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**The French Unhappiness Puzzle: the Cultural  
Dimension of Happiness**

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## I. Introduction

Happiness studies have gained so much credit over the last decade that several governments and international organizations have endeavored to collect measures of happiness to be included in national accounts and used to inform policy (Waldron, 2010, Commission 2009, Eurostat 2010). Going “beyond GDP” in the measure of well-being has become a familiar idea, and subjective happiness is one of the main proposed alternative routes. However, targeting an aggregate happiness indicator is not so straightforward. The literature is rich of information about the correlates of individual happiness but aggregate indicators of happiness are still puzzling. Whether happiness follows the evolution of aggregate income per capita over the long run remains hotly debated among specialists (see Clark and Senik, 2011). International comparisons are also quite mysterious; in particular, it is difficult to fully explain the ranking of countries in terms of subjective well-being.

For example, as illustrated by Figures 1.A and 1.B, the low level of happiness in France and Germany is not consistent with a ranking of countries based on income per capita or even on Human Development Indices that include life expectancy at birth and years of schooling. All available international surveys (the *European Social Survey*, the *Euro-Barometer Survey*, the *World Values Survey*, the *World Gallup Poll*) lead to a similar conclusion: observable characteristics are not sufficient to explain international differences; in all estimates of life satisfaction or happiness, country fixed-effects always remain highly significant, even after controlling for a large number of controls (Deaton 2008, Stevenson and Wolfers 2008). The suggestive Figure 2, taken from by Inglehart et al. (2008), illustrates the existence of clusters of happiness, with Latin-America and Scandinavia being systematically above the regression line, and former communist countries, below. As a rule, France, Germany and Italy stand close to Eastern countries at the bottom of the ranking. Figures 2.A and 2.B show that international differences in happiness are quite stable over time. Several have shown that they

are not explained by the structure of satisfaction, which is very similar across countries studies (di Tella et al., 2003). Because France is amongst the countries that rank lower than their wealth would predict, I call this piece of evidence "the French Unhappiness Puzzle", but the puzzle lies more generally in the existence of a large, unexplained and persistent international heterogeneity in happiness.

One possible explanation is that happiness does not depend only on extrinsic objective circumstances, but also on intrinsic cultural dispositions, mental attitudes and representations. Through the prism of the "French Unhappiness Puzzle", this paper thus tries to disentangle extrinsic versus intrinsic factors, i.e.: (i) Circumstances (institutions, regulations and general living conditions that inhabitants of a country are confronted with) *versus* (ii) Mentality (the set of specific intrinsic attitudes, beliefs, ideals and ways of transforming events into happiness that individuals engrain during their infancy and teenage, in education and socialization instances such as school, firms and organizations). Mentality may also be persistent over several generations, featuring a cultural component, which I treat as a third dimension of happiness: "Culture". Culture thus refers to the long-run persistent attitudes, beliefs and values that characterize groups of people, following the terminology of (among others) Bisin and Verdier (2001, 2011), Fernandez and Fogli (2006, 2007, 2009), Fernandez (2008, 2011), Guiso et al. (2006), or Algan et al. (2007, 2010). I start with the simplifying assumption that Circumstances, Mentality and Culture are separable, and later consider the possibility of their interactions.

Using a survey of 13 different countries (ESS, waves 1 to 4), I contrast the happiness of natives to that of immigrants of the first and second-generation in Europe. In a given country, say France, natives and first-generation immigrants share the same external circumstances. Natives share with 2nd generation immigrants the same circumstances and the mentality produced by primary socialization instances (school). I rely on these commonalities and differences between natives and immigrants of different European countries to identify the nature of national happiness traits. For example, to the extent to which happiness is due to external circumstances, the pattern of happiness of immigrants in Europe should be the same as that of natives. Bringing this model to the data, I find that the effect of living in a given country inside Europe is not the same for natives and for immigrants. Focusing on France, I find that most of the French unhappiness is explained by "Mentality" and "Culture" (in addition to the usual socio-economic determinants) rather than by extrinsic circumstances. A set of observations comforts the cultural interpretation of the French idiosyncratic

unhappiness: Immigrants of the first-generation who have been trained in school in France are less happy than those who have not. In the same line, immigrants of the first-generation who have lived for a long time in France (more than 20 years) are less happy, everything else equal, than those who have been there for shorter periods. In turn, French emigrants living abroad are less happy, everything else equal, than the average European migrants. I verify that the French unhappiness effect is not due to language and translation effects, by studying the happiness of different linguistic groups of the population of Belgium, Switzerland and Canada (sampled from the World Values Survey): in Belgium, the francophone Walloons are less happy than the Dutch-speaking Flemish, but this is not true of the French-speaking cantons or individuals in Switzerland, nor of the French-speaking Canadians. To confirm the cultural dimension of the French specificity, I look at different attitudes and values of European citizens: the French unhappiness is mirrored by multi-dimensional dissatisfaction and depressiveness, by a low level of trust in the market and in other people, as well as by a series of ideological attitudes and beliefs.

These results are robust to the inclusion of macroeconomic indicators such as the rate of unemployment, of inflation and the weight of government expenditure in GDP. They are also robust to the inclusion of triple interaction terms between migration status, countries of destination, and some variables of interest, capturing the dimensions that could drive the results.

Overall, these observations suggest that a large share of international heterogeneity in happiness is attributable to mental attitudes that are acquired in school or other socialization instances, especially during youth. This points to school and childhood environment as a valuable locus of public policy.

### **The French depression**

It has now become common knowledge that the French are much less happy and optimistic than their standard of living would predict. As commented by a recent article published by *the Economist* (“Reforming Gloomy France”, April 2011), a recent WIN-Gallup Poll (2001) uncovered that France ranks lower than Iraq or Afghanistan in terms of expectations for 2012. This comes in contrast with the French high standard of living, general welfare state, universal and free access to health care, hospitals, public schools and universities, and the high quality of amenities (as attested by the inflow of tourists). The low level of life

satisfaction of the French is not a recent phenomenon; it has been there for as long as statistical series are available (the early 1970's), as illustrated by figure 3.A (based on *Eurobarometer* surveys). National income per capita has been associated with a lower average happiness in France than in most European countries since 1970, as shown by Figure 3.C, where the French income-happiness line is the lowest after Portugal.

Symmetrically, France obtains high scores in negative dimensions of mental health, such as psychological distress and mental disorders, as measured by internationally recognized medical classifications, such the International Classification of Disease (ICD10) or the American DSM IV (see Eugloreh, 2007; which documents the general negative correlation between subjective happiness and mental stress). The high prevalence of depression translates into the exceptionally high consumption of psychoactive drugs<sup>1</sup> (especially anti-depression) by European standards (CAS, 2010, graphs 8 and 10, pp 76 and 79). According to the World Health Organization, France is also one of the rare Western European countries where the prevalence of suicide as a cause of death is higher than 13 for 100 000<sup>2</sup>: it was of 16,3 for 100 000 inhabitants in 2007, i.e. 10 000 suicide deaths per year. This is much higher than any of the “old European countries” except Finland. In France, suicide is the second cause of mortality among the 15-44 years old (after road accident), and the first cause among the 30-39 years old (CAS, 2010, p 77). By contrast, the rate of suicide death is low in Italy, Portugal and Germany, as well as the consumption of psychotropic.

If the “French paradox” is well-established, it remains open to interpretation. Algan and Cahuc (2007) have stressed the role of the vicious heavy state regulation - low trust - low happiness nexus. A series of papers by the same authors has stressed the cultural dimension of trust and happiness in cross-country comparisons. Apart from the influence of the high rate of unemployment (see below), other explanations based on culture and mentality have pointed to the possible role of lost colonial grandeur (that France shares with Italy and Germany), anti-

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<sup>1</sup> For instance, according to the European Study of the Epidemiology of Mental disorders (ESEMeD, a study of the general population, run in 2001-2003 over 21 425 individuals aged 18 and over), France had the highest rate of consumption of psychotropic, before, Spain, Italy, Belgium, the Netherlands and Germany (Briot, 2006).

<sup>2</sup> See the map: [http://www.who.int/mental\\_health/prevention/suicide/suicideprevent/en/index.html](http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/index.html).

capitalist preferences (Saint Paul, 2010), the conflict between egalitarian and aristocratic values exacerbated by the highly elitist school system (d'Iribarne, 1989), etc. This paper is discussing these interpretations, although its findings are consistent with most of them.

## Related literature

This paper is not studying the effect of migration on happiness per se; rather it is using migration flows to European countries as an identification strategy for national cultural biases in happiness. From this point of view, it is close to that of Luttmer and Singhal (2011), based on the same ESS survey, who relate immigrants' redistributive preferences to the average preference in their birth countries. A recent paper by Algan et al. (2011) uses the fourth wave of the ESS and qualifies Luttmer's result by showing that the inherited part of preferences for redistribution is larger for 1<sup>st</sup> generations immigrants than it is for second-generation immigrants. Other papers have used migrations flows in order to elicit cultural persistence: Guiso et al. (2006) and Alesina and Giuliano (2011) have shown that country-of-ancestry fixed-effects are significant determinants of preferences for redistribution in the United States. In their studies of women's work behavior and fertility choices, Fernández and Fogli (2006, 2007, 2009) have provided rich evidence of the influence of women's ancestors' culture. All these papers characterize culture as inertia, although Fernandez (2008) provides a model of cultural change, embedded in what she calls an "epidemiological approach".

There is a small literature on migration and happiness, showing unanimously (and unsurprisingly) that immigrants are less happy than natives, controlling for a series of observable characteristics and circumstances (see Bartram 2011, Safi 2010, Baltatescu 2007, or De Jong et al. 2002). Of course, there is a much larger literature on acculturation and cultural transmission of immigrants, which includes, inter alia, Portes and Zhou (1993), Bisin and Verdier (2001, 2001), and Bisin et al. (2004). Finally, an even larger literature focuses on the discrimination of immigrants in their host countries, in particular with regards to labor market integration (see Altonj and Blank, 1999 for a survey). Discrimination is certainly a determinant of happiness, and could vary across countries and depend on the origin of immigrants: this has to be taken into account in the empirical analysis.

Finally, international comparisons of happiness are necessarily related to the large literature on cross-cultural research that focuses on biases and equivalence between constructs, measures and scales (Van de Vijver 1998, King et al. 2003)<sup>3</sup>. Although an abundant literature suggests that subjective wellbeing is a valid construct that can be reliably measured (see Layard 2005 or Clark et al. 2008 for useful reviews), the question here is whether international differences in happiness are not due to anchoring, Frame-of-Reference Biases (FORB) and general Differential-Item-Functioning (DIF) biases (see ZUMA 1998). However, it is not clear that these “biases” are purely nominal differences that should be treated as misleading measurement errors. Consider, for instance, the case of “social desirability” biases first underlined by Cronbach (1946): a large literature in psychology, management and sociology has been devoted to identifying these responding biases, and elaborating instruments for correcting them (such as social desirability scales). However, another view has emerged (McCrae and Costa, 1983, Edwards, 1990) proposing that biases are not pure measurement errors, but carry some information and can even constitute personality traits<sup>4</sup> at the individual level, cultural traits at the more aggregated country level, and are correlated with subjective wellbeing (Eysenck and Eysenck, 1975). Following this literature, I will interpret international differences not as meaningless anchoring biases and measurement errors, but as identity and cultural traits.

It is fair to mention an appealing recent survey-design technique based on “anchoring vignettes” meant to correct for self-assessment biases (King et al. 2004, King and Wand, 2006, Beegle et al. 2009, Kapteyn et al. 2009, Angelini et al. 2009, Hopkins and King, 2010). Subjects are asked to answer questions from the perspective of another person (the vignette), as well as for themselves. Respondents in different countries are asked to evaluate the same vignettes, so that their evaluation should be the same if there were no frame of reference bias.

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<sup>3</sup> It should be underlined that the ESS devotes special attention to the translation and comparability of verbal labels across countries (hence a costly process of face-to-face interviews, questionnaire validation, etc.).

<sup>4</sup> Two dimensions of social desirability are classically distinguished: self-deception and deliberate deception (hetero-deception) (Paulhus, 1984, Tournois, et al. 2009). Self-deception was found to be related with personality traits such as good self-esteem, low anxiety and low neuroticism. Hetero-deception (“faking to look good”) in turn, is correlated with extraversion, openness, agreeableness and conscientiousness (Paulhus 1994, Tournois et al. 2009).



Any variation in the answers given by respondents is then interpreted as an anchoring bias, that researchers can use to rescale happiness measures in order to de-bias them (King and Wand, 2006). Two papers are particularly relevant with respect to this one. Kapteyn et al. (2009) introduced randomly assigned vignettes to assess DIF in the self-assessed life satisfaction of Dutch and American respondents. Angelini et al. (2009) used the vignettes of the *Survey of Health, Ageing and Retirement in Europe* (SHARE) in ten European countries to study life satisfaction. Both found that correcting for the measured bias leads to a reversal in the ranking of countries in terms of happiness. Vignettes-based research is very stimulating and it is getting more space in the social sciences literature. However, it is not clear that anchoring biases evaluated by vignettes should be seen as a pure *artefact*. If the French evaluate the happiness of some hypothetical person in a less positive manner than the Danes, perhaps it is because they would actually feel less happy in the situation of that hypothetical person. Again, anchoring biases can be viewed as cultural and as an integral part of happiness. My personal stand is thus to treat national fixed-effects as a cultural dimension of happiness rather than a nominal bias.

The paper is organized as follows. The next section presents the data, Section III the empirical approach, section IV the Results and section V concludes.

## II. Data

The paper uses the four first waves of the European Social Survey (ESS, <http://www.europeansocialsurvey.org>, 2002-2008). In order to have as many observations per country as possible, I keep countries that are surveyed at each of the four waves, and for whom the main variables of interest are not missing. This leaves me with 13 countries with about 1000 (Slovenia) to 2300 (Germany) observations per wave.

Tables A5 to A10 present the descriptive statistics for the regression sample (estimating equation (2) below, i.e. happiness, age, gender, (log of) household income, employment status, marital status, region of origin, migration status, country of residence and year fixed-effects). Amongst the 64 706 observations with no missing value, 54 925 come from natives, 5094 from first-generation immigrants, 1339 from second-generation immigrants and 3348

from children with one native parent and one immigrant parent (Table A1)<sup>5</sup>. Table A.6.a shows the composition of the whole sample in terms of origin and destination countries; Table A.6.b restricts this matrix to migrants. As shown by Table A7, amongst the 10 446 migrants established in the 13 European countries under review, 1189 come from Africa, 1432 from Asia or Australasia, 529 from Latin America, 185 from North America; the bulk of immigrants come from other European countries (6324)<sup>6</sup>.

Table A9 shows the descriptive statistics of the main variables used in the analysis. The main variable of interest, subjective happiness (“How happy are you?”) is measured on a 0 to 10 scale, where 0 was labeled “extremely unhappy” and 10 “extremely happy”. The average self-declared happiness in the sample is 7.6, a value that is also found in other similar surveys. As shown by Table A8, natives are happier in average than immigrants. Amongst immigrants, those who have one native parent are on average happier than the second-generation and the first-generation. Other measures of satisfaction, trust, depressiveness and economic attitudes are also presented in the table.

### III. Empirical strategy

If the effect of living in a country boiled down to the objective circumstances of that country, and if the latter were experienced in the same way by natives and migrants, the ranking of

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<sup>5</sup> Natives are defined as individuals born in the country where they live and whose both parents were also born in that country. First-generation immigrants are individuals who were born abroad. Second-generation immigrants are those whose parents were born abroad, but who were born in their country of residence; I call “2.5” generation immigrants individuals one of the parents of whom was born abroad whereas the other was born in the country of residence.

<sup>6</sup> In case of conflict between the origins of the two parents, for second-generation immigrants, I coded the country of origin as “other” (the residual category). This was the case of 26 observations. Note that there is no information about the country of origin of the parents in the first wave of the ESS (this is needed for second-generation immigrants), we only know the aggregate region of origin of the parents. (In case of conflict between the regions, I classified it into “other”). Some individuals had conflicting information about the country of birth of their parents and their immigration status. In particular, some of them declared that they were immigrants although both their parents were born in France. I dropped these observations from the sample, but I verified that reclassifying them in the most sensible way did not alter the results.

countries in terms of happiness would be the same whether evaluated by natives or by immigrants. Then, in estimates of happiness, controlling for the migration status of individuals (native, immigrants, etc.), their country of origin, their socio-demographic features and their country of residence, the coefficient on the interaction terms between country fixed-effects and migration status would not be statistically significant. On the other hand, if the coefficients on these interactions terms are statistically significant, they can be used to decompose country fixed-effects in terms of extrinsic circumstances versus intrinsic psychological attitudes.

One can think about the aggregate happiness of a country (j) as the sum of the following elements (expressed directly in terms of their happiness return):

$$\text{Average Happiness} = \text{Country Circumstances} + \text{Mentality} + \text{Culture} + \text{Socio-demographic features} + \text{Time effects} \quad (1)$$

$$\text{Using abbreviations: } H_j = H_{\text{bar } j} = C_j + M_j + G_j + \beta.X_{\text{bar } j} + T \quad (1)$$

Where external “Circumstances” (C) include the objective context, such as institutional and market features, that individuals experience in the country; national “Mentality” (M) is the set of values, beliefs, ideology and aptitude to happiness that are acquired by individuals through education and other socialization structures. Part of the national “Mentality” is made of the long term “Cultural” part of beliefs, values and aptitude to happiness that persists over several generations (G). Of course, average national happiness also depends on the socio-demographic composition of the country, i.e. age, gender, education, occupation, etc. (X) and on the business cycle (time effects T).

The objective of this paper is to identify the source of the lower happiness of native French, as compared with other European countries of similar affluence, hence, to estimate the elements of  $\Delta H_j = H_{\text{bar } j} - H_{\text{bar Rest of Europe}} = \Delta C_j + \Delta M_j + \Delta G_j + \beta.\Delta X_j$

Where  $\Delta Y_j$  stands for  $(Y_j - Y_{\text{bar ROE}})$

In order to identify the respective importance of  $\Delta C_j$ ,  $\Delta M_j$  and  $\Delta G_j$ , I hinge on the difference between natives and immigrants. I distinguish four groups inside each country: natives, first-generation, second-generation immigrants and 2.5 generation immigrants (i.e. children of one immigrant parent and one native parent). The identification strategy relies on the following assumptions: (i) the circumstances of country F ( $C_j$ ) are experienced by all its inhabitants in

the same way, independently of their geographical origin; (ii) natives and second-generation immigrants of country  $j$  share the same socialization experience, hence the same Mentality ( $M_j$ ), whereas first-generation immigrants have been socialized in a different system; finally, (iii), immigrants of the first and second-generation still share at least part of the Culture  $G_{k \neq F}$  of their origin country  $k$ , while the natives of country  $F$  share the Culture of that country (the  $G_F$ ). Hence, first-generation immigrants are taken to differ from natives by their “Culture” and “Mentality”; second-generation immigrants only differ from natives by their “Culture”, and first-generation immigrants differ from second-generation immigrants by their “Mentality”. I use these difference and double differences (between countries) to identify the share of the country fixed-effects that can be attributed to Circumstances versus Mentality and Culture.

I treat cultural inertia as a stock that has the same value for immigrants of the first and second general, and disappears after the second-generation. This cut-point is imposed by the survey, which, as is generally the rule, report the origin of individuals and of their parents, but not further. This usual convention probably corresponds to the idea is that cultural differences take time to dissipate (in the case of the culture of origin) or to acquire (in the case of the culture of the destination country), and vanishes after two generations. In addition to the persistent mentality of immigrants, the term  $G$  can encompass the specific position of immigrants in society due to selection effects or discrimination.

The case individuals with one native and one immigrant parent, is less clear-cut. They are likely to be partly influenced by the culture of origin of their immigrant parent, and to have received the cultural capital transmitted by their native parent. In order to avoid making any assumption about the rate of cultural convergence of this generation, I treat them as a separate category and I do not use them for the identification of  $\Delta C_j$ ,  $\Delta M_j$  and  $\Delta G_j$ .

To derive the magnitudes of interest, I estimate a happiness equation on the entire sample of Europeans, at the individual level (indexed by  $i$ ). The general form of this equation is the following:

$$H_i = \alpha_1 \cdot I_1 + \alpha_2 \cdot I_2 + \alpha_3 \cdot I_3 + \sum_j \mu_{0j} \cdot D_j + \sum_j \mu_{1j} \cdot I_1 \cdot D_j + \sum_j \mu_{2j} \cdot I_2 \cdot D_j + \sum_j \mu_{3j} \cdot I_3 \cdot D_j + \beta \cdot X_i + \sum_k \delta_k \cdot O_k + T_i + \varepsilon_i \quad (2)$$

where  $I_1$  is a dummy variable that takes value 1 if the respondent is a first-generation immigrant (and 0 otherwise),  $I_2$  codes for second-generation immigrants,  $I_3$  for 2.5 generation immigrants,  $D_j$  is a dummy variable indicating the country of residence of the respondent ( $j=1,13$ ) and  $O_k$  is a vector indicating the region of origin of the respondent ( $k=1,6$ ). As shown

by Table A7, the number of immigrants coming from each country (outside Europe) was too small to allow controlling for each country of origin, so that I had to aggregate the latter into larger regions (Africa, Asia-Australasia, Europe, Latin America and the Caribbean, North America). Vector  $X_i$  contains the usual socio-demographic variables (age, age square, log household income, marital status, gender, employment status) that have been shown to influence happiness and to be relevant to the situation of immigrants. The estimates also include year fixed-effects  $T_i$  corresponding to the waves of the survey (2002, 2004, 2006 and 2008). Finally,  $\varepsilon_i$  is an error term that is supposed to follow a normal distribution. I do not include education because it is widely recognized that this variable is subject to serious measurement errors when it comes to immigrants, because the education tracks and diplomas are often not fully recognized and valued in migrants' destination country (I verified that including these variables did not change the results).

Estimating a model with country fixed-effects usually implies leaving one of the country dummies out of the regression as a category of reference. However, to facilitate the interpretation and to avoid choosing arbitrarily a country of reference, I recalculate the coefficients of the model so that the effect of living in country  $j$  is measured with reference to the average of the sample excluding country  $j$ <sup>7</sup>. Hence, I can interpret the coefficient on the “France” dummy as capturing the happiness impact of living in France rather than in the average other European countries of the survey. Accordingly, to make the model more intuitive, one can rewrite equation (2) contrasting the situation of country  $F$  (say France) with regard to the rest of Europe ( $R$ ).

$$H_i = \alpha_1.I_1 + \alpha_2.I_2 + \alpha_3.I_3 + \mu_{0j}.\mathbf{D}_F + \mu_{1j}.\mathbf{I}_1.\mathbf{D}_F + \mu_{2j}.\mathbf{I}_2.\mathbf{D}_F + \mu_{3j}.\mathbf{I}_3.\mathbf{D}_F + \beta.X_i + \delta_k.O_k + T_i + \varepsilon_i \quad (3)$$

All elements of equation (3), that do not pertain to the personal features of respondents, i.e. all the terms in bold, characterize the sources of happiness specific to country  $j$ . Based on equations (1) and (3), I can now express the variations of interest by writing the average

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<sup>7</sup> Stata's program `devcon` transforms the coefficients of 0/1 dummy variables so that they reflect deviations from the “grand mean” rather than deviations from the reference category. The modified coefficients sum up to zero over all categories. `devcon` reports coefficients for all categories (including the category that was used as the reference category in the original model) and modifies the model's constant accordingly (see Yun, 2003).

happiness difference that would be experienced by an individual with the same socio-economics features (X) and the same origin ( $O_k$ ) of natives (i.e. controlling for these variables), depending on his country of residence: F (France) versus the Rest of Europe (ROE), hence:

- the average happiness difference between first-generation immigrants in country j versus the Rest of Europe (ROE):

$$\Delta H_{j1} = H_{j1} - H_{ROE1} = \mu_{0j} + \mu_{1j} = \Delta C_j = (C_j - C_{ROE})$$

- the happiness difference of second-generation immigrants in country j versus the Rest of Europe (ROE):

$$\Delta H_{j2} = H_{j2} - H_{ROE2} = \mu_{0j} + \mu_{2j} = \Delta C_j + \Delta S_j$$

- the double difference of happiness of natives and second-generation immigrants in country F versus the rest of Europe:

$$\Delta H_{jN} - \Delta H_{j2} = (H_{jN} - H_{ROEj}) - (H_{j2} - H_{ROE2}) = -\mu_{2j} = \Delta G_j$$

- the double difference of happiness between second-generation immigrants and first-generation immigrants in country j versus the rest of Europe:

$$\Delta H_{j2} - \Delta H_{j1} = \mu_{2j} - \mu_{1j} = \Delta S_j$$

Hence:  $\boxed{\Delta C_j = \mu_{0j} + \mu_{1j} \quad \Delta S_j = \mu_{2j} - \mu_{1j} \quad \Delta G_j = -\mu_{2j}}$

These parameters are measures of the weight of Circumstances, Mentality and Culture in the idiosyncratic happiness difference of country j as compared to the rest of Europe. They sum up to  $\mu_{0j}$ , which is country j's fixed-effect measured on natives. I retrieve them using on the estimation of the happiness equation (2) at the individual level.

Beyond this baseline specification, I also run robustness exercises, allowing for the interdependence between the different arguments of the happiness function. In particular, I run Oaxaca-Blinder type simulation and decomposition of the happiness difference between natives and immigrants living in France, between native French and native Europeans, and between native French and native Belgians.

I then deepen the analysis of the French cultural difference by looking at the happiness of migrants depending on their schooling experience, the duration of their stay in their destination country, their country of origin (for Europeans) and their home language.

All the estimates presented in the paper are weighted using the combination of design weight and population weight that correct for the composition and size of each country's national sample (see <http://essedunet.nsd.uib.no/cms/userguide/weight/>).

## IV. Results

As a preamble, Table 1 shows that the estimate of equation (2) has the classical properties uncovered in the happiness literature in terms of age, gender, marital status, income and employment status (notice the magnitude of this latter variable!). Country fixed-effects are all statistically significant (as explained, the coefficients have been recalculated in order to express the effect of living in a particular country as compared with the rest of Europe in average, i.e. they sum up to zero). As expected, France attracts a negative coefficient, as do Germany and Portugal; this is also the case of Great-Britain and Slovenia. Living in France reduces self-declared happiness by 0.23 happiness points (column 1). It reduces the probability to declare a level of happiness greater than 7 on a 0-10 scale by 19% (column 2). The lower happiness of the French is attenuated for the young (under 30), the rich (above the median income) and women, but it is the same for all occupations (estimates not shown for space reason). Symmetrically, Nordic countries (Denmark, Finland, Sweden, Norway) as well as Switzerland score high on the ranking. The Danes are 50% more likely to score higher than 7 on the happiness scale! Belgium, Spain and the Netherlands stand in the middle of the distribution.

### 1. Main results

The estimation of equation (2) is presented in Table A.1. First and second-generation immigrants appear to be less happy than natives. This is also the case of individuals with one immigrant parent, but the coefficient is twice smaller. Immigrants coming from Africa and Asia are less happy than the average, while those who come from North America are happier (the other regions are Australasia, Latin America and “unknown”). Column (2) displays the

coefficient on country fixed-effects, column (3) the coefficient on the interaction between country fixed-effects and the fact of being a first-generation immigrant; column (4) the interaction with second-generation immigrants, and column (5) the interaction with the 2.5 generation (i.e. children of mix immigrant-native couples). As illustrated by Figure 4, which is based on Table A1, everything else equal, native residents in France, Germany, Great-Britain, Portugal and Slovenia are less happy than the average Europeans, whereas native inhabitants of Belgium, the Netherlands, Spain, Switzerland and of course Nordic countries (Denmark, Sweden, Finland) are happier than the average. But, conditionally on being a first-generation immigrant, which, as such, implies a lower happiness, those who have chosen France as a destination country are just as happy as the average immigrant in Europe, whereas second-generation immigrants seems to converge to the typical level of happiness of natives (controlling for the region of origin of immigrants).

Table 2 presents the estimates of the different components of the gap between the national idiosyncratic happiness level of natives and the European average, for each country. Concerning France, the share of the happiness gap that is due to circumstances ( $\Delta C$ ) is twice as small as that of Mentality ( $\Delta M$ ) and Culture ( $\Delta G$ ). In several other countries, it is also the case that the national happiness trait is not associated with the external circumstances of the country. This is the case of Belgium, Switzerland, Spain and Norway. By contrast, in Germany and Portugal, the lower level of happiness seems to originate in objective circumstances to a large extent.

Hence, under the assumptions stated in Section II, the specific unhappiness trait of French people seems to be due to their values, beliefs and the perception of reality rather than to the country's objective general circumstances. Needless to say that this does not mean that objective circumstances do not explain the level of happiness in France and other European countries. Rather, the lesson is that the unexplained part of the French unhappiness specificity, once the effect of measurable objective sources is taken into account, is essentially of a mental phenomenon.

### **Additional Accounting**

The results of Table 2 rely on the assumption that the vector  $\beta$  of coefficients on circumstances ( $X$ ) is the same for all groups of the population. In other words, the French cultural specificity is treated as an additive element that shifts the whole happiness function



upwards or downwards. However, this constraint can be relaxed, allowing not only the constant (shifter) but also the elements of vector  $\beta$ , associated with all the determinants of the happiness function, to vary across countries and groups of the population. Such simulation exercises then allow answering questions of the type: how happy would French natives be, had they the happiness function of migrants? Or the happiness function of Belgians? Or the happiness function of other European natives?

Accordingly, Table 3.A shows the level of happiness of the population groups of each country, as predicted by a happiness function (equation 2) estimated on the sample of natives versus migrants of each country. The actual typical level of happiness of French natives is of 7.215 (column 1), but the predicted level using the parameters obtained on the sub-sample of immigrants in France is of 7.355 (column 3), hence a difference of 0.14 (column 5). Of course, the reverse is true, and the typical happiness of immigrants in France (7.246) would decrease to 7.148 if their exact same circumstances (including the fact of being an immigrants and their region of origin) were experienced by native French. As illustrated by Table 3.B, these results are comforted by an Oaxaca (1973) - Blinder (1973) decomposition of the happiness difference between natives and immigrants in France, which attributes 0.121 happiness points on the account of coefficients, versus -0.087 for endowments, and -0.039 for interactions between the two (see Jan 2008).

In the same spirit, the upper panel of Table 3.C suggests that whereas the level of happiness of native French is of 7.222, the average native European, excluding France, would have reached a level of happiness of 7.539, had he experienced the exact same circumstances as the native French. Accordingly a decomposition à la Oaxaca-Blinder suggests that endowments explain only 0.166 points of the difference between native French and other European natives, whereas coefficients explain 0.285 (Table 3.D).

Finally, to be more concrete, one can compare France and Belgium, two close neighboring countries sharing a common language. As shown by the lower panel of Table 3.C, if the French circumstances were experienced by native Belgians instead of native French, the average happiness of natives would be of 7.64 instead of 7.22. And if the French natives lived in Belgium (but kept their mentality), their average happiness level would only be of 7.39 instead of the level of 7.74 experienced by Belgians. Table 3.E confirms that the average happiness difference between the two countries (0.52) is much better explained by coefficients (0.411) than by endowments (0.207).

These differences are equivalent to a variation by about 2% in average income (which is approximately the annual growth rate of national income in these countries over the considered period). One may think that the order of magnitude of these figures is not very impressive. This is due to the narrow range of variation of self-declared happiness, which overall mean value in the ESS is of 7.61 with a standard deviation of 1.69. Hence, the mentioned variations represent about one sixth of the standard deviation of the happiness variable. Moreover, as shown by the tables of this paper, in a typical happiness regression, the share of happiness that is explained by observable variables is small; the typical  $R^2$  of an OLS estimate of happiness varies between 3% and 15% depending on the controls that are included. The small range of variation of happiness is a general fact that is well-known by the specialists of the field (See Clark and Senik 2011 for a discussion of this point).

## 2. Channels of Mentality and Culture

Tables 4 to 7 explore the channels of formation and transmission of Mentality and Culture in the French case. They look at the effect of schooling in France on immigrants' happiness, as well as the effect of their duration of stay. They also look at the relative level of happiness of the French living in foreign countries. Finally, I follow the analysis of cultural transmission by Luttmer and Singhal (2011) and estimate the correlation between the happiness of migrants and the typical happiness of their compatriots in their home country.

### Schooling in France

The effect of schooling in France has already been captured, in the main specification (Table A1 and Figure 4), which showed that first-generation immigrants in France (whose majority has not been in school in France) are happier than second-generation immigrants (who have), and are also happier than the average first-generation immigrants in other European countries; whereas second-generation immigrants to France are less happy than the average second-generation immigrants to other European countries. This section tries to be more specific.

The ESS survey does not include direct information about whether respondents have been to school in their country of residence or not. However, it includes a variable that indicates how long ago the respondent first came to live in the country. The modalities of the answer are “within last year” (2%), “1-5 years ago” (17.7%), “6-10 years ago” (14.4%), “11-20 years ago” (23.8%) and “more than 20 years ago” (44.1%). Using the age of the respondent and his answer to the latter question, I construct a variable indicating whether immigrant respondents

have attended school in their destination country at least since the age of 10. Admittedly, with this method, I cannot guess whether respondents older than 31 years were in school in their destination country at the age of 10. Accordingly, I also run the estimates on the sub-sample of immigrants aged 18 to 31 years old.

As shown by Table 4, first-generation immigrants who went to school in France before the age of 10 are less happy than those who did not (columns 3 and 4 of the table). Column (3) treats all immigrants over 32 years old as not having attended school in France, which is certainly incorrect: hence, it underestimates the effect of schooling on happiness attitudes. This is confirmed by the results presented in column (4), where the sample is restricted to first-generation immigrants under the age of 33: the coefficient on the variable of interest is twice as large as in the specification of column 1. Concerning the main effects, the coefficient on the France fixed effect is either not significant or positive, consistently with the previous result that immigrants do not share the specific French unhappiness. Notice that schooling in Germany and Portugal does not seem to exert the same depressing effect (the opposite is true), consistently with the previous finding that the lower happiness of the German is due to objective circumstances as much as to mentality or culture.

### **Staying in France**

Table 5 estimates the happiness of first-generation immigrants depending on their duration of stay in their destination country. The data is well fitted by a quadratic function of the duration of stay. I interact the first two terms of a second-degree polynomial function of the duration of stay with immigrants' country of destination. The interaction terms for France predict an increase in the happiness of migrants to France followed by a reversal approximately 20 years after their arrival.

### **The French Abroad**

If it is true that happiness has a persistent cultural dimension, it should be the case that the French (for instance) are less happy than other Europeans in average even when they live in a foreign country. Table 6 shows that among migrants of either generation having moved from one European country of the sample to another one, the French are statistically significantly less happy than the average, whether the estimates control for the country of residence (as in column 1) or not (column 2). A French origin reduces the level of declared happiness by about 0.11 as compared to the average European origin.

Most coefficients on the country of origin of European migrants are statistically significant, which suggests that the psychological and cultural dimensions of happiness are important in a general way. To comfort this observation, I replicated the exercise of Luttmer and Singhal (2011) and tested whether the happiness of European migrants is correlated with the average happiness in their origin country. Table 7 presents estimates of happiness run over the sample of European migrants (first and second generations); it shows that the coefficient on the average happiness calculated over natives in the origin country of migrants is positive and statistically significant. In the same line, the estimates presented in columns (3) and (4) include the coefficient of happiness on country fixed-effects, estimated in a first stage regression on the sample of natives, controlling for the usual socio-demographic variables. Both specifications lead to the same “epidemiological” results, that the happiness of migrants depends on the typical happiness level of people living in their home country. This can be interpreted, in the spirit of Luttmer and Singhal, as testifying to the cultural dimension of happiness.

### 3. Language: culture or scaling

Country fixed-effects could also be due to language and translation effects, if happiness statements depend on the language in which they are expressed, or if different nations associate a different verbal label to a given internal feeling. Country fixed-effects would then boil down to purely nominal scaling effects (see section Section I). To address this issue, I look at the typical happiness of different linguistic groups inside three multilingual countries. If the French unhappiness is purely nominal, we should observe that in a given country, francophone regions and individuals are less happy than non-francophone ones.

Using the ESS, I look at the case of Belgium and Switzerland (10 000 observations). In Belgium, three regions are distinguished: Wallonia, Flanders and Brussels. Table 8.A shows that controlling for the usual socio-economic circumstances (age, gender, income, unemployment, marital status), as well as for year dummies (which account for the business cycle), living in a Walloon region reduces the typical individual level of happiness by 0.22 happiness points. Controlling for the regions where they live (column 2) or not (column 3), francophone individuals are less happy than Dutch-speaking ones (by 0.26 happiness points). However, in Switzerland it is not the case that French-speaking individuals are less happy than German-speaking ones. Table 8.B shows that it is the Italian-speakers (columns 1 and 3) and the Italian-speaking regions (column 2) that are statistically significantly less happy, as

compared to German-speakers. Controlling for the regional language (columns 2 and 3) or not (column 1), native Francophones appear to be just as happy as German-speakers.

I also used the Canadian sample of the World Values Survey available for years 2000 and 2006 (3461 observations, see descriptive statistics in Table A10). The data include information about the language in which the interview was realized, and the language that people declare they use predominantly at home. In this survey, 68% of respondents declared that English is their home language, 26% French and 5% another language. Table 8.C shows that francophone individuals are happier than English-speaking ones (by about 5%), controlling for a series of objective circumstances, such as the usual socio-demographic features, year fixed-effects and the self-declared ethnic group of respondents.

I take these observations as a sign that the difference in the level of happiness of the French is cultural<sup>8</sup>, but not purely nominal.

#### 4. Beyond Happiness

If, conformingly with the findings of section III.1, the lower happiness of the French is not due to circumstances but to the way they perceive them, this should also appear in the other attitudes and values that they endorse. Table 9.A presents estimates of a series of satisfaction attitudes, while Table 9.B deals with more diverse opinions.

Table 9.A includes an estimate of a depressiveness score (column 1), built with questions of the third wave of the ESS (hence the smaller number of observations) that were inspired by the well-known CES-depression scale D (Radloff 1977). These questions asked the respondent how often, during the past week, he “felt depressed”, “felt everything he did was effort”, “sleep was restless”, “felt lonely” “felt sad, “could not get going”, “felt anxious”, “felt tired” “felt bored”, “felt rested when woke up in morning, “seldom time to do things he really enjoy”, “feel accomplishment from what he did”, “in general feel very positive about

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<sup>8</sup> Brügger, Lalive and Zweimüller (2008) have advocated the importance of cultural differences, as vehicled or expressed by linguistic barriers. They show that preference for leisure differs on either parts of the linguistic barrier in Switzerland (the Barrière des Roesties or Röstigraben) that separates German-speaking regions from regions speaking languages derived from Latin (French, Romansh and Italian). They argue forcefully that the observed differences are due to cultural inertia rather than objective circumstances of the regional labor markets.

oneself”, “always optimistic about one’s future”, “at times feel as if he is a failure”, choosing an answer on a scale going from 1 “none or almost none of the time”, 2 “some of the time”, 3 “most of the time”, 4 “all or almost all of the time”. (I recoded the scales in order to obtain a score that increases with depression symptoms). By summing up the number of points on these different questions, I obtain an index of depressiveness that runs potentially from 5 to 59. In the regression sample, it takes values from 5 to 57, with an average value of about 20. France has a score of 22, in the vicinity of Portugal and Great-Britain.

Tables 9.A and 9.B offer several lessons. French natives are more depressive and less satisfied on all the dimensions measured by the survey, except satisfaction with the health system (see also Deaton, 2008, Figure 5 p.68, for a similar finding). They are less satisfied with the state of the economy in the country, with the state of democracy, with the state of the education system. Probit estimates (not shown) show that living in France reduces the probability to be very satisfied with these dimensions (over 7 on a 0-10 scale) by 12% to 20%. It increases the probability of declaring that one lives difficultly with one’s household’s income by 24% (controlling for household income). It also reduces the probability to declare that “most people can be trusted” or that “most people try to be fair”. Second, concerning more general opinions, native French are less confident in the possibility of finding a similar or better job with another employer, or in the easiness of starting one’s own business. They agree more often that it is important that people have equal opportunities, that the state should reduce the income difference between the poor and the rich, that differences in the standard of living should be kept small and that it is important that the government is strong; they more often disagree with the idea that large income differences are acceptable to reward talents and efforts. Hence, the specific unhappiness of the French is mirrored by their general attitudes, beliefs and values.

## 5. Robustness

The essential element of the identification strategy is the differential happiness effect of common circumstances across different population groups (natives, migrants). I thus need to be sure to compare the comparable.

First, the specific happiness trait of the French could be due to some macroeconomic circumstances that are poorly measured at the individual level. I thus included successively in the estimates of happiness (equation 2) the growth rate of GDP, unemployment rate, inflation

rate, yearly GDP per capita, number of worked hours per week, life expectancy at birth, as well as the weight of government expenditure over GDP (taken from the World Bank's World Development Indicators). As shown by Table A2 in the Appendix, none of these magnitudes turned out to be statistically significant, except inflation (negative coefficient). Including them did not change the magnitude or sign of the coefficients on country dummies and interactions between country dummies and categories of origin (first and second-generation). It also did not change the order of magnitude of the parameters of circumstances, mentality and culture (displayed at the bottom of the table).

Beyond this basic verification, one needs to address the potential unobserved heterogeneity in the sources of well-being of migrants versus natives. The specification of equations (1) - (3) relies on the general simplifying assumption that the effects of socio-demographic features, country circumstances, migration status and region of origin are separable (in an additive way). Of course, these are strong assumptions. The main problem would be if migrants to different countries had different characteristics that, themselves, had different effects on happiness across countries, especially if migrants self-selected to different countries depending on these differences. In this case, the difference in the country fixed-effects measured on native versus immigrants would be causal and due to some common macroeconomic factor (the size of budget transfers for instance).

In the absence of the ideal dataset (that would ensue from a randomized allocation of immigrants to European countries), I can only try to overcome these problems by controlling for the potential sources of heterogeneity that are observable. I run several robustness tests that consist in including triple interaction terms between magnitudes that are suspected of being interdependent (together with main effects and simple interactions). The equations to estimate are of the type:

$$H_i = \alpha_1.I + \beta.X_i + \delta.O_k + \phi.Z_i + \mu_{0j}.D_j + \gamma_{2j}.I.D_j + \gamma_3.I.Z_i + \gamma_{4j}.D_j.Z_i + \gamma_{5j}.I.D_j.Z_i + T_1 + T_1^* Z_j + \varepsilon_i \quad (4)$$

where  $Z_i$  is the potential source of heterogeneity,  $I$  stands for the fact of being an immigrant (versus native<sup>9</sup>),  $D_j$  is the destination countries. Hence,  $\gamma_3$  will measure the specific effect of

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<sup>9</sup> Because of the small number of observations, I simply distinguish natives from immigrants (pooling together the first and second generations).

being an immigrant and having feature  $Z$ ; while  $\gamma_{sj}$  measures the effect of variable  $Z$  on immigrants to France rather than to other destination countries, as compared with French natives. For simplicity, equation (4) contrast country  $j$  (say France) to the rest to Europe. Year fixed-effects were included in the estimates, as well as their interaction with the aggregate controls  $T_t^* Z_i$  (this is to control for the potential country specific time trend in these magnitudes).

If the coefficient  $\gamma_{sj}$  on the triple interaction term is not statistically significant, one cannot reject the fundamental hypothesis that indeed, the magnitudes are separable. Table A3 and A4 present the results of the estimates of equation (4). For space concerns, they only display the coefficients on the variables of interest and their simple and double interactions with the France dummy variable.

### Macroeconomic channels

It turns out (Table A3) that none of the triple interactions between macroeconomic controls, migration status and France fixed-effect is statistically significant. This implies that one cannot reject the null that country fixed-effects and differences between natives and immigrants are not driven by some country macroeconomic specificity (such as transfers, budget spending, or unemployment benefits). Note that happiness declines less with aggregate unemployment in France than it does in average in Europe.

### Individual channels

I consider the following sources of individual heterogeneity ( $Z$ ): gender, income (“Rich”: a dummy for above-average income), age (a dummy “Young” indicating whether the respondent was less than 30 years old, which is the case of 26% if immigrants), being unemployed, receiving state transfers, occupation (ISCO, 1 digit level) and region of origin.

Table A4 shows that, although the coefficients on simple interactions were often statistically significant, those on the triple interaction term ( $\gamma_{sj}$ ) were not, except for employment status: unemployed migrants to France were relatively happier than in the rest of Europe (see Clark 2003 for a discussion of unemployment as a social norm). However, migrants to France who received State transfers were relatively less happy than in the rest of Europe (although the coefficient is not well determined). The coefficients on triple interaction terms between country fixed-effects, migration status and occupation categories (as measured by ISCO-1



digit) were not significant. The same is true of triple interactions between country fixed-effects, migration status and regions of origin.

Overall, robustness test do not allow rejecting the null hypothesis of separability between the factors on which the identification strategy of the components of the French specific unhappiness relies.

## Conclusions

This paper has devoted a special attention to France, which appears as an outlier in international studies of happiness. However, beyond the case of France, this paper underlines the important cultural dimension of happiness. The lesson is relevant for policy-makers who have recently endeavored to maximize national well-being and not only income per capita. “Happiness policies” should take into account the irreducible influence of psychological and cultural factors. As those are -at least partly- acquired in school and other early socialization instances, this points to some new aspects of public policy such as considering the qualitative aspects of the education system.

Investigating the causes of the differences in the cultural dimension of happiness across countries is beyond the objectives of this paper, but certainly constitutes an interesting avenue for future research. The economics of culture could help understanding the how culturally determined idiosyncratic happiness originates in national institutions and history. The cultural dimension of happiness is also undoubtedly the opportunity for a fruitful encounter between economics and psychology.

## References

- Alesina A. and Fuchs-Schündeln N. (2007). "Good Bye Lenin (or Not?): The Effect of Communism on People's Preferences," *American Economic Review*, 97(4): 1507-28.
- Alesina, A. and Giuliano P. (2007). "The Power of the Family," NBER WP n°13051.
- Alesina, A. and Giuliano P. (2011). "Preferences for Redistribution," in Benhabib J., Bisin A. and O'Jackson M. (eds.) *Handbook of Social Economics*, 93-132.
- Algan Y. and Cahuc P. (2010). "Inherited Trust and Growth", *American Economic Review*, 100, 2060–2092.
- Algan Y. et Cahuc P. (2007). *La société de défiance : comment le modèle social français s'autodétruit ?* Paris : Ed. ENS rue d'Ulm, 102 p. Opuscule n°9 - ISBN 978-7288-0396-5.
- Algan Y., Aghion P and Cahuc P. "The State and the Civil Society in the Making of Social Capital", *Journal of the European Economic Association*, forthcoming.
- Algan Y., Aghion P., Cahuc P. and Shleifer A. (2010). "Regulation and Distrust". *Quarterly Journal of Economics*, 2010.
- Altonj J., Blank R. (1999) "Race and gender in the Labor Market". Chapter 48, *Handbook of Labor Economics*, volume 3.
- Amit, K. (2010), "Determinants of life satisfaction among immigrants from Western countries and from the FSU in Israel". *Social Indicators Research*, forthcoming
- Baltatescu, S. (2007). "Central and Eastern Europeans migrants 'subjective quality of life: a comparative study". *Journal of identity and migration studies*, 1(2), 67-81
- Bartram D. (2011) "Economic Migration and Happiness: Comparing Immigrants' and Natives' Happiness Gains from Income", *Social Indicators Research*.
- Beegle K., Himelein K. and Ravallion M. (2009). "Frame-of-reference bias in subjective welfare regressions". World Bank Policy Research Working Paper 4904.
- Bisin A. and Verdier T. (2001). "The Economics of Cultural Transmission and the Dynamics of Preferences". *Journal of Economic Theory* 97:298-319.
- Bisin A. and Verdier T. (2011). "The economics of cultural transmission and socialization", in Benhabib J., Bisin A. and O'Jackson M. eds. *Handbook of Social Economics*, 339-416.
- Bisin A., G. Topa and Verdier T. (2004). "Religious Intermarriage and Socialization in the US", *Journal of Political Economy*, 112, 615-665.
- Blinder A. (1973). "Wage Discrimination: reduced Form and Structural Estimates". *The Journal of Human Resources* 8: 436:455.

- Borjas G. (1992). "Ethnic Capital and Intergenerational Mobility". *Quarterly Journal of Economics*: 123-150.
- Borjas G. (1995). "Ethnicity, Neighborhoods, and Human-Capital Externalities". *American Economic Review* 85: 365-390.
- Briot M. (2006). Office parlementaire d'évaluation des politiques de santé. *Sur le bon usage des médicaments psychotropes*. <http://www.assemblee-nationale.fr/12/pdf/rap-off/i3187.pdf>
- Brügger B., Lallive R. and Zweimüller J. (2008). "Does Culture Affect Unemployment? Evidence from the Barrière des Roestis", mimeo.
- Clark A. (2003). "Unemployment as a Social Norm: Psychological Evidence from Panel Data", *Journal of Labor Economics*, 21, 323-351.
- Clark A. and Senik C. (2011). "Will GDP Growth Increase Happiness in Developing Countries?", PSE WP n°2010-43 and *Proceedings of the AFD-EUDN conference* (Paris, December 2010), forthcoming.
- Clark, A., Frijters, P., and Shields, M. (2008). "Relative Income, Happiness and Utility: An Explanation for the Easterlin Paradox and Other Puzzles". *Journal of Economic Literature*, 46, 95-144.
- Commission of the European Communities (2009). *GDP and Beyond. Measuring progress in a Changing World*. Communication from the Commission to the Council and the European Parliament.
- Cronbach L. (1946). "Response set and test validity". *Educational and Psychological Measurement*, 6, 475-794.
- Crowne D. and Marlowe D. (1960). "A new scale of social desirability independent of psychopathology". *Journal of Consulting Psychology*, 24(4), 349-354.
- d'Iribarne P. (1989). *La logique de l'honneur*, Seuil.
- De Jong, G.F., Chamratrithirong, A., Tran, Q.-G (2002). "For better, for worse: life satisfaction consequences of migration". *International Migration Review*, 36(3), 838-63
- Deaton A. (2008). "Income, Health, and Well-Being around the World: Evidence from the Gallup World Poll". *Journal of Economic Perspectives*, 22(2), 53-72.
- Di Tella, R. et MacCulloch R. (2006). "Some Uses of Happiness Data in Economics", *Journal of Economic Perspectives*, 20, 25-46.
- Di Tella, R., MacCulloch, R.J., and Oswald, A.J. (2003). "The Macroeconomics of Happiness". *Review of Economics and Statistics*, 85, 809-827.
- EC (2004). *The State of Mental Health in the European Union*, European Communities, ISBN 92-894-8320-2.
- Edwards A. (1990). "Construct validity and social desirability". *American Psychologist*, 45, 287-289.

Eugloreh (2007). Global Report on the Status of Health in the European Union.  
[http://www.eugloreh.it/ActionPagina\\_979.do](http://www.eugloreh.it/ActionPagina_979.do)

Eurostat (2010). Feasibility study for Well-Being Indicators.

Eysenck H and Eysenck S. (1975). *Manual of the Eysenck Personality Questionnaire*. London: Holder and Stoughton.

Fernández R. (2007). "Women, Work, and Culture," *Journal of the European Economic Association*, 5(2-3): 305-332.

Fernández R. (2008). "Culture and Economics," *New Palgrave Dictionary of Economics*, 2nd edition, Stephen Durlauf and Lawrence Blume (eds.), New York: Palgrave Macmillan.

Fernandez R. (2011). "Does Culture Matter?," in Benhabib J., Bisin A. and O'Jackson M. eds. *Handbook of Social Economics*, 481-510.

Fernandez R. and Fogli A. (2006). "Fertility: The Role of Culture and Family Experience", in *Journal of the European Economic Association*.

Fernandez R. and Fogli A. (2009). "Culture: An Empirical Investigation of Beliefs, Work, and Fertility", *American Economic Journal: Macroeconomics*.

Ferrer-i-Carbonell, A. and P. Frijters (2004). "How important is methodology for the estimates of the determinants of happiness?" *The Economic Journal*, 114: 641-659.

Frey, B.S. and A. Stutzer (2002), "What can Economists Learn from Happiness Research?", *Journal of Economic Literature*, 40, 402-435.

Guiso L., Sapienza P. and Zingales L. (2006). "Does Culture Affect Economic Outcomes?", *Journal of Economic Perspectives*, 20(2): 23-48.

Heston A., Summers R. et Aten B., 2009. *Penn World Table Version 6.3*. Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania.

Hopkins D. and King G. (2010). "Improving anchoring vignettes: designing surveys to correct interpersonal incomparability", mimeo, Harvard University.

Huppert H., Marks N., Clark A.E., Siegrist J., Stutzer A., Vittersø J. and Wahrdorf M. (2009). "Measuring well-being across Europe: Description of the ESS Well-being Module and preliminary findings". *Social Indicators Research*, 91, 301-315.

Inglehart, R., Foa, R., Peterson, C., and Welzel, C. (2008). "Development, Freedom, and Rising Happiness: A Global Perspective (1981–2007)". *Perspectives on Psychological Science*, 3, 264-285.

Jagger C., Gillies C., Moscone F., Cambois E., Van Oyen H., Nusselder W., Robine J-M., and the EHLEIS team, (2008). "Inequalities in healthy life years in the 25 countries of the European Union in 2005: a cross-national meta-regression analysis". *Lancet*, 372: 2124–31.

Jann. B. (2008). "[The Blinder–Oaxaca decomposition for linear regression models](#)", *Stata Journal* 8(4).

Kahneman, D. and A.B. Krueger (2006). "Developments in the Measurement of Subjective Well-being", *Journal of Economic Perspectives*, 22, 3-24.

Kapteyn A., Smith J. and Van Soest A. (2007). "Vignettes and self-reported work disability in the US and the Netherlands". *American Economic Review*, 87(1), 461-473.

Kapteyn A., Smith J. and Van Soest A. (2008). "Comparing Life Satisfaction". Working Paper WR-623, Rand Corporation.

King G., Murray C., Salomon J. and Tandon A. (2003). "Enhancing the validity and cross-cultural comparability of measurement in survey research". *The American Political Science Review*, 97(4), 567-583.

Layard, R. (2005). *Happiness: Lessons from a new science*. London: Penguin.

Luttmer E. and Singhal M. (2011). "Culture, Context, and the Taste for Redistribution", *American Economic Journal: Economic Policy*, 3(1):157-79.

McCrae R and Costa P. (1983). "Social desirability scales: more substance than style". *Journal of Consulting and Clinical Psychology*, 51, 1349-1364.

Paulhus D. (1984). "Two-Component Models of Socially Desirable Responding". *Journal of Personality and Social Psychology*, 46(2), 598-609.

Paulhus D. (1991). "Measurement and control of response bias". In Robinson, Shaver and Wrightsman(eds.) *Measures of personality and social psychological attitudes*. New York: Academic Press, 17-59.

Paulhus D. (1994). *Balanced Inventory of desirable responding. Reference manual for BIDR version 6*. Vancouver: University of British Columbia, Mimeo.

Portes, A. and M. Zhou (1993), "The New Second Generation: Segmented Assimilation and Its Variants". *Annals of the American Academy of Political and Social Science* 530:74-96.

PWT 7.0 Alan Heston, Robert Summers and Bettina Aten, *Penn World Table Version 7.0*, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania. (2011).

Radloff, L. S. (1977). "The CES-D scale: A self-report depression scale for research in the general population". *Applied Psychological Measurement*, 1, 385–401.

Safi, M. (2010). "Immigrants' life satisfaction in Europe: between assimilation and discrimination". *European Sociological Review* vol. 26(2), 159-176

Saint-Paul G. (2010). "Endogenous Indoctrination: Occupational Choice, the Evolution of Beliefs, and the Political Economy of Reform", *The Economic Journal*, 120 (544), 325-353.

Saris W. (1998). "The effect of measurement error in cross-cultural research". *ZUMA Nachrichten Spezial*, 67-83.

Stiglitz J., Sen A. and Fitoussi J-P (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. OECD.

Van de Vijver F. (1998). "Towards a theory of bias and equivalence". *ZUMA Nachrichten Spezial*, 1-40.

Van Soest A., Delaney L., Harmon C., Kapteyn A. and Smith J. (2007). "Validating the use of vignettes for subjective threshold scales". Geary WP/14/2007.

Waldron S. (2010). "Measuring Subjective WellBeing in the UK", Office for National Statistics Working Paper.

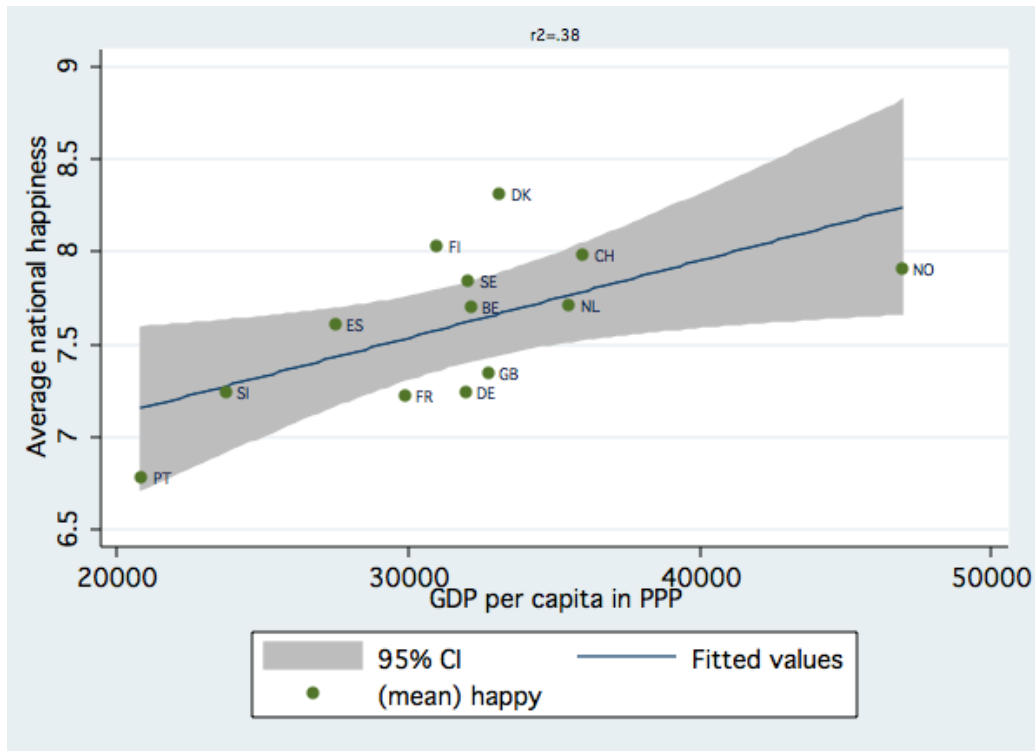
Wolfers, J. and B. Stevenson (2008), "Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox", *Brookings Papers on Economic Activity*, Spring.

Yun, M.-S. (2003). "A Simple Solution to the Identification Problem in Detailed Wage Decompositions". IZA Discussion Paper No. 836.

ZUMA (1998). *Nachrichten Special* (special issue dedicated to cross-cultural research and equivalence problems).

Tables

Figure 1.A GDP and Average National Happiness (0-10 scale)



Source: ESS (waves 1- 4)

Figure 1.B Human Development Index and Average National Happiness (0-10 scale)



Source: ESS (waves 1- 4)

Figure 2. Happiness, Income ... and Cultural Factors around the World

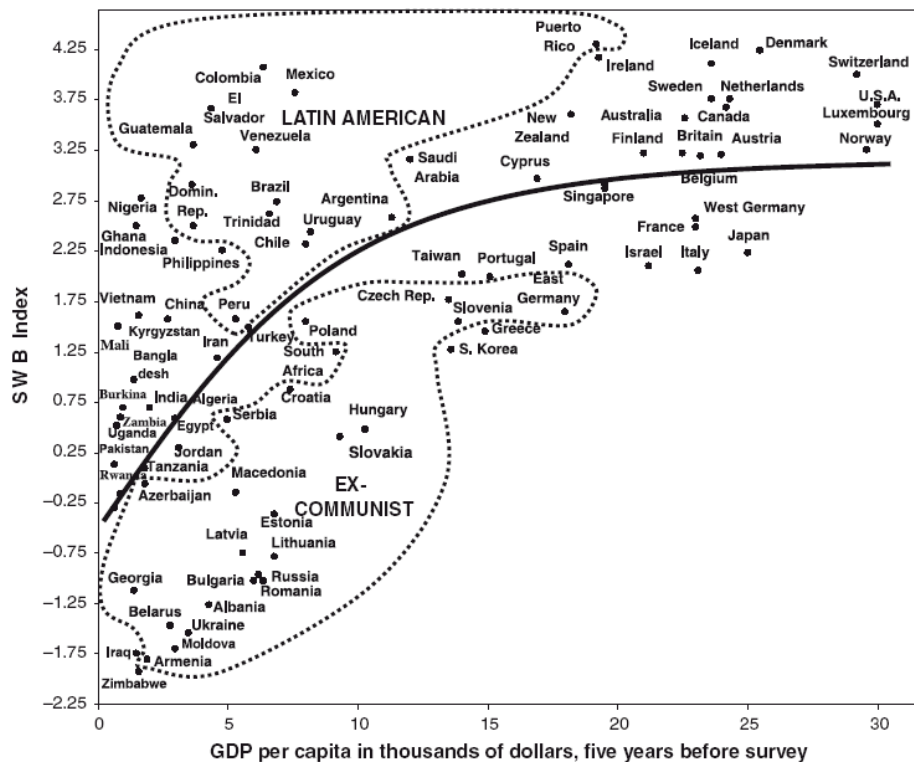
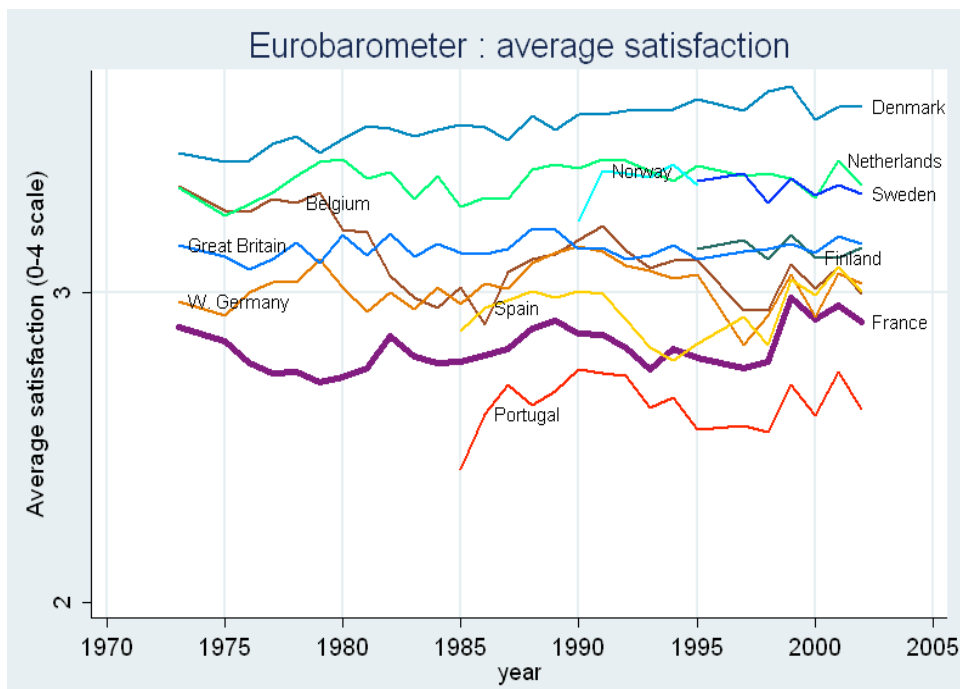


Fig. 2. Subjective well-being (SWB), per capita gross domestic product (GDP), and different types of societies. Well-being index is based on reported life satisfaction and happiness, using mean results from all available surveys conducted 1995–2007 (cubic curve plotted;  $r = .62$ ). PPP=purchasing power parity estimates.

Source : Inglehart, Foa, Peterson, Welzel (2008), p. 269

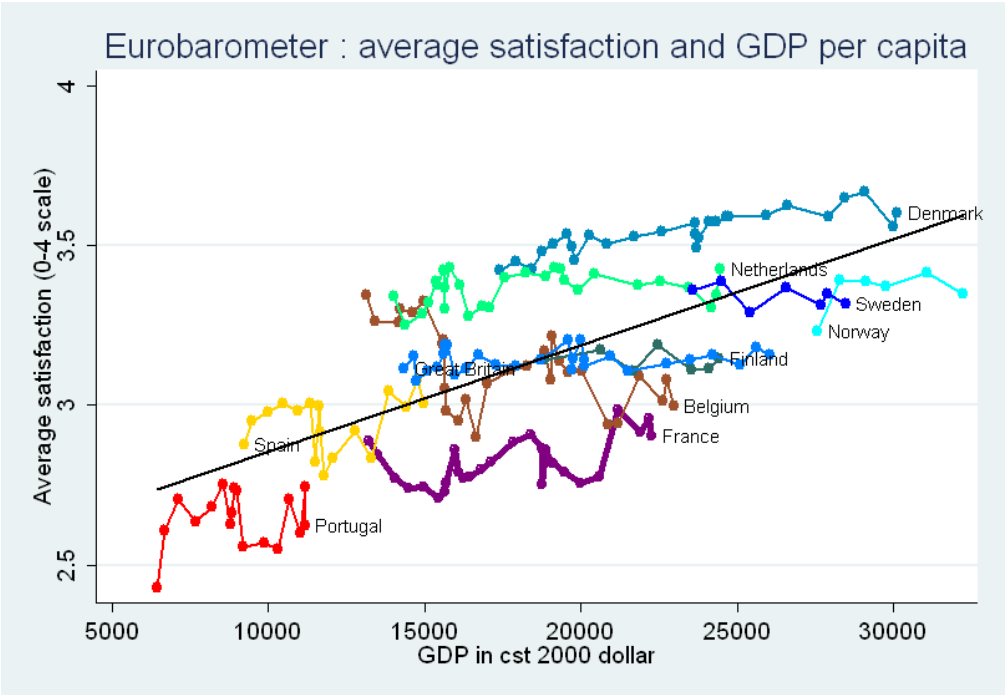
Figure 3.A Average Life Satisfaction over time (0-4 scale)



Source: Eurobarometer



Figure 3.B Average Satisfaction (0-4 scale) and GDP per Capita



Source: Eurobarometer and WDI

**Table 1. Basic Estimates of Happiness**

	OLS Happy (0-10 scale)	Probit Estimates. Probability that Happiness>7 Marginal effects displayed
Age	-0.0706*** (0.00805)	-0.041*** (0.005)
Age square	0.0695*** (0.0102)	0.038*** (0.005)
Male	-0.143*** (0.0279)	-0.117*** (0.024)
Log (Household income)	0.366*** (0.0410)	0.239*** (0.021)
Married	0.456*** (0.0392)	0.324*** (0.045)
Divorced	-0.117** (0.0470)	-0.077* (0.040)
Widowed	-0.454*** (0.0823)	-0.179** (0.071)
Unemployed	-0.626*** (0.0925)	-0.345*** (0.040)
Belgium	0.0706*** (0.00449)	0.041*** (0.004)
Switzerland	0.180*** (0.0242)	0.167*** (0.012)
Germany	-0.429*** (0.00540)	-0.230*** (0.001)
Denmark	0.574*** (0.0151)	0.495*** (0.006)
Spain	0.0755*** (0.0150)	-0.048*** (0.010)
Finland	0.422*** (0.00262)	0.400*** (0.002)
<b>France</b>	<b>-0.231***</b> <b>(0.00945)</b>	<b>-0.191***</b> <b>(0.011)</b>
Great-Britain	-0.282*** (0.00594)	-0.196*** (0.004)
Netherlands	0.0922*** (0.00439)	0.079*** (0.003)
Norway	0.102*** (0.0240)	0.056*** (0.012)
Portugal	-0.589*** (0.0341)	-0.606*** (0.017)
Sweden	0.202*** (0.00922)	0.158*** (0.007)
Slovenia	-0.186*** (0.0267)	-0.126*** (0.015)
Constant	6.330*** (0.274)	-0.600*** (0.172)

R-squared	0.130	0.076
Observations	65378	65461
Observed P at x-bar		0.633
Predicted P at x-bar		0.642
Log Likelihood		-39758

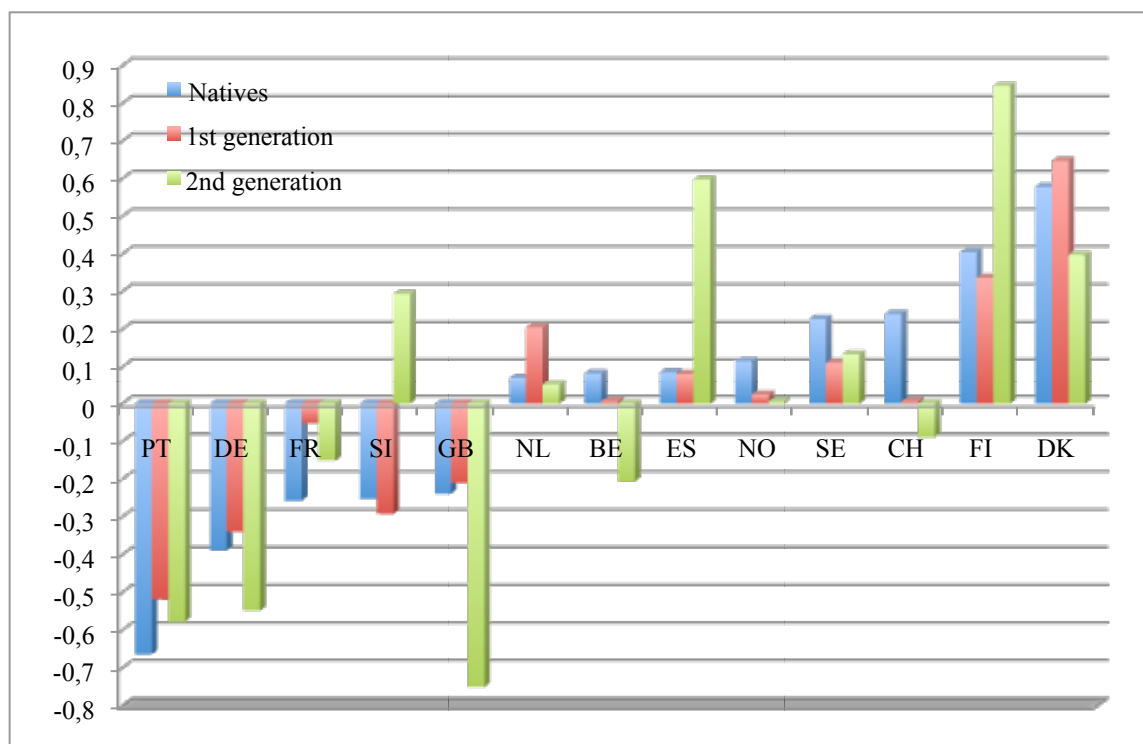
Other controls: year fixed-effects. Robust standard errors clustered by country. Weighted estimates.

Reference categories: single, in paid work.

The coefficients of country fixed-effects reflect deviations from the “grand mean” rather than deviations from the reference category. The modified coefficients sum up to zero over all categories.

**Figure 4. Total Country Fixed-Effects by Migration Status Based on Probit Estimates.**

**Marginal Effects Displayed. Probability to declare a level of happiness over 7 on a 0-10 scale.**



Source: ESS (waves 1- 4)

**Table 2. Derivation of Parameters Based on the Estimation of Equation (2)**

**Decomposition of the Gap in Idiosyncratic National Happiness that is due to Circumstances, Mentality and Culture**

	(1) Circumstances ( $\mu_{0j} + \mu_{1j}$ )	(2) Mentality ( $\mu_{2j} - \mu_{1j}$ )	(3) Culture ( $-\mu_{2j}$ )	(4) Natives fixed-effect ( $\mu_{0j}$ ) (sum of columns 1 + 2 + 3)
Belgium	0.01	-0.22	0.29	0.08
Switzerland	0.02	-0.10	0.33	0.24
Germany	-0.36	-0.18	0.22	-0.33
Denmark	0.65	-0.25	0.18	0.58
Spain	0.08	0.51	-0.52	0.08
Finland	0.34	0.52	-0.46	0.40
<b>France</b>	<b>-0.05</b>	<b>-0.10</b>	<b>-0.11</b>	<b>-0.26</b>
G-B	-0.20	-0.55	0.51	-0.24
Netherlands	0.21	-0.16	0.02	0.07
Norway	0.03	-0.02	0.10	0.12
Portugal	-0.52	-0.06	-0.09	-0.68
Sweden	0.12	0.02	0.09	0.22
Slovenia	-0.30	0.59	-0.56	-0.26

Note: These are measures of the gap between national happiness and the European average that is due to each factor. Consequently, all columns sum to zero. For example, the happiness gap between French natives and European natives is of -0.26, of which -0.05 is attributable to objective circumstances, -0.10 to Mentality and -0.11 to Culture. Coefficients derived from the estimate of equation (2) presented in Table A1 (see Section III for formulae).

**Table 3.A Simulating the Happiness of Natives with the Parameters of Immigrants and vice-versa**

	(1) Actual Happiness of Natives	(2) Actual Happiness of Immigrants	(3) Happiness of Natives with Parameters of Immigrants	(4) Happiness of Immigrants with Parameters of Natives	(5) Happiness Gap of Natives due to Parameters (1-3)	(6) Happiness Gap of Immigrants due to Parameters (2-4)
happy						
Belgium	7.744	7.488	7.663	7.679	0.081	-0.190
Switzerland	8.058	7.823	7.879	8.062	0.179	-0.240
Germany	7.135	7.041	7.158	7.068	-0.023	-0.028
Denmark	8.341	8.145	8.248	8.294	0.093	-0.148
Spain	7.618	7.474	7.684	7.703	-0.066	-0.229
Finland	8.032	7.968	7.785	8.096	0.247	-0.128
<b>France</b>	<b>7.215</b>	<b>7.246</b>	<b>7.355</b>	<b>7.148</b>	<b>-0.140</b>	<b>0.098</b>
Great-Britain	7.375	7.165	7.206	7.334	0.168	-0.169
Netherlands	7.738	7.503	7.665	7.643	0.072	-0.139
Norway	7.930	7.729	7.852	7.948	0.079	-0.219
Portugal	6.735	6.811	6.519	6.913	0.216	-0.101
Sweden	7.886	7.640	7.741	7.862	0.144	-0.223
Slovenia	7.214	7.296	7.249	7.198	-0.035	0.098

**Table 3.B Oaxaca-Blinder Decomposition of Happiness in France by Migration Status**

Blinder-Oaxaca decomposition		
Linear Model	N of obs.	5142
Group 1: immigrants	N of obs. 1	890
Group 2: natives	N of obs. 2	4252
happy	Coef.	Std. Err.
overall		
group_1	7.217	0.066
group_2	7.222	0.028
difference	-0.006	0.072
endowments	-0.087	0.024
coefficients	0.121	0.103
interaction	-0.039	0.079

**Table 3.C Simulating Happiness: France, Belgium and the Rest of Europe**

France versus the rest of Europe			
Actual Happiness of French Natives	Actual Happiness of Natives in Rest of Europe	Happiness of Native French Predicted with Native European Parameters	Happiness of Natives in Europe Predicted with Native French Parameters
7.222	7.672	7.539	7.388
France versus Belgium			
Actual Happiness of French Natives	Actual Happiness of Native Belgians with Native French Parameters	Actual Happiness of Belgian Natives	Happiness of Native French Predicted with Native Belgian Parameters
7.222	7.392	7.737	7.641

**Table 3.D Oaxaca-Blinder Decomposition of Happiness: France versus the Rest of Europe. Natives only.**

Linear Model		
Group 1: ROE	Nb. Obs.	52293
Group 2: France	Nb. obs.	4252
happy	Coef.	Std. Err.
overall		
group_1	7.672	0.007
group_2	7.222	0.028
difference	0.450	0.029
endowments	0.166	0.031
coefficients	0.285	0.028
interaction	-0.001	0.030

**Table 3.E Oaxaca-Blinder Decomposition of Happiness. France versus Belgium. Natives only.**

Linear Model		
Group 1: Belgium	Nb. of obs. 1	4068
Group 2: France	Nb. of obs. 2	5142
Happy	Coef.	Std. Err.
overall		
Belgium	7.737	0.023
France	7.222	0.026
difference	0.516	0.035
endowments	0.207	0.033
coefficients	0.411	0.042
interaction	-0.103	0.040

**Table 4. First-Generation Immigrants and Schooling before the Age of 10 in the Destination Country**  
**OLS estimates of Happiness (0-10 scale)**

	(1)	(2)			
	All	Under 30 years old			
	Happy	Happy			
Age	-0.0698*** (0.0159)	-0.132 (0.221)			
Age square	0.0715*** (0.0175)	0.197 (0.442)			
Male	-0.0773 (0.0706)	-0.0715 (0.139)			
Log household income	0.382*** (0.0283)	0.292*** (0.0737)			
Marital status (omitted: never married)					
Married	0.286*** (0.0868)	0.398** (0.136)			
Divorced	-0.251** (0.0870)	-0.119 (0.401)			
Widowed	-0.509** (0.204)	-2.008 (1.603)			
			<b>Interaction terms</b>	<b>All</b>	<b>Under 30</b>
Belgium	-0.0273* (0.0133)	-0.158*** (0.0256)	school10*Belgium	-0.427*** (0.0229)	-0.328*** (0.0483)
Switzerland	0.0575* (0.0272)	0.286*** (0.0499)	school10* Switzerland	-0.339*** (0.0168)	-0.524*** (0.0182)
Germany	-0.407*** (0.0172)	-0.271*** (0.0248)	school10*Germany	0.438*** (0.0129)	0.245*** (0.0307)
Denmark	0.562*** (0.0160)	0.200*** (0.0352)	school10*Denmark	-0.0338 (0.0435)	0.352*** (0.0710)
Spain	0.0260 (0.0274)	0.113* (0.0524)	school10*Spain	0.0143 (0.0360)	-0.0133 (0.0427)
Finland	0.420*** (0.0242)	0.456*** (0.0382)	school10*Finland	0.452*** (0.0293)	0.418*** (0.0938)
<b>France</b>	<b>-0.0400 (0.0405)</b>	<b>0.114** (0.0426)</b>	<b>school10*France</b>	<b>-0.116*** (0.0265)</b>	<b>-0.303*** (0.0394)</b>
Great-Britain	-0.183*** (0.0182)	-0.655*** (0.0366)	school10*G-B	-0.155*** (0.0366)	0.245*** (0.0571)
Netherlands	0.163*** (0.0210)	-0.0389 (0.0221)	school10*Netherlands	0.000791 (0.0147)	0.246*** (0.0343)
Norway	-0.0270 (0.0192)	0.160*** (0.0353)	school10*Norway	0.164*** (0.0225)	0.0519 (0.0465)
Portugal	-0.449*** (0.0393)	-0.238*** (0.0690)	school10*Portugal	0.561*** (0.0635)	0.316* (0.174)
Sweden	0.0680*** (0.0141)	0.116*** (0.0236)	school10*Sweden	-0.109*** (0.0189)	-0.172*** (0.0250)
Slovenia	-0.164*** (0.0407)	-0.0858 (0.0715)	school10*Slovenia	-0.451*** (0.0403)	-0.534*** (0.0309)
School before 10 years old in destination country	-0.311*** (0.0701)	-0.208*** (0.0679)			
Constant	9.587*** (0.295)	10.33*** (2.624)			
Observations	5,094	1,249			
R-squared	0.086	0.086			

Sample: First-generation immigrants. Other controls: regions of origin, year fixed-effects. Robust standard errors clustered by country. Weighted estimates. The coefficients of country fixed-effects reflect deviations from the “grand mean” rather than deviations from the reference category. School10\*X represents the interaction term between a dummy for having been in school in the destination country X before the age of 10 \* country of destination X. Columns (1) and (3) present estimates on the whole sample of first-generation immigrants, while columns (2) and (4) present the estimate on the sub-sample of first-generation immigrants aged less than 30 years old.

**Table 5. Duration of Stay in Destination Country and Happiness of immigrants**  
**OLS Estimate of the Happiness Level (0-10 scale) of Immigrants**

<b>Duration*country</b>		<b>Duration<sup>2</sup> * country</b>	
Belgium*duration of stay	-0.0230*** (0.00176)	Belgium*duration of stay <sup>2</sup>	0.000457*** (4.23e-05)
Switzerland*duration of stay	-0.0457*** (0.00304)	Switzerland*duration of stay <sup>2</sup>	0.000823*** (6.56e-05)
Germany*duration of stay	0.00962*** (0.00230)	Germany*duration of stay <sup>2</sup>	-0.000144** (5.58e-05)
Denmark*duration of stay	0.000618 (0.00377)	Denmark*duration of stay <sup>2</sup>	0.000211** (7.49e-05)
Spain*duration of stay	0.0495*** (0.00406)	Spain*duration of stay <sup>2</sup>	-0.00172*** (9.74e-05)
Finland*duration of stay	-0.0136*** (0.00396)	Finland*duration of stay <sup>2</sup>	0.000232** (8.95e-05)
<b>France*duration of stay</b>	<b>0.0490***</b> (0.00204)	<b>France*duration of stay<sup>2</sup></b>	<b>-0.00118***</b> (5.53e-05)
Great-Britain*duration of stay	-0.0415*** (0.00244)	Great-Britain*duration of stay <sup>2</sup>	0.00123*** (4.68e-05)
Netherlands*duration of stay	-0.0229*** (0.00310)	Netherlands*duration of stay <sup>2</sup>	0.000570*** (8.22e-05)
Norway*duration of stay	-0.0790*** (0.00292)	Norway*duration of stay <sup>2</sup>	0.00182*** (6.67e-05)
Portugal*duration of stay	0.00407 (0.00548)	Portugal*duration of stay <sup>2</sup>	9.89e-05 (9.31e-05)
Sweden*duration of stay	0.00183 (0.00326)	Sweden*duration of stay <sup>2</sup>	6.50e-05 (7.75e-05)
Slovenia*duration of stay	0.111*** (0.00684)	Slovenia*duration of stay <sup>2</sup>	-0.00246*** (0.000134)

Sample: First generation immigrants. Other controls: age, age square, gender, log(income), marital status, unemployed, country of residence, duration of stay, region of origin, year fixed-effects. Robust standard errors clustered by country. Weighted estimates.

The coefficients of country fixed-effects and interaction terms reflect deviations from the “grand mean” rather than deviations from the reference category. The modified coefficients sum up to zero over all categories.



**Table 6. OLS Estimate of Happiness of European Migrants living in Another European Country**

	(1) Happy	(2) Happy
Age	-0.0363 (0.0241)	-0.0413 (0.0236)
Age square	0.0330 (0.0288)	0.0386 (0.0281)
Male	-0.107*** (0.0313)	-0.114*** (0.0352)
Log household income	0.222*** (0.0274)	0.281*** (0.0276)
Marital status (omitted: never married)		
Married	0.334*** (0.0771)	0.348*** (0.0697)
Divorced	-0.0325 (0.0902)	-0.00420 (0.0828)
Widowed	-0.0781 (0.343)	-0.145 (0.336)
Unemployed	-0.582*** (0.139)	-0.617*** (0.145)
<b>Country of origin:</b>		
Belgium	-0.169*** (0.0519)	-0.271*** (0.00897)
Switzerland	0.589*** (0.0498)	0.461*** (0.0148)
Germany	-0.0597** (0.0201)	-0.0173** (0.00659)
Denmark	-0.0682 (0.0400)	-0.0688*** (0.00758)
Spain	-0.199*** (0.0305)	-0.271*** (0.00589)
Finland	-0.101** (0.0458)	-0.0293*** (0.00452)
<b>France</b>	<b>-0.112*</b> <b>(0.0613)</b>	<b>-0.120***</b> <b>(0.0118)</b>
Great-Britain	0.00840 (0.0214)	-0.0198** (0.00745)
Netherlands	0.0130 (0.0628)	-0.00409 (0.00973)
Norway	0.0738 (0.0432)	0.211*** (0.0141)
Portugal	-0.0873* (0.0421)	-0.178*** (0.00982)
Sweden	-0.0181 (0.0342)	0.0730*** (0.00742)
Slovenia	0.130** (0.0489)	0.235*** (0.0213)
Country of residence	YES	NO
Constant	6.759*** (0.573)	6.492*** (0.558)
Observations	2,560	2,560
R-squared	0.074	0.060

Sample: Only migrants from the 13 EU countries mentioned in the table.

Other controls: year fixed-effects. Cluster (country of origin). Weighted estimates.

No information about country of origin of immigrants in ESS wave 1. The coefficients of country fixed-effects reflect deviations from the “grand mean” rather than deviations from the reference category.

**Table 7. Replicating Luttmer and Singhal (2010): the Cultural Part of Happiness**

**OLS Estimates of Happiness of Immigrants over the Happiness Level of Natives in their Home Country**

	(1)	(2)	(3)	(4)
	First generation	Second generation	First generation	Second generation
	Happy	Happy	Happy	Happy
Age	-0.0332 (0.0258)	-0.143*** (0.0238)	-0.0337 (0.0258)	-0.142*** (0.0238)
Age square	0.0408 (0.0295)	0.136*** (0.0286)	0.0416 (0.0295)	0.135*** (0.0286)
Male	-0.132 (0.0896)	-0.315*** (0.0960)	-0.131 (0.0898)	-0.317*** (0.0961)
Log hh income	0.430*** (0.0595)	0.252*** (0.0671)	0.432*** (0.0595)	0.256*** (0.0671)
Marital status (omitted: married)				
Divorced	-0.244** (0.112)	0.861*** (0.124)	-0.242** (0.112)	0.858*** (0.124)
Widowed	-0.482*** (0.159)	0.491*** (0.188)	-0.479*** (0.159)	0.492*** (0.188)
Never married	0.0286 (0.324)	-1.051*** (0.386)	0.0404 (0.324)	-1.064*** (0.387)
Unemployed	-0.210 (0.198)	-0.918*** (0.173)	-0.208 (0.198)	-0.913*** (0.173)
<b>Average happiness of origin country's natives</b>	<b>0.261** (0.102)</b>	<b>0.255** (0.118)</b>		
<b>Regression coefficient on origin country in a first stage happiness regression</b>			<b>0.307** (0.135)</b>	<b>0.270* (0.153)</b>
Constant	3.209*** (0.983)	6.608*** (1.011)	5.176*** (0.664)	8.485*** (0.660)
Observations	1,332	1,228	1,332	1,228
R-squared	0.059	0.136	0.058	0.135

Other controls: year fixed-effects. Weighted estimates. Robust standard errors clustered by country.

Table 8.A Happiness and Usual Language in Belgium

## OLS Estimates of Happiness

	(1)	(2)	(3)
	Happy	Happy	Happy
<b>Language spoken at home (omitted: Dutch)</b>			
<b>French</b>		<b>-0.265***</b>	<b>-0.257**</b>
		(0.0449)	(0.128)
Other		-0.412***	-0.344***
		(0.119)	(0.133)
<b>Regions (omitted: Flanders)</b>			
Brussels	-0.468***		-0.235*
	(0.0894)		(0.135)
<b>Wallonia</b>	<b>-0.218***</b>		<b>0.0232</b>
	(0.0470)		(0.130)
log household income	0.291***	0.286***	0.289***
	(0.0350)	(0.0350)	(0.0350)
Age	-0.0328***	-0.0350***	-0.0337***
	(0.0112)	(0.0112)	(0.0112)
Age square	0.0349***	0.0370***	0.0356***
	(0.0130)	(0.0130)	(0.0130)
Marital status (omitted : never married)			
Married	0.328***	0.348***	0.336***
	(0.0642)	(0.0642)	(0.0643)
Divorced	-0.286***	-0.279***	-0.284***
	(0.0865)	(0.0864)	(0.0864)
Widowed	-0.906***	-0.897***	-0.905***
	(0.170)	(0.170)	(0.170)
Unemployed	-0.412***	-0.408***	-0.405***
	(0.0811)	(0.0811)	(0.0811)
Female	0.182***	0.180***	0.180***
	(0.0427)	(0.0427)	(0.0427)
Constant	5.956***	6.052***	6.014***
	(0.340)	(0.341)	(0.341)
Observations	4,831	4,831	4,831
R-squared	0.082	0.082	0.083

Sample: Belgium sample of the ESS. Other controls: year fixed-effects.

Table 8.B Happiness and Usual Language in Switzerland

## OLS Estimates of happiness

	(1)	(2)	(3)
	Happy	Happy	Happy
<b>Language spoken at home (omitted: German)</b>			
<b>French</b>	<b>-0.0175</b> (0.0501)		<b>-0.161</b> (0.105)
Italian	-0.438*** (0.0921)		-0.472*** (0.122)
Other	-0.358*** (0.0718)		-0.366*** (0.0833)
<b>Regional language (omitted: German)</b>			
<b>French</b>		<b>0.0459</b> (0.0537)	<b>0.174*</b> (0.0968)
Italian		-0.276** (0.117)	0.0997 (0.146)
Log household income	0.272*** (0.0332)	0.304*** (0.0380)	0.289*** (0.0380)
Age	-0.0339*** (0.0118)	-0.0370*** (0.0133)	-0.0381*** (0.0133)
Age 2	0.0308** (0.0133)	0.0381** (0.0152)	0.0379** (0.0151)
Married	0.405*** (0.0550)	0.345*** (0.0614)	0.378*** (0.0618)
Divorced	-0.0443 (0.0729)	-0.0275 (0.0824)	-0.0191 (0.0823)
Widowed	-0.324** (0.140)	-0.234 (0.159)	-0.198 (0.159)
Unemployed	-1.093*** (0.120)	-1.208*** (0.138)	-1.171*** (0.137)
Female	0.111*** (0.0413)	0.0953** (0.0470)	0.0924** (0.0468)
Constant	6.308*** (0.358)	5.993*** (0.406)	6.209*** (0.407)
Observations	4,904	3,804	3,804
R-squared	0.077	0.067	0.073

Sample: Swiss sample of the ESS. Other controls: year fixed-effects.

**Table 8.C Happiness and Language in Canada**

**OLS Estimates of Happiness**

	(1)	(2)
	Happy	Happy
<b>Language of interview (omitted: English)</b>		
<b>French</b>	<b>0.0433*</b> <b>(0.0231)</b>	
Other	-0.000434 (0.336)	
<b>Language spoken at home (omitted: English)</b>		
<b>French</b>		<b>0.0525**</b> <b>(0.0230)</b>
Other		-0.113** (0.0488)
Age	-0.0140*** (0.00355)	-0.0141*** (0.00355)
Age2	0.000132*** (3.68e-05)	0.000130*** (3.67e-05)
Male	-0.0623*** (0.0213)	
Marital status (omitted : married)		
Living together	-0.114*** (0.0344)	-0.120*** (0.0343)
Divorced	-0.170*** (0.0422)	-0.169*** (0.0420)
Separated	-0.294*** (0.0513)	-0.283*** (0.0507)
Widow	-0.208*** (0.0426)	-0.191*** (0.0418)
Single	-0.265*** (0.0315)	-0.271*** (0.0314)
Income scale	0.0139*** (0.00455)	0.0131*** (0.00451)
Constant	3.716*** (0.142)	3.750*** (0.144)
Observations	3,439	3,461
R-squared	0.061	0.060

Other controls: year fixed-effects, ethnic group, employment status, education.

Source: World values Survey, years: 2000 and 2006.

Table 9.A Other Attitudes. OLS estimates of Satisfaction in Different Domains

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Depressiveness Index (0-59)	Satisfaction with Eco (stfeco) (0-10)	Satisfaction with national government (stfgov )(0-10)	Satisfaction with democracy (stfdem) (0-10)	Satisfaction with education system Stfedu (0-10)	Satisfaction with Health system (stfhlth) (0-10)	Most people can be trusted (ppltrst) (0-10)	Most people try to be fair (pplfair) (0-10)	Living comfortably on present income (hincfel) (1-4)
Belgium	0.674*** (0.0105)	0.0450*** (0.00369)	0.0944*** (0.00578)	-0.281*** (0.00495)	0.735*** (0.00422)	1.572*** (0.00516)	-0.429*** (0.00467)	-0.290*** (0.00338)	-0.0392*** (0.00178)
Switzerland	-0.897*** (0.0987)	0.404*** (0.0190)	0.818*** (0.0171)	0.733*** (0.0259)	0.478*** (0.0207)	0.667*** (0.0299)	0.147*** (0.0172)	0.259*** (0.0129)	-0.0789*** (0.0108)
Germany	-1.225*** (0.0201)	-1.207*** (0.00558)	-0.966*** (0.00513)	-0.355*** (0.00419)	-1.352*** (0.00339)	-0.930*** (0.00427)	-0.517*** (0.00583)	-0.189*** (0.00446)	-0.108*** (0.00192)
Denmark	-1.899*** (0.0428)	1.819*** (0.00871)	0.990*** (0.0121)	1.594*** (0.0121)	1.659*** (0.0112)	0.385*** (0.00956)	1.417*** (0.0100)	1.183*** (0.00985)	0.199*** (0.00708)
Spain	-0.417*** (0.0519)	-0.274*** (0.0215)	-0.0930*** (0.0193)	0.291*** (0.0175)	-0.664*** (0.0175)	0.0719*** (0.0197)	-0.307*** (0.0124)	-0.552*** (0.0129)	0.0342*** (0.00713)
Finland	-0.108*** (0.0315)	1.417*** (0.00880)	1.433*** (0.00854)	0.946*** (0.00510)	2.129*** (0.00754)	1.130*** (0.0105)	0.999*** (0.00694)	0.747*** (0.00377)	-0.185*** (0.00226)
<b>France</b>	<b>1.561*** (0.0253)</b>	<b>-1.535*** (0.0250)</b>	<b>-0.645*** (0.0174)</b>	<b>-1.027*** (0.0121)</b>	<b>-0.698*** (0.00990)</b>	<b>0.296*** (0.0112)</b>	<b>-0.958*** (0.0120)</b>	<b>-0.304*** (0.00815)</b>	<b>-0.0385*** (0.00729)</b>
Great-Britain	2.079*** (0.0450)	-0.448*** (0.0104)	-0.631*** (0.00585)	-0.840*** (0.00817)	-0.284*** (0.00738)	-0.497*** (0.00986)	-0.299*** (0.00765)	-0.479*** (0.00658)	-0.132*** (0.00413)
Netherlands	-0.272*** (0.0315)	0.442*** (0.0119)	0.162*** (0.00970)	0.195*** (0.00615)	0.0119* (0.00579)	0.131*** (0.00909)	0.372*** (0.00404)	0.210*** (0.00497)	0.0932*** (0.00251)
Norway	-0.656*** (0.0783)	1.317*** (0.0139)	-0.0593*** (0.0165)	0.531*** (0.0202)	0.546*** (0.0168)	0.0748*** (0.0191)	1.038*** (0.0173)	0.749*** (0.0154)	-0.0212* (0.0118)
Portugal	2.402*** (0.127)	-1.784*** (0.0273)	-1.230*** (0.0218)	-1.297*** (0.0332)	-1.677*** (0.0285)	-1.800*** (0.0313)	-1.152*** (0.0296)	-0.833*** (0.0264)	-0.246*** (0.0177)
Sweden	-0.160*** (0.0484)	0.172*** (0.00869)	0.288*** (0.00950)	0.464*** (0.0104)	-0.306*** (0.00973)	-0.287*** (0.0109)	0.760*** (0.00886)	0.567*** (0.00779)	0.174*** (0.00444)
Slovenia	-1.083*** (0.116)	-0.368*** (0.0190)	-0.161*** (0.0173)	-0.954*** (0.0284)	-0.578*** (0.0212)	-0.815*** (0.0230)	-1.073*** (0.0204)	-1.069*** (0.0184)	0.349*** (0.0141)
Constant	31.81*** (0.954)	3.200*** (0.275)	3.962*** (0.233)	3.883*** (0.268)	6.855*** (0.256)	6.182*** (0.320)	2.581*** (0.208)	4.233*** (0.194)	0.311* (0.168)
Observations	15,920	64,135	63,593	63,676	63,191	64,437	64,715	64,648	62,515
R-squared	0.113	0.275	0.138	0.169	0.231	0.156	0.165	0.124	0.292

Other controls: all variables of Table 4 (age, age square, marital status, gender, log income, region of origin, migration status, employment status, year fixed-effects). Weighted estimates. The coefficients of country fixed-effects reflect deviations from the “grand mean” rather than deviations from the reference category. Robust standard errors clustered by country.

Table 9.B Follow up. OLS Estimates Other Attitudes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Left-right scale (lrscle) (0-10)	Minimize State intervention (ginveco) (1-5)	Easy to start business (strtbsn) (0-10)	Easy to find a similar job (smbtjob) (0-10)	Accept large income differences to reward efforts (dfincac ) (1-5)	Fair society- small differences in standard of living (smdfslv) (1-5)	Important that people have equal opportunities (ipeqopt) (1-6)	Important that govt strong (ipstrgv) (16)	Deepen European integration (eutf) (0-10)	Government should reduce income differences (gincdif) (1-5)
Belgium	-0.0695*** (0.00317)	-0.134*** (0.00479)	0.0404** (0.0174)	-0.0559*** (0.00962)	0.0538*** (0.00252)	-0.000740 (0.00320)	0.0712*** (0.00160)	-0.0369*** (0.00268)	0.00307 (0.00646)	-0.000956 (0.00241)
Switzerland	-0.148*** (0.0260)	0.296*** (0.0151)	-0.689*** (0.0507)	-0.643*** (0.0450)	-0.0289** (0.0119)	0.248*** (0.0162)	0.129*** (0.00763)	0.000928 (0.00926)	0.0896*** (0.0219)	0.0449*** (0.0118)
Germany	-0.430*** (0.00426)	0.423*** (0.00351)	-0.955*** (0.0154)	-1.461*** (0.0103)	0.189*** (0.00260)	-0.0837*** (0.00319)	-0.0589*** (0.00167)	-0.0657*** (0.00157)	0.0786*** (0.00598)	-0.267*** (0.00233)
Denmark	0.289*** (0.0126)	-0.147*** (0.00974)	0.0639** (0.0258)	0.746*** (0.0140)	0.314*** (0.00636)	-0.620*** (0.0103)	-0.265*** (0.00490)	0.483*** (0.00499)	0.600*** (0.0112)	-0.601*** (0.00734)
Spain	-0.521*** (0.0166)	-0.0780*** (0.0112)	-0.519*** (0.0399)	-0.0731*** (0.0230)	0.101*** (0.0105)	0.447*** (0.0124)	0.315*** (0.00485)	-0.532*** (0.00679)	0.788*** (0.0145)	0.249*** (0.00936)
Finland	0.690*** (0.00497)	-0.156*** (0.00376)	0.984*** (0.00587)	0.383*** (0.00828)	-0.651*** (0.00451)	0.197*** (0.00283)	0.0659*** (0.00307)	-0.176*** (0.00271)	-0.705*** (0.00975)	0.186*** (0.00196)
France	-0.175*** (0.0118)	-0.163*** (0.0177)	-0.577*** (0.0478)	-0.305*** (0.0285)	-0.106*** (0.00343)	0.0167*** (0.00284)	0.245*** (0.00558)	0.0516*** (0.0120)	-0.181*** (0.0104)	0.366*** (0.00625)
Great-Britain	0.0228** (0.00809)	0.0620*** (0.00519)	0.340*** (0.0352)	1.073*** (0.0165)	0.215*** (0.00569)	-0.185*** (0.00661)	-0.117*** (0.00232)	-0.186*** (0.00376)	-0.891*** (0.00984)	-0.185*** (0.00378)
Netherlands	0.173*** (0.00373)	-0.286*** (0.00594)	0.407*** (0.0101)	0.507*** (0.0133)	0.184*** (0.00298)	-0.359*** (0.00307)	-0.0371*** (0.00230)	0.0878*** (0.00296)	0.185*** (0.00658)	-0.329*** (0.00377)
Norway	0.207*** (0.0199)	-0.168*** (0.0136)	0.542*** (0.0373)	0.645*** (0.0247)	-0.0139 (0.0124)	0.00375 (0.0179)	-0.206*** (0.00735)	0.251*** (0.00635)	-0.500*** (0.0164)	-0.000442 (0.0106)
Portugal	-0.0353 (0.0330)	-0.0856*** (0.0166)	-0.552*** (0.0720)	-0.841*** (0.0503)	0.141*** (0.0175)	0.462*** (0.0273)	-0.186*** (0.0111)	-0.151*** (0.0112)	0.290*** (0.0279)	0.295*** (0.0147)
Sweden	0.128*** (0.00776)	-0.0805*** (0.00561)	1.189*** (0.0158)	0.852*** (0.0129)	-0.0607*** (0.00548)	-0.00959 (0.00661)	-0.0408*** (0.00352)	0.525*** (0.00431)	-0.480*** (0.00686)	-0.00700 (0.00417)
Slovenia	-0.131*** (0.0232)	0.518*** (0.0188)	-0.273*** (0.0707)	-0.827*** (0.0486)	-0.337*** (0.0119)	-0.116*** (0.0169)	0.0846*** (0.00957)	-0.252*** (0.00925)	0.722*** (0.0198)	0.249*** (0.0134)
Constant	3.967*** (0.326)	3.368*** (0.234)	-3.589*** (0.423)	1.689*** (0.379)	2.196*** (0.197)	5.086*** (0.328)	5.089*** (0.135)	1.497*** (0.207)	4.072*** (0.263)	5.214*** (0.175)
Observations	60,490	16,023	10,170	19,015	16,268	16,242	62,072	61,437	46,491	64,272
R-squared	0.043	0.069	0.113	0.133	0.087	0.115	0.041	0.071	0.051	0.119

Other controls and notes: as in Table 9.A.

## Appendix



**Table A1. Estimation of Happiness Equation (2).**

$$H_i = \alpha_1.I_1 + \alpha_2.I_2 + \alpha_3.I_3 + \mu_{0F}.D_F + \mu_{1F}.I_1.D_F + \mu_{2F}.I_2.D_F + \mu_{3F}.I_3.D_F + \beta.X_i + \sum_k \delta_k.O_k + T_t + \varepsilon_i \quad (3)$$

			Natives ( $\mu_{0F}$ )	First generation ( $\mu_{1F}$ )	Second generation ( $\mu_{2F}$ )	2.5 generation ( $\mu_{3F}$ )
Happy (0-10)						
Age	-0.0673*** (0.00793)	Belgium	0.0821*** (0.00695)	-0.0762 (0.0486)	-0.288*** (0.0197)	-0.0381*** (0.00811)
Age2	0.0649*** (0.0101)	Switzerland	0.240*** (0.0237)	-0.235*** (0.0168)	-0.329*** (0.0214)	-0.0988*** (0.00661)
Male	-0.138*** (0.0292)	Germany	-0.389*** (0.00359)	0.0500** (0.0196)	-0.159*** (0.0146)	-0.0891*** (0.0144)
Log hh income	0.337*** (0.0398)	Denmark	0.578*** (0.0130)	0.0689*** (0.0182)	-0.181*** (0.0248)	-0.192*** (0.00703)
Married	0.460*** (0.0428)	Spain	0.0849*** (0.0150)	-0.00413 (0.0351)	0.512*** (0.0322)	-0.0933*** (0.0222)
Divorced	-0.120** (0.0535)	Finland	0.404*** (0.000683)	-0.0671*** (0.0156)	0.442*** (0.0536)	-0.0591*** (0.0135)
Widowed	-0.424*** (0.0939)	<b>France</b>	<b>-0.257***</b> <b>(0.0102)</b>	<b>0.204***</b> <b>(0.0248)</b>	<b>0.106***</b> <b>(0.0223)</b>	<b>0.205***</b> <b>(0.0133)</b>
Unemployed	-0.588*** (0.0835)	Great-Britain	-0.239*** (0.00710)	0.0283 (0.0185)	-0.512*** (0.0244)	-0.00826 (0.00739)
1st generation (I <sub>1</sub> )	-0.166*** (0.0537)	Netherlands	0.0695*** (0.00558)	0.135*** (0.0190)	-0.0192 (0.0305)	-0.0440*** (0.0109)
2n generation (I <sub>2</sub> )	-0.194*** (0.0278)	Norway	0.115*** (0.0216)	-0.0914*** (0.0130)	-0.110*** (0.0268)	-0.0923*** (0.0117)
2.5 generation (I <sub>3</sub> )	-0.0706*** (0.0132)	Portugal	-0.664*** (0.0335)	0.145*** (0.0473)	0.0862 (0.0732)	0.458*** (0.0304)
<b>Region of origin:</b>		Sweden	0.227*** (0.00814)	-0.117*** (0.0154)	-0.0938*** (0.0209)	-0.139*** (0.00808)
Africa	-0.114 (0.151)	Slovenia	-0.252*** (0.0272)	-0.0400 (0.0315)	0.545*** (0.0632)	0.191*** (0.0254)
Asia-Australasia	-0.207* (0.111)					
Europe	0.0705 (0.0925)					
Latin America Caraibes	-0.0119 (0.126)					
North America	0.284** (0.117)					
Year 2004	-0.0329 (0.0341)					
Year 2006	-0.0669 (0.0444)					
Year 2008	-0.0724 (0.0428)					
Constant	6.857*** (0.314)					
Observations	65,371					
R-squared	0.123					

Robust standard errors clustered by country. Reference categories: year 2002, Region: “unknown”, single, in paid work. The coefficients of country fixed-effects reflect deviations from the “grand mean” rather than deviations from the reference category. The modified coefficients sum up to zero over all categories. Weighed estimates.

**Table A2. Macroeconomic Controls in the Estimates of Happiness. OLS Estimates of Happiness**

	(1)	2	3	4	5	6	7
GDP growth per year	0.00759 (0.00880)						
Unemployment rate		-0.00637 (0.0163)					
Annual CPI			-0.0276** (0.0125)				
GDP per capita (constant 2000 \$)				-1.79e-05 (1.01e-05)			
Hours worked (ILO)					-0.000689 (0.00113)		
Life expectancy at birth						-0.0394 (0.0283)	
Government expenditures/GDP							-0.0112 (0.0130)
1st generation immigrant	-0.150** (0.0513)	-0.150** (0.0513)	-0.154*** (0.0474)	-0.146** (0.0527)	-0.178*** (0.0454)	-0.143** (0.0539)	-0.148** (0.0514)
2nd generation immigrant	-0.172*** (0.0228)	-0.173*** (0.0224)	-0.168*** (0.0229)	-0.171*** (0.0224)	-0.172*** (0.0233)	-0.168*** (0.0214)	-0.171*** (0.0230)
2.5 generation	-0.0750*** (0.0112)	-0.0744*** (0.0114)	-0.0705*** (0.0114)	-0.0702*** (0.0118)	-0.0678*** (0.0103)	-0.0660*** (0.0131)	-0.0719*** (0.0120)
France	-0.266*** (0.0136)	-0.257*** (0.0440)	-0.279*** (0.0143)	-0.309*** (0.0324)	-0.323*** (0.0405)	-0.223*** (0.0267)	-0.262*** (0.0149)
Immigrant*France	0.261*** (0.0246)	0.261*** (0.0247)	0.259*** (0.0248)	0.260*** (0.0250)	0.259*** (0.0237)	0.258*** (0.0258)	0.261*** (0.0244)
Second generation*France	0.0838*** (0.0199)	0.0833*** (0.0202)	0.0853*** (0.0202)	0.0803*** (0.0209)	0.134*** (0.0150)	0.0761*** (0.0229)	0.0820*** (0.0201)
2.5 generation *France	0.112*** (0.0142)	0.112*** (0.0143)	0.112*** (0.0143)	0.113*** (0.0143)	0.0760*** (0.0111)	0.115*** (0.0145)	0.112*** (0.0142)
Observations	65,371	65,371	65,371	65,371	61,751	65,371	65,371
R-squared	0.133	0.133	0.133	0.133	0.133	0.133	0.133
Circumstances France ( $\Delta C$ )	-0.00424	0.00459	-0.0195	-0.0495	-0.0638	0.0347	-0.000509
Mentality France ( $\Delta M$ )	-0.177	-0.178	-0.174	-0.180	-0.125	-0.182	-0.179
Culture France ( $\Delta G$ )	-0.0838	-0.0833	-0.0853	-0.0803	-0.134	-0.0761	-0.0820

Notes: as in Table A1. Macroeconomic magnitudes are taken from the WDI database unless otherwise indicated.

**Table A3. Triple Interactions between Migration Status, Macroeconomic Variables and Country Fixed-Effects.**

**OLS Estimates of Happiness**

	(1) Happy	(2) Happy
Unemployed	-0.552*** (0.0606)	-0.551*** (0.0607)
First generation Immigrant	-0.165* (0.0789)	-0.181** (0.0805)
Second generation Immigrant	-0.187** (0.0739)	-0.219** (0.0730)
2.5 generation	-0.0655** (0.0299)	-0.0801** (0.0315)
France	-0.406 (0.342)	-1.510*** (0.172)
Immigrant*France	0.192*** (0.0624)	0.202*** (0.0512)
2 <sup>nd</sup> generation*France	0.0901 (0.0594)	0.103* (0.0495)
2.5 generation *France	0.199*** (0.0309)	0.200*** (0.0258)
Government Expend/GDP*France	0.00986 (0.0235)	
Immigrant*Govt expend.	-0.00102 (0.00559)	
<b>Gov. expend*immigrant*France</b>	<b>0.00137</b> (0.00474)	
Unemployment*France		0.160*** (0.0225)
Immigrant*Unemployment		0.00281 (0.0106)
<b>Immigrant*Unemployment*France</b>		<b>0.000625</b> (0.00920)
Constant	6.904*** (0.301)	6.798*** (0.290)
Observations	62,985	62,985
R-squared	0.119	0.119

Other controls: age, age square, gender, marital status, log(income), unemployed, region of origin, all country fixed-effects, all country fixed-effects interacted with migration status, all country fixed-effects interacted with migration status and variable of interest, year fixed-effects, year fixed-effects\*variable of interest (unemployment, government expenditure). Robust standard errors clustered by country. Weighted estimates.

Macroeconomic magnitudes are taken from the WDI database unless otherwise indicated

**Table A4. Triple interactions between Individual Level Variables, Country fixed-Effects and Migration Status. OLS Estimates of Happiness**

	(1)	(2)	(3)	(4)	(5)
	Happy	Happy	Happy	Happy	Happy
Age	-0.0634*** (0.00854)	-0.0666*** (0.00785)	-0.0668*** (0.00785)	-0.0667*** (0.00782)	-0.0669*** (0.00799)
Age square	0.0608*** (0.0103)	0.0640*** (0.0100)	0.0641*** (0.00998)	0.0641*** (0.00996)	0.0650*** (0.0101)
Male	-0.138*** (0.0298)	-0.139*** (0.0299)	-0.133*** (0.0328)	-0.139*** (0.0299)	-0.138*** (0.0308)
Log hh income	0.329*** (0.0376)	0.317*** (0.0362)	0.329*** (0.0374)	0.328*** (0.0374)	0.322*** (0.0360)
Unemployed	-0.554*** (0.0606)	-0.551*** (0.0604)	-0.552*** (0.0606)	-0.540*** (0.0717)	-0.527*** (0.0583)
Foreign born	-0.172** (0.0564)	-0.171** (0.0581)	-0.168** (0.0762)	-0.166** (0.0565)	-0.146** (0.0573)
Second generation	-0.212*** (0.0264)	-0.209*** (0.0261)	-0.193** (0.0700)	-0.189*** (0.0292)	-0.140*** (0.0423)
2.5 generation	-0.0771*** (0.0135)	-0.0764*** (0.0131)	-0.0614* (0.0327)	-0.0670*** (0.0140)	-0.0565*** (0.0162)
France	-0.303*** (0.0174)	-0.325*** (0.0150)	-0.376*** (0.0467)	-0.259*** (0.0103)	-0.231*** (0.0136)
Foreign born*France	0.224*** (0.0230)	0.229*** (0.0314)	0.220*** (0.0684)	0.168*** (0.0250)	0.243*** (0.0302)
2 <sup>nd</sup> generation*France	0.109*** (0.0254)	0.127*** (0.0237)	0.118* (0.0635)	0.0591** (0.0255)	0.116*** (0.0292)
2.5 generation * France	0.197*** (0.0138)	0.206*** (0.0159)	0.217*** (0.0350)	0.188*** (0.0137)	0.229*** (0.0148)
Young* France	0.195*** (0.0559)				
Immigrant*Young	0.0598 (0.0526)				
<b>Immigrant*Young*France</b>	<b>0.00703</b> (0.0552)				
Rich*France		0.202*** (0.0325)			
Migrant*Rich		0.0524 (0.0584)			
<b>Migrant*Rich*France</b>		<b>0.0113</b> (0.0615)			
Male* France			0.0800** (0.0327)		
Migrant*Male			-0.00523 (0.0499)		
<b>Migrant*Male*France</b>			<b>-0.00717</b> (0.0465)		
Unemployed*France				-0.0804 (0.0808)	
Immigrant*Unemployed				-0.0753 (0.121)	
<b>Immigrant*Unemployed*France</b>				<b>0.468***</b> (0.120)	
Receive State transfers*France					-0.185*** (0.0451)
Immigrant*receive State transfers					-0.204** (0.0860)
<b>Immigrant*receive transfers*France</b>					<b>-0.118</b> (0.0837)
Observations	62,985	62,985	62,964	62,985	61,420
R-squared	0.119	0.119	0.119	0.119	0.120

Other controls: age, age square, gender, marital status, log(income), year fixed-effects, region of origin, all country fixed-effects, all country fixed-effects interacted with migration status and with the variable of interest, triple interactions between all country fixed-effects, migration status and the variable of interest (age, income, gender, unemployment, recipient of State transfers). Robust standard errors clustered by country. Weighted estimates.

## Descriptive Statistics of the Regression Sample (ESS, waves 1-4)

**Table A5. Composition of Countries by Migration Status of Inhabitants**

Country	Natives	First generation immigrants	Second generation immigrants	2.5 generation	Total
Belgium	3,929	376	192	289	4,786
Switzerland	3,219	950	214	493	4,876
Germany	5,948	554	164	403	7,069
Denmark	3,895	217	18	176	4,306
Spain	3,358	308	8	49	3,723
Finland	5,679	102	7	84	5,872
France	4,083	405	201	404	5,093
Great-Britain	4,581	464	157	309	5,511
Netherlands	4,703	464	97	261	5,525
Norway	5,109	339	22	218	5,688
Portugal	2,769	151	21	32	2,973
Sweden	4,647	589	131	406	5,773
Slovenia	3,005	175	107	224	3,511
<i>Total</i>	<i>54,925</i>	<i>5,094</i>	<i>1,339</i>	<i>3,348</i>	<i>64,706</i>

**Table A6.a. Distribution of the Population across European Countries**

Destination →	BE	CH	DE	DK	ES	FI	FR	GB	NL	NO	PT	SE	SI	Total
<b>Origin ↓</b>														
Belgium	3,929	14	2	4	2		17	4	35	4	1	1	1	4,014
Switzerland		3,22	4	4			12	5	2	2		8		3,257
Germany	25	281	5,949	56	2	4	34	36	101	26	1	72	22	6,609
Denmark	1	3	1	3,898	1	1		1		62		44		4,012
Spain	21	60	10	2	3,362	1	63	14	10	4	6	7		3,56
Finland		4	1	8	1	5,679	1	2		14		280		5,99
France	151	135	19	5	16	1	4,083	13	7	10	2	5	7	4,454
G-B	8	32	13	13	7	2	6	4,583	22	46	1	21		4,754
Netherlands	93	26	6	6	4	1	1	8	4,703	12		13	1	4,874
Norway	2	2	1	24		2				5,109	1	70		5,211
Portugal	5	65	9	1	17		81	9	5		2,769	2		2,963
Sweden	2	7		24		25	2	3	2	61		4,647	1	4,774
Slovenia		6							1			1	3,005	3,013
Other	451	842	909	218	297	125	657	722	544	293	179	464	451	6,152
<i>Total</i>	<i>4,688</i>	<i>4,697</i>	<i>6,924</i>	<i>4,263</i>	<i>3,709</i>	<i>5,841</i>	<i>4,957</i>	<i>5,4</i>	<i>5,432</i>	<i>5,643</i>	<i>2,96</i>	<i>5,635</i>	<i>3,488</i>	<i>63,637</i>

**Table A6.b. Intra-European Migration Flows (only Migrants)**

<b>Destination</b> →	BE	CH	DE	DK	ES	FI	FR	GB	NL	NO	PT	SE	SI	<i>Total</i>
<b>Origin ↓</b>														
Belgium	0	14	2	4	2	0	17	4	35	4	1	1	1	85
Switzerland	0	1	4	4	0	0	12	5	2	2	0	8	0	38
Germany	25	281	1	56	2	4	34	36	101	26	1	72	22	661
Denmark	1	3	1	3	1	1	0	1	0	62	0	44	0	117
Spain	21	60	10	2	4	1	63	14	10	4	6	7	0	202
Finland	0	4	1	8	1	0	1	2	0	14	0	280	0	311
France	151	135	19	5	16	1	0	13	7	10	2	5	7	371
G-B	8	32	13	13	7	2	6	2	22	46	1	21	0	173
Netherlands	93	26	6	6	4	1	1	8	0	12	0	13	1	171
Norway	2	2	1	24	0	2	0	0	0	0	1	70	0	102
Portugal	5	65	9	1	17	0	81	9	5	0	0	2	0	194
Sweden	2	7	0	24	0	25	2	3	2	61	0	0	1	127
Slovenia	0	6	0	0	0	0	0	0	1	0	0	1	0	8
Other	451	842	909	218	297	125	657	722	544	293	179	464	451	6,152
<i>Total</i>	<i>759</i>	<i>1,478</i>	<i>976</i>	<i>368</i>	<i>351</i>	<i>162</i>	<i>874</i>	<i>819</i>	<i>729</i>	<i>534</i>	<i>191</i>	<i>988</i>	<i>483</i>	<i>8,712</i>

**Table A7. Region of Origin of Immigrants in Europe**

<b>Destination</b> →	BE	CH	DE	DK	ES	FI	FR	GB	NL	NO	PT	SE	SI	<i>Total</i>
<b>Region of Origin ↓</b>														
Unknown	38	81	99	35	4	23	57	59	64	56	12	76	183	787
Africa	187	58	22	21	75	5	392	139	98	20	139	31	2	1,189
Asia-Austral	81	123	231	90	15	19	46	274	257	111	5	178	2	1,432
Europe	585	1,336	777	270	154	192	528	434	351	389	74	808	426	6,324
Latin Am.	12	60	9	8	151	2	30	54	93	14	52	44	0	529
North Amer.	6	27	21	16	2	7	6	44	7	31	4	12	2	185
<i>Total</i>	<i>909</i>	<i>1,685</i>	<i>1,159</i>	<i>440</i>	<i>401</i>	<i>248</i>	<i>1,059</i>	<i>1,004</i>	<i>870</i>	<i>621</i>	<i>286</i>	<i>1,149</i>	<i>615</i>	<i>10,446</i>

**Table A8. Average Happiness by Migration Status and Country**

	Natives	1 <sup>st</sup> generation	2nd generation	2.5 generation
Belgium	7.74358	7.4146	7.33178	7.62179
Switzerland	8.12224	7.74666	7.92774	8.00026
Germany	7.31563	7.02729	7.15967	7.03258
Denmark	8.34146	8.1106	8.16667	8.09659
Spain	7.65908	7.42612	8.1605	7.61865
Finland	8.03205	8.03922	8.71429	7.96429
France	7.27604	7.14348	7.36817	7.37175
Great-Britain	7.48693	7.30884	6.99234	7.37981
Netherlands	7.80163	7.50611	7.72574	7.6591
Norway	7.9303	7.61371	8.00315	7.81736
Portugal	6.77203	6.66909	6.83927	7.16654
Sweden	7.88595	7.55009	7.83969	7.68227
Slovenia	7.21398	7.10857	7.88785	7.31696

Weighted averages.

**Table A9. Value of the Variables of Interest in the Regression Sample**

	Variable	Obs.	Mean	Std. Dev.	Min	Max
log(household income in Euro)	Hinctnt (linearized)	65371	7.73	0.78	4.62	9.62
Age		65371	42.06	13.20	16	65
Male	gender	65371	0.49	0.50	0	1
Marital Status	married	65371	0.53	0.50	0	1
	divorced	65371	0.11	0.31	0	1
	widowed	65371	0.02	0.15	0	1
How happy are you?	happy	65371	7.61	1.69	0	10
How satisfied with present state of economy in country	stfec0	64717	5.04	2.38	0	10
How satisfied with the national government	stfgov	64174	4.60	2.25	0	10
How satisfied with the way democracy works in country	stfdem	64261	5.73	2.31	0	10
State of education in country nowadays	stfedu	63768	5.78	2.24	0	10
State of health services in country nowadays	stfhlth	65016	5.64	2.28	0	10
Most people can be trusted or you can't be too careful	ppltrst	65298	5.54	2.29	0	10
Most people try to take advantage of you, or try to be fair	pplfair	65232	6.08	2.09	0	10
Feeling about household's income nowadays	Hincfel (recoded)	63076	3.22	0.78	1	4
For most people in country life is getting worse*	lfwrs	16097	2.77	1.06	1	5
Placement on left right scale	lrscle	61034	4.92	2.04	0	10
The less government intervenes in economy, the better for country* (liberal)	Ginvco (recoded)	16235	2.82	1.04	1	5
Easy to start own business*	strtbsn	10298	3.37	2.92	0	10
Get a similar or better job with another employer*	smbtjob	19226	4.60	2.88	0	10
Large differences in income acceptable to reward talents and efforts*	dfincac (recoded)	16393	3.28	1.08	1	5
For fair society, differences in standard of living should be small*	smdfslv (recoded)	16367	3.46	1.00	1	5
Important that people are treated equally and have equal opportunities*	Ipeqopt (recoded)	62636	4.92	1.02	1	6
Government should reduce differences in income levels	Gincdif (recoded)	64852	3.70	1.06	1	5
Depressivity score*	depressed	16045	20.22	6.59	5	57
Felt depressed, how often past week	fltdpr	16218	1.41	0.64	1	4
felt everything did as effort, how often past week	flteeff	16212	1.63	0.75	1	4
Sleep was restless, how often past week	slprl	16221	1.73	0.82	1	4
Felt lonely, how often past week	fltlnl	16216	1.34	0.63	1	4
Felt sad, how often past week	fltsd	16219	1.47	0.63	1	4
Could not get going, how often past week	cldgng	16205	1.52	0.67	1	4
Felt anxious, how often past week	fltanx	16214	1.53	0.68	1	4
Felt tired, how often past week	fltrtd	16226	1.98	0.71	1	4
Felt bored, how often past week	fltrbd	16212	1.35	0.60	1	4
Felt rested when woke up in morning, how often past week	fltrstm	16214	2.37	0.94	1	4
Seldom time to do things I really enjoy	enjstm	16221	3.07	1.06	1	5
Little chance to show how capable i am	lchshcp	16184	3.35	1.00	1	5
Feel accomplishment from what I do	accdng	16216	2.16	0.74	1	5
In general feel very positive about myself	pstvms	16219	2.18	0.78	1	5
Always optimistic about my future	optftr	16223	2.30	0.89	1	5
At times feel as if i am a failure	flrms	16207	3.56	1.09	1	5

\*Only available in one round. Variables were sometimes recoded in order for the score to be in an ascending order.



**Table A10. World Values Survey, Canadian sample (2000, 2006)**

Variable	Observations	Mean	Std. Dev.	Min	Max
Happy	3461	3.41	0.59	1.00	4.00
Age	3461	47.20	17.32	16.00	95.00
Male	3460	42%			
<b>Interview language:</b>					
English	3440	74%			
French	3440	26%			
Other	3440	0%			
<b>Home language :</b>					
Other	3461	5%			
English	3461	68%			
French	3461	26%			

Source: <http://www.worldvaluessurvey.org/>