The French Unhappiness Puzzle: the Cultural Dimension of Happiness

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Highlights

International differences in happiness are large but essentially unexplained.

The French idiosyncratic unhappiness is one of these puzzles.

Cultural and mental attitudes play a large role in explaining these happiness gaps.

Indeed, immigrants and natives in Europe have different happiness patterns.

In particular, immigrants to France do not share the specific unhappiness of native French.

Early schooling has an important role in shaping these attitudes.

The French Unhappiness Puzzle: the Cultural Dimension of Happiness

Summary

This article sheds light on the important differences in self-declared happiness across countries of similar affluence. It hinges on the different happiness statements of natives and immigrants in a set of European countries to disentangle the influence of objective circumstances versus psychological and cultural factors. The latter turn out to be of non-negligible importance in explaining international heterogeneity in happiness. In some countries, such as France, they are responsible for the best part of the country's unobserved idiosyncratic source of unhappiness. Early schooling plays an important role in shaping these attitudes. I show that these gaps in self-declared happiness have a real emotional counterpart and do not boil down to purely nominal differences.

JEL Codes: I31, H52, J61, O15, O52, Z10

Key-words: Happiness, Unhappiness, Subjective Well-Being, International Comparisons, France, Immigration, European Social Survey.

I. Introduction

Happiness studies have gained so much credit over the last decade that several governments and 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). Measuring well-being "beyond GDP" has become a familiar idea, and subjective happiness is one of the main proposed alternative routes. However, targeting an aggregate happiness indicator is not 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 macroeconomic and institutional 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 standing 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 studies suggest that they cannot be explained by the structure of satisfaction, which is very similar across countries (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 large, unexplained and persistent country fixed effects, i.e. international heterogeneity in happiness.

The reason for these international differences could be that different countries offer different living conditions that cannot be fully arbitraged because of the imperfect mobility of the population across borders. Inside Europe for instance, absent mobility frictions, Europeans would settle into the most attractive places (that offer the highest amenities) and migration flows would lead to the equalization of well-being across the different countries, via the adjustment of house prices and wages (Rosen, 1974; Roback, 1982). Thus, in estimates of life satisfaction, country fixed-effects would not be statistically significant (Ferreira and Moro, 2010; Luechinger 2009, Oswald and Wu, 2010). The fact that, in actual estimates, they are systematically statistically significant can generally interpreted as a sign that there are obstacles to mobility and other violations of the perfect competition assumptions (rationality, perfect information about local amenities, instantaneous price adjustments, etc.). Hence, country fixed-effects would reflect international differences in objective non-monetary living conditions.

However, another possibility is that happiness does not depend only on extrinsic objective circumstances, but also on people's intrinsic cultural dispositions, mental attitudes and representations. This interpretation points to individual heterogeneity not in terms of preferences for such or such local amenity, but in terms of the happiness function, i.e. the capacity to transform circumstances into well-being. Therefore, this paper tries to disentangle extrinsic versus intrinsic factors of happiness, 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 apprehending reality that individuals engrain during their infancy and teenage, via education and socialization instances such as school, firms and organizations). Mentality may also be persistent over several generations. Long-run persistent attitudes, beliefs and values, that characterize groups of people have been called "culture" by (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). The importance of culture in subjective well-being has been underlined (among others) by Diener and Suh (2000) and Diener et al. (2010). I start

with the simplifying assumption that Circumstances and Mentality are separable, and later consider the possibility of their interactions.

Using a survey of seven different countries (ESS, waves 1 to 4), I contrast the happiness of natives to that of immigrants in Europe (pooling together first and second-generation immigrants). In a given country, say France, natives and immigrants share the same external circumstances, but possibly not the same "mentality" or culture. 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 the idiosyncratic French unhappiness is explained by "Mentality" (in addition to the usual socio-economic determinants) rather than by extrinsic Circumstances. A set of observations comforts the cultural interpretation of the French unhappiness: Immigrants of the first-generation who have been trained in school in France are less happy than those who have not. 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. I also check that measures of short-term emotional well-being (instead of happiness) lead to a similar ranking of countries as subjective happiness. 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 consistent set 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 several 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 depressiveness

It has now become common knowledge that the French are much less happy and optimistic than their standard of living would predict. As commented in *the Economist*[1], a recent WIN-Gallup Poll (2011) uncovered that France ranked lower than Iraq or Afghanistan in terms of expectations for 2012. This comes in contrast with the French high standard of living, universal and free access to health care, hospitals, public schools and universities, and the high quality of amenities (as attested by the exceptional 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[2]). 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.B, 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. These measures of mental stress are generally negatively correlated with subjective wel-being (Eugloreh, 2007). The high prevalence of depressiveness translates into the exceptionally high consumption of psychoactive drugs[3] (especially anti-depression) by European standards (CAS, 2010, graphs 8 and 10, pp 76 and 79).

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[1] "Reforming Gloomy France", *The Economist*, April 2011.

[2] http://ec.europa.eu/public_opinion/description_en.htm

[3] 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).

If the "French paradox" is well established, it remains open to interpretation. It could be due to the high rate of unemployment, but it is robust to the inclusion this magnitude in happiness regressions. 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 -and the role of school- in cross-country comparisons. 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-capitalist preferences (Saint Paul, 2010), the conflict between egalitarian and aristocratic values exacerbated by the highly elitist school system (d'Iribarne, 1989), and the excess of hierarchy in the French society (Brulé and Veenhoven, 2011, Algan et al. 2012). Discussing these interpretations is beyond the scope of this paper, although most of them, especially the latter, are consistent with its findings.

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 1st 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 that focuses on biases and equivalence between constructs, measures and scales (Van de Vijver 1998, King et al. 2003)[4]. 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[5] 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", which is 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,

[4] 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.).

[5] 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).

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. 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 a cultural but nonetheless integral part of happiness.

My personal stand is thus to consider the cultural dimension of happiness as a realty rather than a nominal illusion. I thereby join Diener and Suh (2000), Diener et al. (2010) and Inglehart et al. (2008) who have stressed the cultural dimensions of international differences in happiness.

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 which the main variables of interest are not missing. I also retain countries that are traditional immigration countries, and in which immigrants represent at least 15% of the sampled population. This leaves me with 7 countries, i.e. Belgium, Switzerland, Germany, France,

Great-Britain, the Netherlands and Sweden, with about 5800 (Belgium) to 9000 (Germany) observations per country.

Tables A1 to A7 present the descriptive statistics for the regression sample (estimating happiness on age, gender, (log of) household income, employment status, marital status, region of origin, migration status, country of residence and year fixed-effects, as in equation (2) below). Amongst the 38 633 observations with no missing value, 31 110 come from natives and 7523 from immigrants (of which 3802 first-generation immigrants, 1156 second-generation immigrants and 2565 immigrants of the "2,5" generation, i.e. with one native parent and one immigrant parent, see Table A1)[6]. Table A2 illustrates the composition of the sample in terms of origin and destination countries of migrants. As shown by Table A3, amongst the 7523 immigrants established in the 7 European countries under review, 853 come from Africa, 1139 from Asia or Australasia, 277 from Latin America, 97 from North America; the bulk of immigrants come from other European countries (4691)[7].

Table A4 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". Other measures of satisfaction, trust, depressiveness and economic attitudes are also presented in the table. The average level of self-declared happiness in the sample is 7.6, in the range of what is found in other similar surveys. As shown by Table A5, natives are happier in average than

[6] 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.

[7] 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 in the first wave of the ESS (in 2002), there is no information about the country of origin of the parents (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 form the sample, but I verified that reclassifying them in the most sensible way did not alter the results.

immigrants. Amongst the latter, those who have one native parent are on average happier than the second-generation and the first-generation immigrants.

All the descriptive statistics are weighted using design weights that correct for the composition each country's national sample (see http://essedunet.nsd.uib.no/cms/userguide/weight/).

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 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 versus immigrant), 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.

Hence, 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):

Average Happiness = Country Circumstances + Mentality + Socio-demographic features + Time effects (1).

Using abbreviations: $\overline{H}_j = C_j + M_j + \beta.\overline{X}_j + T_t$ (1), where external "Circumstances" (C) include the objective context, i.e. aggregate circumstances such as macroeconomic, 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, including parental transmission. Of course, average national happiness also depends on the socio-demographic composition of the country (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 $\Delta\overline{H}_j = \overline{H}_j - \overline{H}_{\text{Rest of Europe}} = \Delta C_j + \Delta M_j + \beta.\Delta X_j$.

In order to identify the respective importance of ΔC_j and ΔM_j, I hinge on the difference between natives and immigrants. The identification strategy relies on the following assumptions: (i) the circumstances of country j (C_j) are experienced by all its inhabitants in the same way, independently of their geographical origin; (ii) natives differ from immigrants by their "Mentality". I use these difference (between natives and migrants) and double differences (between countries) to identify the share of the country fixed-effects that can be attributed to Circumstances versus Mentality.

I assume that mentality has some cultural inertia and 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 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 M 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 ΔC_j or ΔM_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:

$$H_{ijt} = \alpha.I + \beta.X_{it} + \sum_k \delta_k.O_k + \sum_t T_t + \mathbf{\sum_j \gamma_j.D_j} + \mathbf{\sum_j \mu_j.I.D_j} + \varepsilon_i \qquad (2)$$

where I is a dummy variable that takes value 1 if the respondent is an immigrant (and 0 otherwise), D_j is a dummy variable indicating the country of residence of the respondent (j=1, 7), $I.D_j$ is the interaction term between being an immigrant and living in country j, and O_k is

the region of origin of the respondent (k=1,6). As shown by Table A3, the sample of immigrants is 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_t corresponding to the waves of the survey (2002, 2004, 2006 and 2008). Finally, ε_i is a normally distributed error term. 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[8]. 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.

All elements of equation (2) 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 (2), I can now express the variations of interest by writing the average happiness difference that would be experienced by an individual with given socio-economics features (X) and same origin (O_k) (i.e. controlling for these variables), depending on his migration status and country of residence:

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

[8] 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).

$$\Delta\overline{H}_{\text{immigrants j}} = \overline{H}_{\text{immigrants j}} - \overline{H}_{\text{immigrants ROE}} = \gamma_j + \mu_j = \Delta C_j = (C_j - C_{ROE})$$

- the share of country j's specific happiness explained by mentality rather than circumstances, i.e. the cross-country difference in the happiness gap between natives and immigrants:

$$\Delta M_j = (M_j - M_{ROE}) = \gamma_j - (\gamma_j + \mu_j) = -\mu_j$$

Hence: $\Delta C_j = \gamma_j + \mu_j \qquad \Delta M_j = -\mu_j$

The idiosyncratic happiness difference of native inhabitants of country j as compared to the rest of Europe (γ_j) is thus decomposed into the effects of Circumstances ($\gamma_j + \mu_j$) and Mentality ($-\mu_j$). I retrieve them using on the estimation of the happiness equation (2) at the individual level.

Beyond this baseline specification, I also run other decomposition 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 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, on their country of origin (for Europeans) and on their home language.

IV. Results

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). Immigrants are less happy than natives. Immigrants coming from Africa, Latin America and Asia are less happy than those who come from Europe or North America.

1. Main results

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 an immigrant. Everything else equal, native residents in France, Germany, and Great-Britain are less happy than the average Europeans, whereas native inhabitants of Belgium, the Netherlands, Switzerland and Sweden are happier than the average. But, conditionally on being an immigrant, which as such implies a lower happiness (by 0.139), those who have chosen France as a destination country are just as happy as the average immigrant in Europe (controlling for the region of origin of immigrants).

Based on Table 1, Table 2 presents the decomposition of the idiosyncratic happiness of each country. The happiness gap of natives presented in column (3) is decomposed into the effect of Circumstances (column 1) versus Mentality (column 2). Concerning France, the share of the happiness gap (-0,220) that is due to Circumstances is negligible (-0,004) as compared to Mentality (-0,216). This is in contrast with Germany, where 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 β 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 β, 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?

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 immigrants 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 of the happiness function obtained on the sub-sample of immigrants in France is of 7.339 (column 3), hence a difference of 0.124 (column 5). Of course, the reverse is true, and the typical happiness of immigrants in France (7.239) would be lower 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-Blinder (1973) decomposition of the happiness difference between natives and immigrants in France, which attributes 0.230 happiness points on the account of coefficients, versus -0.199 for endowments, and -0.081 for interactions between the two (see Jann 2008).

One can also compare France and Belgium, two close neighboring countries sharing a common language. As shown by Table 3.C, if the French circumstances were experienced by native Belgians, the average happiness of the latter would be of 7.641 instead of 7.215. And if the French natives lived in Belgium (but kept their mentality), their average happiness level would only be of 7.392 instead of the level of 7.737 experienced by Belgians. Table 3.D confirms that the average happiness difference between the two countries (0.515) is much better explained by coefficients (0.345) than by endowments (0.097).

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, a general fact that is well-known by the specialists of the field (See Clark and Senik 2011). The mentioned variations represent about one quarter of the standard deviation of the happiness variable (1.69). 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 is around 10% depending on the controls that are included. However, these differences are equivalent, in terms of well-being, 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.

2. Channels of Mentality and Culture

Tables 4 to 7 explore the channels of formation and transmission of Mentality, focusing on the French case. They look at the effect of schooling in France on immigrants' happiness, as well as 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 ESS survey does not contain 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 a 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. To this end, I assume that, in average, those who chose the second modality arrived about 3 years ago; the third modality: 8 years ago; the fourth modality: 15 years ago; and the fifth modality: 25 years ago (to be conservative). Admittedly, it is impossible to guess whether respondents older than 35 years were in school in their destination country at the age of 10, even if they choose the fifth modality. Accordingly, I run the estimates on the sub-sample of immigrants aged 18 to 35 years old. The effect of having been in school in a particular country is given by the interaction term between the corresponding country fixed effects and a dummy variable that codes 1 if this is the case (and 0 otherwise). These interactions terms are presented in column (2) of Table 4.

It turns out that first-generation immigrants who went to school in France before the age of 10 are less happy than those who did not (column 2 of the table). Concerning the main effects, the coefficient on the France fixed-effect (the effect of living in France) is positive, consistently with the previous result that immigrants do not share the specific French unhappiness. But on top of this main effect, those who attended school in France are less happy than immigrants in all other countries.

The French Abroad

If it I 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 5 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, even controlling for the country of residence. A French origin reduces the level of declared happiness by about 0.16 as compared to the average European origin. Note that the Swedes living abroad declare a low level of happiness too, in contrast with the high level of happiness of native residents in Sweden.

An epidemiological approach

Most coefficients on the country of origin of European migrants are statistically significant, which suggests that the cultural dimension of happiness is important in a general way. To comfort this observation, I replicated the exercise of Luttmer and Singhal (2011) and tested whether the happiness of descendants of European migrants is correlated with the average happiness in their origin country (in 2002). Both T test and Spearman test lead to the rejection of the hypothesis that the happiness of migrants is independent or has a different mean value from that of their compatriots in their home country. Table 6 presents estimates of happiness run over the sample of European migrants of the second generation: it shows that the happiness of the latter is positively (and statistically significantly) correlated with the average happiness of natives in their origin country. This "epidemiological" result can be interpreted, in the spirit of Luttmer and Singhal, as testifying to the cultural dimension of happiness.

3. Satisfaction and other Attitudes

If the lower happiness of the native 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 7.A presents estimates of a series of satisfaction attitudes, while Table 7.B deals with a wider scope of opinions.

Table 7.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 (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 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 7.A and 7.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%. Being French increases the probability of declaring that one lives difficultly with one's household's income 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". The proportion of people agreeing that "for most people life is getting better" is particularly low in France. Concerning more general opinions (Table 7.B), 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, values and expectations.

5. Robustness

Are international differences in self-declared happiness reflecting actual latent differences in well-being or purely nominal differences? To answer, I use two pieces of evidence: (1) measures of emotional well-being à la Kahneman, and (2) the case of multi-linguistic

countries. I then discuss the assumption of separability between migration status and individual circumstances that is used for identification in the previous section.

Emotional well-being

It is useful to check whether alternative measures of well-being that focus on emotions and affects lead to a similar picture of the French in the hierarchy of European nations. These measures capture "short run utility" (Kahneman, 1999), as opposed to the more cognitive and judgmental "long-run utility" that is measured by life satisfaction or happiness questions (see Diener et al. 2010, or Kahneman et al. 2010). Such reported affects are generally collected using the *Experience Sampling Method* or the *Day-Reconstruction-Method*, or time-use surveys, where respondents have to qualify the emotions they experience during each of their daily activities. This method was followed by the *Gallup World Poll*, which conducted surveys of representative samples of people from 155 countries between 2005 and 2009, asking individuals to report the emotions they experienced during the previous day. Questions were worded as follows: "*Did you experience the following feelings during a lot of the day yesterday? How about _____?*" Each of seven emotions (smile (*Did you smile a lot yesterday?*), enjoyment, happiness, worry, sadness, anger, stress) was reported separately, using had *yes/no* response options.

I used the country mean frequency of reported affects for the same European countries as analyzed in the rest of the paper, for years going from 2007 to 2009[9]. Following the usage, I built an average positive affect score and an average negative affect score, as well as an average net score of positive minus negative answers.

As shown by the Figures 4.A to 4.C, it turns out that France ranks first in terms of negative affects and last in terms of positive affects! This is driven by the particularly high number of French respondents reporting feelings of anger and worry and the low frequency of feelings of enjoyment and happiness. By contrast, Sweden scores particularly high in terms of enjoyment and low for worry, sadness and angriness (see the descriptive statistics in Table A7). The ranking of countries in terms of net affects balance (positive affects minus negative affects) is similar, with France in the lowest place, and Sweden and the Netherlands at the highest level.

Hence, measures of emotional well-being, which capture experienced affects and are thus less

[9] I am grateful to Angus Deaton for obtaining the authorization for me to use these data.

subject to nominal biases than happiness or life satisfaction judgments, lead to the same picture of international differences as the latter, and in particular to the same assessment of the French unhappiness.

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. To address this issue, I study the typical happiness of different linguistic groups inside three multilingual countries. If the French unhappiness is purely nominal, in a given country, francophone regions and individuals should declare a lower happiness 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), French-speakers 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 A6). 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[10], but not purely nominal.

Omitted variables

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, the unemployment rate, the inflation rate, the yearly GDP per capita, the 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*). 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 and origin dummies and their interactions. These regressions are not shown for space reason.

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 equation (2) 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 natives versus immigrants would be due to some common macroeconomic factor (the size of budget transfers for instance).

[10] Brügger, Lalive and Zweimuller (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.

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:

$$H_i = \alpha_1.I + \beta.X_i + \delta_k.O_k + \phi.Z_i + \mu_{0j}.D_j + \gamma_{2j}.I.D_j + \gamma_3.I.Z_i + \gamma_{4j}.D_j.Z_i + \boldsymbol{\gamma_{5j}}.I.D_j.Z_i + T_t + T_t^* Z_j + \varepsilon_i \qquad (3)$$

where Z_i is the potential source of heterogeneity, I stands for the fact of being an immigrant (versus native), D_j is the destination countries. Hence, γ_3 will measure the specific effect of being an immigrant and having feature Z; while γ_{5j} measures the effect of variable Z on immigrants to France rather than to other destination countries, as compared with French natives. For simplicity, equation (3) contrast country j (say France) to the rest to Europe. Year fixed-effects are 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 γ_{5j} on the triple interaction term is not statistically significant, one cannot reject the fundamental hypothesis that indeed, the magnitudes are separable. Table 9.A and 9.B present the results of the estimates of equation (3). 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 9.A) that the triple interactions between aggregate unemployment, migration status and France fixed-effect is not statistically significant. (Note that happiness declines less with aggregate unemployment in France than it does in average in Europe, but there is no difference with this respect between immigrants and natives). The triple interaction including government expenditure is weakly significant but attracts a negative sign, hence going in the opposite direction as the general interaction term between immigrant and France. Hence, one cannot reject the null that the happiness difference between natives and immigrants in France is not driven by some country macroeconomic specificity that would attract or repel immigrants (such as high budget spending, or unemployment benefits).

Individual channels

I consider the following sources of individual heterogeneity (Z): high income (measured by a dummy "Rich" for above-average income), age (a dummy "Young" indicating whether the respondent is 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 9.B shows that, although the coefficients on simple interactions are often statistically significant, those on triple interaction terms (γ_{5j}) are not, except for state transfers: migrants to France who receive State transfers are relatively less happy than in the rest of Europe. The coefficients on triple interaction terms between country fixed-effects, migration status and occupation categories (as measured by ISCO-1 digit) were not significant. Nor were triple interactions between country fixed-effects, migration status and regions of origin (not displayed for space reasons).

Overall, most robustness test do not allow rejecting the null hypothesis of separability between the happiness effect of the migration status of respondents and their individual and aggregate circumstances.

V. 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, it underlines the important cultural dimension of happiness, where culture is understood as a real and not a purely nominal phenomenon. 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 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.

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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.

Algain Y., Cahuc P. and Zylberberg P. (2012). *La Fabrique de la Défiance,* Albin Michel.

Algan Y. and Cahuc P. (2007). *La société de défiance : comment le modèle social français s'autodétruit ?*

Algan Y. and Cahuc P. (2010). "Inherited Trust and Growth", *American Economic Review*, 100, 2060–2092.

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*.

Algan Y., Cahuc P. and Shleifer A. (2011). "Teaching Practices and Social Capital", working paper.

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*.

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 politques de santé. *Sur le bon usage des medicaments 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.

Brulé G., Veenhoven R. (2012). “Why are Latin Europeans less happy? The impact of social hierarchy”, forthcoming in *Anthropology*. ISBN 979-953-307-388-9

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.

Diener E., Helliwell J. and Kahneman D. (2010). *International Differences in Well-Being*. Oxford University Press.

Diener E., Kahneman D., Tov W. and Arora R. (2010). "Income's association with Judgements of Life versus Feelings", Chapter 1 (pp 3-16) in Diener E., Helliwell J. and Kahneman D. eds. *International Differences in Well-Being*. Oxford University Press.

Diener, E., Suh, E. M. (Eds.). (2000). *Culture and Subjective Well-Being* Cambridge, MA: MIT Press.

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

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 Macmillian.

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*.

Ferreira S. and Moro M. (2010). “On the Use of Subjective Well-Being Data for Environmental Valuation”, *Environmental Resources Economics*, 46, 249-273.

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 E., Schkade D., Fischler D., Krueger A. and Krilla A. (2010.) “The Structure of Well-Being in Two Cities: Life Satisfaction and Experienced Happiness in Columbus , Ohio, and Rennes, France”, Chapter 2 (pp 16-34) in Diener E., Helliwell J. and Kahneman D. eds. *International Differences in Well-Being*. Oxford University Press.

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.

Luenchinger S. (2009). "Valuing air quality using the Life Satisfaction Approach", *The Economic Journal*, 119, 482-515.

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.

OECD (2009). "Comparative Child Well-Being across the OECD", chapter 2 in *Doing Better for Children,* ISBN 978-92-64-05933-7.

OECD (2011). *How's Life?: Measuring well-being,* OECD Publishing. http://dx.doi.org/10.1787/9789264121164-en

Oswald A. and Wu S. (2010). "Objective Confirmation of Subjective Measures of Human Well-Being: Evidence from the U.S.A.", *Science*, 327(5965), 576-579.

Paris : Ed. ENS rue d'Ulm, 102 p. Opuscule n°9 - ISBN 978-7288-0396-5.

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.

Roback. J. (1982). "Wages, Rents and the Quality of Life". *Journal of Political Economy*, 90(6), 1257-1278.

Rosen S. (1974). “Hedonic Prices and Implicit Markets: product differentiation in Pure Competition”, *Journal of Political Economy*, 82(1), 34-55.

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 Well-Being in the UK”, Office for National Statistics Working Paper.

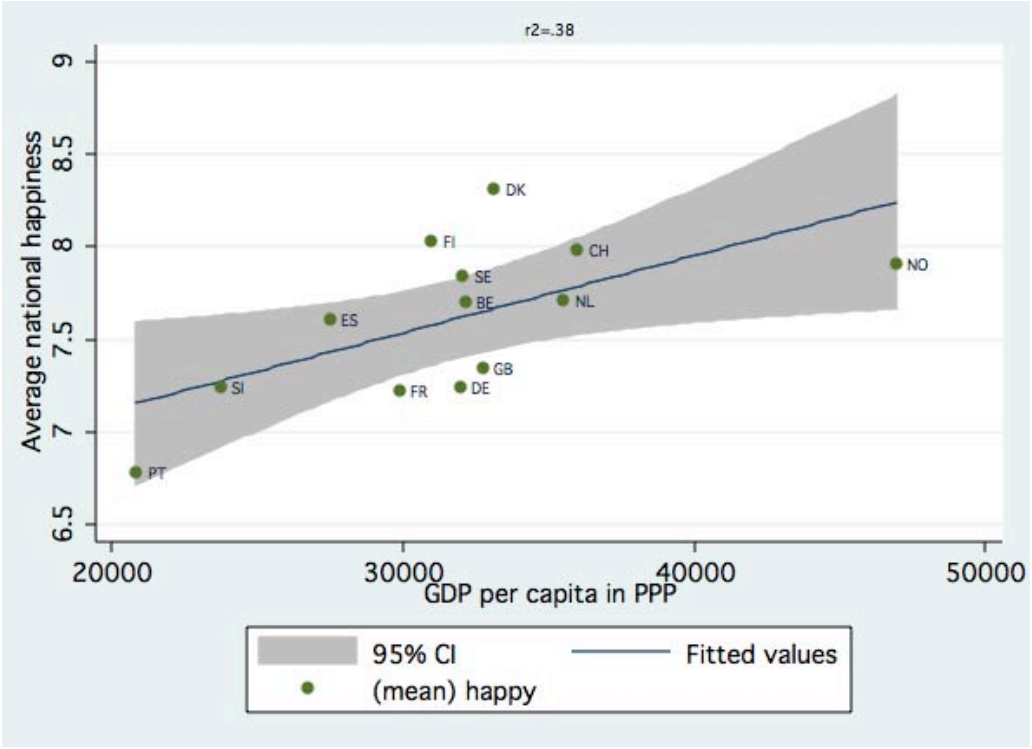
Wolfers, J. and B. Stevenson (2008). “Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox”, *Brookings Papers on Economic Activity*, Spring.

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).

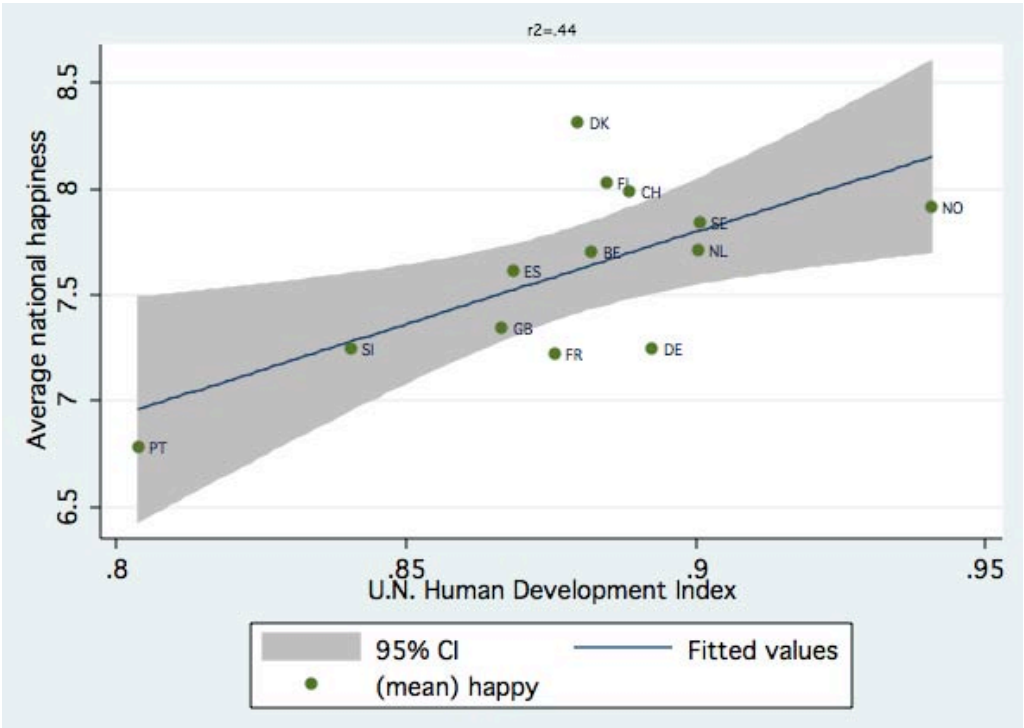
Tables

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

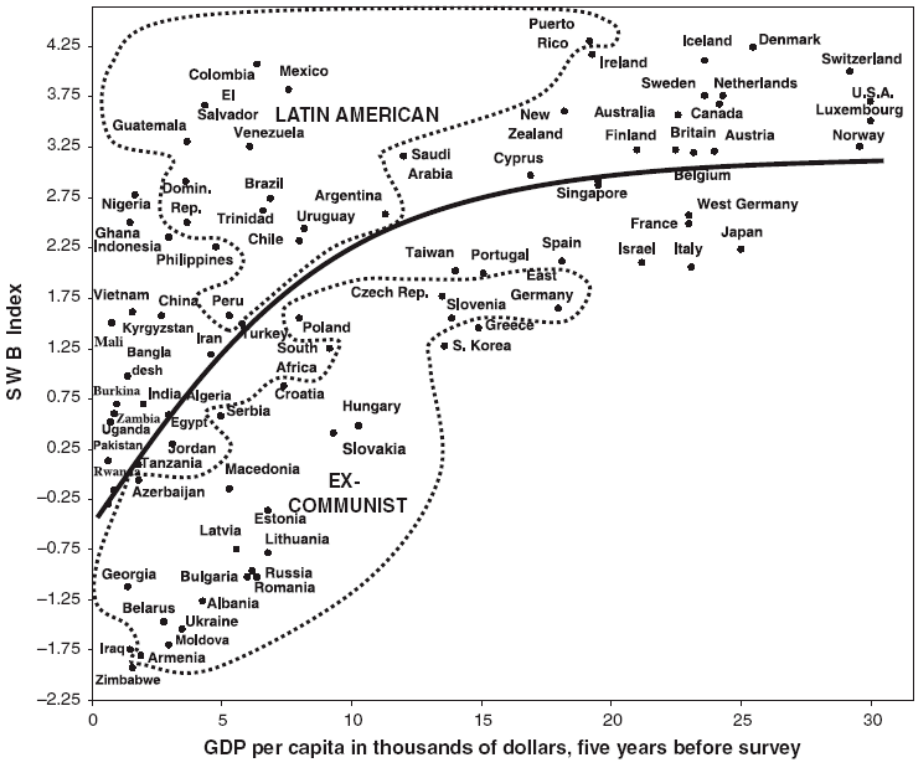
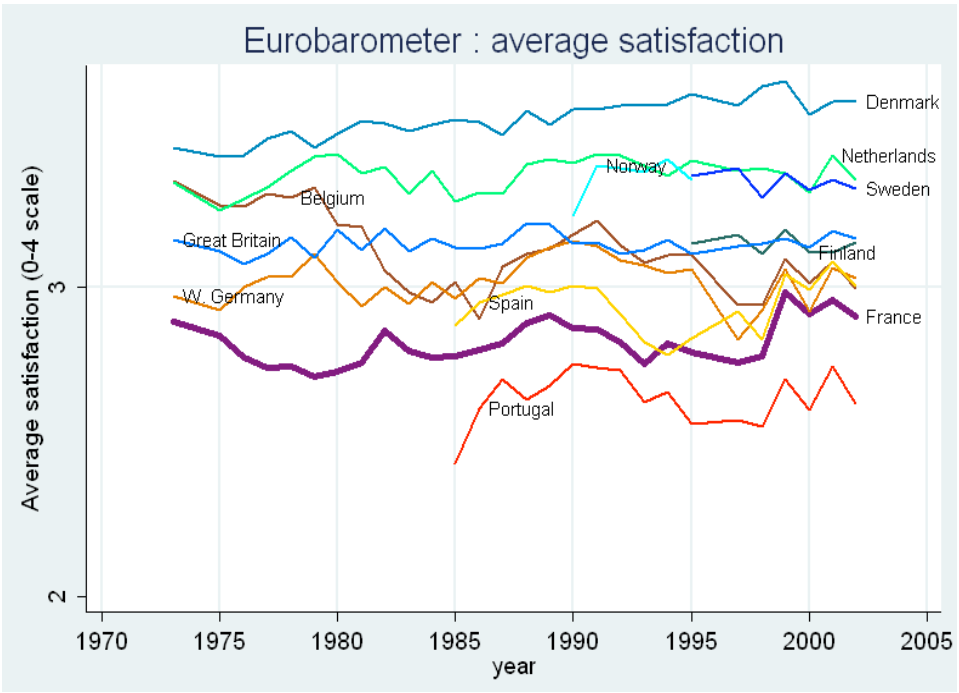


Fig. 2. Subjective well-being (SWB), per capita gross domestic product (GDP), and different types of societies. Well-being index is based on reported life satisfaction and happiness, using mean results from all available surveys conducted 1995–2007 (cubic curve plotted; r=.62). PPP=purchasing power parity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

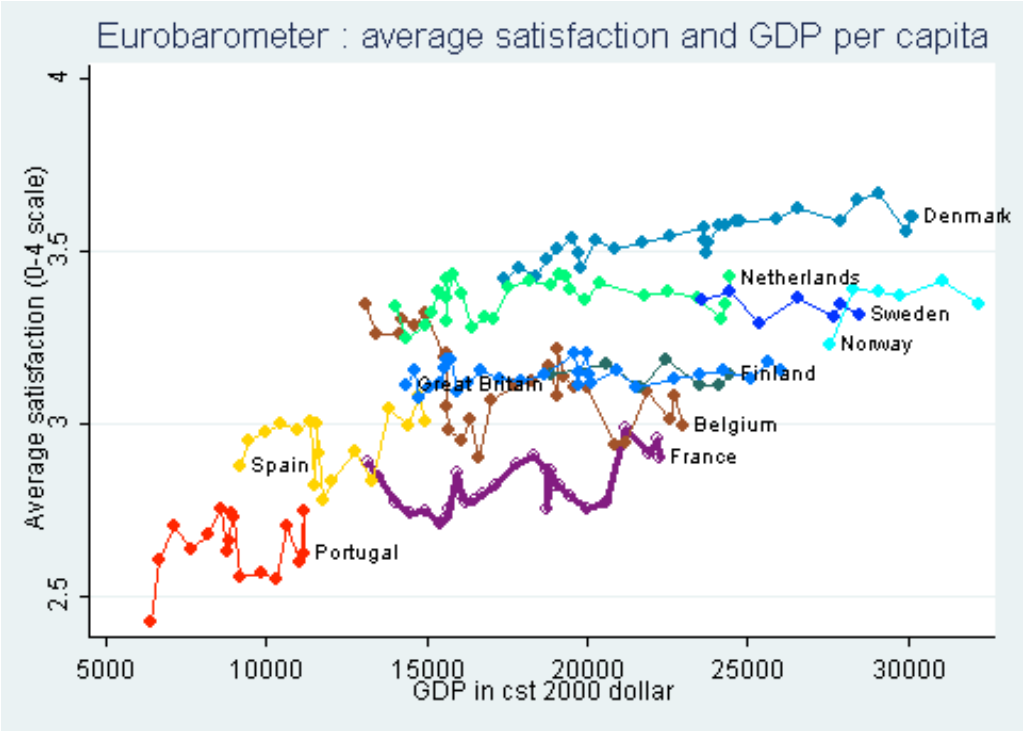
Source : Inglehart, Foa, Peterson, Welzel (2008), p. 269

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. Estimation of Happiness Equation (2)

$$H_i = \alpha.I + \beta.X_i + \sum_k \delta_k.O_k + T_t + \sum_j \gamma_j.D_j + \sum_j \mu_j.I.D_j + \varepsilon_i \quad (2)$$

Happy	(1)		(2)	(3)
			Natives (γ_i)	**Immigrants (μ_{1i})**
Age	-0.0669***	Belgium	0.134***	-0.0671***
	(0.0117)		(0.00774)	(0.00747)
Age2	0.0699***	Switzerland	0.263***	-0.161***
	(0.0154)		(0.0239)	(0.0138)
Male	-0.159***	Germany	-0.345***	0.0217
	(0.0229)		(0.0109)	(0.0147)
Log hh income	0.360***	France	-0.220***	0.216***
	(0.0504)		(0.0145)	(0.0229)
Married	0.420***	Great-Britain	-0.196***	-0.0178
	(0.0500)		(0.00498)	(0.0118)
Divorced	-0.175**	Netherlands	0.104***	0.0936***
	(0.0666)		(0.00490)	(0.0147)
Widowed	-0.496***	Sweden	0.262***	-0.0861***
	(0.0945)		(0.00363)	(0.0112)
Unemployed	-0.696***			
	(0.119)			
Immigrant	-0.139***			
	(0.0195)			
Region of origin:				
Unknown	-0.112			
	(0.0745)			
Africa	-0.0822			
	(0.106)			
Asia-Australasia	-0.213***			
	(0.0559)			
Europe	0.0498**			
	(0.0194)			
Latin America & Carribean	-0.106			
	(0.0873)			
North America	0.464***			
	(0.100)			
Year 2004	-0.0464*			
	(0.0216)			
Year 2006	-0.102*			
	(0.0500)			
Year 2008	-0.136**			
	(0.0541)			
Constant	6.280***			
	(0.328)			
Observations	38.633			
R-squared	0.105			

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.
Robust standard errors clustered by country. Reference categories: year 2002, single, in paid work.

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

Decomposition of the National Happiness Gap due to Circumstances and Mentality

Happy	*Circumstances* $\gamma_j + \mu_j$	*Mentality* $-\mu_j$	*Natives fixed effects* γ_j
Belgium	0.0665	0.0671	0.134
Switzerland	0.102	0.161	0.263
Germany	-0.324	-0.022	-0.346
France	**-0.004**	**-0.216**	**-0.220**
UK	-0.214	0.018	-0.196
Netherlands	0.197	-0.094	0.103
Sweden	0.176	0.086	0.262

Coefficients derived from the estimate of equation (2) presented in Table A1.

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 -0.220 (column 3): it is attributable to Mentality (-0,216) and only weakly to circumstances.

Table 3.A Simulating the Happiness of Natives with the Parameters of Immigrants

	(1) Actual Happiness of Natives	(2) Actual Happiness of Immigrants	(3) Happiness of Natives with Parameters of Immigrants	(5) Happiness Gap of Natives due to Parameters (1-3)
Belgium	7,744	7,467	7,656	0,088
Switzerland	8,058	7,824	7,878	0,180
Germany	7,135	7,026	7,148	-0,013
France	**7,215**	**7,239**	**7,339**	**-0,124**
UK	7,375	7,155	7,206	0,169
Netherlands	7,738	7,473	7,627	0,111
Sweden	7,886	7,631	7,741	0,145

Values calculated on the regression sample.

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

Blinder-Oaxaca decomposition		
Linear Model	N of obs.	4537
Immigrants	N of obs. 1	405
Natives	N of obs. 2	4083
Happy	**Coef.**	**Std. Err.**
Overall		
Immigrants	7.165	.102
Natives	7.215	.028
Difference (immigrants - natives)	-.049	.106
Endowments	-.199	.036
Coefficients	.230	.176
Interaction	-.081	.147

Table 3.C Simulating Happiness: France versus Belgium

Actual Happiness of French Natives	*Actual Happiness of Belgian Natives*	*Happiness of Native French Predicted with Native Belgian Parameters*	*Actual Happiness of Native Belgians with Native French Parameters*
7.215	7.737	7.641	7.392

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

Linear Model		
Belgium	Nb. of obs. 1	4068
France	Nb. of obs. 2	4252
Happy	Coef.	Std. Err.
France	7.222	.028
Belgium	7.737	.023
difference	-.515	.036
endowments	-.097	.027
coefficients	-.345	.048
interaction	-.073	.042

Table 4. First-Generation Immigrants Schooling before the Age of 10 in Destination Country OLS estimates of Happiness (0-10 scale). Respondents under 35 years old.

Happy	(1)		(2)
	Interactions terms		
Age	0.00977		
	(0.177)		
Age square	-0.0943		
	(0.336)		
Male	-0.151		
	(0.186)		
Log household income	0.443***		
	(0.0704)		
Married	0.343*		
	(0.147)		
Divorced	-0.230		
	(0.420)		
Widowed	-1.539		
	(1.515)		
School before10	-0.305*		
	(0.149)		
Constant	8.993**		
	(2.551)		
Belgium	0.0463	School before 10 *Belgium	-0.257***
	(0.0383)		(0.0354)
Switzerland	0.287***	School before 10 *Switzerland	-0.133**
	(0.0651)		(0.0410)
Germany	-0.262***	School before 10 *Germany	0.119**
	(0.0324)		(0.0374)
France	**0.566*** **	**School before 10 in France**	**-0.411*** **
	(0.0743)		(0.0441)
UK	-0.246***	School before 10 *UK	-0.246***
	(0.0501)		(0.0372)
NL	-0.0812	School before 10 *NL	0.408***
	(0.0450)		(0.0264)
Sweden	-0.310***	School before 10 *Sweden	0.520***
	(0.0347)		(0.0464)
Observations	1.194		
R-squared	0.099		

Sample: First-generation immigrants. Other controls: regions of origin, year fixed-effects. Robust standard errors clustered by country. 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.

Table 5. OLS Estimates of Happiness of Europeans living in Another European Country

	Happy
Age	-0.0248
	(0.0337)
Age square	0.0187
	(0.0386)
Male	-0.0772**
	(0.0310)
Log household income	0.251***
	(0.0234)
Married	0.395***
	(0.0870)
Divorced	-0.0161
	(0.0656)
Widowed	0.236
	(0.145)
Country of origin	
Belgium	-0.0991*
	(0.0495)
Switzerland	0.709***
	(0.0608)
Germany	-0.0949***
	(0.0145)
France	**-0.163****
	(0.0476)
U.K.	-0.0183
	(0.0327)
Netherlands	-0.113
	(0.0668)
Sweden	-0.221***
	(0.0591)
Constant	8.454***
	(0.622)
Observations	1.252
R-squared	0.087

Sample: Only migrants from the 7 EU countries mentioned in the table.
Other controls: year fixed-effects, country of residence. Cluster (country of origin).
No information about country of origin of immigrants in ESS wave 1.
The coefficients of country fixed-effects reflect deviations from the "grand mean", not the deviations from a reference category.

Table 6. Replicating Luttmer and Singhal (2011). OLS Estimate of Happiness

	Happy
Age	-0.0187
	(0.0410)
Age square	0.0116
	(0.0506)
Male	-0.264**
	(0.0810)
Log household income	0.279*
	(0.122)
Married	0.470***
	(0.121)
Divorced	0.111
	(0.131)
Widowed	-0.0424
	(0.198)
Unemployed	-0.533
	(0.377)
Average happiness in origin country	**0.437***
	(0.199)
Constant	2.637
	(1.920)
Observations	601
R-squared	0.132

Other controls: country fixed effects, year fixed effects. Cluster (country of origin)

Table 7.A OLS Estimates of Satisfaction viz. Different Domains

	(1) Depressiveness Index (0-59)	(2) Satisfaction with Eco (stfeco) (0-10)	(3) Satisfaction with national government (stfgov) (0-10)	(4) Satisfaction with democracy (stfdem) (0-10)	(5) Satisfaction with education system (stfedu) (0-10)	(6) Satisfaction with Health system (stfhlth) (0-10)	(7) For most people life is getting better (lfwrs) (0-4)	(8) Living comfortably on present income (hincfel) (1-4)
Belgium	0.428***	0.386***	0.221***	-0.0896***	0.992***	1.477***	-0.0313***	0.00513
	(0.0182)	(0.0118)	(0.0147)	(0.0144)	(0.0107)	(0.0103)	(0.00477)	(0.00354)
Switz	-1.325***	0.657***	0.896***	0.855***	0.657***	0.415***	0.113***	-0.0524***
	(0.0849)	(0.0189)	(0.0211)	(0.0267)	(0.0155)	(0.0225)	(0.00922)	(0.00612)
Germany	-1.392***	-0.917***	-0.840***	-0.184***	-1.172***	-1.109***	-0.284***	-0.0915***
	(0.0458)	(0.0123)	(0.0112)	(0.0115)	(0.00733)	(0.0107)	(0.00414)	(0.00474)
France	**1.383*** **	**-1.284*** **	**-0.531*** **	**-0.888*** **	**-0.514*** **	**0.141*** **	**-0.697*** **	**-0.0438*** **
	(0.0323)	(0.0446)	(0.0319)	(0.0150)	(0.00730)	(0.00762)	(0.00358)	(0.0102)
UK	2.033***	-0.171***	-0.538***	-0.709***	-0.0381***	-0.580***	0.0633***	-0.128***
	(0.0144)	(0.0157)	(0.0141)	(0.00822)	(0.00358)	(0.00749)	(0.00222)	(0.000966)
NL	-0.615***	0.818***	0.327***	0.397***	0.231***	0.0260***	0.373***	0.120***
	(0.0303)	(0.0214)	(0.0149)	(0.00775)	(0.00663)	(0.00418)	(0.00249)	(0.00332)
Sweden	-0.511***	0.510***	0.466***	0.618***	-0.155***	-0.370***	0.463***	0.190***
	(0.0304)	(0.00942)	(0.0103)	(0.00729)	(0.00611)	(0.00771)	(0.00480)	(0.00245)
Constant	32.06***	2.729***	3.659***	2.942***	6.342***	5.518***	1.346***	0.224
	(1.100)	(0.410)	(0.360)	(0.387)	(0.365)	(0.390)	(0.244)	(0.155)
Observations	7.725	30.839	30.655	30.694	30.369	30.991	7.722	29.334
R-squared	0.105	0.185	0.097	0.107	0.117	0.141	0.196	0.259

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). 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. Variables recoded in ascending order when necessary.

Table 7.B OLS Estimates Other Attitudes

	(9)	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*
	Left-right scale (lrscale) (0-10)	**Minimize State interventio n (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)**	**Most people can be trusted (ppltrst) (0-10)**	**Most people try to be fair (pplfair) (0-10)**	**Important that people have equal opportunies (ipeqopt) (1-6)**	**Important that govt strong (ipstrgv) (16)**	**Deepen European integration (eutf) (0-10)**	**Government should reduce income differences (gincdif) (1-5)**
Belgium	0.00493	-0.182***	0.0778*	0.00483	0.000553	0.0600***	-0.236***	-0.248***	0.0443***	-0.0923***	0.261***	0.0462***
	(0.0123)	(0.0108)	(0.0322)	(0.0168)	(0.00264)	(0.00875)	(0.00842)	(0.00642)	(0.00325)	(0.00726)	(0.0123)	(0.00428)
Switzerland	-0.0287	0.271***	-0.718***	-0.580***	-0.104***	0.313***	0.309***	0.297***	0.104***	-0.0474***	0.193***	0.115***
	(0.0247)	(0.0183)	(0.0240)	(0.0208)	(0.00414)	(0.0167)	(0.0131)	(0.0104)	(0.00630)	(0.00774)	(0.0232)	(0.00589)
Germany	-0.383***	0.417***	-0.901***	-1.461***	0.122***	-0.0205**	-0.396***	-0.145***	-0.0723***	-0.141***	0.260***	-0.227***
	(0.0104)	(0.00880)	(0.0307)	(0.0171)	(0.00468)	(0.00817)	(0.00949)	(0.00682)	(0.00156)	(0.00404)	(0.00931)	(0.00189)
France	**-0.127*** **	**-0.134*** **	**-0.503*** **	**-0.357*** **	**-0.189*** **	**0.0613*** **	**-0.877*** **	**-0.283*** **	**0.223*** **	**-0.00231**	**-0.0307** **	**0.408*** **
	(0.0186)	(0.0191)	(0.0472)	(0.0238)	(0.00266)	(0.00249)	(0.0109)	(0.00938)	(0.00526)	(0.0149)	(0.0125)	(0.00586)
UK	0.0512***	0.0385***	0.401***	1.092***	0.156***	-0.140***	-0.217***	-0.480***	-0.162***	-0.253***	-0.733***	-0.135***
	(0.00637)	(0.00380)	(0.0140)	(0.0106)	(0.00169)	(0.00336)	(0.00395)	(0.00284)	(0.00219)	(0.00454)	(0.00771)	(0.00341)
NL	0.272***	-0.331***	0.419***	0.503***	0.113***	-0.322***	0.531***	0.257***	-0.0612***	0.0340***	0.409***	-0.273***
	(0.00884)	(0.00546)	(0.0150)	(0.0148)	(0.00401)	(0.00575)	(0.00685)	(0.00656)	(0.00392)	(0.00565)	(0.00669)	(0.00342)
Sweden	0.211***	-0.0803***	1.224***	0.798***	-0.0986***	0.0485***	0.886***	0.602***	-0.0757***	0.501***	-0.359***	0.0653***
	(0.00543)	(0.00136)	(0.0137)	(0.0106)	(0.00421)	(0.00501)	(0.00623)	(0.00427)	(0.00233)	(0.00399)	(0.00428)	(0.00356)
Constant	4.047***	3.324***	-3.869***	2.362***	1.705***	5.597***	2.416***	3.897***	5.034***	1.488***	3.196***	5.632***
	(0.571)	(0.338)	(0.502)	(0.453)	(0.0897)	(0.406)	(0.235)	(0.232)	(0.155)	(0.239)	(0.592)	(0.143)
Observations	29.643	7.907	5.034	9.257	7.679	7.661	31.115	31.100	30.171	30.038	22.488	30.979
R-squared	0.026	0.087	0.105	0.143	0.040	0.052	0.088	0.054	0.028	0.047	0.037	0.094

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).
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.
Variables recoded in ascending order when necessary.

Table 8.A Happiness and Usual Language in Belgium

OLS Estimates of Happiness

	(1)	*(2)*	*(3)*
	Happy	**Happy**	**Happy**
Language spoken at home (omitted: Dutch)			
French		**-0.265*** **	**-0.257** **
		(0.0449)	(0.128)
Other		-0.412***	-0.344***
		(0.119)	(0.133)
Regions (omitted: Flanders)			
Brussels	-0.468***		-0.235*
	(0.0894)		(0.135)
Wallonia	**-0.218*** **		**0.0232**
	(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**
Language spoken at home (omitted: German)			
French	**-0.0175**		**-0.161**
	(0.0501)		(0.105)
Italian	-0.438***		-0.472***
	(0.0921)		(0.122)
Other	-0.358***		-0.366***
	(0.0718)		(0.0833)
Regional language (omitted: German)			
French		**0.0459**	**0.174***
		(0.0537)	(0.0968)
Italian		-0.276**	0.0997
		(0.117)	(0.146)
Log household income	0.272***	0.304***	0.289***
	(0.0332)	(0.0380)	(0.0380)
Age	-0.0339***	-0.0370***	-0.0381***
	(0.0118)	(0.0133)	(0.0133)
Age 2	0.0308**	0.0381**	0.0379**
	(0.0133)	(0.0152)	(0.0151)
Married	0.405***	0.345***	0.378***
	(0.0550)	(0.0614)	(0.0618)
Divorced	-0.0443	-0.0275	-0.0191
	(0.0729)	(0.0824)	(0.0823)
Widowed	-0.324**	-0.234	-0.198
	(0.140)	(0.159)	(0.159)
Unemployed	-1.093***	-1.208***	-1.171***
	(0.120)	(0.138)	(0.137)
Female	0.111***	0.0953**	0.0924**
	(0.0413)	(0.0470)	(0.0468)
Constant	6.308***	5.993***	6.209***
	(0.358)	(0.406)	(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.

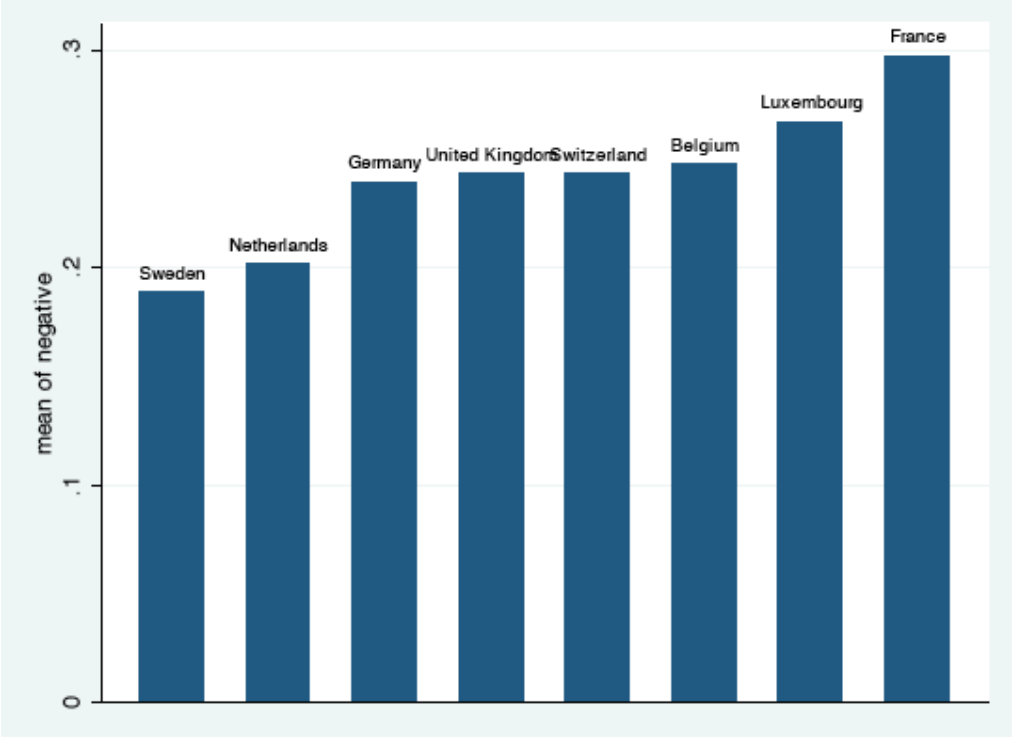
Table 8.C Happiness and Language in Canada

OLS Estimates of Happiness

	(1)	*(2)*
	Happy	**Happy**
Language of interview (omitted: English)		
French	**0.0433***	
	(0.0231)	
Other	-0.000434	
	(0.336)	
Language spoken at home (omitted: English)		
French		**0.0525****
		(0.0230)
Other		-0.113**
		(0.0488)
Age	-0.0140***	-0.0141***
	(0.00355)	(0.00355)
Age2	0.000132***	0.000130***
	(3.68e-05)	(3.67e-05)
Male	-0.0623***	
	(0.0213)	
Marital status (omitted : married)		
Living together	-0.114***	-0.120***
	(0.0344)	(0.0343)
Divorced	-0.170***	-0.169***
	(0.0422)	(0.0420)
Separated	-0.294***	-0.283***
	(0.0513)	(0.0507)
Widow	-0.208***	-0.191***
	(0.0426)	(0.0418)
Single	-0.265***	-0.271***
	(0.0315)	(0.0314)
Income scale	0.0139***	0.0131***
	(0.00455)	(0.00451)
Constant	3.716***	3.750***
	(0.142)	(0.144)
Observations	3.439	3.461
R-squared	0.061	0.060

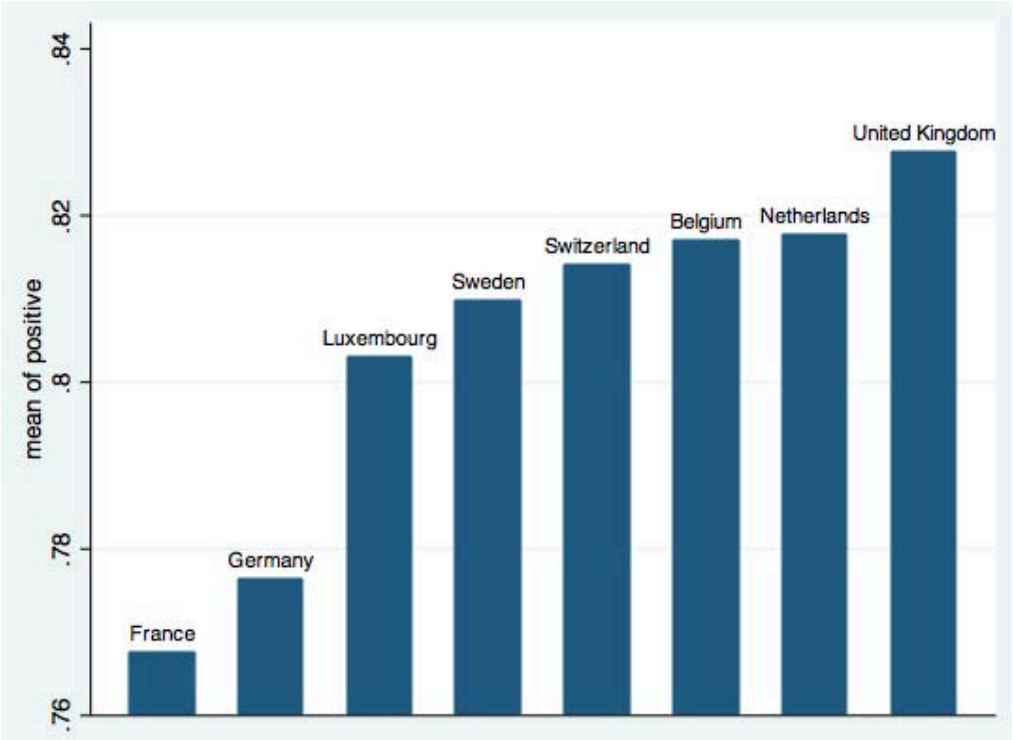
Other controls: year fixed-effects, ethnic group, employment status, education.
Source: World values Survey, years: 2000 and 2006.

Figure 4.A Mean Frequency of Negative Emotions by Country



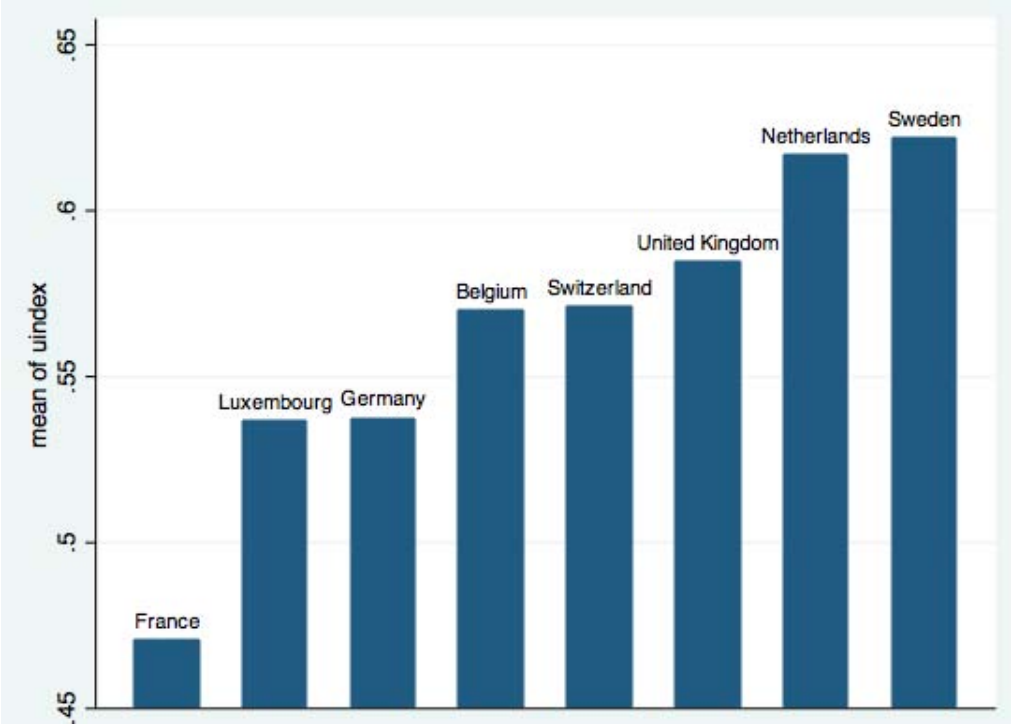
Source: Gallup World Poll (2007-2009). Negative emotions yesterday: worry, sadness, anger, stress. Yes/No answers. Country averages.

Figure 4.B Mean Frequency of Positive Emotions by Country



Source: Gallup World Poll (2007-2009). Positive emotions yesterday: enjoyment, smile, happiness. Yes/No answers. Country averages.

Figure 4.C Net Averages of Positive – Negative Emotions by Country



Source: Gallup World Poll (2007-2009).
Positive emotions yesterday: enjoyment, smile, happiness.
Negative emotions yesterday: worry, sadness, anger, stress. Yes/No answers. Country averages.

Table 9.A. Triple Interactions between Migration Status, Macroeconomic Variables and Country Fixed-Effects. OLS Estimates of Happiness

	(1)	*(2)*
	Happy	**Happy**
Unemployed	-0.734***	-0.733***
	(0.123)	(0.122)
Immigrant	0.170	-0.696***
	(0.409)	(0.176)
Belgium	0.0833	0.348***
	(0.133)	(0.0705)
Switz	0.208	0.438***
	(0.149)	(0.0692)
Germany	-0.474**	-0.156
	(0.153)	(0.129)
France	0.131	-1.362***
	(0.808)	(0.214)
UK	-0.260*	-0.0313
	(0.127)	(0.0359)
NL	0.113	0.298***
	(0.111)	(0.0659)
Sweden	0.199	0.464***
	(0.143)	(0.0398)
Immigrant*France	1.405**	0.139
	(0.390)	(0.167)
Gov.expend_percGDP	0.0436	
	(0.0415)	
Gov.expend.percGDP*France	-0.0316	
	(0.0638)	
Immigr*Gov_expend_percGDP	-0.0219	
	(0.0294)	
Immigr*Gov_expend_percGDP*France	**-0.0650***	
	(0.0318)	
Unemployment rate (WDI)		-0.0117
		(0.0325)
Unemployment*France		0.161***
		(0.0350)
Immigrant*Unemployment		0.0766**
		(0.0227)
Immigrant*Unemployment*France		**-0.0148**
		(0.0264)
Constant	6.193***	5.993***
	(0.447)	(0.482)
Observations	38,633	38,633
R-squared	0.117	0.117

Other controls: age, age square, gender, marital status, log(income), region of origin fixed effects, 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. Macroeconomic magnitudes are taken form the WDI database unless otherwise indicated.

Table 9.B Triple interactions between Individual Level Variables, Country fixed-Effects and Migration Status. OLS Estimates of Happiness

Happy	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
	happy	happy	happy	happy	happy
Log household income	0.389***	0.363***	0.387***	0.387***	0.353***
	(0.0538)	(0.0504)	(0.0528)	(0.0531)	(0.0561)
Unemployed	-0.737***	-0.737***	-0.734***	-0.814***	-0.657***
	(0.122)	(0.125)	(0.123)	(0.157)	(0.124)
Immigrant	-0.142***	-0.133***	-0.134***	-0.146***	-0.129***
	(0.0194)	(0.0256)	(0.0293)	(0.0186)	(0.0253)
Belgium	0.155***	0.151***	0.134***	0.145***	0.139***
	(0.00918)	(0.00470)	(0.00666)	(0.00790)	(0.00671)
Switzerland	0.280***	0.283***	0.265***	0.272***	0.277***
	(0.0255)	(0.0348)	(0.0241)	(0.0248)	(0.0244)
Germany	-0.375***	-0.377***	-0.393***	-0.380***	-0.391***
	(0.0128)	(0.0122)	(0.0132)	(0.0165)	(0.0145)
France	-0.277***	-0.270***	-0.168***	-0.226***	-0.206***
	(0.0173)	(0.0363)	(0.0143)	(0.0104)	(0.0165)
UK	-0.202***	-0.204***	-0.220***	-0.211***	-0.204***
	(0.00555)	(0.00948)	(0.00475)	(0.00405)	(0.00378)
Netherlands	0.140***	0.141***	0.124***	0.132***	0.129***
	(0.00328)	(0.00232)	(0.00491)	(0.00402)	(0.00489)
Sweden	0.278***	0.276***	0.259***	0.268***	0.256***
	(0.00444)	(0.00782)	(0.00553)	(0.00506)	(0.00844)
Immigrant *France	0.231***	0.260***	0.146***	0.218***	0.277***
	(0.0227)	(0.0419)	(0.0236)	(0.0263)	(0.0301)
Young (under 30)	-0.0589				
	(0.0653)				
*Young*France*	0.331***				
	(0.0322)				
Immigrant *Young	0.0673				
	(0.0355)				
Immigrant*France*Young	-0.00842				
	(0.0418)				
Rich		0.0268			
		(0.0549)			
*Rich*France*		0.194*			
		(0.0832)			
Immigrant*Rich		0.0165			
		(0.0688)			
Immigrant*France*Rich		-0.0874			
		(0.0668)			
*Unemployed*France*				0.147	
				(0.179)	
Immigrant*Unemployed				0.215	
				(0.146)	
Immigrant*Unemployed*France				0.0976	
				(0.150)	
Receive Transfers					-0.206***
					(0.0439)
Transfers*France					-0.0833
					(0.0646)
Immigrant*Transfers					0.0195
					(0.0705)
Immigrant*France*Transfers					-0.263***

					(0.0673)
Constant	6.030***	6.231***	6.044***	6.060***	6.465***
	(0.538)	(0.389)	(0.424)	(0.419)	(0.461)
Observations	38,633	38,633	38,633	38,633	37,140
R-squared	0.117	0.117	0.117	0.117	0.119

Other controls: age, age square, gender, marital status, year fixed-effects, region of origin fixed-effects, 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 (young, rich, unemployed, recipient of State transfers). Robust standard errors clustered by country. Only interactions with France are displayed for space reasons.

Appendix

Descriptive Statistics of the Regression Sample

(ESS, waves 1-4, 2002-2008)

Table A1. Composition of Countries by Migration Status of Inhabitants

Country	*Natives*	*Immigrants*	*of which :*			*Total*
			First generation immigrants	*Second generation immigrants*	*2.5 generation*	
Belgium	3929	857	*376*	*192*	*289*	4786
Switzerland	3219	1657	*950*	*214*	*493*	4876
Germany	5948	1121	*554*	*164*	*403*	7069
France	4083	1010	*405*	*201*	*404*	5093
Great-Britain	4581	930	*464*	*157*	*309*	5511
Netherlands	4703	822	*464*	*97*	*261*	5525
Sweden	4647	1126	*589*	*131*	*406*	5773
Total	31110	7523	*3802*	*1156*	*2565*	38633

Table A2. Distribution of the Migrants across European Countries

Destination →	*BE*	*CH*	*DE*	*FR*	*GB*	*NL*	*SE*	*Total*
Origin ↓								
Belgium		14	2	17	4	35	1	73
Switzerland		1	4	12	5	2	8	32
Germany	25	281	1	34	36	101	72	550
France	151	135	19		13	7	5	330
Great-Britain	8	32	13	6	2	22	21	104
Netherlands	93	26	6	1	8		13	147
Sweden	2	7		2	3	2		16
Other	575	1156	1074	938	858	653	892	6146
Total	857	1657	1121	1010	930	822	1126	7523

Table A3. Region of Origin of Immigrants in Europe

Destination →	*BE*	*CH*	*DE*	*FR*	*GB*	*NL*	*SE*	*Total*
Origin ↓								
Unknown	38	81	99	56	58	58	76	466
Africa	161	57	20	364	128	93	30	853
Asia-Australasia	77	120	230	44	259	241	168	1139
Europe	566	1323	747	515	399	336	805	4691
Latin America & Carribean	9	54	7	26	54	89	38	277
North America	6	22	18	5	32	5	9	97
Total	857	1657	1121	1010	930	822	1126	7523

Table A4. Value of the Variables of Interest in the Regression Sample

	Variable	*Obs.*	*Mean*	*Std. Dev.*	*Min*	*Max*
log(household income in Euro)	Hinctnt (linearized)	38633	7,83	0,72	4,62	9,62
Age	age	38633	42,03	13,10	16	65
Male	gender	38633	0,49	0,50	0	1
Marital Status	Married	38633	0,54	0,50	0	1
	Divorced	38633	0,10	0,30	0	1
	Widowed	38633	0,02	0,13	0	1
	Single	38633	0.28	0,13	0	1
Native	Brncntr, facntr, mocntr	38633	0,83	0,37	0	1
How happy are you?	happy	38633	7,59	1,68	0	10
How satisfied with present state of economy in country	stfeco	9575	20,34	6,64	5	57
How satisfied with the national government	stfgov	38222	4,71	2,24	0	10
How satisfied with the way democracy works in country	stfdem	37899	4,46	2,19	0	10
State of education in country nowadays	stfedu	38028	5,59	2,28	0	10
State of health services in country nowadays	stfhlth	37563	5,48	2,16	0	10
Most people can be trusted or you can't be too careful	ppltrst	38431	5,69	2,26	0	10
Most people try to take advantage of you, or try to be fair	pplfair	38598	5,37	2,21	0	10
Feeling about household's income nowadays	Hincfel (recoded)	38559	6,00	2,02	0	10
For most people in country life is getting worse*	lfwrs	36379	3,25	0,77	1	4
Placement on left right scale	lrscale	9575	2,60	1,01	1	5
The less government intervenes in economy, the better for country*	Ginveco (recoded)	36572	4,84	2,00	0	10
Easy to start own business*	strtbsn	9664	2,85	1,02	1	5
Get a similar or better job with another employer*	smbtjob	6094	3,32	2,92	0	10
Large differences in income acceptable to reward talents and efforts*	dfincac (recoded)	11255	4,57	2,90	0	10
For fair society, differences in standard of living should be small*	smdfslv (recoded)	9643	3,37	1,05	1	5
Important that people are treated equally and have equal opportunities*	Ipeqopt (recoded)	9632	3,40	0,98	1	5
Government should reduce differences in income levels	Gincdif (recoded)	37302	4,95	1,00	1	6
Depressivity score*	depressed	38369	3,63	1,07	1	5
Felt depressed, how often past week*	fltdpr	9660	1,43	0,66	1	4
felt everything did as effort, how often past week*	flteeff	9661	1,63	0,74	1	4
Sleep was restless, how often past week*	slprl	9664	1,76	0,84	1	4
Felt lonely, how often past week*	fltlnl	9662	1,32	0,62	1	4
Felt sad, how often past week*	fltsd	9663	1,47	0,63	1	4
Could not get going, how often past week*	cldgng	9649	1,49	0,67	1	4
Felt anxious, how often past week*	fltanx	9660	1,61	0,70	1	4
Felt tired, how often past week*	flttrd	9665	2,00	0,72	1	4
Felt bored, how often past week*	fltbrd	9660	1,33	0,59	1	4
Felt rested when woke up in morning, how often past week*	fltrstm	9662	2,36	0,96	1	4
Seldom time to do things I really enjoy*	enjstm	9662	3,00	1,07	1	5
Little chance to show how capable I am*	lchshcp	9640	3,32	1,01	1	5
Feel accomplishment from what I do*	accdng	9662	2,14	0,72	1	5
In general feel very positive about myself*	pstvms	9662	2,22	0,80	1	5
Always optimistic about my future*	optftr	9665	2,33	0,90	1	5
At times feel as if I am a failure*	flrms	9656	3,69	1,06	1	5

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

Table A5. Average Happiness by Migration Status and Country of Residence

Country of residence ↓	*Natives*	*Immigrants*	*of which:*			*Total*
			1st generation	*2nd generation*	*2,5 generation*	
Belgium	7.744	7.467	*7.415*	*7.333*	*7.623*	7.694
Switzerland	8.058	7.824	*7.756*	*7.804*	*7.966*	7.978
Germany	7.135	7.026	*7.060*	*7.122*	*6.940*	7.118
France	7.215	7.239	*7.165*	*7.299*	*7.282*	7.220
Great-Britain	7.375	7.155	*7.224*	*6.841*	*7.210*	7.338
Netherlands	7.738	7.473	*7.397*	*7.577*	*7.571*	7.698
Sweden	7.886	7.631	*7.550*	*7.840*	*7.682*	7.836
Total	7.557	7.436	7.417	7.395	7.482	7.533

Table A6. 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%			
Interview language					
English	3440	74%			
French	3440	26%			
Other	3440	0%			
Home language					
Other	3461	5%			
English	3461	68%			
French	3461	26%			

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

Table A.7 Country Mean Frequency of Affects

	Smile	*Enjoy*	*Worry*	*Sad*	*Stress*	*Angry*	*Happy*
Belgium	0,83	0,81	0,32	0,18	0,33	0,20	0,81
France	0,78	0,76	0,33	0,19	0,36	0,33	0,76
Germany	0,76	0,74	0,28	0,19	0,38	0,14	0,87
Netherlands	0,80	0,84	0,35	0,16	0,20	0,09	0,82
Sweden	0,79	0,87	0,22	0,14	0,28	0,14	0,76
Switzerland	0,76	0,83	0,30	0,16	0,37	0,14	0,86
United Kingdom	0,80	0,83	0,29	0,21	0,35	0,16	0,87

Source: Gallup World Poll (2007-2009). Yes/No answers. Country averages.