

Beyond the money: the impact of international migration on children's life satisfaction: evidence from Ecuador and Albania

Jeronimo Cortina*

Department of Political Science, University of Houston, Houston, TX, USA

(Received 2 October 2013; final version received 18 January 2014)

Using data from eight focus groups and two household surveys conducted in the cities of Tirana, Albania and Quito, Ecuador, this paper finds that migration from at least one parent has a negative impact on the life satisfaction of children and adolescents left behind relative to that of children and adolescents who live with both parents who have never migrated. The results of this paper suggest that the impact of migration goes beyond traditional ones (e.g. remittances), which is useful for understanding how different components of international migration in general, and parental migration in particular, relate to outcomes that not only affect the full development prospects of children and adolescents, but also have important implications for policy initiatives that seek to address both the positive and negative impacts of migration on sending countries.

Keywords: international migration; parental migration; life satisfaction; subjective well-being; children left behind

1. Introduction

What is the impact of parental migration on the life satisfaction of children and adolescents left behind? Do remittance-related expenses on education, health, food and toys have an impact on the life satisfaction of children and adolescents? The number of international migrants has more than doubled since 1975. Today, around 3% of the world's population reside in a country other than where they were born (DESA, 2013). Though this percentage may seem relatively small, it represents millions of migrants and their families. Consequently, international migration – and its impacts in countries of origin and destination – is receiving unprecedented attention by policy-makers at both the global and national levels. The discourse on migration and development recognizes that migration can help migrants and their families improve their living standards and well-being. At the same time, however, migration introduces new vulnerabilities and costs for migrants, their families and sending communities (see Skeldon, 2008, for a review of migration and development).

While much research has been devoted to ascertaining the consequences of international migration on receiving societies, not enough attention has been paid to assessing its impacts on sending countries, particularly on the life satisfaction of children and adolescents left behind by migrating parents. This gap results primarily from (i) the scarcity of reliable data (Black, Ammassari, Mouillesseaux, & Rajkotia, 2004; Whitehead & Hashim, 2005); and (ii) from a narrow focus on the impact of

*Email: jcortina@central.uh.edu

remittances on objective indicators of well-being, such as schooling and health outcomes. These two factors serve to hamper effective public policy initiatives to address both the positive and negative impacts of migration on sending countries (Bilsborrow, Graeme, Oberai, and Zlotnik, 1997).

Using data from eight focus groups and two international surveys conducted in the cities of Quito, Ecuador and Tirana, Albania, this paper tests for the effects of parental migration and the impact of remittance-related expenses (i.e. education, health, food and toys) on the subjective well-being (i.e. 'life satisfaction') of children and adolescents left behind. The findings suggest that, on average, parental migration has a negative impact on children's and adolescents' life satisfaction compared to children and adolescents whose parents live with them and have never migrated, while remittance-related expenses do not have a statistically significant impact on the subjective well-being of children and adolescents.

1.1. Subjective well-being & migration

Why do we need subjective measurements to weigh the impact of migration on children and adolescents left behind? Migration often alters how families and communities are organized and function. For instance, at the community level, migration can lead to the absence of traditional cultural figures, which can empower women but also result in the breakdown of essential social norms and customs (de la Garza, 2010). At the individual level, children from migrant households may suffer discrimination from their peers, often stemming from the perception that they are better off because they receive remittances and thus have better access to goods and services, such as education and health care. Children left behind may also experience depression and feelings of abandonment at different stages of their migrating parents' absence (Camacho & Hernandez, 2007), which can have significant negative behavioural consequences for children transitioning to adolescence. Adolescents whose parents have migrated often experience difficulties in social relations, which can lead to isolation from mainstream society in favour of small groups of peers that share similar experiences, limiting social interaction and development (UNICEF, 2008). From a rights-based perspective, parental migration hinders children's right to maintain personal and direct contact with both parents on a regular basis, as well as their right to parental guidance to support their evolving capacities (CRC, 1989).

Although ample evidence shows that children left behind are more likely to experience psychological and emotional stress (see Bryant, 2005; Coe, 2008; Coronel & Unterreiner, 2008; Edillon, 2008; Stirbu, 2006; UNICEF, 2008), the literature has not paid sufficient attention to the impacts of migration on well-being from a subjective perspective. Why is this important? In order to assess the impact of migration on the left behind, we need to deepen our knowledge of some important assumptions that may not be possible using economic indicators alone. For instance, even if remittances increase household or individual income, consumption and access to education and health, it is not clear whether they increase the life satisfaction of children and adolescents left behind. Subjective indicators, on the other hand, complement other well-being statistics in which individuals consciously evaluate their life using their own criteria (Pavot & Diener, 1993) rather than predetermined indicators. Excluding subjective indicators from well-being assessments masks not only the perceptions of those being evaluated, but could also bias policy-makers' assumptions when designing and implementing public policies designed to increase individual well-being (see Diener, Lucas, Schimmack, &

Helliwell, 2009 for a discussion on why subjective indicators of well-being are needed for public policy).

Subjective well-being scholarship on children and adolescents is scarce in comparison to studies on adult life satisfaction. Yet increasing empirical evidence suggests that life satisfaction is important to promote overall well-being, and could act as a buffer preventing the development of psychopathological symptoms in children and adolescents when they face stressful life events (see Huebner, Suldo, & Valois, 2005), such as when one or both parents migrate.

What is subjective well-being? Subjective well-being refers to a person's cognitive assessment of her/his overall degree of life satisfaction, and to that person's affective appraisal of her/his moods and emotions (Diener, Oishi, & Lucas, 2003, 2009; Diener & Seligman, 2004; Pavot, Diener, Colvin, & Sandvik, 1991). Subjective well-being has both a cognitive¹ and an affective² component, which are intimately related but nonetheless empirically separable (Lucas, Diener, & Suh, 1996). Research shows that cognitive approaches tend to perform better than affective approaches in assessing individuals' subjective well-being. Pavot and Diener (1993, p. 165) offer three explanations for the preferred use of cognitive approaches. First, when assessing their subjective well-being, people may not pay sufficient attention to certain negative emotional reactions or acknowledge unwanted factors in their lives, making cognitive approaches more valid and reliable. Second, cognitive measurements reflect a long-term perspective on the individual's life, whereas affective indicators are often the by-product of immediate factors (of short duration), and thus limit the scope of a comprehensive evaluation of an individual's subjective well-being. Lastly, cognitive evaluations of a person's life circumstances may highlight some of the individual's values and goals that are not revealed by affective evaluations.

As with all self-reported measurements, issues of validity are always a concern. Subjective well-being or life satisfaction evaluations may be affected by – although not often strongly influenced by – the person's current mood, his or her beliefs and the ease of retrieving positive and negative information (Diener & Suh, 1999; Robinson & Clore, 2002; Schwarz & Strack, 1999). Nevertheless, self-reports of subjective well-being constitute a valid instrument that converges and correlates with other indicators (such as self-esteem, optimism, self-efficacy or depression) as well as expert, in-depth interviews and experience-sampling measures of a participant's memory for positive vs. negative events (Diener & Suh, 1999; Sandvik, Diener, & Seidlitz, 1993). In terms of reliability, despite some expected temporary change, well-being indicators have shown significant cohesiveness and stability across time, even over a period of several years (Diener & Diener, 1995; Diener & Suh, 1999, p. 437).

Studies of life satisfaction among children and adolescents have found a significant array of correlates, including risky behaviours (e.g. alcohol and drug use, aggressive and violent behaviour, and sexual activities), psychopathological symptoms (depression, anxiety, loss of self-efficacy and loneliness) and physical health indices (e.g. eating behaviours and exercise) (see Huebner et al., 2005). These correlates not only affect the survival and full development of the child, but their manifestation could also hinder the ability of left-behind parents or caretakers to consistently provide children and adolescents with appropriate direction and guidance (CRC, 1989; DRC, 1959).

Literature on the effect of divorce on children – to some extent, a comparable phenomenon in which one parent 'migrates' – suggests that children whose parents have divorced have higher levels of externalizing behaviours (disruptive, hyperactive and aggressive behaviours) and internalizing problems (withdrawn, anxious, inhibited and

depressed behaviours), lower academic achievement and more problems in social relationships than do children whose parents have not divorced (Lansford, 2009, p. 142). Migration may share some similarities, while differing in other respects. The differences or similarities will depend on how the dynamics change within the household once a parent departs. For example, the effects of brief, temporary parental migration can be compared to those of an amicable, civilized divorce; but long-term migration to a distant location is more comparable to a divorce characterized by parental conflict, with a negative effect on the life satisfaction of children and adolescents.

The literature reviewed thus far brings to light some of the potential implications of not paying significant attention to children's subjective well-being that tend to be ignored by traditional indicators such as income or consumption, among others. To gauge the impact of migration on the left behind from a multifaceted well-being perspective, it is necessary to take into account both the economic and subjective perspectives. Economic indicators can reveal increased consumption of goods and services, which contribute to improve people's lives. Improved access to education and health will increase the formation of human capital, eventually helping to alleviate systematic poverty. Subjective indicators, in contrast, reflect a cognitive process by which individuals appraise the quality of their lives (Shin & Johnson, 1978) by assigning different weights to different life components (Diener, Emmons, Larsen, & Griffin, 1985). Given that individuals may have different standards for defining what it means to have a successful life – regardless of their economic situation – it is necessary to assess their judgements in terms of their own values rather than through the lens of narrowly or ill-conceived domains that may not reflect their cultural and individual values (Diener et al., 1985; Pavot & Diener, 1993).

2. Data and methods

2.1. Data

This paper is based on the results two household surveys and eight focus groups conducted in 2007 and 2008 in the cities of Tirana, Albania and Quito, Ecuador. The cities of Tirana and Quito were selected for three main reasons. First, Albania and Ecuador present two distinct migratory systems, thereby increasing the reliability and validity of the results. Even though both Ecuadorian and Albanian migration is primarily economically driven (Barjaba, 2000; De Soto, Gordon, Gedeshi, & Sinoimeri, 2002; Kule, Mancellari, Papapanagos, Qirici, & Sanfey, 2002), the composition of each migratory flow tends to differ among sites. In Albania, unemployed young males under 25 years of age with secondary or vocational education are more likely to migrate (Castaldo, Litchfield, & Reilly, 2005), while in Ecuador, although young males continue to migrate at higher rates, female migration is a growing reality that is reflected in the major migrant destinations; for instance, some estimate that Ecuadorian migrant women living in Spain now outnumber males: 51 vs. 49%, respectively (UNFPA-FLACSO, 2008).

Second, these two cities constitute an important component of their respective national migratory systems. For instance, most Albanians living abroad come from 'a limited number of districts located at the coastal and transport gateways ..., as well as Tirana' (Carletto, Davis, Stampini, & Zezza, 2006, p. 767). Similarly, Quito, especially the outskirts of the city, constitutes a major pathway of Ecuador's international migratory system. According to a report by UNFPA and FLACSO-Ecuador (2006),

approximately 73% of Ecuador's international migration originates in urban areas, such as Quito's. In Albania, a disproportionate number of permanent migrants are drawn from Tirana and the coastal regions as compared to temporary migrants, who are more likely to come from rural areas and the mountainous regions (Mai & King, 2008).

Choice of destination was another determining factor in selecting these cities. Albanian migrants, especially those originating in Tirana, tend to be evenly spread between nearby Greece and Italy (Stampini, Davis, & Carletto, 2004), whereas migrants originating in Quito tend to primarily go to Spain (UNFPA-FLACSO, 2008). Thus, the two cases differ in terms of the distance between country of origin and destination, affecting ease of ongoing contact with families. Third, the ease of transportation and proximity to major urban areas facilitated the fieldwork for both interviewers and supervisors, ensuring high data quality.

In order to compare the life satisfaction of children with migrant parents vs. the life satisfaction of children with no migrant parents, the sampling strategy targeted both migrant and non-migrant households (see Appendix 1 for a summary on the survey methodology). A migrant household was defined as a household with children and/or adolescents in which at least one member, who at the time of the interview was still considered part of that household, had moved to live in a foreign country. A non-migrant household was defined as a household with children and/or adolescents in which no household members had ever moved away to live in a foreign country or different town, province or state, and in which, at the time of the survey, both parents lived with their children. These definitions create identifiable comparison groups, allowing us to isolate the effects of migration on children and adolescents' life satisfaction in comparison to the life satisfaction of children who still live with both parents, who have never migrated.

To gauge the impact of parental migration on children left behind, this paper utilizes an adaptation of Huebner's (1997) Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Huebner, Suldo, Valois, Drane, & Zullig, 2004). Relevant literature includes approximately six life satisfaction scales suitable for use with children and/or adolescents; however, most of these instruments are either too lengthy or impractical for large-scale surveys (Huebner et al., 2005). In contrast, the BMSLSS is brief, useful for large-scale surveys, adequate for children and has demonstrated satisfactory reliability and validity measures (Huebner et al., 2005).

The BMSLSS is a five-item instrument that has been used with children and adolescents between 8 and 18 years of age. It is a conceptual derivation of the 40-item Multidimensional Students' Life Satisfaction Scale (Huebner, 1994) that focuses on "children's and adolescents' satisfaction with respect to the areas of life most pertinent during youth development" (Huebner et al., 2005, pp. 50–51): family life, friendships, school experience, self and living environment. Response categories span a 5-point scale that ranges from 1 = very satisfied to 5 = very unsatisfied. Huebner (1997) utilized a 7-point scale; however, pretesting of the instrument with focus groups revealed that a 5-point scale would be most appropriate for this study. Table 1 presents the wording of each question reflecting the BMSLSS's five dimensions.

The outcome variable is a composite index given by the participants' responses to the five-item life satisfaction questions and treated as an ordinal variable re-scaled from -10 (very unsatisfied) to 10 (very satisfied). I run two set of models. The first model tests the impact of migration on the life satisfaction of children whose parents have moved to live/work in a different country in comparison to children with non-migrant parents who have not departed from the household – either internationally or internally

Table 1. Brief multidimensional students' life satisfaction scale.

I would describe my satisfaction with my family as:
 I would describe my satisfaction with my friendships as:
 I would describe my satisfaction with my school experience as:
 I would describe my satisfaction with my myself as:
 I would describe my satisfaction with where I live as:

Note: Source: Huebner (1997).

Table 2. Descriptive statistics.

	Observations		Mean		Std. Dev.	
	Quito	Tirana	Quito	Tirana	Quito	Tirana
Life satisfaction index	379	367	7.26	6.00	2.64	3.05
Migrant parent (%)	299	361	0.27	0.39	0.45	0.49
Age (years)	379	367	12.46	12.71	2.95	2.89
Sex (female %)	379	367	0.49	0.49	0.50	0.50
Area (rural %)	379	367	0.51	0.53	0.50	0.50
Health (1 = poor to 5 = excellent)	379	363	3.46	3.98	0.85	0.83
Expenditures on education (%)	140	135	0.79	0.59	0.41	0.49
Expenditures on health (%)	140	140	0.74	0.76	0.44	0.43
Expenditures on food (%)	140	142	0.66	0.83	0.47	0.38
Expenditures on toys (%)	140	132	0.29	0.47	0.46	0.50

– and who still live with them. In this model, the main predictor takes a value of 1 to indicate parental migration of at least one parent and 0 otherwise. The second model tests the impact of remittance-related expenditures – education, health, food and toys – on the life satisfaction of children whose parents have moved to live/work in a different country in comparison to those migrant households that do not spend remittances on these items. The main predictor for this model takes a value of 1 to indicate whether the household spent remittances on these items and 0 otherwise.

The models also include a number of confounders that are closely associated with children's subjective well-being such as age, gender (1 = female), its interaction with age, health status and if they live in a rural or urban area (rural = 1). These variables help us control for some of the most salient correlates associated with life satisfaction. Table 2 below summarizes the data.

The data collected from the focus groups centred on how participants perceived the negative and positive consequences of migration on those left behind and on the personal experiences that motivated their attitudes. The adult focus groups also collected data on migration's impact on raising children without the presence of their father/mother or both, and on children's daily behaviour.³

2.2. Methods

To test the impact of parental migration on the life satisfaction of children and adolescents left behind in comparison to children who still live with both parents and to test the impact of remittance-related expenses (whether households spend remittances on children's education, health, food and toys) on children's life satisfaction among households with at least one migrant parent, a series of ordered logit multilevel

regressions are fitted to the data to account for the nature of the outcome variable as well as the hierarchical structure of the data.⁴ The main statistical reason for fitting a multilevel regression is the hierarchical, or nested, nature of the data (children within households). ‘Multilevel regression is a method compromising between two extremes of excluding a set of predictors from a model (complete-pooling), or including them and estimating them by least squares (no-pooling)’ (Gelman & Hill, 2005).

Simply put, ‘the main purpose of fitting a multilevel model is to partition the variation in a response variable as a function of levels in the hierarchy and relate this variability to descriptions of the data structure’ (Browne, Draper, Goldstein, & Rasbash, 2002, p. 204). If the hierarchical structure of the data goes unaccounted for, this could lead to ‘atomistic errors’ of inference, since no attention would be paid to the context (the household, in the case of this paper) in which human behaviour occurs (Courgeau & Baccaini, 1998). A multilevel approach that simultaneously takes into account the different levels of aggregation and considers the outcome variable at the individual level is therefore more appropriate for taking into account the effects that each level exert on the individual (Congdon, 2003).

3. Results

3.1. Focus groups

Participants from migrant and non-migrant households shared similar conceptual imagery about migration. The most mentioned constructs were those of people leaving the country and of sadness and solitude. The second most mentioned concept was related to the household’s economic situation. Respondents identified migration as an opportunity for improving the quality of life of those left behind and for obtaining goods, such as household appliances, clothing, toys and even food.

When asked about the impacts of migration, participants across groups in Quito were almost equally likely to recognize that migration had both positive and negative consequences. Children between 8 and 10 years of age were more inclined to highlight the positive results of migration than its negative impacts. In contrast, older participants were more likely to highlight migration’s negative impacts. The positive impacts were linked to the material benefits created by migration, namely those resulting from remittances. Participants described migration’s negative impacts in terms of its effect on the family structure and on society, such as family disintegration, separation, drug abuse, gangs and unhappiness.

Similarly, children in Tirana between 8 and 12 years old were more likely to highlight the positive economic aspects of migration. Although older participants emphasized migration’s economic and material benefits (related to remittances), they were more detailed in describing its negative impacts on the left behind, including the effects on families and society such as family disintegration, separation of parents and children, drug abuse and unhappiness.

Regarding who is most directly affected by migration, adults from non-migrant households in Quito and Tirana agreed that the family as a whole was likely to suffer the most. According to the participants, marriages are also affected by migration: migrants sometimes establish new emotional relationships when abroad and forget about their families back home. In both countries, caretakers left behind in migrant households highlighted the high level of stress and sense of responsibility that they endure in caring for their sons, daughters, nephews, nieces or grandchildren.

When asked about remittances, virtually all participants from migrant households in both Quito and Tirana reported, on average, receiving remittances at least once a month. The money received was primarily spent on health, education, daily needs and clothing. Children reported household expenditures on toys, leisure activities (movies, ice cream, vacations, etc.) and electronics, such as prepaid cell phone cards and video games.

Although communication between migrants and those left behind can be difficult, especially in rural areas, recent advances in communication technology and its affordability appear to help migrants and their left-behind family members communicate easily. In Quito, participants from migrant households reported that at least once every other week they had some sort of communication with their family member living abroad. In Tirana, focus group data indicate that migrants and their families left behind communicated more frequently, at least once a week. The preferred method of communication in Tirana was via mobile phone, while in Quito most communication was via the Internet; however, other methods such as mobile phone and traditional land-line phones were also used. The choice depended on the accessibility of the service in terms of cost, as well as on reliability.

3.2. *Multilevel regressions*

What is the impact of migration on children's and adolescent's life satisfaction? Table 3 shows the results of fitting an ordered logit multilevel regression testing the impact of parental migration of at least one parent vs. non-parental migration in which no parent has ever migrated (internally or internationally) on children and adolescents' life satisfaction. The model is fitted to a subset of the data that comprises children of ages 8–17 who answered the life satisfaction questions. Some questions, such as those related to the child's health status, were answered by the mother/father or caretaker. For the context of this paper, negative values indicate being unsatisfied with one's life. The outcome variable goes from very unsatisfied = -10 to very satisfied = 10.

Table 3. Varying-intercepts varying-slopes ordered logit multilevel model: parental vs. non-parental migration on children's life satisfaction.

	Quito	Tirana
Migrant parent (1 = yes; 0 = no)	-0.735 (2.71)**	-1.178 (2.05)*
Age (years)	-0.15 (2.87)**	-0.451 (5.23)**
Sex (female = 1)	0.177 (0.26)	-1.489 (1.08)
Female × age	-0.027 (0.07)	0.155 (1.45)
Area (rural = 1)	-0.399 (1.63)	0.546 (0.93)
Health (1 = poor to 5 = excellent)	0.18 (1.29)	0.275 (0.96)
Variance 2nd level (household)	0.562 (1.06)	13.839 (4.28)**
<i>N</i>	299	357

* $p < 0.05$.

** $p < 0.01$.

Note: Z-statistics in parenthesis.

The ordered logit multilevel regression indicates that for children and adolescents with at least one migrant parent, the odds of being satisfied with their lives vs. the combined categories of being somewhat satisfied and unsatisfied are 0.48 (-0.735) ($P < 0.01$) and 0.31 (-1.178) ($P < 0.05$) times lower than those for children and adolescents with no migrant parents in Quito and Tirana, respectively.

The results displayed in Table 3 suggest that after controlling for various correlates associated with life satisfaction, parental migration, on average, tends to statistically decrease the life satisfaction of children and adolescents left behind in comparison to children and adolescents still living with both parents who have never migrated. In other words, children who have at least one migrant parent tend, overall, to be less satisfied with their lives than children who live with both parents.

Similarly to the focus group's findings, adolescents tend to be more likely to be unsatisfied than their younger counterparts. Figure 1 illustrates the relationship between age and life satisfaction. Each line represents the predicted probabilities by age for children and adolescents in households with at least with one migrant parent (solid line) vs. the predicted probabilities for children and adolescents with no migrant parents (dotted line).

Overall, as children get older they tend to be more unsatisfied with their lives, which tends to be more pronounced among adolescents with at least one migrant parent – as noted by the gap between the predicted probability lines. For instance, in the case of Quito the difference in life satisfaction between children and adolescents with at least one migrant parent vs. those who do not have migrant parents is around 20%, while for Tirana the difference is around 10%.

In terms of the other correlates, for females in Tirana, the odds of having high levels of life satisfaction vs. the combined middle and low levels are 0.23 times lower than for males, given the other variables held constant. For children in rural areas the odds of having high levels of life satisfaction is 1.73 times higher than for children living in urban areas, while a one unit increase in the overall health of children and adolescents, the odds of high levels of life satisfaction are 1.32 times greater, given the other variables held constant in the model.

In Quito, females are 1.19 times more likely of having high levels of life satisfaction than their male counterparts. Children and adolescents living in rural areas are 0.67 times less likely to have higher levels of life satisfaction than children and adolescents

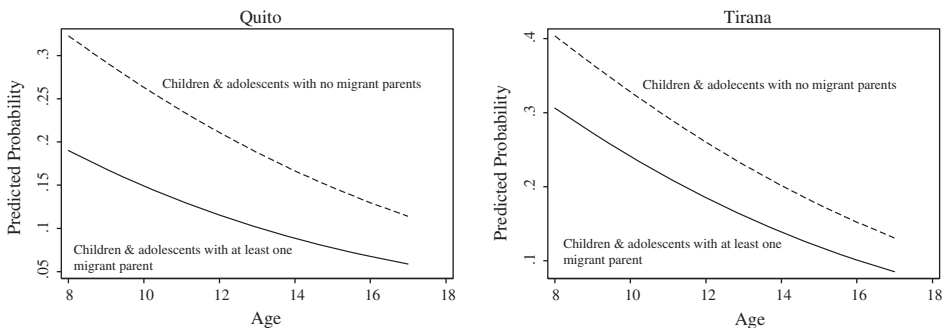


Figure 1. Predicted probabilities with both fixed and random effects for children and adolescents in households with at least one migrant parent (solid line) vs. children and adolescents in households with no migrant parents (dotted line).

living in urban areas, whereas healthier children and adolescents are 1.20 times more likely to report higher levels of life satisfaction vs. the combined middle and low levels.

The difference in magnitude in terms of parental migration and the life satisfaction of children and adolescents between Quito and Tirana may be mediated by the distance between origin and destination countries. Around 92% of Albanian migrants move to nearby Italy (39%) or Greece (53%), while around 94% of Ecuadorian migrants move to Spain (82%) or the United States (12%). A departure from Quito to either of these destinations makes circular migration less likely than a departure from Tirana to Italy or Greece. Different destination countries thus have different connotations: the greater the distance between origin and destination the greater the uncertainty in terms of the potential for circular migration – in addition to the economic and legal hurdles for doing so.

Why adolescents are more likely, on average, to be unsatisfied than children? As a by-product of experiencing lower levels of life satisfaction, adolescents may develop premature autonomy in order to deal with particular negative externalities associated with parental migration. The literature on divorce once again provides some interesting insights, suggesting that adolescents de-idealize parents, and their anger and confusion often leads to substance abuse, declining school performance, inappropriate sexual behaviour, depression and aggressive, or delinquent behaviour (Cohen, 2002) all of which are correlates of low life satisfaction.

Do remittances increase the life satisfaction of children and adolescents? Remittances per se do not necessarily provide direct benefits to those who receive these monies but indirectly by increasing families' purchasing power and access to education and health.⁵ Table 4 summarizes the results of an ordered logit multilevel model testing the impact of remittance-related expenses whether or not households spend remittances on education, health, food and toys on the life satisfaction of children and adolescents who have at least one migrant.

Remittance-related expenses on education, health services, food and toys do not have a statistically significant impact on their life satisfaction either simultaneously or separately (see Model 1 through Model 5 in Table 4). These results are aligned with those from the focus groups in which participants suggested that even though families, children and adolescents left behind may benefit from remittances, these funds do not compensate for the absence of the father, mother or both. The results from these models (Model 1 through Model 5) do not neglect remittances' impact on objective indicators, such as improving children's and adolescents' access to education, health and food; however, they highlight that different mechanisms between remittance-related expenses and subjective and objective well-being indicators may be at play.

Overall, the results presented in this section highlight several patterns. First, the focus groups results demonstrate that the impact of parental migration goes well beyond its economic benefits. Entire families, from children to caretakers, are negatively affected both emotionally and from a well-being perspective, even after discounting the material benefits that migration may bring in terms of increasing purchasing power and access to education and health. Second, migration by at least one parent negatively impacts children's and adolescent's life satisfaction, or subjective well-being, in comparison to children and adolescents who live with both parents and whose parents have never moved away either internationally or internally. Third, the results indicate that there is no direct connection between remittance-related expenses and life satisfaction, per se.

Table 4. Ordered logit multilevel model: remittances use on life satisfaction.

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Quito	Tirana	Quito	Tirana	Quito	Tirana	Quito	Tirana	Quito	Tirana
Education (expenditures = 1)	-0.425 (0.78)	-1.512 (1.27)	-0.201 (0.55)	-0.919 (0.87)	-0.017 (0.05)	-1.738 (1.49)	-	-	-0.061 (0.17)	0.633 (0.45)
Health (expenditures = 1)	0.199 (0.38)	-2.153 (1.53)	-	-	-	-	0.068 (0.21)	-0.859 (0.65)	-0.088 (1.44)	-0.832 (3.99)**
Food (expenditures = 1)	0.153 (0.40)	-1.400 (0.85)	-	-	-	-	-	-	1.732 (1.86)	-2.907 (1.10)
Toys (expenditures = 1)	-0.031 (0.08)	1.247 (0.85)	-	-	-	-	-	-	-1.015 (1.85)	0.307 (1.42)
Age (years)	-0.075 (1.20)	-0.859 (4.15)**	-0.084 (1.43)	-0.755 (4.10)**	-0.085 (1.43)	-0.775 (4.29)**	-0.083 (1.38)	-0.785 (4.19)**	-0.088 (1.44)	-0.832 (3.99)**
Sex (female = 1)	1.791 (1.90)	-2.769 (1.05)	1.707 (1.84)	-1.687 (0.70)	1.739 (1.86)	-2.075 (0.88)	1.769 (1.89)	-2.296 (0.94)	1.732 (1.86)	-2.907 (1.10)
Female × age	-1.058 (1.90)	0.275 (1.27)	-1.007 (1.84)	0.191 (0.97)	-1.018 (1.84)	0.236 (1.24)	-1.034 (1.88)	0.258 (1.31)	-1.015 (1.85)	0.307 (1.42)
Area (rural = 1)	-0.513 (1.64)	0.315 (0.21)	-0.511 (1.65)	1.322 (1.23)	-0.509 (1.64)	1.523 (1.52)	-0.510 (1.64)	1.743 (1.58)	-0.503 (1.61)	0.706 (0.51)
Health (1 = poor to 5 = excellent)	0.095 (0.52)	-0.638 (1.33)	0.090 (0.49)	-0.281 (0.65)	0.096 (0.52)	-0.211 (0.49)	0.096 (0.52)	-0.343 (0.79)	0.098 (0.53)	-0.177 (1.49)
Variance 2nd level (household)	0 (0)	16.904 (2.55)*	0 (0)	16.388 (2.62)**	0 (0)	15.625 (2.68)**	0 (0)	17.193 (2.73)**	0 (0)	20.294 (2.67)**
N	140	119	140	129	140	134	140	273	140	126

* $p < 0.05$.

** $p < 0.01$.

Note: Z-statistics in parenthesis.

4. Conclusions

This paper has shown that the link between parental migration and the well-being of children and adolescents left behind goes beyond objective indicators. The short-term effects highlight that the life satisfaction of children and adolescents from households where at least one parent has migrated tends, on average, to be lower than the life satisfaction of those children and adolescents who still live with both parents, who have never migrated either internationally or domestically. Remittance-related expenses on education, health, food and toys, moreover, do not have a statistically significant impact on the life satisfaction of children and adolescents left behind in the cities of Quito and Tirana, suggesting that there exists a distinct set of mechanisms that creates, promotes and sustains subjective and objective well-being among children and adolescents presenting a far more nuanced and complex relationship that deserves more attention by academics, policy-makers and stakeholders.

In the long run, the impact of parental migration could have a mixed set of outcomes both positive and negative. On the positive side, remittances increase children's and adolescents' access to health and education, which increase their opportunities to achieve a better life for themselves and their families, as well as their chances of escaping poverty and halting the transmission of inequity cycles to their future sons and daughters. On the negative side, parental migration changes families' traditional structures and roles and incidentally those of the society. The extent to which these potential externalities will affect children and adolescents, their families and the countries' long-run development prospects remains an open question for future research.

Although these findings provide new insights for understanding the subjective impacts of migration on the left behind, an important limitation must be considered in the sense that these results, for obvious reasons, cannot be generalized to the national population beyond the cities of Tirana, Albania and Quito, Ecuador. However, given the importance of these two cities in their respective country's national-level migratory system, this paper's findings should provide a robust expectation of the potential effects of parental migration on children and adolescents left behind at the national level.

The combination of findings suggests that including subjective indicators is useful to understand how different components of international migration in general, and parental migration in particular, relate to outcomes such as life satisfaction. In sum, the results point to new avenues for research that underline the importance of examining the creation and maintenance of transnational families; such research could have a substantial impact on a large number of factors relevant to child development. Answers to many important questions, however, remain elusive: the content of the communication between migrants and their children left at home; *which* parent migrated and the potential interaction between the gender of the child and that of the migrating parent; the type, extent and characteristics of parenting from abroad; and the longitudinal impacts of parental migration on children's and adolescent's life satisfaction. The approach and results presented in this paper will be advantageous to scholars and policy-makers who wish to explore the nuances of the impact of migration on those who remain behind and for the design and implementation of policies seeking to maximize migration's positive impacts, while minimizing its negative consequences.

Acknowledgements

This research would not have been possible without the assistance and collaboration of the Ecuadorian and Albanian Governments, the UNDP's Special Unit for South-South Cooperation,

ILO's International Migration Programme, UNICEF's Country Offices in Albania and Ecuador, and UNICEF's DPP and SMS. Their support and professional advice was vital to the completion of a study of this nature. The cooperation of Albania's Urban Research Institute, Ecuador's Observatorio de los Derechos de la Niñez y Adolescencia and of the survey and focus group participants is also extremely appreciated.

Notes

1. Those that focus on how people process information based on their own perceptions rather than on objective descriptions of their lives (Manis, 1977; Zajonc, 1980).
2. Those related to pleasant and unpleasant emotions.
3. Overall, the questionnaire was found to be comprehensible; participants in neither Quito nor Tirana reported any significant problems in completing it. All the questions were understood without difficulty, and respondents did not have substantial questions about how to fill out the proposed instrument to be implemented in the field. Lastly, there were no evident differences between male and female participants either on substance or completing the questionnaire.
4. Previous literature confirms the BMSLSS as a reliable and valid measure (see Funk, Huebner, & Valois, 2006; Seligson, Huebner, & Valois, 2003; Siyez & Kaya, 2008. See Appendix 2 for confirmatory factor analysis).
5. I would like to thank one of the anonymous reviewers for this suggestion.

Notes on contributor

Jeronimo Cortina is an assistant professor at the Department of Political science in University of Houston. His research interests include migration, development, education and political behaviour. He has published in *New perspectives on international migration and development*: Columbia University Press (2013); *Subsidizing migration? Mexican agricultural policies and migration to the United States*, *Policy Studies Journal* (Forthcoming).

References

- Barjaba, K. (2000). Contemporary patterns in Albanian migration. *South-East Europe Review*, 3, 57–64.
- Bilsborrow, R. E., Graeme, H., Oberai, A. S., & Zlotnik, H. (1997). *International migration statistics: Guidelines for improving data collection systems*. Geneva: International Labour Office.
- Black, R., Ammassari, S., Mouillessaux., S., & Rajkotia, R. (2004). *Migration and pro-poor policy in West Africa*. Brighton: Development Research Centre on Migration, Globalisation and Poverty-University of Sussex.
- Browne, W. J., Draper, D., Goldstein, H., & Rasbash, J. (2002). Bayesian and likelihood methods for fitting multilevel models with complex level-1 variation. *Computational Statistics & Data Analysis*, 39, 203–225.
- Bryant, J. (2005). *Children of international migrants in Indonesia, Thailand, and the Philippines: A review of evidence and policies*. Florence: UNICEF Innocenti Research Centre.
- Camacho, G., & Hernández, K. (2007). *Familia, Niñez y Migración en el Ecuador* [Family, childhood and migration in Ecuador]. Quito: UNICEF, INNFA, CEPLAES.
- Carletto, C., Davis, B., Stampini, M., & Zezza, A. (2006). A country on the move: International migration in post-communist Albania. *International Migration Review*, 40, 767–785.
- Castaldo, A., Litchfield, J., & Reilly, B. (2005). Migration and poverty in Albania: What factors are associated with an individual's predisposition to migrate? *Journal of Balkan and Near Eastern Studies*, 7, 157–173.
- Coe, C. (2008). The structuring of feeling in Ghanaian transnational families. *City & Society*, 20, 222–250.
- Cohen, G. J. (2002). Helping children and families deal with divorce and separation. *Pediatrics*, 110, 1019–1023.

- Congdon, P. 2003. *Applied Bayesian modeling*. Chichester, West Sussex; Hoboken, NJ: Wiley.
- Coronel, F. K., & Unterreiner, F. (2008). *Increasing the impact of remittances on children's rights in the Philippines*. New York, NY: UNICEF.
- Courgeau, D., & Baccaini, B. (1998). Multilevel analysis in the social sciences. *Population: An English Selection*, 10, 39–71.
- CRC. (1989). *Convention on the rights of the child*. New York, NY: United Nations.
- De La Garza, R. (2010). *Migration, development and children left-behind: A multidimensional perspective*. New York, NY: UNICEF.
- De Soto, H., Gordon, P., Gedeshi, I., & Sinoimeri, Z. (2002). *Poverty in Albania: A qualitative assessment* (Technical Paper 520). Washington, DC: World Bank.
- DESA. 2013. *Trends in international migrant stock: The 2013 revision* (United Nations Database, POP/DB/MIG/Stock/Rev.2013). New York, NY: United Nations, Department of Economic and Social Affairs, Population Division.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.
- Diener, E., Lucas, R. E., Schimmack, U., & Helliwell, J. (2009). *Well-being for public policy*. New York, NY: Oxford University Press.
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Culture, personality and well-being. *Annual Review of Psychology*, 54, 403–425.
- Diener, E., Oishi, S., & Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (pp. 187–194). New York, NY: Oxford University Press.
- Diener, E., & Seligman, M. E. (2004). Beyond the money: Toward and economy of well-being. *Psychological Science in the Public Interest*, 5(1), 1–31.
- Diener, E., & Suh, E. (1999). National differences in subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 434–450). New York, NY: Russell Sage Foundation.
- DRC. (1959). *Declaration of the rights of the child*. New York, NY: United Nations.
- Edillon, R. (2008). *The effects of parent's migration on the rights of children left-behind in the Philippines*. New York, NY: UNICEF.
- Funk, B. A., Huebner, E. S., & Valois, R. F. (2006). Reliability and validity of a brief life satisfaction scale with a high school sample. *Journal of Happiness Studies*, 7, 41–54.
- Groenewold, G., & Bilsborrow, R. (2004). *Design of samples for international migration surveys: Methodological considerations, practical constraints and lessons learned from a multi-country study in Africa and Europe*. Paper presented at the Population Association of America 2004 General Conference, Boston, MA.
- Gelman, A., Carlin, J. B., Stern, H. S., & Rubin, D. B. (2004). *Bayesian data analysis*. Boca Raton, FL: Chapman & Hall/CRC.
- Gelman, A., & Hill, J. (2005). *Regression and multilevel (hierarchical) models for applied statistics*. New York, NY: Cambridge University Press.
- Groenewold, G., & Bilsborrow, R. (2005). Sampling international migrants: Lessons learned from the NiDi/EuroStat study on migration from West Africa and the Mediterranean region to the EU. *Demotrends*, 1, 6.
- Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life-satisfaction scale for children. *Psychological Assessment*, 6, 149–158.
- Huebner, E. S. (1997). Happiness and life satisfaction. In G. G. Bear, K. M. Minke, & A. Thomas (Eds.), *Children's needs II: Development, problems and alternatives* (pp. 271–278). Bethesda: National Association of School Psychologists.
- Huebner, E. S., Suldo, S. M., & Valois, R. F. (2005). Children's life satisfaction. In K. A. Moore & L. H. Lippman (Eds.), *What do children need to flourish? Conceptualizing and measuring indicators for positive development* (pp. 41–60). New York, NY: Springer.
- Huebner, E. S., Suldo, S. M., Valois, R. F., Drane, J. W., & Zullig, K. J. (2004). Brief multidimensional students' life satisfaction scale (BMSLSS): Gender, race, and grade effects for a high school sample. *Psychological Reports*, 94, 351–356.

- Kule, D., Mancellari, A., Papapanagos, H., Qirici, S., & Sanfey, P. (2002). The causes and consequences of Albanian emigration during transition: Evidence from micro data. *International Migration Review*, 36, 229–239.
- Lansford, J. E. (2009). Parental divorce and children's adjustment. *Perspectives on Psychological Science*, 4, 140–152.
- Lohr, S. (2010). *Sampling: Design and analysis*. Boston, MA: Brooks/Cole.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71, 616–628.
- Mai, N., & King, R. (2008). *Out of Albania: From crisis migration to social inclusion in Italy*. New York, NY: Berghahn Books.
- Manis, M. (1977). Cognitive social psychology. *Personality and Social Psychology Bulletin*, 3, 550–566.
- Pavot, W., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, 57, 149–161.
- Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: Evidence for an accessibility model of emotional self-report. *Psychological Bulletin*, 128, 934–960.
- Salganik, M. J., & Heckathorn, D. D. (2004). Sampling and estimation in hidden populations using respondent-driven sampling. *Sociological Methodology*, 34, 193–239.
- Sandvik, E., Diener, E., & Seidlitz, L. (1993). Subjective well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality*, 61, 317–342.
- Schoorl, J., Heering, L., Esveldt, I., Groenewold, G., Erf, R. V. D., Bosch, A., ... Bruijn, B. D. (2000). *Push and pull factors of international migration: A comparative report*. Luxembourg: European Communities.
- Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental process and their methodological implications. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 61–84). New York, NY: Russell Sage Foundation.
- Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the brief multidimensional students' life satisfaction scale (BMSLSS). *Social Indicators Research*, 61, 121–145.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5, 475–492.
- Siyez, D. M., & Kaya, A. (2008). Validity and reliability of the brief multidimensional students life satisfaction scale with Turkish children. *Journal of Psychoeducational Assessment*, 26, 139–147.
- Skeldon, R. (2008). International migration as a tool in development policy: A passing phase? *Population and Development Review*, 34(1), 1–18.
- Stampini, M., Davis, B., & Carletto, G. (2004). *Familiar faces, familiar places: The role of family networks and previous experience for Albanian migrants*. Rome: FAO.
- Stirbu, M. (2006). *Migration and impact on child welfare in Moldova: Assessment of welfare policies against the rights of the child*. UNICEF: Chisinau.
- UNFPA-FLACSO. (2008). *Ecuador: La Migración Internacional en Cifras* [Ecuador: International migration in numbers]. Quito: Fondo de Población de las Naciones Unidas y FLACSO Ecuador.
- UNICEF (2008). *The impact of parental deprivation on the development of children left-behind by Moldovan migrants*. New York, NY: UNICEF.
- Whitehead, A., & Hashim, I. (2005). *Children and migration: Background paper for DFID migration team*. London: United Kingdom Department for International Development.
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35, 151–175.

Appendix 1

To study the impact of international migration on a population that is inherently small, difficult to find, and dispersed widely both geographically and within the overall population, it is necessary to utilize specific methods to estimate the quantities of interest (Lohr, 2010). For this study, Eurostat's and NiDi's two-phase sampling strategy

–briefly summarized below (Groenewold & Bilsborrow, 2005; Schoorl et al., 2000) was adopted, and adapted to each country’s characteristics and needs.

- (1) Choose study regions within the country.⁶ (A region was defined as an artificial construct that contained known/expected high proportions of migrant households.)
- (2) Classify geographical areas within each region (e.g. districts) according to the estimated prevalence of households with international migration experience (use available quantitative data, or if absent, estimate the relative prevalence of migrant and non-migrant households based on expert opinion, using key informants).
- (3) Create strata to classify areas according to the (relative) prevalence of households with international migration experience.
- (4) Sample areas from each “prevalence rate” stratum, whereby areas with a higher expected prevalence of migrant households are over-sampled.
- (5) Screen households in areas selected in step 4; that is, briefly visit all households with a short screening questionnaire and prepare a list identifying all households as migrant or non-migrant (respondent-driven sampling techniques may be used at this stage in order to minimize field costs; however, if this strategy is adapted there is the need to systematize the procedure in order to avoid biases [see Salganik & Heckathorn, 2004 for a discussion of these techniques.]
- (6) Create strata of migrant and non-migrant households for each sample area.
- (7) Allocate a disproportionate share of the sample for each area to the stratum of migrant households (i.e. over-sample migrant households).
- (8) Following predetermined criteria, interview clusters of non-migrant households in each area, as needed, to economize on fieldwork time and costs.

Given that migrant households are over-sampled in this sampling frame, it is necessary to compensate for their disproportionately high selection probabilities. The weight for each element is given by the inverse of its selection probability. The elements are scaled to their relative frequency in the population from which they were sampled. The values of the weights are computed from the data collected on that population. In general, a sample design weight can be defined as the ratio between the probability proportional to estimated size selection, divided by the actual selection probability (Groenewold & Bilsborrow, 2004; Schoorl et al., 2000).

For Quito, information from the most recent census was utilized to identify, within the metropolitan district, those areas with a large proportion of migrant households. In Tirana the World Bank’s Living Standards Measurement Study survey and the most recent census included enough information to identify high and low migrant areas, facilitating construction of the sampling frame.

Both in Quito and Tirana field visits were conducted to screen, identify, and solicit migrant and non-migrant households’ participation; households were selected from each area previous to the general interview. Making contact with households in rural areas proved to be more difficult. In contrast, interviewers debriefed in Albania, in contrast, found that field visits to rural areas raised fewer problems than in urban areas. Urban

⁶I would like to thank one of the anonymous reviewers for this suggestion.

residents tended to work longer hours and live in dwellings (mainly apartment buildings) where it was harder for interviewers to gain access and make contact.⁷

In Tirana 157 interviews were conducted with migrant households, and 142 non-migrant households were interviewed. In Quito 116 migrant households and 149 non-migrant households with children between 0 and 17 years old participated in the survey. Overall, the unweighted household response rate for Albania was 99 and 88% for Ecuador. The surveys included 1400 respondents from each city; of those, 388 interviews were conducted with children between 8 and 17 years of age in Tirana, and 378 interviews took place with a similar age cohort in Quito. All interviews were conducted face-to-face by trained interviewers, and verbal informed consent from the parent or caretaker was obtained beforehand.

The survey was translated from English into Spanish and Albanian and verified by independent native language experts. In addition, the instrument was pretested through a series of focus groups designed to provide in-depth insights into the potential impacts that migration could have on the left behind and to review the instrument standards.

Eight focus groups with a total of 64 participants were conducted in Quito (32) and Tirana (32) during October and November 2007, respectively. In each city, two focus groups were held with between eight and 10 children, divided by age. The groups included a mix of males and females, as well as a combination of children from migrant households and non-migrant households. Two focus groups with parents left behind by a migrant spouse and with non-migrant parents were also conducted in each city, with 7 or 8 participants in each group.

In addition to gaining insight into the impacts of migration and reviewing standards, the focus groups served to confirm the relevance of the survey's content and the ease of understanding of the instrument by a similar target population. The information that respondents provided reflected their own experiences and perspectives on the impact of migration on the left behind. Focus group participants did not necessarily represent the general population, and thus the findings cannot be generalized; however, they provide rich qualitative insights into attitudes and behaviours related to migration and those left behind.

Appendix 2

It is necessary to test how stable and consistent the data are between migrant and non-migrant households. One advantage of using multiple items to measure a single dimension (in this case, life satisfaction) is that it makes the data more reliable and richer than using a single item. It is critical then to validate the conceptualization or measurement of the life satisfaction items to ascertain if the observable variables conform to a single dimension of subjective well-being. To test if the individual items are valid – that is, if our items are actually measuring life satisfaction – we need to test the relationship between them, the manifest variables, and our latent variable. Confirmatory Factor Analysis determines whether the manifest variables (those that are observable to us), conform to what is expected on the basis of our pre-determined theoretical construct of life satisfaction. The model is illustrated by the following path diagram (see Figure A1).

⁷Country teams should identify four regions using a combination of: (1) high vs. low level of economic development and (2) high vs. low/“non-existent” migrant regions.

Figure A1 represents the theoretical connection between our manifest variables, depicted by squares, and our latent variable, depicted by an ellipse. The main characteristic of this path diagram is that the five manifest variables are observable, while life satisfaction cannot be directly observed by a generally accepted instrument. In addition, the model includes five error terms, which are the measurement error of each manifest variable. Simply put, Figure A1 represents the hypothesized relationship between the five manifest variables and the latent variable, life satisfaction.

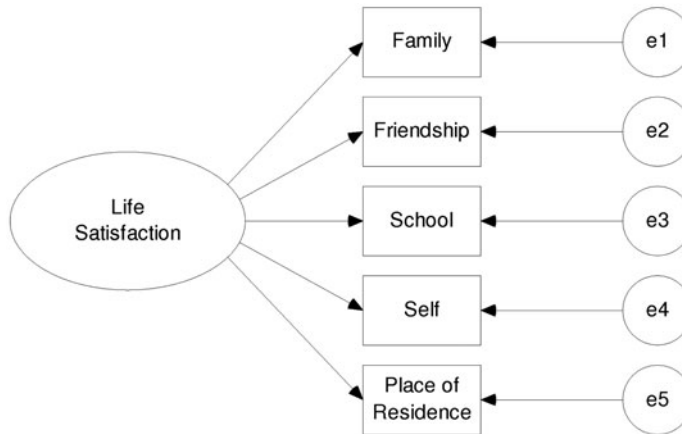


Figure A1. Life satisfaction latent structure.

Table A1. Bayesian estimates for Tirana, Albania.

Albania	Mean	SD	CS	Median	95% Lower bound	95% Upper bound
<i>Regression weights</i>						
Family ← Life satisfaction	0.34	0.04	1.00	0.34	0.26	0.42
Friendship ← life satisfaction	0.48	0.04	1.00	0.48	0.40	0.55
School ← life satisfaction	0.60	0.07	1.00	0.60	0.47	0.73
Myself ← life satisfaction	0.53	0.05	1.00	0.53	0.43	0.62
Where I live ← life satisfaction	0.74	0.08	1.00	0.74	0.58	0.90
<i>Intercepts</i>						
Family	1.34	0.04	1.00	1.34	1.27	1.41
Friendship	1.45	0.04	1.00	1.45	1.38	1.52
School	2.00	0.06	1.00	2.00	1.89	2.12
Myself	1.61	0.04	1.00	1.61	1.53	1.69
Where I live	2.79	0.07	1.00	2.79	2.64	2.93
<i>Variances</i>						
e1	0.39	0.03	1.00	0.39	0.33	0.46
e2	0.27	0.03	1.00	0.27	0.22	0.34
e3	0.92	0.08	1.00	0.92	0.78	1.09
e4	0.39	0.04	1.00	0.39	0.31	0.48
e5	1.49	0.13	1.00	1.49	1.26	1.77

Table A2. Bayesian estimates for Quito, Ecuador.

Ecuador	Mean	SD	CS	Median	95% Lower bound	95% Upper bound
<i>Regression weights</i>						
Family ← life satisfaction	0.47	0.05	1.00	0.47	0.37	0.57
Friendship ← life satisfaction	0.33	0.06	1.00	0.32	0.22	0.43
School ← life satisfaction	0.47	0.06	1.00	0.47	0.35	0.60
Myself ← life satisfaction	0.44	0.05	1.00	0.44	0.34	0.55
Where I live ← life satisfaction	0.32	0.06	1.00	0.32	0.21	0.44
<i>Intercepts</i>						
Family	1.37	0.04	1.00	1.37	1.29	1.45
Friendship	1.61	0.05	1.00	1.61	1.52	1.69
School	1.69	0.05	1.00	1.69	1.60	1.79
Myself	1.48	0.04	1.00	1.48	1.40	1.56
Where I live	1.59	0.05	1.00	1.59	1.50	1.69
<i>Variances</i>						
<i>e</i> 1	0.34	0.04	1.00	0.34	0.27	0.43
<i>e</i> 2	0.66	0.05	1.00	0.66	0.56	0.77
<i>e</i> 3	0.70	0.06	1.00	0.70	0.58	0.83
<i>e</i> 4	0.43	0.04	1.00	0.43	0.35	0.52
<i>e</i> 5	0.73	0.06	1.00	0.72	0.62	0.85

We test this hypothesis via Bayesian structural equation modelling. The Bayesian approach is based on a prior distribution that summarizes our knowledge about the relation between our manifest variables and life satisfaction. Given that we wish to validate the data, we use a non-informative prior distribution. Conceptually, this means that we do not have any prior knowledge about the relationship between our manifest variables and life satisfaction that could help us in updating our current knowledge. In other words, we allow the results to emerge from the data without reflecting any of our prior beliefs.

Tables A1 and A2 show the mean, the standard deviation (*SD*), the convergence statistic (*CS*), the median, and the lower and upper bounds of the posterior distribution of each manifest variable and life satisfaction. The results describe the posterior mean for each of the model parameters, which can be interpreted as a point estimate summarizing our knowledge or beliefs about life satisfaction. After running the model for approximately 1000 iterations, the model converges, according to the Gelman–Rubin criteria (see Gelman, Carlin, Stern, & Rubin, 2004 for a discussion). The model's good fit indicates that the observed variables are indeed linked to their underlying latent factor. In other words, an individual's satisfaction with her/his family, with her/his friends, at school, with herself/himself, and with where she/he lives are associated with her/his overall life satisfaction in a statistical and conceptually meaningful way (see Table A1 for the case of Tirana and Table A2 for Quito).