06)	(0.05)	(0.06)	(0.06)	(0.06)
Rural area	0.14*	0.19**	0.17*	0.19**	0.16*
	(0.07)	(0.06)	(0.07)	(0.07)	(0.07)
Country of residence	Yes	Yes	Yes	Yes	Yes
NUTS region of residence	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes	Yes
Country of origin	Yes	Yes	Yes	Yes	Yes
Migration flow	Yes	Yes	Yes	Yes	Yes
Observations	8,876	8,876	8,876	8,876	8,876
R^2	0.25	0.34	0.30	0.29	0.29

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. Column 1 presents the full results of Column 1 of Table 3.

Table J3 Robustness check for hypothesis 4: Individual index components.

	OLS regressions					Indirect effects			
Dependent variable: Life satisfaction	(1)	(2)	(3)	(4)	(5)	(1) – (2)	(1) – (3)	(1) – (4)	(1) – (5)
Migrant status (*ref. Generation 1)*	0.05	0.21**	0.18**	0.15**	0.03				
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)				
Generation 2									
Economic satisfaction		0.24**				-0.16**			
		(0.01)				(0.01)			
Government satisfaction			0.15**				-0.13**		
			(0.01)				(0.01)		
Trust in public institutions				0.19**				-0.10**	
				(0.01)				(0.01)	
Social trust					0.24**				-0.02**
					(0.01)				(0.01)
Age	-0.06**	-0.05**	-0.05**	-0.05**	-0.06**				
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)				
Age^2	0.07**	0.06**	0.06**	0.06**	0.06**				
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)				
Male	-0.09**	-0.14**	-0.10**	-0.10**	-0.06**				
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)				
Employment status *(ref. employed)*									
Unemployed	-0.80**	-0.69**	-0.75**	-0.75**	-0.75**				
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)				
Not in the labor force	0.04*	0.05*	0.04*	0.04	0.04				
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)				
Household income (ln)	0.42**	0.34**	0.38**	0.36**	0.36**				
	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)				
Years of education (ln)	0.12**	0.07	0.10*	0.04	-0.01				
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)				
Perceived health	0.62**	0.54**	0.57**	0.57**	0.56**				
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)				
Children	-0.08**	-0.07**	-0.08**	-0.09**	-0.08**				
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)				

Partner	0.40**	0.39**	0.40**	0.41**	0.40**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Domicile *(ref: big city)*					
Suburb/town/small city	-0.03	-0.02	-0.03	-0.00	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Rural area	0.11**	0.12**	0.12**	0.15**	0.13**
	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)
Country of residence	Yes	Yes	Yes	Yes	Yes
NUTS region of residence	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes	Yes
Observations	78,792	78,792	78,792	78,792	78,792
R^2	0.26	0.31	0.28	0.28	0.29

Notes: Regression coefficients and indirect effects are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. Column 1 presents the full results of Column 3 of Table 3.

Appendix K - Robustness check: Subjective well-being returns of societal perceptions.

Dependent variable: Life satisfaction	(1)	(2)
Years since migration	0.17*	0.16*
	(0.08)	(0.08)
Perceptions of the host society	0.57**	0.51**
	(0.04)	(0.04)
Years since migration*Perceptions of the host society	-0.01	-0.01
	(0.01)	(0.01)
Age	-0.04**	-0.06**
	(0.01)	(0.01)
Age^2	0.04**	0.06**
	(0.01)	(0.01)
Male	-0.06	-0.12**
	(0.04)	(0.04)
Colonial ties	-0.00	0.05
	(0.12)	(0.13)
Employment status *(ref. employed)*		
Unemployed		-0.54**
		(0.09)
Not in the labor force		-0.05
		(0.06)
Household income (ln)		0.35**
		(0.05)
Years of education		-0.05
		(0.07)
Perceived health		0.44**
		(0.03)
Children		-0.02
		(0.06)
Partner		0.39**
		(0.06)
Domicile *(ref: big city)*		
Suburb/town/small city		0.02
		(0.06)
Rural area		0.17*
		(0.07)
Country of residence	Yes	Yes
NUTS region of residence	Yes	Yes
Year dummies	Yes	Yes
Country-specific time trends	Yes	Yes
Country of origin	Yes	Yes
Migration flow	Yes	Yes
Observations	7,044	7,044
R^2	0.28	0.36

Notes: Regression coefficients are displayed with cluster-robust standard errors in parentheses. * p<0.05, ** p<0.01. Compared with our main models, the models in this table additionally include an interaction effect between years since migration and the immigrant's perceptions of the host society.