

## RESEARCH ARTICLE

# The mixed blessings of migration: Life satisfaction and self-esteem over the course of migration

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## Abstract

We investigated the psychological adaptation of Ingrian–Finnish migrants from Russia to Finland between 2008 and 2013. Pre-migration data ( $N = 225$ ) were collected at the Finnish language courses that were part of the immigration training program. The three post-migration follow-ups were conducted half a year ( $N = 155$ ), and 2 ( $N = 133$ ) and 3 years ( $N = 85$ ) after migration. Well-being was assessed with measures of Life Satisfaction and Self-Esteem. Life Satisfaction increased from pre-migration to the first post-migration measurement point, after which it stabilized. Self-Esteem decreased throughout the study. Variables reflecting adjustment to the event of migration (e.g., acculturation stress, socio-cultural adaptation) were primarily associated with well-being at the first post-migration measurement point. More general determinants of well-being (e.g., social support and subjective economic situation) were more consistently associated with well-being throughout the study. The results suggest that migration can be beneficial to some but detrimental to other types of well-being.

Moving to another country involves a series of major life events, and can be expected to have a wide variety of important psychological consequences. In this pre-post study of migration, we follow, in a sample of Ingrian–Finnish migrants from Russia to Finland, changes in two variables reflective of psychological well-being: Life Satisfaction and Self-Esteem. Previous empirical research regarding the effects of migration on well-being has provided conflicting results: some studies on migrants have found high levels of psychological adjustment, but others have reported poor adaptation outcomes (for a review, see Berry & Sam, 1997; Rudmin, 2009). Thus, based on the existing empirical evidence, the common presumption about the impaired psychological well-being of immigrants seems to be oversimplified (Rudmin, 2009).

One explanation for the previously described conflicting results could be difficulties in determining with which group to compare migrants. For example, should

migrants be compared with other migrants, their counterparts in the country of emigration, or with natives? Complicating such comparisons is the fact that upon arrival in their host country, immigrants are often healthier than their native counterparts (for instance due to selection effects), but over time, this health advantage dissipates as migrants converge toward the host country's levels of health (e.g., Antecol & Bedard, 2006). A longitudinal design, in which migrants' post-migration well-being is compared with their pre-migration well-being, averts the difficulties involved in finding an appropriate group with which to compare the migrants. However, studies including both pre-migration and post-migration measurement points are extremely scarce. Excluding studies on student populations taking part in short-term mobility programs, only the research by Tartakovsky (2007; 2008; 2009a; 2009b) on a sample of high-school adolescents immigrating alone from Russia or Ukraine to Israel has included both pre-migration and post-migration

measurements. The present research is designed to help fill this gap in the literature.

The purpose of the present research is twofold. First, we investigate the long-term effects of voluntary migration on Life Satisfaction and Self-Esteem, assessed at the pre-migration stage (T0), and at approximately half a year (T1), and 2 (T2) and 3 years (T3) after migration. Second, as the effects of migration may not be uniform, we also seek to identify individual-level variables that could be expected to be associated with levels of Life Satisfaction and Self-Esteem at different stages of the migration process, as well as with changes in Life Satisfaction and Self-Esteem over the course of the migration process. These variables include acculturation attitudes, social support, socio-cultural adaptation, acculturative stress, perceived discrimination, perceived economic situation, and self-efficacy.

## LIFE SATISFACTION

Life Satisfaction refers to the cognitive evaluation of one's life, 'global' well-being, happiness and satisfaction with life as a whole (Andrews & Robinson, 1991). This component of subjective well-being is more likely to respond to changes in living conditions as compared with the more hedonic component (Diener, Ng, Harter, & Arora, 2010). However, the focus of the migration literature has typically not been on Life Satisfaction but on more negative indicators of migrant maladaptation (Berry, 2001; Rudmin, 2009). Allowing us to draw on this literature, those who are satisfied with their lives are generally well adjusted and free from psychopathology (Diener, Emmons, Larsen, & Griffin, 1985), particularly depressive emotions (Headey, Kelley, & Wearing, 1993).

Although psychological well-being is the most frequently studied migration outcome (Rudmin, 2009), exact predictions regarding Life Satisfaction are difficult to make. The many changes resulting from migration could be expected to pose a challenge to the well-being of the individual (e.g., Berry, 2006). However, studies on the well-being of immigrants as a function of time spent in the host country have produced very mixed results. At first glance, research seems to typically support a U-curve in well-being: well-being is at its highest immediately after migration (positive euphoria), after which it gradually worsens before picking up again with time spent in host country (Kuo & Roysircar, 2006; Ward, Okura, Kennedy, & Kojima, 1998; Ying, 2005). Such results, obtained using only post-migration measurement points, are supported by the results of Tartakovsky (2009a), who used also a pre-migration measurement point in his sample of

adolescent immigrants to Israel. He found that during the migration process, several measures reflective of well-being (e.g., body image, school competence) followed a U-curve: they decreased in the first year after migration and increased in the third year after migration. Tartakovsky (2009a) argued that the initial disappointment and disillusionment typical for ethnic migrants are likely to have faded by the third year after migration.

A more careful look at previous studies shows, however, that migration has been related to mental health in a larger variety of ways: positively, negatively, and in a curvilinear fashion. In a systematic literature review of 30 studies on the relationship between time spent in host country (the US) and mental health among Hispanics, Rogler, Cortes and Malgady (1991) found support for all three predictions; 12 studies supported a positive relationship between time spent and mental health, 13 supported a negative relationship, and two produced both positive and negative effects. Ten years later, Shen and Takeuchi (2001) reviewed 15 empirical studies conducted in the US and found no support for a curvilinear relationship. Six of the reviewed studies showed that time in host country was inversely associated with depression among different populations, three studies yielded a positive relationship between time and elevated psychological disturbances, four studies failed to find any significant relationship between time and mental health outcomes, and finally, two studies demonstrated mixed results. These contradictory findings may be explained by the diversity in the particular definitions and measures used to assess adaptation outcomes such as psychological well-being and health status (Birman & Trickett, 2001; Nguyen, Messe & Stollak, 1999; Shen & Takeuchi, 2001).

One recent illustration of the complex effects of migration on subjective well-being comes from a study on migration from Tonga to New Zealand (Stillman, Gibson, McKenzie, & Rohorua, 2015). Circumventing the typical problem related to finding an appropriate control group, this study compared successful applicants to a migration lottery with unsuccessful applicants, and found that although happiness (rated using one item) and self-rated social respect (one item) declined, mental health (aggregate of four items: cheerful, downhearted, nervous, and calm) improved. Life Satisfaction could be expected to be associated with both happiness and with several of the indicators of mental health (e.g., cheerful, downhearted) that were employed. Considering this, and the previously reviewed conflicting findings on the impact of migration, we refrained from forming a directional hypothesis regarding changes in Life Satisfaction.

## SELF-ESTEEM

Chamberlain (1988) suggested a distinction between inner-focused versus outer-focused evaluations of subjective well-being. Life Satisfaction judgments incorporate both inner-focused and outer-focused evaluations, that is, not only the self, but also one's work, family, social, and living environment are evaluated. By contrast, Self-Esteem, referring to a stable sense of personal worth or worthiness (Rosenberg, 1965), is primarily inner-focused. Self-Esteem is strongly associated with many other measures of well-being. It is, for instance, positively associated with both cognitive (Diener & Diener, 1995) and affective evaluations of life (Brown & Marshall, 2001), and negatively associated with depression (Tennen & Herzberger, 1987) and loneliness (Jones, Freeman, & Goswick, 1981).

Some research has suggested that Self-Esteem is not distinguishable from trait Neuroticism (Judge, Erez, Thoresen, & Bono, 2002). Considering that adult personality traits do not tend to change as a function of life-events (e.g., Specht, Egloff, & Schmukle, 2011), one could expect Self-Esteem to remain stable throughout the migration process. However, in his sample of adolescents immigrating to Israel, Tartakovsky (2009a) found a U-curve in Self-Esteem; after an initial post-migration decrease, Self-Esteem gradually started increasing. This U-curve could, however, be specific to adolescents, whose personality is still developing and who might therefore be more responsive to life-events. Furthermore, recall that in the previously mentioned study on migrants from Tonga to New Zealand, social respect, from which Self-Esteem may be very closely derived (e.g., Leary, 2005), decreased as an effect of migration. In light of the conflicting findings, we refrained from forming a directional hypothesis regarding Self-Esteem.

## COVARIATES AND DETERMINANTS OF LIFE SATISFACTION AND SELF-ESTEEM

Besides examining the general effects of migration on Life Satisfaction and Self-Esteem, we aim to identify possible individual differences associated with these two variables. First, within acculturation psychology, the role of acculturation attitudes or strategies as predictors of several adaptational outcomes has been emphasized. Especially, the benefits of the integration strategy (i.e., the combination of a positive attitude both toward maintenance of cultural heritage and toward contact with the host society) have generally been attested (Berry, 2006; Berry, Phinney, Sam, & Vedder, 2006; Berry & Sabatier, 2011), although the moderating

effect of context on the associations between acculturation attitudes and psychological outcomes has also been increasingly acknowledged (e.g., Jasinskaja-Lahti, Horenczyk, & Kinunen, 2011). Nevertheless, we expected both the importance of ties with the ethnic ingroup and with larger society to be positively related with immigrants' Life Satisfaction and Self-Esteem (Berry & Sabatier, 2011).

Second, we investigated the role of social support. On a general level, this refers to helpful functions, including both instrumental and emotional supports, performed for an individual by significant others such as family members, friends, colleagues, and relatives (Thoits, 1985). Such support conveys to a person that he or she is cared for and valued and is typically associated with health, well-being, and reduced psychological distress (Beehr & McGrath, 1992; Cohen & Wills, 1985; Heller, 1979; House, 1981; Thoits, 1985; Turner, 1982). Social support has also been frequently linked with both cognitive (Pinquart & Sörensen, 2000; Young, 2006) and affective (Diener, Sandvik, & Pavot, 1991) measures of well-being, and has been found to mediate the effects of other variables, such as social network size and personality traits, on well-being (Zhu, Woo, Porter, & Brzezinski, 2013). Also in the context of acculturation, supportive relationships with both ethnic ingroup members and host nationals have been found to foster psychological well-being, even in the face of adversity, such as ethnic discrimination (Berry *et al.*, 2006, Jasinskaja-Lahti, Liebkind, Jaakkola, & Reuter, 2006, Sirin *et al.*, 2013). We expected social support to be positively associated with both Life Satisfaction and Self-Esteem.

Third, perceived everyday difficulties, including experiences of difficult intergroup relations, are also factors likely to have a strong impact on migrants' well-being. A previous study (Mähönen & Jasinskaja-Lahti, 2013) using the same sample of Ingrian Finns—but only one post-migration assessment and a different measure of well-being—showed that difficulties in socio-cultural adaptation (Brisset, Safdar, Lewis, & Sabatier, 2010), acculturative stress (Lazarus & Folkman, 1984), and experiences of discrimination (Berry *et al.*, 2006; Jasinskaja-Lahti *et al.*, 2006) are all relevant in predicting migrants' well-being. All of these factors are widely studied precursors of immigrant adaptation (Berry, 2006). Especially perceived discrimination has received attention in both the social and the acculturation psychology literature on the well-being of immigrants, and also more generally, the harmful effects of perceived discrimination on a variety of measures of psychological well-being have been largely attested—most recently in a meta-analysis by Schmitt,

Branscombe, Postmes, and Garcia (2014). However, Schmitt and colleagues (2014) found effects sizes to be somewhat weaker for positive outcomes, such as those investigated in the present study, than for negative outcomes. Finally, we included in our model subjective economic situation; this is one of the most important determinants of immigrants' well-being (Kessler, Mickelson and Williams, 1999; Rudmin, 2009), and it is likely to influence both Life Satisfaction (Frijters, Haisken-DeNew, & Shields, 2004) and Self-Esteem (Twenge & Campbell, 2002).

Individuals may differ not only in their migration experiences but also in their skills and psychological resources to adapt to the life changes and the acculturative stress that migration causes. The research seeking to identify individual difference variables that could explain adaptation outcomes has produced somewhat mixed results (Berry & Sam, 1997), although a general trend seems to be that characteristics generally considered beneficial for well-being, such as emotional stability, extraversion, and secure attachment, are also beneficial in a migration context (Bakker, Van Oudenhoven, & Van der Zee, 2004; Schmitz, 2004; Ward, Leong, & Low, 2004). As the perceived stressfulness of migration to a new country differs between individuals (Berry, 2006; Rudmin, 2009), it is important to investigate individual characteristics that could aid coping with stressors. General self-efficacy—representing a broad and stable confidence in one's ability to deal with different demanding situations—is associated with better coping strategies (Stewart & Yuen, 2011). General self-efficacy has been shown to facilitate adjustment to potential stressors, such as abortion (Cozzarelli, 1993) or starting work (Saks & Ashforth, 2000). In a migration context, Tartakovsky (2009a) reported that psychological resources (e.g., school and social competence) buffer acculturative stress and homesickness in immigrants. Based on the earlier results, we expected general self-efficacy, assessed at the pre-migration stage, to be associated with higher well-being throughout the study. All of the variables presented earlier were investigated both with respect to their concurrent associations with Life Satisfaction and Self-Esteem, and their capacity to predict changes in Life Satisfaction and Self-Esteem.

## PURPOSE OF THE PRESENT RESEARCH

To sum up, the aim of the present research was to investigate, in a sample of migrants, long-term changes in Life Satisfaction and Self-Esteem. Because of the conflicting findings reported on in the earlier literature, and the general difficulty of comparing results across

different migration contexts (e.g., different groups of migrants have different skill levels and different motives for migration, and different countries receive immigrants with differing levels of enthusiasm and discrimination), we refrained from making directed predictions regarding the effect of migration on these psychological outcomes. Our second goal was to identify key factors associated with changes in Life Satisfaction and Self-Esteem. More specifically, we expected difficulties in socio-cultural adaptation, acculturative stress, perceived discrimination, and subjective economic difficulties to be associated with lower well-being. By contrast, the importance of ties with the ethnic ingroup and with larger society, social support, and general self-efficacy was expected to be associated with higher well-being. We investigated both whether these variables were concurrently associated with well-being at different stages of the migration process, and whether they could prospectively predict changes in well-being over the course of migration.

The present study focuses on Ingrian Finns, the offspring of Finnish migrants who settled down in Ingria area (now in Leningrad Oblast) in the 17th century. After the Russian conquest in 1703, many remigrated back to Finland. Of those who remained, many disappeared in the forced population transfers before and after World War II. Between 1990 and 2011, the remaining Ingrian Finns in Russia were granted the right to remigrate by the Finnish Law of Return.

The context of the research is in many ways unique. The Finnish government has initiated and actively regulated the inflow and resettlement of Ingrian Finns (e.g., by means of mandatory language and culture courses and government supported housing). Furthermore, even though many of the Ingrian Finns studied have mixed heritage, their identification as Finns (e.g., Jasinskaja-Lahti, Mähönen & Ketokivi, 2012; Jasinskaja-Lahti, Mähönen & Liebkind, 2012) and their cultural similarity with Finns can be expected to help their integration into Finnish society. These factors could be expected to make the process of migration less arduous than it is for many other groups of migrants. Our research on the psychological well-being of these migrants could thus be considered a case study on the effect of migration under circumstances that, from a more global perspective on migration, may appear highly advantageous. However, even under such circumstances, migration may not have uniformly positive consequences; even privileged migrants will face many of the hardships that all migrants face, such as leaving their friends, family, and familiar environment, and confronting many life changes and new challenges.

Our participants constituted a subsample of the larger longitudinal research project INPRES (*Intervening at the*



*pre-migration stage: Providing tools for promoting integration and adaptation throughout the migration process*), which investigates the migration of Ingrian Finns and their family members to Finland between 2008 and 2013. The current paper can be considered a sequel to the paper by Mähönen and Jasinskaja-Lahti (2013), who showed that individual differences in post-migration socio-cultural adaptation, acculturative stress, and perceived discrimination, were all associated with post-migration psychological well-being.<sup>1</sup> In their study, well-being was assessed using the 22-item General Well-Being Index (Gaston & Vogl, 2005), a broad bandwidth measure tapping general mood/affect and somatic complaints/physical health. By contrast, the present paper focuses on two positive indicators of psychological well-being, namely Life Satisfaction and Self-Esteem, thereby addressing the need to employ more positive indicators of immigrant adaptation (Berry, 2001; Rudmin, 2009). More importantly, whereas Mähönen and Jasinskaja-Lahti (2013) employed only pre-migration and post-migration data from the first follow-up, the present paper reports on pre-migration data and on data from all three follow-ups. Extending the time range of the study is important for two reasons. First, many changes and even reversals can take place during the first 3 years (Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2013a; Tartakovsky 2009a, 2009b). Second, four measurement points allow for the use of more sophisticated statistical analyses, that is, latent growth modeling. This is particularly important as some of the changes that we investigated could be curvilinear or otherwise nonlinear. For instance, Life Satisfaction or Self-Esteem could change from pre-migration to the first post-migration measurement point, and then stabilize at a new level (e.g., unemployment and divorce have in large, nationally representative panel studies, revealed such a pattern (Lucas, 2007)).

Extending the time range of the study is also important because the variables predicting well-being may differ at different post-migration time points. The literature on stressful life events suggests a distinction between acute stressors and more enduring chronic strains. Although discrete major life events, such as

divorce, job loss, or migration, are relevant for well-being, their effects are known to dissipate fairly rapidly over time (e.g., Avison & Turner, 1988). By contrast, chronic strains, such as low income (Eckenrode, 1984) and interpersonal difficulties (Avison & Turner, 1988), have a much stronger and more lasting effect on adjustment and well-being (e.g., Lazarus and DeLongis, 1983). In the present context, this means that the impact of factors such as difficulties in socio-cultural adaptation, acculturative stress, and perceived discrimination, all of which are associated with how well migrants adjust to the surprise, shock, and uncertainty that they encounter when entering their host country, are likely to be important determinants of well-being at the first measurement point. However, over the course of time, event-related stressors are likely to become less important, whereas more general determinants of well-being, such as social support and subjective economic situation are likely to become more important.

## METHOD

### Participants and Procedure

The pre-migration data of this study came from the baseline of the longitudinal INPRES project. The baseline consisted altogether of 225 potential Ingrian-Finnish migrants living in the Republic of Karelia or the Leningrad area. The pre-migration data were collected at the Finnish language courses that were part of the immigration training program organized by the Finnish authorities in Russia during April and May 2008 (T0). The INPRES project included two follow-ups, conducted first between October 2009 and April 2010 (T1,  $N=155$ ; 111 women; age  $M=45.5$  years,  $SD=14$ ; migration had occurred roughly half a year ago), and then between December 2011 and April 2012 (T2,  $N=133$ ; 97 women; age  $M=46.3$  years,  $SD=14$ ; migration had occurred around 2 years ago). The final follow-up, conducted between September 2012 and January 2013 (T3), was collected as a part of the LADA (i.e., *Longitudinal analysis of diaspora migration from Russia to Finland*) research project, which complements the data sets collected within the INPRES project with a third follow-up. The participants were reached through contact information from the national population register. Of the 112 potential participants who had at T2 given their permission to contact them for a final T3 follow-up, 85 (62 women; age  $M=49.3$  years,  $SD=14$ ) took part (76% response rate). At this time, participants had lived in Finland for approximately 3 years ( $M=34$  months,  $SD=3.9$ , range 27–40).

<sup>1</sup>Other papers based on the INPRES data set focus on personal values (Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2011; Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2013a; Yijälä, Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2012), stereotypes (Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2013b; Lönnqvist, Yijälä, Jasinskaja-Lahti, & Verkasalo, 2012), as well as acculturation and intergroup relations (Jasinskaja-Lahti, Mähönen, & Liebkind, 2012; Jasinskaja-Lahti & Yijälä, 2011; Jasinskaja-Lahti, Mähönen & Ketokivi, 2012; Mähönen & Jasinskaja-Lahti, 2012; Mähönen, Jasinskaja-Lahti, & Ketokivi, 2014; Mähönen *et al.*, 2013; Yijälä & Jasinskaja-Lahti, 2010).

Regarding attrition, everyone who attended the language course took part in the T0 pre-migration data collection. Of those who had actually migrated to Finland at T1, almost all (95%) participated in the first post-migration measurement wave. From thereon, the number of participants decreased, with 85% and 55% of those who had participated at T1 participating at T2 and T3, respectively. Because a notable drop in participation rate did not occur before the last measurement wave, we focused our attrition analyses on this stage. First, a series of one-ways ANOVAs revealed that those who took part at T3 did not differ from those who did not on any of the here reported measures. Second, we ran the latent growth curve models that examined overall change in Self-Esteem and Life Satisfaction also using only those participants who participated in the final follow-up. The results were virtually identical for this subset of participants.

## Measures

The participants answered the pre-migration and post-migration questionnaires in Russian: the measures were back-translated from previously reported English versions to Russian by official translators and native Russian speakers.

### Life Satisfaction

We measured Life Satisfaction with the first four items of Diener's Satisfaction with Life Scale (Pavot & Diener, 1993; the fifth item, 'If I could live my life over, I would change nothing' was excluded because we interpreted it as too ambiguous—a negative response would not necessarily imply that one is not satisfied with one's life). The four items were rated on scale from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is 'In most ways my life is close to the ideal'.

### Self-Esteem

Self-Esteem was measured with four items of the Rosenberg Self-Esteem Scale (Rosenberg, 1965). At T0, the entire 10-item scale was administered. We conducted a factor analysis in order to select four items to be administered at all subsequent measurement points. The two items with the strongest positive loadings (items 6 and 7) and the two items with the strongest negative loadings (items 3 and 10) were selected. An example item is 'On the whole, I am satisfied with myself'. The items were rated on scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

### Acculturation Attitudes

Attitudes toward cultural maintenance and contact with majority Finns were measured with scales developed by Zagefka and Brown (2002), and later modified by Rohmann, Florack and Piontkowski (2006). Attitude toward cultural maintenance was measured with three items, for example, 'I think that it is important that people moving from Russia to Finland maintain their culture in Finland'. Attitude toward contact was measured with two items, for example, 'I think that it is important that people moving from Russia to Finland have contact with Finns also in leisure time'. We originally used all three items of the contact scale but dropped the one reverse-scored item because it weakened internal consistency. The items were rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

### Social Support

To measure social support, we used the eight items of the perceived available support scale of the Berlin Social Support Scale (Schulz & Schwarzer, 2003). An example item is 'When I am worried, there is someone who helps me'. The items were rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

### Socio-Cultural Adaptation

The Socio-Cultural Adaptation Scale is a 29-item scale developed by Ward and Kennedy (1999) that measures an individual's ability to interact effectively in a new cultural environment. Participants rated themselves on a five-point Likert-type scale ranging from 1 (*no difficulty*) to 5 (*extreme difficulty*) in response to the following question stem: Please indicate how much difficulty you experience in Finland in each of these areas. Sample items include the following: dealing with people staring at you, finding food you enjoy, using the transport system, and making yourself understood. Note that high scores on this scale mean greater difficulties. This measure and some of the other measures described in the next discussion were not included in the final measurement wave because we wanted to create space for measures of social and societal adaptation.

### Acculturative Stress

Stressfulness of the relocation was assessed using three items. We asked participants, 'Compared to other situations in your life, how stressful would you rate (i) moving from Russia, (ii) moving to Finland, (iii) your own adjustment to Finland'. The content of the three items was our own, but their structure was based on the work

of Aldwin and Revenson (1987). The response scale, based on the work of Terry (1994), ranged from 1 (*not severe at all*) to 7 (*the most severe event I have ever faced*).

### Perceived Discrimination

Participants' perceptions of ethnic discrimination were measured with four items adapted from a scale previously used by Berry *et al.* (2006). An example item is 'Native Finns have teased or insulted me because I'm an Ingrian Finn'. The response options were 1 (*no*), 2 (*probably no*), 3 (*cannot say*), 4 (*probably yes*) and 5 (*yes*).

### Subjective Economic Difficulties

Participants' perceptions of their financial situation were measured with one item asking 'How is the current economic situation of your household?' (Liebkind *et al.*, 2004). The response options ranged from 1 (*we can more than cover our expenses and still have some left over*) to 5 (*we are forced to cut back on all of our consumption and still cannot make ends meet*). Subjective indicators of economic situation are highly correlated with objective indicators; we decided to use the former because they are more strongly associated with assessments of subjective well-being (Ackerman, & Paolucci, 1983).

### General Self-Efficacy

General self-efficacy was measured with the 10 items of the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). An example item is 'I am confident that I could deal efficiently with unexpected events'. The items were rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

## RESULTS

We first report on descriptive statistics for all of our measures, as well as their test-retest correlations and inter-correlations. After this, we investigate average changes in Life Satisfaction and Self-Esteem by means of unconditional latent growth curve models. Turning then to the individual-level covariates and determinants of Life Satisfaction and Self-Esteem, we employed conditional growth curve models to identify those variables that were, in the context of other variables, independently associated with Life Satisfaction and Self-Esteem. Finally, we examined whether any variables could prospectively predict changes in Life Satisfaction or Self-Esteem over the course of migration.

## Descriptive Statistics and Correlations

Table 1 shows the means, standard deviations, and alpha internal consistency reliabilities of our measures. The lowest internal consistency reliability (0.56) was found for Self-Esteem measured at T3. Even this was not exceptionally low, considering that the measure included only four items.<sup>2</sup>

Table 2 shows the correlations between all of our measures. Across the four measurement waves, the average rank-order correlations (*i.e.*, the average correlations between T0 and T1, T0 and T2, T0 and T3, T1 and T2, T1 and T3, and T2 and T3 measurement points) were .41, .52, .44, .45, .40, and .23 for Life Satisfaction, Self-Esteem, social support, attitude toward cultural maintenance, attitude toward contact, and subjective economic difficulties, respectively. The only variable to stand out is subjective economic difficulties, which showed rather low stability. However, this cannot be considered surprising; this variable is likely to be more strongly influenced by situational factors than are the other variables. Some measures were only administered twice. The rank-order correlations (computed between T1 and T2 scores) for socio-cultural adaptation, acculturative stress, and perceived discrimination, were .74, .68, and .61, respectively. These correlations are rather high, which makes sense considering that the time-interval that they cover was rather short, and that both measurement points were post-migration.

Regarding the correlations between measures, some of these were moderately strong (Table 2). Our measures of well-being, Life Satisfaction and Self-Esteem, were, on average, correlated  $r = .36$  when measured at the same occasion. Many of our proposed covariates of well-being were also, as could have been

<sup>2</sup>To alleviate concerns regarding the admittedly surprising drop in the reliability of the Self-Esteem scale, we make four observations. First, the rank-order correlation between T3 Self-Esteem and aggregate T0–T2 Self-Esteem is  $r = .42$ . This seems quite reasonable, for instance, the corresponding correlation between T3 Life Satisfaction and aggregate T0–T2 Life Satisfaction is virtually identical ( $r = .43$ ). Second, the correlations between T3 Self-Esteem and other T3 variables are very similar to the corresponding correlations at other time points. For instance, T3 Self-Esteem is correlated  $r = .32$  with T3 Life Satisfaction. Similarly, T2 Self-Esteem is correlated  $r = .33$  with T2 Life Satisfaction (see Table 1 for more correlations). Third, the 95% confidence interval of T3 Self-Esteem alpha ranges from 0.39 to 0.70. This interval includes, for instance, T0 Self-Esteem; the difference between these two alphas is thus not statistically significant. Fourth, as our later latent growth curve models reveal, change in Self-Esteem was best described as linear. That is, there was no abrupt change in how levels of Self-Esteem developed over the time-span of the research.

**Table 1.** Means, standard deviations, and alpha internal consistency reliabilities of our measures

| Measures                            | <i>M</i> | <i>SD</i> | $\alpha$ | <i>N</i> |
|-------------------------------------|----------|-----------|----------|----------|
| Life Satisfaction                   |          |           |          |          |
| Life Satisfaction T0                | 2.80     | 0.91      | .81      | 204      |
| Life Satisfaction T1                | 3.44     | 0.76      | .73      | 153      |
| Life Satisfaction T2                | 3.44     | 0.77      | .76      | 130      |
| Life Satisfaction T3                | 3.54     | 0.71      | .74      | 81       |
| Self-Esteem                         |          |           |          |          |
| Self-Esteem T0                      | 4.31     | 0.60      | .70      | 215      |
| Self-Esteem T1                      | 4.23     | 0.63      | .77      | 153      |
| Self-Esteem T2                      | 4.23     | 0.62      | .74      | 128      |
| Self-Esteem T3                      | 4.06     | 0.52      | .56      | 82       |
| Time-Varying Covariates             |          |           |          |          |
| Social Support T0                   | 4.56     | 0.55      | .92      | 217      |
| Social Support T1                   | 4.28     | 0.68      | .93      | 154      |
| Social Support T2                   | 4.34     | 0.67      | .94      | 131      |
| Social Support T3                   | 4.40     | 0.59      | .93      | 85       |
| Cultural Maintenance T0             | 3.55     | 0.79      | .76      | 212      |
| Cultural Maintenance T1             | 3.54     | 0.72      | .67      | 154      |
| Cultural Maintenance T2             | 3.61     | 0.61      | .67      | 132      |
| Cultural Maintenance T3             | 3.73     | 0.61      | .63      | 85       |
| Contact T0                          | 4.13     | 0.71      | .61      | 219      |
| Contact T1                          | 4.10     | 0.73      | .71      | 154      |
| Contact T2                          | 4.08     | 0.72      | .79      | 132      |
| Contact T3                          | 4.44     | 0.59      | .87      | 85       |
| Adaptation T1                       | 1.98     | 0.54      | .93      | 151      |
| Adaptation T2                       | 1.97     | 0.54      | .93      | 129      |
| Stress T1                           | 2.99     | 1.44      | .86      | 149      |
| Stress T2                           | 3.05     | 1.37      | .86      | 132      |
| Perceived Discrimination T1         | 1.71     | 0.73      | .84      | 149      |
| Perceived Discrimination T2         | 1.66     | 0.63      | .77      | 125      |
| Subjective Economic Difficulties T0 | 3.04     | 1.04      | —        | 215      |
| Subjective Economic Difficulties T1 | 3.35     | 0.90      | —        | 143      |
| Subjective Economic Difficulties T2 | 3.35     | 0.88      | —        | 130      |
| Subjective Economic Difficulties T3 | 3.06     | 0.88      | —        | 82       |
| General Self-Efficacy T0            | 3.82     | 0.67      | .91      | 211      |

Note: T0 = pre-migration measurement point. T1, T2, and T3 refer to the the three post-migration follow-ups conducted roughly half a year, and 2 and 3 years after migration.

expected, moderately correlated. For instance, social support, difficulties in socio-cultural adaptation, and acculturation stress were all moderately strongly correlated with each other. For instance, the correlations between T2 social support and T2 difficulties in socio-cultural adaptation were  $r = -.40$ . Furthermore, many of the expected covariates of well-being, including these two measures, showed rather similar, moderately strong, correlations with our measures of well-being. The extent to which our covariates was independently associated with Life Satisfaction and Self-Esteem will be investigated using conditional latent growth curve models. Before that, however, we report on average changes.

### Unconditional Latent Growth Curve Models

Overall changes in Life Satisfaction and Self-Esteem were examined using latent growth curve models (e.g., Bollen & Curran, 2006). In these models, the intercept and slope are modeled as latent factors, and the observed variables—that is, scale scores—are treated as indicators of these factors. Path coefficients from the latent intercept to the indicators were fixed to 1, and the path coefficients from the latent slope to the indicators were initially fixed to 0, 1.5, 3.5, and 4.5. The former allows the intercept to be interpreted as the latent mean at the first measurement point, and the latter allows for the time intervals between measurement points to be taken into account.

The model fit statistics indicate whether a linear model is appropriate, and the slope means indicate whether Life Satisfaction or Self-Esteem changed during the follow-up, as well as the magnitude and direction of this change. In case the linear model revealed poor fit, we tested a quadratic model, which adds a latent quadratic slope. Path coefficients from this latent factor to the indicators were fixed at 0, 2.25, 12.25, and 20.25 (time raised to the power of two). If also the quadratic model showed poor fit, we tested a two-slope model that allowed for differences between pre-migration to post-migration change and post-migration change—migration could initially have a strong and abrupt impact on well-being, after which level of well-being could stabilize or even start returning back to pre-migration levels. This model included two sets of contrasts: one modeling pre-migration to post-migration change (T0–T1; contrasts 0, 1, 1, 1) and one modeling post-migration change (T1–T3; contrasts 0, 0, 1.5, 2.5). Full information maximum likelihood estimation was used; this estimation method takes into account all of the available data without replacing information or dropping cases with missing values on some of the variables.

### Life Satisfaction

For Life Satisfaction, the linear model showed poor fit (Comparative Fit Index (CFI) = 0.61, Root Mean Square Error of Approximation (RMSEA) = 0.18). Although the quadratic model showed better fit, it was still inadequate (CFI = 0.85, RMSEA = 0.25). The previously described two-slope model that allowed for differences between pre-migration to post-migration change and post-migration change showed good fit (CFI = 0.95, RMSEA = 0.06) and was retained as the final model. Average Life Satisfaction at T0 (intercept mean) was 2.81 (self-esteem = 0.07). The slope modeling pre-migration to post-migration change (contrasts 0, 1, 1, 1) was



**Table 2.** Intercorrelations between our measures

|                | 2.   | 3.   | 4.   | 5.   | 6.   | 7.   | 8.   | 9.   | 10.  | 11.  | 12.  | 13.  | 14.  | 15.  | 16.  | 17.  |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. LS T0       | .22* | .35* | .37* | .33* | .35* | .34* | .11  | .15* | .20* | .15  | .06  | .05  | .04  | .12  | .11  | .03  |
| 2. LS T1       |      | .58* | .38* | .25* | .45* | .41* | .14  | .28* | .45* | .23* | .19  | -.11 | .07  | .04  | .09  | .09  |
| 3. LS T2       |      |      | .54* | .26* | .40* | .33* | .20* | .12* | .24* | .20* | .21  | -.11 | -.13 | -.05 | .07  | .16  |
| 4. LS T3       |      |      |      | .22* | .37* | .35* | .32* | .29* | .44* | .41* | .37* | .06  | .12  | .19  | .22* | .19  |
| 5. SE T0       |      |      |      |      | .54* | .62* | .32* | .35* | .25* | .29* | .07  | -.10 | -.00 | .02  | -.06 | -.01 |
| 6. SE T1       |      |      |      |      |      | .69* | .51* | .23* | .34* | .28* | .18  | -.07 | .07  | .21* | .07  | -.04 |
| 7. SE T2       |      |      |      |      |      |      | .43* | .34* | .30* | .37* | .10  | -.07 | -.05 | .06  | -.07 | .03  |
| 8. SE T3       |      |      |      |      |      |      |      | .17  | .14  | .21  | .28* | .01  | .10  | .11  | .11  | .05  |
| 9. SS T0       |      |      |      |      |      |      |      |      | .38* | .36* | .41* | .18* | .16  | .17  | .14  | .14* |
| 10. SS T1      |      |      |      |      |      |      |      |      |      | .55* | .46* | .02  | .25* | .24* | .15  | .09  |
| 11. SS T2      |      |      |      |      |      |      |      |      |      |      | .47* | .07  | .02  | .21* | .02  | -.01 |
| 12. SS T3      |      |      |      |      |      |      |      |      |      |      |      | -.03 | .07  | .14  | .19  | -.01 |
| 13. Maint. T0  |      |      |      |      |      |      |      |      |      |      |      |      | .46* | .46* | .42* | .16* |
| 14. Maint. T1  |      |      |      |      |      |      |      |      |      |      |      |      |      | .56* | .34* | .06  |
| 15. Maint. T2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .47* | .08  |
| 16. Maint. T3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .01  |
| 17. Conta. T0  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18. Conta. T1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19. Conta. T2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20. Conta. T3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 21. Adap. T1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 22. Adap. T2   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 23. Stress T1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 24. Stress T2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 25. P. Dis. T1 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 26. P. Dis. T2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 27. SED T0     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 28. SED T1     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 29. SED T2     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 30. SED T3     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 31. GSE T0     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Note: LS, life satisfaction; SE, self-esteem; SS, social support; Maint., attitude toward cultural maintenance; Conta., attitude toward contact; Adap., socio-cultural adaptation; P. Dis., personal distress; SED, subjective economic difficulties; GSE, general self-efficacy. T0 = premigration measurement point. T1, T2, and T3 refer to the three post-migration follow-ups conducted roughly half a year, and 2 and 3 years after migration.

\* $p < .05$

significant with a mean of 0.61 ( $p < .001$ ). The second slope, modeling post-migration change, was not significant (slope mean = 0.03,  $p = .26$ ). Slope variances were not significant (both  $p > .56$ ), suggesting that participants did not significantly differ regarding changes in Life Satisfaction. These analyses show that average Life Satisfaction increased from pre-migration to the first post-migration measurement point, after which it stabilized at its new level.

### Self-Esteem

For self-esteem, the linear model showed suboptimal fit (CFI = 0.85, RMSEA = 0.15). However, the quadratic model showed no improvement (CFI = 0.85, RMSEA = 0.14), and the quadratic factor was not significant. As with Life Satisfaction, we also tested a two-slope model in which the pre-migration to

post-migration development of Self-Esteem was different from the post-migration development of Self-Esteem, but this model did not substantially improve model fit (CFI = 0.86, RMSEA = 0.13). Furthermore, because the two-slope model indicated that both slopes were negative, of similar magnitude, and marginally statistically significant (the mean slopes were  $-0.08$  ( $p = .09$ ) and  $-0.04$  ( $p = .10$ )), we decided not to distinguish between these two slopes but retained the original linear model. The mean value of Self-Esteem at T0 was 4.30 (self-esteem = .04), and the mean slope was  $-0.03$  ( $p < .001$ ), indicating a decrease in Self-Esteem over the follow-up. Slope variance was not significant ( $p > .78$ ), suggesting that there were no significant between-participant differences in Self-Esteem change. These analyses suggest that average Self-Esteem is best—albeit imperfectly—described as decreasing throughout the study.

**Table 2.** (Continued)

|                | 18.  | 19.  | 20.  | 21.   | 22.   | 23.   | 24.   | 25.   | 26.   | 27.   | 28.   | 29.   | 30.   | 31.   |
|----------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. LS T0       | .02  | .04  | -.04 | -.23* | -.26* | -.12  | -.12  | -.17* | -.08  | -.27* | .03   | -.17  | -.06  | .30*  |
| 2. LS T1       | .10  | .05  | -.17 | -.42* | -.38* | -.30* | -.24* | -.31* | -.27* | -.05  | -.16  | -.29* | -.14  | .08   |
| 3. LS T2       | .16  | .13  | .12  | -.32* | -.47* | -.23* | -.33* | -.14  | -.21* | -.04  | -.16  | -.19* | -.24* | .23*  |
| 4. LS T3       | .10  | .10  | .11  | -.37* | -.46* | -.23* | -.23* | -.19  | -.26* | .04   | -.05  | -.25* | -.43* | .29*  |
| 5. SE T0       | .10  | .15  | .15  | -.31* | -.23* | -.13  | -.12  | -.06  | -.18  | -.18* | -.10  | -.18* | -.21  | .52*  |
| 6. SE T1       | .25* | .12  | .16  | -.46* | -.37* | -.33* | -.17  | -.22* | -.22* | -.11  | -.09  | -.06  | -.10  | .30*  |
| 7. SE T2       | .14  | .16  | .02  | -.40* | -.34* | -.29* | -.26* | -.12  | -.21  | -.07  | .07   | -.08  | -.06  | .40*  |
| 8. SE T3       | .22* | .12  | .33* | -.22* | -.24* | -.20  | -.22* | -.17  | -.07  | -.01  | -.05  | -.12  | -.32* | .20   |
| 9. SS T0       | .15  | .14  | .04  | -.20* | -.21* | -.24* | -.18* | -.12  | -.22* | -.05  | -.15  | -.28* | -.26* | .26*  |
| 10. SS T1      | .28* | .16  | .00  | -.36* | -.31* | -.13  | -.04  | -.18* | -.20* | .03   | -.04  | -.21* | -.24* | .14   |
| 11. SS T2      | .05  | .25* | -.09 | -.37* | -.40* | -.20* | -.12  | -.15  | -.27* | .05   | -.11  | -.18* | -.29* | .27*  |
| 12. SS T3      | -.06 | -.03 | .04  | -.17  | -.12  | -.11  | -.02  | -.21  | -.19  | -.10  | -.15  | -.27* | -.28* | .11   |
| 13. Maint. T0  | -.12 | -.02 | .01  | .11   | .00   | -.00  | .11   | -.08  | -.05  | -.07  | -.06  | -.06  | -.07  | -.01  |
| 14. Maint. T1  | .12  | .04  | .01  | .10   | .07   | .09   | .19   | -.06  | .01   | -.05  | -.10  | -.14  | -.18  | -.01  |
| 15. Maint. T2  | .07  | .12  | .02  | -.05  | -.10  | -.09  | .07   | -.13  | -.04  | -.06  | -.21* | -.12  | -.08  | .06   |
| 16. Maint. T3  | .12  | .02  | .16  | .04   | .01   | .01   | .15   | -.05  | .08   | .02   | .07   | -.10  | -.22* | .19   |
| 17. Conta. T0  | .36* | .32* | .47* | -.04  | -.17  | -.07  | -.11  | .01   | -.07  | -.03  | .10   | -.13  | .00   | .06   |
| 18. Conta. T1  |      | .50* | .45* | -.15  | -.17  | -.01  | -.08  | -.08  | -.14  | -.03  | -.02  | -.05  | .09   | .18*  |
| 19. Conta. T2  |      |      | .31* | -.09  | -.12  | -.08  | -.04  | .03   | -.12  | .08   | -.10  | .00   | -.00  | .24*  |
| 20. Conta. T3  |      |      |      | -.12  | -.11  | -.02  | -.09  | .01   | -.08  | .04   | -.01  | -.17  | -.16  | .17   |
| 21. Adap. T1   |      |      |      |       | .74*  | .46*  | .36*  | .31*  | .30*  | .02   | .14   | .11   | .28*  | -.23* |
| 22. Adap. T2   |      |      |      |       |       | .38*  | .41*  | .31*  | .39*  | .10   | .18   | .25*  | .30*  | -.30* |
| 23. Stress T1  |      |      |      |       |       |       | .68*  | .19*  | .03   | .18*  | .10   | .05   | .07   | -.22* |
| 24. Stress T2  |      |      |      |       |       |       |       | .13   | .07   | .16   | .13   | .06   | .09   | -.23* |
| 25. P. Dis. T1 |      |      |      |       |       |       |       |       | .61*  | .11   | .20*  | .10   | .12   | -.09  |
| 26. P. Dis. T2 |      |      |      |       |       |       |       |       |       | .21*  | .18*  | .22*  | .24*  | -.10  |
| 27. SED T0     |      |      |      |       |       |       |       |       |       |       | .15   | .22*  | .15   | -.09  |
| 28. SED T1     |      |      |      |       |       |       |       |       |       |       |       | .29*  | .16   | -.03  |
| 29. SED T2     |      |      |      |       |       |       |       |       |       |       |       |       | .44*  | -.07  |
| 30. SED T3     |      |      |      |       |       |       |       |       |       |       |       |       |       | -.14  |
| 31. GSE T0     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |

### Latent Growth Curve Models with Covariates

Turning now to investigate the associations between well-being and its proposed covariates, we included in our models attitudes toward cultural maintenance (T0–T3), attitudes toward contact (T0–T3), social support (measured at T0–T3), socio-cultural adaptation (T1, T2), acculturative stress (T1, T2), perceived discrimination (T1, T2), subjective economic difficulties (T0–T3), and general self-efficacy (T0). Life Satisfaction and Self-Esteem were regressed on the concurrent time-varying covariates (e.g., Life Satisfaction at T2 was regressed on social support at T2, on attitudes toward cultural maintenance at T2, and on attitudes toward contact at T2). All covariates were standardized and centered at zero within time points to reduce possible multicollinearity; concurrently, measured covariates were allowed to correlate, as well as were measures of the same covariate measured at different time points.

### Life Satisfaction

The two-slope model was used as a basis for the conditional model. The Life Satisfaction scores were regressed

on those covariates that were measured simultaneously (e.g., T2 Life Satisfaction was regressed on T2 socio-cultural adaptation) and on self-efficacy (measured at T0). In terms of fit, this model had a CFI of 0.90 and an RMSEA of 0.04.

At T0, Life Satisfaction was related to T0 subjective economic difficulties ( $\beta = -.21$ ,  $p < .001$ ) and general self-efficacy ( $\beta = .21$ ,  $p = .01$ ). T1 Life Satisfaction was unrelated to all covariates. T2 Life Satisfaction was related to T2 adaptation experiences ( $\beta = -.20$ ,  $p = .05$ ), and T3 Life Satisfaction was related to T3 subjective economic difficulties ( $\beta = -.25$ ,  $p = .01$ ). All of these associations were also statistically significant in terms of raw correlations, suggesting that they are not the product of artificial suppressor effects.

We then turned to predicting changes in Life Satisfaction. In order to do this, the two slopes were simultaneously regressed on all T0 covariates.<sup>3</sup> This model

<sup>3</sup>For both Life Satisfaction and Self-Esteem, we also ran models with all T0 covariates entered one at a time. The results remained virtually unchanged.

had a CFI of 0.83 and an RMSEA of 0.06, but none of the pre-migration covariates could predict changes in Life Satisfaction.

### Self-Esteem

The linear model was used as a basis for the conditional model. Similarly, to the models predicting Life Satisfaction, Self-Esteem scores were regressed on all simultaneously measured covariates, as well as on general self-efficacy measured at T0. This model had a CFI of 0.91 and an RMSEA of 0.04.

The results showed that at T0, Self-Esteem was related to self-efficacy ( $\beta = .45$ ,  $p < .001$ ), and to social support ( $\beta = .14$ ,  $p = .03$ ). At T1, high Self-Esteem was related to a positive attitude toward contact with Finns ( $\beta = .14$ ,  $p = .03$ ), high social support ( $\beta = .13$ ,  $p = .05$ ), less difficulties in socio-cultural adaptation ( $\beta = -.17$ ,  $p = .02$ ), high self-efficacy ( $\beta = .19$ ,  $p = .02$ ), and marginally, low stress ( $\beta = -.13$ ,  $p = .06$ ). At T2, Self-Esteem was related to high social support ( $\beta = .23$ ,  $p < .001$ ) and to general self-efficacy ( $\beta = .23$ ,  $p = .02$ ). Finally, at T3, Self-Esteem was related to subjective economic difficulties ( $\beta = -.22$ ,  $p = .02$ ).

To examine whether we could predict changes in Self-Esteem, the slope of Self-Esteem was regressed on all of the pre-migration covariates (see Footnote 3). General self-efficacy predicted the slope ( $\beta = -.61$ ,  $p = .03$ ) of Self-Esteem, that is, the decrease in Self-Esteem was, contrary to expectations, more pronounced among those scoring initially high on self-efficacy.

## DISCUSSION

In a sample of Ingrian Finns migrating from Russia to Finland, we set out to investigate long-term changes in psychological well-being. The results were rather complex, as our two indices of well-being changed in opposite directions. Life Satisfaction increased from pre-migration to the first post-migration measurement point, after which it stabilized. In strong contrast, Self-Esteem decreased over the course of migration. Our results suggest that the effects of migration on well-being are highly complex and point toward the necessity of employing a broad array of narrow measures when investigating the effects of migration on well-being. Regarding individual differences, at the transition phase during which migrants adjusted to their new environments, several factors associated with the event of migration independently contributed to the prediction of well-being. However, at later time points, more general

determinants of well-being, such as social support and subjective economic situation, were associated with well-being.

### Changes in Life Satisfaction and Self-Esteem

Perhaps the most surprising result of the present study was that changes in Life Satisfaction and Self-Esteem were in opposite directions. Life Satisfaction increased and Self-Esteem decreased. These changes in opposite directions could explain why our previous study, Mähönen & Jasinskaja-Lahti (2013), which employed the broad bandwidth General Well-Being Index (Gaston & Vogl, 2005), found no changes in well-being before and after migration. Our result could be considered unexpected because Self-Esteem has in cross-sectional research been considered one of the main determinants of Life Satisfaction (e.g., Campbell, 1981; Diener & Diener, 1995; Kwan, Bond, & Singelis, 1997). Multitrait-multimethod studies (e.g., Lucas, Diener, & Suh, 1996) have, however, suggested that the constructs, consistent with our results, are different. Our results are also consistent with a recent large-scale meta-analysis that showed that life events often have very different effects on different types of well-being measures (Luhmann, Hofmann, Eid, & Lucas, 2012).

Studies measuring changes in Life Satisfaction and Self-Esteem using a design comparable to ours are extremely few. However, our results are not completely unprecedented. In a longitudinal study of low-income renters, becoming a homeowner increased Life Satisfaction but left Self-Esteem unaffected (Rohe & Stegman, 1994). Even more pertinent to the present research is the study on migrants from Tonga to New Zealand (Stillman *et al.*, 2015). Although this study did not include a pre-migration measurement point, the experimental design of the study allowed for the conclusion that migration increased happiness (akin to Life Satisfaction) but decreased social respect (akin to Self-Esteem).

Why did Life Satisfaction increase from pre-migration to the first post-migration measurement point? Although we cannot provide a definite answer to this intriguing question, the fact that Life Satisfaction did improve suggests that external life circumstances or living conditions may be relevant for judgments of Life Satisfaction (see also Diener, Diener, & Diener, 1995; Diener *et al.*, 2010; Stevenson & Wolfers, 2008). For instance, standard of living is clearly higher in Finland than in Russia—the Human Development Index of the United Nations Development Programme, which includes measures for a long and healthy life, access to

education, and a decent standard of living, ranked Finland no. 12 and Russia no. 73 in 2008, the year of the pre-migration assessment. Also more non-material factors, such as the political system under which one lives, could conceivably affect Life Satisfaction. Consistent with the idea that a change in external living conditions could account for the increase in Life Satisfaction, Life Satisfaction quickly stabilized at its new post-migration level. A similar pattern of effects, in which a major life event causes what appear to be permanent changes in Life Satisfaction, has been documented for events such as divorce, unemployment, and disability (Lucas, 2007).

As noted in the Introduction, Self-Esteem may be a more inner-focused evaluation of one's worthiness, whereas judgments of Life Satisfaction could be based on both inner-focused and outer-focused evaluations (Chamberlain, 1988). Studies investigating the distinct correlates of Self-Esteem and Life Satisfaction tend to support this line of reasoning. For instance, among children, physical ability—a rather internal characteristic—is much more strongly correlated with Self-Esteem than with Life Satisfaction (Huebner, Gilman, & Laughlin, 1999).

Life Satisfaction and Self-Esteem also reveal different patterns of change throughout the life course. Self-Esteem plummets in adolescence, after which it begins to increase steadily until the age of retirement, when it again abruptly and strongly decreases (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). This suggests that Self-Esteem is high throughout mid-life, a time often characterized by its focus on activity, achievement, power, and control (e.g., Gove, Ortega, & Style, 1989). By contrast, Life Satisfaction shows a U-curve which is at its lowest point in mid-life, thereafter steadily increasing into old age (Stone, Schwartz, Broderick, & Deaton, 2010). Together such results suggest that Self-Esteem, as compared to Life Satisfaction, may be more dependent on judgments of one's personal competence and achievements. Perhaps our participants felt that they had not fully succeeded in surmounting the challenges and tasks imposed by migration, such as learning Finnish or entering the job market. Perceived failures in the fulfillment of central adulthood developmental tasks related to success in work and financial security could little by little have diminished their Self-Esteem. However, they could still be satisfied with their over-all life circumstances.

It should be noted that our results regarding Self-Esteem are not similar to those reported on by Tartakovsky (2009a), who reported on a U-curve in his sample of adolescent migrants to Israel. The gradual increase in Self-Esteem that he reported on

could be particular to the sample that he studied—the adolescents in that sample all attended Israeli schools and lived in kibbutzim and boarding schools, at which they gradually adopted a bi-cultural identity (Tartakovsky, 2009b). Adjustment to a new cultural environment may be more difficult for adult immigrants, whose levels of Self-Esteem may continue to decrease for a longer period. Our results can also be interpreted as contradicting the idea that Self-Esteem and Neuroticism refer to the same construct (Judge *et al.*, 2002). Neuroticism, like other personality traits, is not likely to change in response to life events (Specht *et al.*, 2011). However, our results suggest that external factors do influence Self-Esteem.

### Covariates of Life Satisfaction and Self-Esteem

At the level of the individual, Life Satisfaction and Self-Esteem were concurrently associated with several of their expected predictors. Focusing only on those variables that could independently predict post-migration, Life Satisfaction or Self-Esteem reveals a clear pattern of results. Variables directly tapping into experiences of migration and adjustment to the new environment were associated with well-being at the first post-migration measurement point, but more general determinants of well-being became more important at later time points. Because very few of the covariates that we measured were associated with Life Satisfaction, we first focus our discussion on the covariates of Self-Esteem.

Regarding difficulties in adapting to the new cultural environment and acculturation stress, both of these were associated with lower Self-Esteem at the first post-migration measurement point. Although no causal conclusions can be drawn, these suggest that Self-Esteem may both affect migration outcomes, for example, by serving an anxiety-buffering function (Greenberg *et al.*, 1992), and itself be affected by these outcomes.

Quite surprisingly, acculturation attitudes toward cultural maintenance and contacts with majority Finns did not appear as key determinants of psychological well-being (for contrasting results especially among youth and especially for the effect of cultural maintenance, see Berry, 2006; Berry *et al.*, 2006; Berry & Sabatier, 2011; Jasinskaja-Lahti *et al.*, 2011). However, a positive attitude toward contact was associated with Self-Esteem at the first post-migration measurement wave. This finding is likely to be reciprocal: preference for future contact with Finns might predict positive Self-Esteem, but probably people with higher Self-Esteem are also more willing to engage in intergroup



contact. In general, the weaker than expected effects of acculturation attitudes could be due to the different association between attitudes and well-being in different acculturation domains, such as private and public (e.g., Navas *et al.*, 2005). It thus could be possible that if assessed domain-specifically, attitudes related more to the private than to the public life sphere could have been more important predictors of well-being (e.g., Mähönen, Leinonen, & Jasinskaja-Lahti, 2013). Moreover, it might be the case that the way cultural maintenance is typically assessed (i.e., with reference to the cultural group of the country of origin) is not the most optimal for multiply identified individuals, such as the Ingrian Finnish respondents in our study. For ethnic remigrants in our study, keeping their Russian traditions may not be crucial to their well-being, as their (Ingrian) Finnish traditions will anyway be supported in Finland.

At later time points, more general determinants of well-being, such as social support and subjective economic situation, showed the strongest independent associations with Self-Esteem. Our results on the importance of social support are consistent with recent research on well-being that emphasizes the importance of shifting the focus from the individual's subjective perception of his or her life to include also a social dimension (e.g., Huppert *et al.*, 2009; Keyes, 1998). Constructs such as social networks (Helliwell & Putnam, 2005) and social capital (Helliwell, Barrington-Leigh, Harris, & Huang, 2010; Putnam 2000) have been proven to be important markers of life quality and determinants of human health. Our results continue the line of research that emphasizes the role of social support also in the context of migration (Berry, 2006; Jasinskaja-Lahti *et al.*, 2006).

Most of the previously described covariates of post-migration Self-Esteem were not independently associated with Life Satisfaction. However, subjective economic situation was associated with both Self-Esteem and Life Satisfaction at the last follow-up. These results are consistent with research suggesting that socioeconomic status in general and income in particular is an important causal determinant of well-being (Frijters *et al.*, 2004) and support the idea that in the long run, economic factors are essential to migrants' adaptation (see also Kahneman & Deaton, 2010; Kessler *et al.*, 1999). Furthermore, difficulties in socio-cultural adaptation were associated with lower Life Satisfaction at the first measurement point. This supports the previously obtained results for Self-Esteem, according to which, measures tapping into experiences of migration were more relevant in the proximity of the migration event.

The only variable that could prospectively predict changes in Self-Esteem was initial general self-efficacy (changes in Life Satisfaction could not be predicted). The decrease in Self-Esteem that was generally observed in our sample was more pronounced among those scoring high on self-efficacy. This result is opposite to the one that we expected, as we expected self-efficacy to buffer the potential negative effects of migration on self-esteem (Gecas, 1989; Gecas & Schwalbe, 1983). Considering that initial self-efficacy was highly correlated with concurrently measured Self-Esteem, it seems likely that the results regarding self-efficacy are a methodological artifact caused by regression to the mean. Unusual assessments—in the present case, unusually high scores on both initial self-efficacy and Self-Esteem—are likely to be followed by measurements that are closer to the mean.

Our results regarding individual-level predictors suggest that several of our variables, such as post-migration social support, acculturative stress, and difficulties adjusting to a new culture, are all associated with well-being. However, it is noteworthy that none of these factors could predict changes in well-being. We therefore do not make causal claims based on the associations that we observed. Although common sense would suggest that for instance social support and acculturation stress have implications for Self-Esteem or Life Satisfaction, it could also be the case that those more satisfied with themselves and their lives have stronger positive biases in their cognitions (Cummins & Nistico, 2002), leading them to perceive more social support and experience less stress.

## Limitations and Conclusions

One of the reasons that research on the effects of migration on well-being has produced a plethora of different results could be the importance of context-dependent factors. In the present context, the Finnish government has taken active steps to encourage the inflow of Ingrian Finns and has actively helped them in resettlement. In a global perspective, Ingrian Finns may, as compared with other migrant groups, be in a privileged position. For instance, the mandatory pre-migration Finnish language and culture courses, the right to social security and health care, as well as government assisted housing, are all privileges that not all migrant groups can expect. To what extent our results can be generalized to contexts in which migrants are not similarly assisted should be investigated in future research. However, one important point that our results do make is that even in such comparatively good circumstances, the effects of migration on well-being appear not to be uniformly positive,

as witnessed by the decrease in Self-Esteem that migrants experienced. Moreover, it should be noted that despite the factors potentially promoting positive adaptation (such as cultural similarities and pre-migration training), also this group of migrants suffers from discrimination (for attitudinal and identity reactions to discrimination, see Jasinskaja-Lahti, Mähönen & Ketokivi, 2012; Jasinskaja-Lahti, Mähönen & Liebkind, 2012).

When pondering whether the results would generalize, one should also consider that migration to Finland was voluntary, and that our participants were leaving Russia. Unlike refugees or migrants from developing countries, our participants may have been much more prone to doubt or question their decision to migrate. In sum, our research, as well as the longitudinal research by Tartakovsky (2007, 2008, 2009a, 2009b) on high-school adolescents immigrating alone to Israel, was conducted in a context in which the government was strongly involved in assisting migrants. Similar longitudinal research would be much needed in other types of migration contexts.

Attrition could be considered another threat to the generalizability of our results: only somewhat more than half of those Ingrian Finns who actually migrated took part in the last follow-up. However, this attrition should not be considered apart from initial self-selection into the research. People who volunteer as research participants tend to have much more desirable characteristics than those who do not (Lönnqvist *et al.*, 2007; Rosenthal & Rosnow, 1975). This type of self-selection, which is often the most important threat to making valid causal inferences (Larzelere, Kuhn, & Johnson, 2004), did not hamper our research—everyone attending the Finnish language course completed the initial questionnaires. This means that our sample started out as completely representative of the population that we investigated. The fact that we at our third follow-up still retained more than half of our participants, thereby exceeding both the typical response rate in cross-sectional published academic social sciences studies (Baruch, 1999) and the minimal response rate level suggested for cross-sectional studies (Babbie, 1990; Dillman, 1978, Rea & Parker, 1997) suggests that our sample cannot be considered especially flawed in this respect. Another possibility is that the non-random drop-out caused the effects that we report on. Indeed, research on drop-out from longitudinal studies suggests that those who persevere with the research are better adjusted on a range of psychological characteristics (Rosenthal & Rosnow, 1975). If participants who were faring less well actually did systematically drop out over the course of the research, this could explain the observed average increase in Life Satisfaction. However, speaking against this interpretation, Life Satisfaction

increased also when the analyses were run using only those participants who participated in the last follow-up. Furthermore, such selective drop-out could not explain the results that we obtained for Self-Esteem. Self-Esteem should not decrease if those who are experiencing more difficulties are dropping out.

There were also some other methodological challenges. Although the strongest aspect of the present research was its design, which included both pre-migration and post-migration measurement waves, the design was weak in the sense that it lacked a control group—this prevents us from presenting a strong causal account on the effects of migration. It would have been desirable to obtain responses from those potential migrants who did not migrate. Despite our efforts, we could not obtain their contact information. The sample size was another limitation of the present research. Although the sample was large enough to investigate direct relations between variables, it was not large enough to investigate possible interaction effects (Chaplin, 1991). It would, for instance, have been interesting to examine the interaction between self-efficacy and stress on different indices of well-being.

In conclusion, very few studies have studied migrants both before and after migration. The present sample of Ingrian Finns, together with Tartakovsky's (2007; 2008; 2009a; 2009b) sample of unaccompanied minors migrating to Israel, are the rare exceptions. All conclusions must necessarily be tentative because of the uniqueness of the studies. This is further highlighted by the fact that our results were not identical to those reported on by Tartakovsky (2009a). Although differences in our results to some extent question the universalist approach that emphasizes commonalities in acculturation processes (Berry, Poortinga, Segall, & Dasen, 2002), they do not altogether defy it. For instance, both samples showed evidence of post-migration decrease in Self-Esteem, the difference being that the adolescents migrating to Israel showed gradual recovery in levels of Self-Esteem, whereas our participants did not. However, in both of these longitudinal studies, the context of reception was comparatively benign, and similar research in other types of contexts is needed before any generalizations can be made. Whether or not migrants are happy or miserable is likely to depend not only on how one measures happiness, as the results of our research and the research by Stillman *et al.* (2015) on migrants from Tonga to New Zealand suggest, but also on the particular context of migration. To professionals working with migrants, our results suggest that migrants are likely to suffer from poor self-esteem. Thus, help should focus on rebuilding

migrants' sense of self-worth, for instance by helping them (re)build their social networks with other migrants as well as with host nationals.

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