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Immigrants' Life Satisfaction in Europe: Between Assimilation and Discrimination

Mirna Safi

Using data from the three rounds of the European Social Survey, this article investigates the disparities in life satisfaction measures between the first- and second-generation immigrants, on the one hand, and the natives, on the other hand, in 13 European countries. Two major theoretical hypotheses explaining the lower level of immigrants' subjective well-being are tested: the straight line assimilation and the effect of discrimination. The main finding is that immigrants' relative dissatisfaction does not diminish with time and across generations, which refutes the predictions of the assimilation paradigm. However, when ethnic groups are compared, the discrimination some of them perceive in the host society seems to be a more consistent explanation for their lower life satisfaction level. The effect of discrimination is measured with an attempt to correct for the endogeneity bias that it may lead to by using simultaneous regressions with instrumental variables.

Introduction

Research studying attitudes and representations related to migration focuses primarily on host societies (O'Connell, 2005; Bail, 2008; Schneider, 2008). Very rare are the studies that bring attention to the opinions of immigrants themselves and the way they perceive their lives in the host country (Berry, 2001). But nevertheless, social representations on moods and feelings of immigrants are very widespread. Everyday discourse tends to associate migration, particularly the most recent waves, with an increase of well-being. Indeed, the perception of the promised land in European countries so often attributed to migrants, especially those coming from the 'third-world', supposes that immigrants are (or should be) rather happy to have managed to migrate to the wealthy developed world. On the other hand, many recent demonstrations in Europe, with increasing ethnic and racial features, have expressed deep frustrations and dissatisfaction of immigrants and their descendants. This despair has been related to the underprivileged situation of these populations (lower education, unemployment, underpaid jobs, residential segregation, etc.) who face, above all, discrimination mechanisms in everyday life. Empirical research on immigrants' well-being seems necessary to clarify these social representations. It also might contribute to the sociological reflection on the immigrants' assimilation process.

Based on the European Social Survey (ESS), this article investigates immigrants' life satisfaction in 13 European countries. First, some theoretical hypotheses are presented to explain the differences in reported well-being between immigrants and natives. Then, these are empirically tested. Findings show that the first and second immigrant generations have lower life

satisfaction levels, after controlling for a wide range of socioeconomic variables. The lower life satisfaction level of immigrants does not seem to increase with time and across generations as the assimilation hypothesis predicts. Finally, this study tries to relate the well-being of some immigrant groups to their perceptions of discrimination.

Explaining Differences in Life Satisfaction Levels Between Immigrants and Natives: Theoretical Perspectives

While measures of well-being have been compared extensively among countries and social classes (Campbell, 1981; Diener, 1994; Cummins, 2003), very few studies have focused on their disparities among ethnic groups and even fewer have linked these disparities to the socio-psychological assimilation of immigrants. In the United States, important research studies have tried to disentangle the role of social and racial characteristics in explaining differences in life satisfaction between blacks and whites (Thomas and Hughes, 1986; Thomas and Holmes, 1992; Hughes and Thomas, 1998). This literature has shown that subjective well-being of African Americans was significantly and consistently lower than that of whites, even after controlling for the major social, economic, and demographic characteristics.

The issues at stake remain very similar when the interest is shifted from racial to ethnic differences in life satisfaction. Do we measure consistent differences in reported well-being between ethnic groups? Are social characteristics sufficient to explain these differences? However, when ethnicity is related to migration and when one is interested in differences in levels of well-being between natives and immigrant groups, some other theoretical concerns regarding the assimilation process have to be taken into consideration. Thus, some other questions arise. Do differences in well-being levels between immigrants and natives tell us something about the immigrants' assimilation process? The study of immigrants' well-being should, thus, be conducted in light of the theoretical background of the sociology of immigration.

Does Assimilation Reduce Immigrants' Psychological Suffering?

Recent studies on immigrants' assimilation usually describe the process using objective indicators: labour market achievement, educational attainment, social mobility, intermarriage, etc. Nevertheless, the classical literature on immigration rather emphasizes the subjective patterns of the process. Park's 'marginal man' (1928) or Handlin's 'uprooted' and 'children of the uprooted' (Handlin, 1951, 1966) can be regarded as the pioneer works on the social psychology of immigration. An important hypothesis of this literature is that migration and establishment in a new country go together with sorrow, melancholy, and despair. Concepts like 'acculturative stress' have been used by some studies to designate this immigration 'psychopathology' (Berry *et al.*, 1987, Berry, 2001). In France, the classical research on immigration has consistently highlighted the mental suffering that underlies migrants' experiences, namely, their cultural uprooting and 'their establishing themselves' again in the host society (Bourdieu and Sayad, 1964; Sayad, 1999). In his research on Algerians in France, Sayad used a word borrowed from Arabic to designate this heartrending experience: *el Ghorba* (Sayad, 1975). More generally, the concept of acculturation was used by Park and others to designate the cultural and psychological dimension of the immigrants' adaptation in host societies.

Assimilation may, thus, be regarded as the process of reduction of the psychological pain inherent in the migration experience. Richardson's analyses of British migrants' well-being in Australia is probably the first ones that directly link immigrants' life satisfaction to the assimilation process (Richardson, 1967; Richardson, 1974). Two important factors play a major role: time and generations. The straight line conception of assimilation attaches a great importance to duration both from the individual and generational points of view. The assimilation paradigm indeed assumes that immigrants become more and more similar to natives as years go by, and that assimilation progresses with the thread of immigrant descendant generations (Abramson, 1994; Alba, 1995; Alba and Nee, 2003). If immigrants are dissatisfied with their lives in host societies, then, it is because they have not achieved the complete assimilation yet. The assimilation process is, thus, a painful one, but it leads to, at least, a sort of equalization of immigrants' objective and subjective characteristics when compared to natives.

The Effects of Perceived Discrimination on Immigrants' Well-being

The hypothesis of a uniform course of assimilation with time and generations has been challenged on both

theoretical and empirical grounds. Milton Gordon's classical book was the first to suggest different paths of assimilation (Gordon, 1964). Gordon's main argument was that acculturation is likely to take place first and can continue without any of the other dimensions of assimilation, such as identification or structural assimilation, occurring. Therefore, achieving assimilation is not only a matter of time. Gordon's scheme suggests that even though migrants may quickly adapt from a psychological and cultural point of view, they may still experience durable 'inferiorization' mechanisms that depress their satisfaction with life. Many researchers have studied this structural and enduring inferior position of immigrants in the social stratification in terms of ethnic penalties (Castles and Kosack, 1973; Carmichael and Woods, 2000; Heath and Yu, 2005). On the other hand, some studies have also emphasized the existence of distinct 'modes of incorporation', which may divert from the straight line assimilation hypothesis across generations. The segmented assimilation theory, speaking of 'downward assimilation', stresses the possible reinforcement of the inferior position of immigrants from the first to the second generation for some ethnic groups (Portes and Zhou, 1993; Rumbaut, 1997; Zhou, 1997; Safi, 2008). Thus, assimilation is not always a smooth and unidirectional process. On the whole, these works highlight the importance of mechanisms of discrimination and their possible effects on the course of assimilation. The impact of discrimination is not only objective, establishing concrete barriers (e.g. in labour or housing markets), but also subjective. From this point of view, discrimination draws attention away from cultural and adaptation issues to the attitudes of the host society as an important factor in the assimilation process. The existence of more or less institutionalized hostility and discrimination mechanisms towards some immigrant groups may indeed account, at least partly, for their lower satisfaction level. Hence, it is not the migration phenomena in itself that explains immigrants' subjective despair, but rather the specific hostility some groups may experience in everyday life in the host country.

The hypothesis of the effects of discrimination has been crucial in the explanation of differences in well-being between blacks and whites in the United States. As the result of their search for explanations for continuing disadvantage of blacks, Thomas and Hugues concluded that 'discrimination is a plausible though untested explanation for the differences we have documented in this paper in psychological well-being and quality of life' (Thomas and Hughes, 1986: 840). According to the authors, this conclusion still held a decade afterwards and was reinforced by further empirical evidence (Hughes and Thomas, 1998). Indeed, epidemiologists, social psychologists and sociologists have demonstrated the existence of a direct relation between perceived discrimination and mental health, social stress or even depression, especially for young ethnic and racial minorities (Vega and Rumbaut, 1991; Rumbaut, 1994; Finch, Kolody, and Vega, 2000; Taylor and Turner, 2002; Sellers *et al.*, 2003). Ethnic differences in depression symptoms are accounted for by the role discrimination plays in producing feelings of helplessness and despair (Hughes and Demo, 1989). Even if some works suggest the existence of many mediating variables between discrimination and well-being (e.g. self-esteem, sense of mastery and ethnic identification) (Werkuyten and Nekuee, 1999; Bobo and Fox, 2003), the majority of findings assert that perceived discrimination has consistent negative effects on individual well-being. As Hugues and Thomas suggest, these effects should be interpreted in social psychological terms rather than in psychiatric ones. In other words, reported subjective well-being should be interpreted as the respondents' evaluation of the quality of their life experience. Perceived discrimination affects the anticipation or the perception members of minority groups may have of their life chances and therefore depress their psychological well-being.

Hypotheses

To sum up, theoretical perspectives on immigrants' well-being stem from two major sets of hypotheses. The straight line assimilation framework assumes that there is an inherent psychological pain to migration that shall diminish with time and over generations. Immigrants' increasing well-being, thus, measures the progress of assimilation. According to the assimilation paradigm, we should expect to measure lower levels of life satisfaction of immigrants comparing to natives, but the differences should significantly decrease with immigrants' length of stay on one hand, and for the second generation comparing to the first one, on the other hand.

The second theoretical framework stresses the fact that assimilation is not only a matter of time. The host society also plays a role in the process, namely, through mechanisms of discrimination against some immigrant groups. The hostility immigrants may experience in the receiving society not only maintains their inferior position but also has a psychological cost on their well-being. According to this framework, we should expect to measure lasting differences in life

satisfaction levels between immigrants and natives that would be more salient for the most stigmatized groups. Perceived discrimination may account for an important part of these differences.

Data and Measurements

The data used combine information available from the three rounds of the ESS; the first was conducted in 2002, the second in 2004 and the third in 2006. The ESS is a cross-sectional multistage survey carried out with probability samples of individuals aged 15 and older, and compares more than 20 European countries (McBride, 2005; Lynn *et al.*, 2007).[1] Only comparable countries for which data from the three rounds are available and with sufficient observations for both immigrants and their descendents are included in the analysis. It is the case of the countries that have been experiencing a long standing immigration: Austria (AS), Belgium (BE), France (FR), Denmark (DK), Germany (DE), the Netherlands (NL), Norway (NO), the United Kingdom (GB), Sweden (SE), and Switzerland (CH). Though immigration to Portugal (PT), Spain (ES), and Ireland (IE) is more recent, it has been occurring fast enough to lead to (acceptable) immigrant groups of reasonable size.

Information about each respondent's country of birth and the one of his/her parents was used in order to distinguish among three different immigrant subpopulations. The first generation is defined as the one that migrated (i.e. the foreign-born population, excluding expatriates). The second generation is composed of native individuals, whose parents were born abroad, while natives who do not have any foreign-born ascendant form the third generation. Within the second generation, a distinction is made between those, whose both parents are foreign-born (generation 2) and those, who have only one foreign-born ascendant (generation 2.5). In order to reduce the magnitude of the age effect in the analysis below, only individuals aged between 18 and 65 are included in the sample.[2]

Using the three available rounds of the ESS data allowed us to work on a large sample of immigrants. As Table 1 shows, within the 54,449 observations of the sample, 4,944 are immigrants (8%) and 4,244 belong to the second generations (7%). The subsamples forming the second generations (generation 2 and generation 2.5) are also sufficient to provide consistent estimations (1,133 and 3,111 observations, respectively). In addition, the ESS data include the same question on life satisfaction measures for each of the three rounds and ask all respondents about their perceived discrimination. This kind of information is very rare in surveys that lend themselves to research on immigration.[3]

Nevertheless, the ESS data have some drawbacks, when attention is turned to the immigrant populations. Indeed, the comparative dimension of the ESS cannot be scrutinized thoroughly. As shown in Table 1, the immigrant sample is very small in many of the selected countries; this is especially true in the case of the new immigration countries (Portugal, Spain, and Ireland). The size of the sample is also problematic, if one is interested in comparing members of the second generation across countries, and even more so, when the focus is on the differences among ethnic groups in each country. This article, thus, gives very little comparative information across the 13 selected countries. It rather considers these data as a representative sample of natives and immigrants, first and second generations, extracted from the 13 selected countries, and treats the sample as a whole. Consequently, though the country effect is controlled for with dummy variables in all models, this study is not able to use specific comparative tools.[4] Nevertheless, an attempt to make some progress in comparing countries is sometime undertaken through the introduction of interaction terms in order to provide some deeper insights on important findings.

In each of the ESS rounds, two questions about individual well-being were systematically asked.

- *Taking all things together, how happy would you say you are?*
- *All things considered, how satisfied are you with your life as a whole nowadays?*

Answers to these questions were given on a scale from 0 to 10 (0 meaning extremely dissatisfied or unhappy and 10 extremely satisfied or happy). Some general descriptive statistics of the main sample analysed in this study are given in Table 1. For each country, this table displays the size of each of the four generations stemming from migration, as defined above, as well as means and standard deviations of the reported well-being and happiness levels.

There are significant differences in life satisfaction scores between countries. These differences are well-documented in the literature, and the ESS data give very similar results in this perspective to those found in the main international studies on happiness disparities across countries. People are the most satisfied with their lives in Sweden and Switzerland, and the least satisfied in Portugal and France (Diener, 2000). Taking all countries together, the last part of

Table 1 Happiness and life satisfaction levels in the thirteen countries composing the sample

Country	Generation	Life satisfaction Mean (SD)	Happiness Mean (SD)	*N* (%)	Total
AT					**5,460**
	Generation 1	7.02 (2.40)	7.36 (2.06)	409 (7.49)	9.18
	Generation 2	7.32 (2.28)	7.54 (1.73)	100 (4.83)	
	Generation 2.5	7.61 (2.08)	7.64 (1.79)	424 (7.77)	
	Generation 3	7.55 (2.03)	7.56 (1.92)	4,527 (82.91)	
BE					**4,176**
	Generation 1	7.03 (2.21)	7.45 (1.84)	334 (8.00)	7.02
	Generation 2	6.97 (2.11)	7.49 (1.71)	150 (3.59)	
	Generation 2.5	7.30 (2.00)	7.75 (1.49)	233 (5.58)	
	Generation 3	7.45 (1.78)	7.73 (1.50)	3,459 (82.83)	
CH					**4,623**
	Generation 1	7.67 (1.90)	7.81 (1.60)	851 (18.41)	7.78
	Generation 2	7.68 (1.79)	8.01 (1.45)	196 (4.24)	
	Generation 2.5	7.94 (1.64)	7.96 (1.48)	451 (9.76)	
	Generation 3	8.04 (1.65)	8.09 (1.40)	3,125 (67.60)	
DE					**6,578**
	Generation 1	6.65 (2.19)	7.02 (1.98)	530 (8.06)	11.06
	Generation 2	6.30 (2.62)	7.01 (2.17)	135 (2.05)	
	Generation 2.5	6.35 (2.30)	6.89 (1.99)	313 (4.76)	
	Generation 3	6.71 (2.29)	7.13 (1.93)	5,600 (85.13)	
DK					**3,535**
	Generation 1	7.81 (2.14)	7.93 (1.76)	183 (5.18)	5.95
	Generation 2	9.10 (0.88)	8.90 (0.88)	10 (0.28)	
	Generation 2.5	8.32 (1.33)	8.12 (1.42)	152 (4.30)	
	Generation 3	8.43 (1.48)	8.32 (1.34)	3,190 (90.24)	
ES					**3,742**
	Generation 1	7.04 (2.02)	7.32 (1.80)	256 (6.84)	6.29
	Generation 2	6.18 (2.75)	7.09 (1.97)	11 (0.29)	
	Generation 2.5	7.05 (2.28)	7.17 (2.05)	58 (1.55)	
	Generation 3	7.27 (1.82)	7.55 (1.66)	3,417 (91.31)	
FR					**4,060**
	Generation 1	5.96 (2.57)	7.11 (2.00)	335 (8.25)	6.83
	Generation 2	6.31 (2.43)	7.40 (1.76)	161 (3.97)	
	Generation 2.5	6.32 (2.63)	7.29 (1.85)	317 (7.81)	
	Generation 3	6.33 (2.49)	7.24 (1.85)	3,247 (79.98)	
GB					**4,646**
	Generation 1	6.89 (2.05)	7.22 (1.74)	394 (8.48)	7.82
	Generation 2	6.43 (1.86)	6.89 (1.91)	141 (3.03)	
	Generation 2.5	6.81 (2.11)	7.32 (2.01)	247 (5.32)	
	Generation 3	6.99 (2.05)	7.37 (1.92)	3,864 (83.17)	
IE					**4,656**
	Generation 1	7.09 (2.13)	7.61 (1.88)	298 (6.40)	7.83
	Generation 2	7.18 (2.18)	6.80 (2.04)	11 (0.24)	
	Generation 2.5	7.46 (1.59)	7.75 (1.65)	155 (3.33)	
	Generation 3	7.52 (1.93)	7.81 (1.74)	4,192 (90.03)	
NL					**4,820**
	Generation 1	6.78 (2.04)	7.44 (1.69)	381 (7.90)	8.11
	Generation 2	7.37 (1.75)	7.54 (1.53)	78 (1.62)	
	Generation 2.5	7.42 (1.70)	7.53 (1.58)	227 (4.71)	
	Generation 3	7.59 (1.59)	7.75 (1.38)	4,134 (85.77)	
NO					**4,532**
	Generation 1	7.23 (2.07)	7.64 (1.81)	291 (6.42)	7.62
	Generation 2	7.88 (1.27)	7.94 (1.20)	17 (0.38)	
	Generation 2.5	7.66 (1.84)	7.82 (1.58)	165 (3.64)	
	Generation 3	7.73 (1.66)	7.91 (1.50)	4,059 (89.56)	
PT					**4,066**
	Generation 1	5.48 (2.33)	6.65 (2.05)	178 (4.38)	6.84
	Generation 2	6.21 (2.40)	6.83 (1.83)	29 (0.71)	
	Generation 2.5	6.00 (2.27)	7.00 (1.79)	50 (1.23)	
	Generation 3	5.68 (2.14)	6.76 (1.76)	3,809 (93.68)	
SE					**4,555**
	Generation 1	7.31 (2.09)	7.56 (1.84)	504 (11.06)	7.66
	Generation 2	7.70 (1.75)	7.88 (1.47)	94 (2.06)	
	Generation 2.5	7.59 (1.72)	7.64 (1.60)	319 (7.00)	
	Generation 3	7.84 (1.64)	7.90 (1.49)	3,638 (79.87)	
Total					**59,449**
	Generation 1	7.01 (2.21)	7.43 (1.85)	4,944 (8.32)	100.00
	Generation 2	6.98 (2.19)	7.47 (1.77)	1,133 (1.91)	
	Generation 2.5	7.29 (2.08)	7.57 (1.74)	3,111 (5.23)	
	Generation 3	7.29 (2.05)	7.60 (1.72)	50,261 (84.54)	

Source: ESS rounds 1–3.

Table 1 shows that questions about happiness and life satisfaction give very similar responses across immigrant generations. First generation and second generation whose both parents are immigrants (generation 2), report lower levels of happiness and life satisfaction. Individuals belonging to generation 2 seem to be even less satisfied with their lives than the first generation immigrants.[5]

On the other hand, individuals, whose only one parent is immigrant, report approximately similar levels of both happiness and life satisfaction to those of natives who do not have any immigrant ascendant (generation 3). In the global sample, the correlation between these two measures of well-being is high (0.7). While happiness may be regarded as a very strong social norm, the life satisfaction question makes more space for the individual cognitive judgmental process about one's life (Campbell, 1976; Diener, 1984; Peiro, 2006). This is why the analysis below will focus on life satisfaction as a measure of well-being.

Methodology

Two methodological issues will be developed before presenting the empirical results. The first one reviews the set of explanatory variables that are used in the research about life satisfaction in general. The second one draws attention to the problem of measuring the specific effect of perceived discrimination.

Explaining Life Satisfaction

The literature on the determinants of the subjective well-being is characterized by a lively debate on the relevance of such-and-such factor (Diener, 1994; Diener *et al.*, 1999; Diener, 2000; Frey and Stutzer, 2002; Easterlin, 2003). We try to integrate in the analyses below the most consensual findings reported in the core studies in social sciences. A short survey leads us to distinguishing between three important sets of factors.

The first set consists of the socio-demographic factors. Age, gender, education, and marital status are the most important ones. Generally speaking, individual well-being tends to decrease with age (Horley and Lavery, 1995) though the relationship is U-shaped rather than linear (Blanchflower and Oswald, 2004). As for the gender effect, females' higher self-reported happiness is a common finding in social science, even if the difference between men and women is rather small. The same goes for the positive effect of a higher education level. Finally, a positive relationship between marriage and happiness has been found in a great number of studies all over the world and for different periods. In short, family relations (partner and/or children) have been shown to increase individual well-being.

The second set of factors is concerned with the socio-economic effects on happiness. The most important components are income and employment. The income effect is supposed to be directly linked to consumption, while the employment one is also related to social status. The effect of income has been shown to be positive but non-linear, both on the macro and micro level, i.e. the greater the increase in income, the smaller the happiness output (Easterlin, 2001). On the other hand, empirical findings particularly stress the unemployment effect. In their study of 12 European countries over the period 1975–1991, using the World Value Survey data, Tella, Macculloch and Oswald show that, other characteristics being controlled for, the loss of happiness due to unemployment is about 0.33 units on a 10-point scale (Tella, MacCulloch, and Oswald, 2001). These quantitative estimations echo a very long tradition of qualitative works on the psychological effect of unemployment leading to depression, anxiety, aggressiveness, etc. (Clark and Oswald, 1994).

A third set of factors is related to mental and physical health. Health has a very important rating, when people report the most significant things in life and it is widely accepted that an adverse change in health reduces life satisfaction. This strong correlation between health and life satisfaction makes it essential to take into account the health factor in the analyses below. This is all the more true because the literature on mental and physical health reports great inequalities in this field among ethnic groups (Vega and Rumbaut, 1991; Rumbaut, 1994).

Measuring the Effect of Discrimination

While discrimination is often put forward as a possible explanation for the lower life satisfaction level of ethnic or racial minorities, measuring its specific effect in a regression model poses several problems. Indeed, the introduction of the discrimination variable as a co-variable among others in a model explaining life satisfaction levels may not be relevant, because, unlike clear exogenous variables, such as gender or age, the relation between perceived discrimination and life satisfaction may hardly be regarded as directly causal. One may think that other variables might affect both life satisfaction levels and the individual answers to the question on discrimination. Some of these variables may be observed (ethnic group, age, etc.), but some are non-observed or unobservable (skin colour, degree

of physical attractiveness, personality variables, disability, sexual orientations, etc.). Estimated in a single equation, the effect of perceived discrimination on life satisfaction may, thus, be fallacious: it leads to an endogeneity bias. It is possible to try to eliminate this bias using simultaneous equation models (Maddala, 1983). This technique starts by estimating a discrimination model, and afterwards includes the predicted value of discrimination in the life satisfaction one. In order for the interest coefficient (discrimination) to be unbiased, at least one variable should be used in the discrimination equation and excluded from the life satisfaction one (Heckman, 1978). This variable is called instrumental. Though the two-stage procedure does correct the endogeneity bias, it does not directly provide the exact variance–covariance matrix of the estimates. In order to estimate this matrix correctly and, thus, give robust significance tests of the coefficients, the bootstrap technique is used.

Findings

Regression analyses are conducted in order to compare natives and immigrants' well-being taking into account the three sets of factors presented previously. The socio-demographic variables controlled for are gender, age, family status (an interaction between matrimonial status and number of children), and years of education.[6] The socio-economic variables are income, employment status, and occupation. Income is measured in four annual categories.[7] A supplementary category was built for those, who did not declare their income (about 22% of the sample).[8] After several estimations, employment and occupation were merged together in one variable. This variable distinguishes between two categories of unemployed (unemployed during the last seven days and currently employed but having been unemployed during the last 3 months). For those, who did not experience unemployment during the last 3 months, high skilled occupations (e.g. legislators, senior officials, managers, professionals or technicians and associate professionals) were separated from other categories. Finally, the respondents' answers about subjective health are also introduced in the analyses.[9]

Effects of the Control Variables

Important differences are observed across countries (Table 2). With France as a reference, and with the exception of Portugal, living in any one of the countries selected in this study is associated, all other things being equal, with a higher level of life satisfaction. The highest parameters are those for Denmark, Sweden, and Switzerland, in line with the international studies on this subject.

The effects of all variables are very stable and conform to those expected. For example, women are more satisfied with their lives than men. The age effect is non-linear, the youngest and the eldest reporting higher level of well-being. Life satisfaction increases with annual income. As for occupation, when compared to unemployment, all occupation statuses are associated with higher levels of life satisfaction, and this is all the more true for the most advantaged ones. Moreover, the negative effect of unemployment seems to be lasting. That is, individuals, who have experienced unemployment during the 3 months preceding the survey, have a lower probability of being satisfied with their lives, even if they were employed at the time of the questionnaire.

Lastly, the effect of health is very significant, especially for those, who claim to have a very bad health situation. The introduction of a measurement of health, even if biased by the subjective aspect of this variable in the ESS data, remains important in the study of life satisfaction determinants: it corrects, for instance, for the strong negative effect that would appear for the eldest categories, if health was not controlled for.[10]

Testing for the Assimilation Hypothesis

According to the assimilation framework, differences between natives and immigrants in life satisfaction levels should diminish with the length of stay of the latter and over the successive immigrant generations. Model 1 in Table 3[11] begins by testing the migration consequences; as expected, its effect on individual well-being is significantly negative. As demonstrated in many studies, the first year of migration seems to be a 'happy' one (model 2, Table 2). Recent immigrants do not seem to report different levels of life satisfaction comparing to natives. However, immigrants' well-being decreases afterwards and remains low for a long time. The Fisher test for equality of coefficients asserts that estimates for '1–5 years', '5–10 years', and '11–20 years' are not significantly different. Immigrants' well-being improvement over time is, thus, not detected with the data. In other words, one has to wait for 20-year migration duration to measure a significant increase in immigrants' life satisfaction level. Furthermore, even after more than 20 years spent in the host country, immigrants still register significantly lower life satisfaction than natives.

Table 2 Life satisfaction determinants: the effects of the control variables

Variables	Coeff.	SE
Intercept	6.59***	*0.05*
Country		
France		
Austria	0.98***	0.04
Belgium	0.91***	*0.04*
Denmark	1.74***	*0.04*
Germany	0.43***	*0.04*
Ireland	0.80***	*0.04*
Netherlands	1.03***	*0.04*
Norway	1.02***	*0.04*
Portugal	−0.39***	*0.04*
Spain	0.99***	*0.04*
Sweden	1.20***	*0.04*
Switzerland	1.21***	*0.04*
United Kingdom	0.50***	*0.04*
Round		
Round 1		
Round 2	−0.01 ns	*0.02*
Round 3	−0.01 ns	*0.02*
Socio-demographic variables		
Gender		
Male		
Female	0.14**	*0.02*
Age		
<28 years old		
28–40	−0.22***	*0.03*
40–55	−0.25***	*0.03*
55–65	−0.07**	*0.03*
Year of education	0.01***	*0.00*
Family life		
No partner		
No partner with children	−0.27***	*0.03*
Couple	0.33***	*0.03*
Couple with children	0.39***	*0.02*
Socio-ecnomic variables		
Annual Income		
<18,000 euros		
18,000–30,000 euros	0.27***	*0.02*
30,000–60,000 euros	0.44***	*0.03*
>60,000 euros	0.49***	*0.03*
Unknown	0.27***	*0.02*
Unemployment*Occupation		
Others		
Unemployed the last 7 days	−1.16***	*0.03*
Currently unemployed but unemployed during the last 3 months	−0.35***	*0.02*
Legislators, senior officials and managers, professionals or technicians and associated professionals employed continuously during the last 3 months	0.05**	*0.02*
Subjective health		
Very good		
Good	−0.48***	*0.02*
Fair	−1.10***	*0.02*
Bad	−2.00***	*0.04*
Very bad	−3.07***	*0.09*
N	59,449	
R^2	0.2286	
Adjusted R^2	0.2282	

*Source: ESS, rounds 1–3. ***P<1%, **P<5%, ns = non significant. For each variable the reference is in italic text.*

Table 3 Life satisfaction determinants: testing for the assimilation variables

Assimilation variables	Model 1		Model 2		Model 3		Model 4	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Immigration								
Native								
First generation immigrant	−0.24***	*0.03*						
Immigrant*length of stay								
Native								
Immigrant <1 year			−0.27 ns	*0.17*				
Immigrant 1–5 years			−0.31***	*0.06*				
Immigrant 5–10 years			−0.38***	*0.07*				
Immigrant 11–20 years			−0.21***	*0.05*				
Immigrant >20 years			−0.17***	*0.04*				
Immigrant generations								
G3								
Generation 1					−0.25***	*0.03*	−0.25***	*0.03*
Generations 2 and 2.5					−0.08***	*0.03*		
Generation 2							−0.16***	*0.05*
Generation 2.5							−0.05 ns	*0.03*
N	59,449		59,449		59,449		59,449	
R^2	0.2323		0.2324		0.2324		0.2324	
Adjusted R^2	0.2319		0.2319		0.2319		0.2320	

****P<1%, ns=non significant. For each variable, the reference is in italic text.*
Source: ESS, rounds 1–3. OLS regression results, the same cotrol variables of Table 2 are included in the analysis.

The inter-generational hypothesis of assimilation does not appear to stand either. When the second generation is defined as having at least one immigrant parent, consistent improvement in life satisfaction seems to take place over generations (model 3, Table 3). However, a more precise model (model 4, Table 3), which compares generation 2.5 and generation 2, reveals that increase in life satisfaction occurs only for those, who have one native parent (generation 2.5). Members of the second generation whose both parents are immigrants have lower level of life satisfaction than natives with non-immigrant parents. Moreover, the Fisher test for equality of coefficients indicates no significant difference between the coefficients of generation 2 and the first generation immigrants. While born in the host country, descendants of migrants do not seem to be 'happier' than their parents, other variables being controlled for. The migration hypothesis does not hold in explaining their relative despair since they are native-born and have never migrated. Here again, no evidence is detected for the inter-generational hypothesis of assimilation. Moreover, these findings highlight the importance of the distinction between generation 2 and generation 2.5 in immigration studies. Descending from a mixed couple has been shown to facilitate the integration of the second generations, namely, by increasing their social capital and, thus, their labour market outcomes (Rooth and Ekberg, 2003; Ramakrishnan, 2004). In the present article, the results indicate that if one of their parents is native born, second generation immigrants also have a better level of life satisfaction.[12]

In order to give some comparative insights into these results, we estimated the same model with interaction terms between generations stemming from migration and host countries. The results are given in Table 4: the model estimates an average effect of the country, and the effect of each immigrant generation in each of the countries.

Being a first generation migrant reduces life satisfaction in the majority of countries; the coefficients are, however, not significant in France, Germany, Portugal, and the United Kingdom. It is in the Netherlands, Austria and Switzerland that immigrants seem to be the least happy with their lives. Although they are often negative, the coefficients are very rarely significant for the generation 2. Only second generation immigrants in the United Kingdom and Germany are characterized by significantly lower satisfaction levels than the natives in these countries. Finally, the effect of generation 2.5 is hardly significant

Table 4 The coefficients of the immigrant generations in each country (interaction terms)

Country	First generation		Generation 2		Generation 2.5	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
Australia	−0.36***	0.09	−0.20 ns	0.18	0.10 ns	0.09
Belgium	−0.27***	0.10	−0.13 ns	0.15	−0.08 ns	0.12
Denmark	−0.25*	0.14	0.73 ns	0.57	−0.18 ns	0.15
France	−0.16 ns	0.10	0.09 ns	0.15	0.04 ns	0.11
Germany	−0.00 ns	0.08	−0.36**	0.16	−0.20*	0.11
Ireland	−0.80***	0.11	−0.07 ns	0.55	0.03 ns	0.15
Netherlands	−0.47***	0.10	−0.02 ns	0.21	−0.06 ns	0.12
Norway	−0.28**	0.11	0.14 ns	0.44	−0.05 ns	0.14
Portugal	−0.19ns	0.14	0.44 ns	0.34	0.23 ns	0.26
Spain	−0.21*	0.12	−1.06*	0.55	−0.32 ns	0.24
Sweden	−0.29***	0.09	−0.02 ns	0.19	−0.15 ns	0.11
Switzerland	−0.30***	0.07	−0.24*	0.13	−0.03 ns	0.09
United Kingdom	−0.13 ns	0.10	−0.49***	0.16	−0.11 ns	0.12

Source: ESS, rounds 1–3. OLS regression results, the same control variables of Table 2 are included in the analysis.
*$N = 59{,}449$, $R^2 = 0.2327$, Adj $R^2 = 0.2321$. ***$P < 1\%$, **$P < 5\%$,*$P < 10\%$, ns = non significant.*

in almost all of the countries. These results suggest that the second generation immigrants feel the most dissatisfied with their lives in the 'classical' countries of immigration in Europe. In new immigration countries (Ireland, Spain, Portugal), the second generations do not constitute a sufficiently large group, and estimations are not significant for them. Even if these results give an idea about the differences among host countries, they should be interpreted with caution, because of the problematic size of the different immigrant generations in some countries.

Testing for the Effect of Discrimination on Immigrants' Well-being

While immigrants' dissatisfaction with life seems to last despite both the time spent in the host country and across inter-generational change, this section focuses on the extent to which the perception these populations have of the discrimination they might be facing accounts for their unhappiness. In the ESS data, a question related to the perceived discrimination was asked in a very general way (and not specifically to ethnic minorities) in each of the three rounds.[13] Answers to this question were included in the analysis and are presented in Table 5.

As expected, the perceived discrimination has a significant negative effect on life satisfaction. While the first generation immigrants still seem unhappy with their lives, comparing to natives, when their perceived discrimination is controlled for, the differences in levels of life satisfaction between generation 2 and generation 2.5, on the contrary, seem to be entirely captured by their answer about discrimination (the coefficients for both of these generations are no longer significant). The discrimination might, thus, be a plausible explanation for the low satisfaction levels of generation 2.

Nevertheless, the perceived discrimination against one's group might be more likely linked to the ethnic group than to immigrant generations *per se*. All immigrant groups do not experience the same living conditions in host countries and some of them may be facing durable ethnic penalties that cause their lower life satisfaction.

In the following analyses, the first and second generation immigrants are distinguished by their country of origin. As the former analyses have shown, second generation immigrants descending from mixed couples are closer to natives than to immigrants. This is why they were not included in the ethnic groups defined below.[14] Unfortunately, the parents' country of origin is not recorded in detail in the first ESS round. Only information about the geographic area is available with the regrettable lack of distinction between Eastern and Western Europe. However, the detailed country of origin variable is available for the second and third ESS waves. Therefore, distinct analyses are conducted, first, on the three rounds and then, only on the last two ones. When all available rounds are used, we distinguish between six ethnic groups coming from Africa, Asia, South America, Europe, other geographical zones, and 'non ethnic' natives. When the study is concerned only with the two last ESS rounds, one can also distinguish between Eastern and Western Europe. In the latter

Table 5 The effects of the immigrant generations when discrimination is controlled for

Assimilation variables	Model 1		Model 2	
	Coeff.	SE	Coeff.	SE
Immigrant generations				
G3				
First generation*length of stay				
Immigrant <1 year	−0.26 ns	*0.17*	−0.21 ns	*0.17*
Immigrant 1–5 years	−0.32***	*0.06*	−0.22***	*0.06*
Immigrant 5–10 years	−0.36***	*0.07*	−0.24***	*0.07*
Immigrant 11–20 years	−0.21***	*0.05*	−0.13**	*0.05*
Immigrant >20 years	−0.18***	*0.04*	−0.12***	*0.04*
Generation 2	−0.16***	*0.05*	−0.07 ns	*0.05*
Generation 2.5	−0.05 ns	*0.03*	−0.04 ns	*0.03*
Perceived discrimination			−0.65***	*0.03*
N	59,136		59,136	
R^2	0.2300		0.2385	
Adjusted R^2	0.2295		0.2380	

Source: ESS, rounds 1–3. OLS regression results, the same control variables of Table 2 are included in the analysis.
****P<1%, **P<5%. ns=non significant. For each variable, the reference is in italic text.*

case, special attention is also paid to individuals with Turkish origins. We classify the first and second generations in each of these ethnic groups according to the information about their country of origin and/or their parents' one. When second generation immigrants have two immigrant parents of different origins, their group is decided with a priority given to a non-European origin.[15]

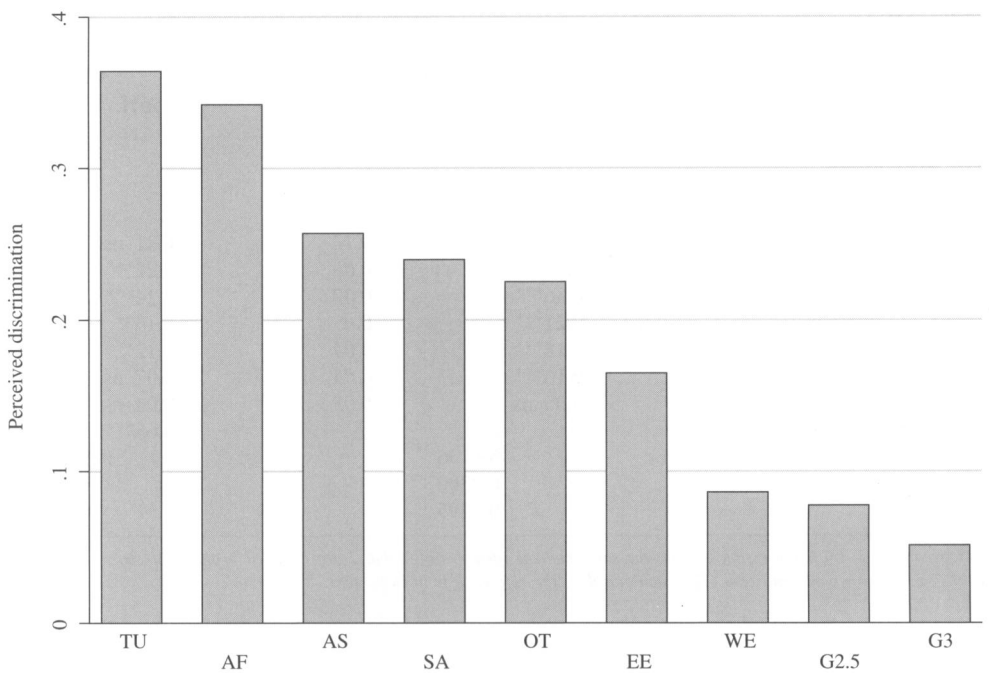
Figure 1 shows that members of all groups (even generation 3) may answer positively the question on the perceived discrimination. The percentage is greatest for the Turkish, African and Asian groups and lowest for the North American, European and native groups.

Table 6 provides estimations for the ethnic group effect. First, models 1.1 and 2.1 estimate this effect without the discrimination variable, using either all the available data or only rounds 2 and 3. In model 1.1, only immigrants coming from 'other geographical region' (mainly, North America or Australia) have no significant differences in life satisfaction level when compared to natives. All other ethnic groups seem to be negatively affected in terms of their subjective well-being. Africans and Asians are the most dissatisfied with their lives. Their coefficient is significantly lower than that of Europeans, and is still significantly negative when compared to natives.

Model 2.1 draws attention to the importance of distinguishing between immigrants coming from Western Europe and Eastern Europe. The lower life satisfaction level of the latter when compared to natives is much more significant. This model also provides estimates for Turkish immigrants, which are among the most negative. The lower life satisfaction level of immigrants and their descendants in Europe seems to be more related to their belonging to the underprivileged minority groups than to their specific experience of migration and the acculturation problems it may lead to. When the perceived discrimination is introduced in the models (models 1.2 and 2.2 in Table 6), the effect of the ethnic group seems to lose ground. Estimates for Africans, Eastern Europeans, and Turkish are consistently lower than those in the models 1.1 and 2.1. However, the coefficients are still significantly negative when compared to the native group for Africans, Asians, and Eastern Europeans.[16]

Correcting for the Endogeneity of Discrimination

As described in the methodological section, estimation of the discrimination effect in a single equation may not provide satisfactory results. The endogenous aspect of this variable requires the use of simultaneous equations with instrumental variables. The final model in this study tries to give the most consistent estimation of the effect of discrimination using the two-stage strategy. We use two religious affiliations (Judaism and Islam) to instrument perceived discrimination. Both of them might strongly affect perception of discrimination. On the other hand, belonging to Judaism or Islam can hardly be assumed to have a causal effect on life satisfaction level. Judaism and



Source: ESS, Round 2 and 3

Figure 1 Perceived discrimination among ethnic groups

Table 6 The effects of the ethnic groups with and without the control for discrimination

Ethnic variables	Rounds 1–3				Rounds 2 and 3			
	Model 1.1		Model 1.2		Model 2.1		Model 2.2	
Ethnic group								
Native of native ascendant								
Africa	−0.32***	*0.06*	−0.16**	*0.06*	−0.42***	*0.08*	−0.26***	*0.08*
Asia	−0.30***	*0.06*	−0.16***	*0.06*	−0.29***	*0.08*	−0.18**	*0.08*
Europe	−0.20***	*0.03*	−0.16***	*0.03*				
Eastern-Europe					−0.30***	*0.07*	−0.23***	*0.07*
Western-Europe					−0.10**	*0.05*	−0.08*	*0.05*
South-American	−0.18**	*0.09*	−0.05ns	*0.09*	−0.08 ns	*0.10*	0.02 ns	*0.10*
Turkish					−0.28**	*0.13*	−0.09 ns	*0.13*
Others	0.09 ns	*0.13*	0.18ns	*0.13*	0.04 ns	*0.14*	0.14 ns	*0.14*
Perceived discrimination			−0.65***	*0.03*			−0.62***	*0.04*
N	59,136		59,136		39,347		39,347	
R^2	0.2327		0.2386		0.2410		0.2461	
Adjusted R^2	0.2322		0.2381		0.2402		0.2454	

Source: ESS, rounds 1–3. OLS regression results, the same control variables of Table 2 are included in the analysis.
****P < 1%, **P < 5%, *P < 10%. ns = non significant. For each variable the reference is in italic text.*

Islam are not used here as a measure of religiosity; Jews and Muslims are compared not only to unreligious persons, but also to Catholics, Protestants, Buddhists, and other persons, who may be more or less religious. Asserting to be affiliated with Islam or Judaism can be understood as defining oneself as a member of a community that may be perceived as discriminated against, regardless one's level of religious

Table 7 The estimated Effect of perceived discrimination (instrumented)

	Model 1.1 Rounds 1–3		Model 1.2 Rounds 2 and 3	
	Coeff.	SE	Coeff.	SE
Ethnic group				
Native of native ascendant				
Africa	−0.12 ns	*0.10*	−0.15 ns	*0.15*
Asia	−0.13 ns	*0.08*	−0.10 ns	*0.12*
Europe	−0.15 ns	*0.04*		
Eastern-Europe			−0.18*	*0.11*
Western-Europe			−0.07 ns	*0.04*
South-American	−0.02 ns	*0.11*	0.09 ns	*0.12*
Turkish			0.03 ns	*0.22*
Others	0.21 ns	*0.16*	0.20 ns	*0.17*
Perceived discrimination (instrumented)	−0.81***	*0.31*	−1.02**	*0.49*
N	59,136		39,347	
R^2	0.2328		0.2411	
Adjusted R^2	0.2323		0.2404	

Source: ESS, rounds 1–3. OLS regression results, the same control variables of Table 2 are included in the analysis.
****P<1%, **P<5%, *P<10%. ns=non significant. For each variable the reference is in italic text.*

beliefs and practices.[17] Table 7 displays the findings of life satisfaction model with the use of simultaneous equations.

The results for the first stage estimation of discrimination are not presented here: they may be obtained from the author on request. They show that the instrumental variables do have a highly significant effect on the perceived discrimination. Other variables being controlled for, people, who assert to belong to Judaism or Islam, report higher levels of the perceived discrimination than those who did not. The main finding is that, when discrimination is controlled for in the second stage equation, almost all the coefficients of the ethnic variables decrease (comparing to models in Table 6). In fact, they do not seem to be significant any more (except, for Eastern Europeans).[18] The lower life satisfaction of non-European immigrants, especially Africans, Turkish and Asians, seems to be directly related to their perception of discrimination. A significant effect holds only for Eastern Europeans. That is, members of this group are the only ones whose lower level of individual well-being cannot be attributed to their feelings of being discriminated against. Though these final results do not change dramatically the conclusions of this study, they serve to show that the relation between discrimination and life satisfaction is not only due to the effects of observed or unobserved characteristics on both of them. There is a direct association between these two variables suggesting that discrimination undermines immigrants' well-being and accounts strongly for their lower levels of life satisfaction.

Conclusions

The search for the best indicators of immigrants' assimilation in the host country has been a major concern for the sociology of immigration. While the overwhelming majority of research studies provide objective measures of immigrants' integration (socio-economic achievement, intermarriage, naturalization), asking immigrants about their subjective perception of their own quality of life in host countries may be a simple and effective way of studying their assimilation.

What do the results presented in this article tell us about immigrants' assimilation in the major immigration countries in Europe? Employing the ESS data, we first measured differences in life satisfaction levels between immigrants and their descendants, on the one hand, and natives, on the other hand. The two central arguments of the assimilation theory (time and generation) do not seem to have significant effects on immigrants' well-being. A major finding concerns the generational effect; despite the fact that they are born and socialized in host countries, the members of the second generations seem to be at least as dissatisfied with their lives as those of the first generation, when both of their parents are immigrants. This finding illustrates the specific psycho-social

experience of second generation immigrants, and the fact, well documented in some qualitative research, that they regard their inferior living conditions as fundamentally unfair, more so than their parents (Handlin, 1966; Portes and Rumbaut, 2001). According to the results discussed in this article, and as far as assimilation may be measured in subjective terms, the classical straight line assimilation scheme does not seem very useful in understanding differences between immigrants and natives.

Conversely, perception of discrimination in the host society seems to contribute significantly to the interpretation of the findings. In this study, we have found that the lasting differences between life satisfaction of ethnic minorities and those of natives shrink (and sometimes disappear) when the perceived discrimination is introduced into the analysis. This is all the more true for Africans, Asians, and Turkish. From this point of view, the analysis of immigrants' well-being benefits from the classical studies on differences in levels of well-being between blacks and whites in the United States. Perception of discrimination may lead members of some ethnic minorities to anticipate fewer chances in life and, thus, express lower life satisfaction. Not only discrimination hinders immigrants' socio-economic achievement in labour or housing markets, but it also seems to undermine their anticipation in terms of life chances and depress their happiness level. As reported in many studies, discrimination is, thus, an important dimension to consider when studying immigrants' assimilation. This association between discrimination and individual well-being needs nevertheless to be furthermore tested with longitudinal data.

Notes

1. The number of countries varies along with the ESS rounds.
2. In addition to the age restriction, some observations were deleted from the sample due to missing values. Overall, 745 observations where dropped because of missing information for some important variables in this study. A major variable responsible for these deletions was the variable 'years of education' (650 observations were deleted because no answer was given to this question). Missing values for income were retained and gathered in a distinct category mainly because their quantity was important, but also because income non-response may somehow be informative in itself.
3. Very few studies have been conducted on the psychological well-being of immigrants and their descendants in Europe. Some isolated analyses have focused on a situation in a specific country or for a specific ethnic minority group, using the ESS data (Neto, 1995; Werkuyten and Nekuee, 1999; Neto, 2001; Baltatescu, 2005).
4. Though multilevel modelling was already used with the ESS data, it is difficult to apply it in this study due to several limitations. The first one is related to the small size of the immigrant sample in each of the selected countries, which leads to many non-significant estimates. We tried to combine information about the ethnic group and the host country and thus, create a second level, which refers to specific ethnic groups in a specific host country. Even though this strategy proved to be useful in many recent studies (van Tubergen, Mass and Flap, 2004; Levels, Dronkers and Kraaykamp, 2008), this double comparative design necessitates the use of large-scale datasets that contain sufficient destination countries, countries of origin, and respondents, which is unfortunately not the case for this dataset as far as immigrants are concerned. On the other hand, the use of multilevel analysis would move the main research questions away from comparing levels of life satisfaction between immigrants and natives to analysing the share of macro and micro variables in explaining differences in life satisfaction levels. In order to compare the estimates of the immigrant generations or ethnic groups over countries, we prefer to use interaction terms in the models when it is possible.
5. This is true for the whole sample, but also in some specific countries like Belgium, Germany, Spain, and the United Kingdom.
6. The ESS variable 'education level' was not used because it was reported differently in the United Kingdom. The results obtained when controlling for the highest level of education without the data for the United Kingdom are very close to the ones presented here.
7. These categories are: less than 18,000 Euros, between 18,000 and 30,000 Euros, between 30,000 and 60,000 Euros and more than 60,000 Euros.

8. In all countries, many respondents do not give any information about their income. They are very numerous in Ireland and Switzerland and rather rare in Scandinavian countries.
9. The question used is the following: "*how is your health in general? Would you say it is (1) very good, (2) good, (3) fair, (4) bad, (5) very bad*". Since all respondents picked one of these five possible answers, five categories were introduced in the analyses.
10. The introduction of the subjective perception of health can be criticised: one may think that there are some individual unobserved characteristics that affect both the probability of reporting low satisfaction and a bad health situation, or even that low level of life satisfaction might have a negative effect on health. Nevertheless, as far as the results related to immigration are concerned, it should be noted that the omission of the health variable does not change the final results of this research.
11. Only results for the variables of interest are presented in the tables below, other variables being controlled for. The complete tables can be requested from the author in writing.
12. This result has to be understood as descriptive more than causal. Descendants of mixed couples form a very selected sample of the second generation. The higher education and economic status of mixed couples, the relatively longer duration of migration of the immigrant parent involved in such couples, could also account for the results for generation 2.5. It is very difficult to disentangle the effect of the selectivity in these couples from the 'pure' effect of having one immigrant parent rather than two.
13. The question is the following: "Would you describe yourself as being a member of group that is discriminated against in this country?" Three hundred and thirteen individuals reported that they do not know if they are members of a group discriminated against or not; they were, therefore, deleted from the sample. The estimations that include the discrimination variable are thus based on 59,136 individuals (instead of 59,449 in the initial sample).
14. The results remain very similar if the individuals from the generation 2.5 were included in the ethnic groups. However, as the proportions of descendants of mixed couples vary along immigrant groups, including them in the analyses possibly paints too bright a picture for groups that have high rates of intermarriage.
15. There are very few such cases.
16. For more details, comparative results on the effect of each ethnic group in each country are available from the author on request.
17. Some studies have shown that religiosity has a positive (small) effect on life satisfaction (Ellison, 1991). However, it is not the belonging to a certain religion, but rather, religious and spiritual beliefs that affect well-being. In the present work, we suppose that our instrumental variable measures religious affiliation and not religiosity; one may assert that he or she is Muslim or Jewish, but might not intensely practice these religions and may not even have strong religious beliefs. The distributions of the religiosity score are quite similar in all three populations [see for example means (m) and standard deviations (std dev.) Islam: $m = 6$, std. dev $= 2.6$; Judaism: $m = 4.1$, std dev. $= 2.8$, others: $m = 4.36$ std dev. $= 2.85$]. A 'joint significance' test of the validity of the instruments is presented in Table A1 in the appendix.
18. Two-stage estimations with instrumental variables automatically produce higher standard deviations and less significant coefficients. Therefore, interpretation should focus on the magnitude of the latter rather than on their significance. When compared to Table 6, coefficients do change, especially for Africans and Asians. They decrease significantly (in absolute value).

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Author's Address

Mirna Safi, Sciences Po, OSC, CNRS, 75007, Paris, France. She is also member of the LSQ-Crest-Insee. Correspondence should be addressed to: OSC, Sciences Po, 27 rue Saint-Guillaume, 75337, Paris Cedex 07, France. Email: mirna.safi@sciences-po.fr

Appendix

Table A1 Test for the validity of the instrumental variables (joint significance)

	The equation of discrimination		The equation of life satisfaction	
	Coeff.	SE	Coeff.	SE
Islam	0.48***	0.05	−0.07 ns	0.10
Judaism	0.99***	0.14	−0.36 ns	0.19

Notes: The test consists of introducing one of the instrumental variable in the equation of discrimination and the other in the equation of life satisfaction Each of instrumental variables is highly significant in the first equation and non significant in the second which confirms their validity.

****P < 196, **P < 5%, *P < 10%. ns = non significant.*

N = 59,136. ESS data, Rounds 1–3.