Autonomy, Political Freedom, and Happiness[*]

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October 5, 2014

1

Abstract

A substantial literature finds that freedom in the sense of an expanded opportunity set is positively related to happiness. A contrasting literature, however, finds that an excess of choice can have socially undesirable outcomes. We test the effect of two types of freedom–both personal and political–on happiness using five waves of World Values Survey data (1981-2008). We find evidence supporting the claim that equipping people with the tools to direct the course of their lives (i.e. increasing autonomy freedom) incentivizes the desire to investigate alternatives (e.g. political parties) before making a decision. The effect of freedom on happiness is diminished in contexts where individuals have less experience with evaluating alternatives, such as in authoritarian or transitional countries.

1 Introduction

The pursuit of happiness is a difficult exercise for which, luckily, there is no shortage of suggestions. Psychology, economics, and political science can be righteously enlisted in the thick directory of contributors to a never ending catalog of recommendations, surely with substantial credibility and hopefully with a strong clout. This paper adds to the list by suggesting that a major determinant of happiness is freedom. This proposition is not new (Veenhoven, 2000; Haller and Hadler, 2004; Inglehart et al., 2008). To offer original insights, this paper disentangles the contribution that two different types of freedom—political and autonomy freedom—give to the search for happiness and expresses a reasoned view on the relation between choice and happiness.

The expansion of emancipative values and the vast increase of choice accorded by the tailor-made nature of contemporary capitalism have shifted the focus on the determinants of happiness toward the role of choice (Inglehart and Klingmann, 2000; Frey and Stutzer, 2000, 2002; Inglehart, 2009; Welzel, 2013; Bavetta et al., 2014). The possibility for someone to choose for herself, whether in the market for goods and services or in the political arena where the vote can be expressed for different parties, candidates, and platforms, contributes to happiness because it fosters self-realization. People want choice because they want to be in the position to forge their life according to their values, preferences, and beliefs. And people gain satisfaction (or happiness) when their life accords with who they want to be.

At the same time, choice is a useful way to frame freedom in theory as well as empirically. To the extent that we have choice, we also enjoy the possibility to be free: if we are unconstrained in both the political and economic realms, we may fulfill our search for self-realization. Framing freedom in terms of choice is beneficial for our ability to measure it. The extent of choice is a widely used way of measuring the level of freedom (Bavetta and Guala 2003; Sudgen 1998; Sen 1988). While the debate on the quantitative dimension of individual freedom is justly concerned with understanding what we mean by "extent of choice," it is much less preoccupied by the connection between freedom and choice, which it takes for granted—at least in the social sciences.

Of course, there are dissenting voices, doubtful of the straight relation between choice and happiness that we describe (Schwartz, 2004; Iyengar, 2010). To choose is surely helpful to the fulfillment of self-realization. However, if choice is too vast, it burdens decision makers with anxieties, transaction costs, and regrets that depress the degree of happiness that they may oth-

erwise experience. Cognitive shortcuts can be used to reduce the demands for information in order to reach a satisfactory decision, but there are limits to the utility of these heuristics as well (Herstein 1981; Thaler and Sunstein 2008).

A recent literature (Verme, 2009; Bavetta and Navarra, 2012), on which we draw in this paper, suggests that the extent of choice is important for the degree of autonomy freedom that people experience. In this literature a person is autonomous if she is accountable for her choices. This interpretation is tied to the Millian notion of individuality developed in the third chapter of *On Liberty* (Mill, 1859). Mill claims that the development of autonomous behavior is fostered by choice. Having alternative courses of action to choose from lends meaning to the deliberative process and makes it an opportunity for the development of individuality and for self-realization.

The relation between this view of freedom and happiness has received scant attention in the literature, so far. Such a relation is the main concern of this paper. We use a hierarchical linear model that incorporates individual-level variables within countries with varying degrees of political freedom to examine the effects of political and autonomy freedom on happiness drawn from five waves of World Values Survey (WVS) data. Interestingly, we find empirical evidence that autonomy freedom has favorable effects on the degree of happiness people experience. We also explore the combined effect of autonomy and political freedom on the level of happiness and find evidence that they reinforce each other in producing happiness. Furthermore, the intensity of the effect changes as the level of political freedom varies.

Our findings suggest that people adopt different heuristics in the exercise of their right of choice in the political realm. When they have exposure to a vast array of choice—political freedom is firmly established—they are more "efficient" in handling their deliberative process and the enjoyment of autonomy freedom significantly amplifies the level of happiness that they achieve. On the contrary, in countries with limited political freedom, handling the complexity of the decision process presented by the vast cornucopia of alternatives—candidates, platforms, policies—is much harder and happiness suffers in the sense that an increase in autonomy freedom is less helpful in the production of people's feeling of happiness.

Interestingly, this finding breaks into the Schwartz and Iyengar's debate on the effect of enlarging choice on people's happiness. In particular, this paper offers evidence that more choice does not thwart happiness because the former's effect on the increase of autonomy freedom outweighs the negative

4

consequences of a burdensome deliberative process, even in countries with poor records in political freedom. One way to reconcile this result is offered by Iyengar's distinction between choice as principle and choice as value (Iyengar, 2010). The value of choice is affected by the extent of choice, whereas the role of choice as a fundamental principle is not. In the political realm people perceive choice as an unalienable part of their political endowment, which produces happiness no matter how taxing its consequences are.

The study is organized as follows. In the next section we introduce the notion of autonomy freedom and review the literature on freedom and happiness. In section 3 we develop some theoretical hypotheses that will be tested empirically. In Section 4 we describe the data and the methodology of the empirical investigation. In Section 5 we perform the estimation, comment the results obtained and carry out some robustness checks and a sensitivity analysis to corroborate the validity of our findings. In Section 6 we draw our concluding remarks.

2 Happiness, Choice, and Political Institutions

We situate our study of happiness and freedom at the intersection of three literatures. First, with regard to the explanatory power of autonomy freedom, we contribute timely empirical results to ongoing research into the factors associated with happiness. Second, we draw on economic and political discussions of choice and connect to a vast literature that gives evidence of the importance of political freedom for the experience of happiness. Third, we engage with other determinants of happiness, connected with personal characteristics such as income, personal and demographic features, or health.

Remarkably, despite the vastness of the literature on the determinants of happiness, not much has been said about the role of autonomy freedom on the production of happiness and even less about the effect of the joint operation of autonomy and political freedom. This is relevant information that scholars and policy makers neglect at their own peril. The former are not able to explain different levels of happiness in the presence of similar levels of political rights and civil liberties. Ceteris paribus, this paper argues that these differences are affected by people's level of autonomy freedom. Policy makers run even bigger risks. A country that scores high on the level

of autonomy freedom, but imposes restrictions on its citizens in the exercise of political freedom amplifies the perceived degree of unhappiness jeopardizing the stability of its political system. Such information might have been helpful to Hong Kong's governmental authorities in preventing students riots exploded in September 2014. Students were asking for democratic reforms in a region of China reporting high levels of autonomy freedom and low levels of political freedom.

Let us devote our attention to the literature on the determinants of happiness starting with the role of autonomy freedom. Beforehand, we present the notion of autonomy freedom that bears such an important weight in this paper.

2.1 Autonomy Freedom and Happiness

A person is autonomous if she is accountable in the sense that she may offer a reasoned explanation for her choices. The link between being accountable and autonomous goes through the Millian idea of individuality or autonomy (Mill 1859). The English philosopher John Stuart Mill distinguished two ways of conducting life. One way is to replicate "desires and impulses" that are diffuse in society and to lead a life that has no more character than that of a machine. In this life what is chosen is not the product of the decision maker's view of the good. Alternatively, one could develop "proprietary" desires and impulses—views of the good that are consciously and autonomously shaped—on the basis of which to conduct a life that, according to Mill, has value and character.

In the Millian framework, the development of exclusive or distinctive desires and impulses takes place through the act of choice. If one wants to live a valuable life, full of character, she must structure the deliberative process—and ultimately her choice—upon personal qualities such as "perception, judgment, discriminative feelings, mental activity, and even moral preference" (Mill 1859, 122). By relying on these qualities, the decision maker exercises and fosters her own individuality (autonomy) and attains choices that are her own, based on a truly proprietary set of desires.

This person is autonomous since she can account for what she actually chooses. Bavetta and Navarra (2012) argue that, once a person is autonomous, she also retains, ceteris paribus, a firmer control over the outcomes of her life. While they searched for the policy consequences of such a feeling of control, in this paper we are interested on the impact that autonomy

exercises on the degree of happiness people experience.

Note that a quantitative translation of the idea of autonomy freedom requires information about both the extent of choice and people's feeling that their choice is made on the basis of proprietary desires. Since these choices lead to a feeling of control, following Bavetta and Navarra (2012), we measure the degree of autonomy freedom on the basis of a question in the WVS which asks respondents to reveal their sense of the extent of opportunities open for choice and the degree of control that they feel to retain over what happens to them (see section 4).

The Millian notion of individuality and its translation into the idea of autonomy freedom that we propose is connected to the achievement of happiness. Once choices are made on the basis of proprietary desires and impulses, a human being becomes a fuller person and, as such, she achieves a greater degree of happiness (Mill 1859, Berger 1984). This is a remarkable theoretical conclusion, with far reaching philosophical implications, which descends from the Millian interpretation of utilitarianism. For our purposes, the question is whether the literature provides adequate empirical evidence that confirms the Millian claim. The answer is a qualified yes.

Using a cross-national data, Veenhoven (1999) shows that opportunity and capability to choose are positively correlated to happiness. His findings support the idea that being a fuller person has positive returns on happiness, but with two limitations. First, the relation is contingent to the level of economic prosperity. Second, his definition of freedom does not match our understanding of autonomy freedom. The role of prosperity is investigated by Welsch (2003). He examined the relation between opportunity to choose, rationality and happiness. He argues that prosperity's impact on happiness may be mediated by opportunity to choose and rationality. Interestingly, his findings show that opportunity to choose and rationality have both direct and indirect effects on happiness. However, the interpretation of freedom that Welsch adopts does not match the idea of autonomy despite the fact that his appeal to rationality introduces subjective information in the analysis of freedom and, in turn, of the determinants of happiness.

Another line of research—grounded on the idea of emancipative values—starts from the observation that happiness has increased the past 25 years. Since freedom of choice and control spread substantially in the same period, this line of research suggests that they must account for the greater level of happiness (Inglehart, 1997; Inglehart et al., 2008; Welzel et al., 2003; Welzel and Inglehart, 2010; Welzel 2013). The basic tenet of this literature

is that in poorer societies access to resources has stronger marginal effects on the production of happiness, as the law of decreasing marginal returns would predict. In rich countries, the marginal effect of further income on happiness is modest. What really counts is free choice and self-expression. Like autonomy, emancipative values are agentive values. However, they emphasize self-expression rather than self-determination. Since a person my express herself in purely mechanical ways, we believe that despite its closeness, this literature measures something different.

Veenhoven (2000) distinguishes two notions of freedom. The first, opportunity to choose, is objective and corresponds to the idea of absence of impediments in economic, political and personal life. The second, capability to choose, refers to the personal inclination to go one's own way. He gives evidence that freedom is positively correlated to happiness in rich countries only. Also, freedom is related to happiness only when opportunity and capability coincide. His empirical measure of freedom is built on different information than the measure of autonomy freedom that we propose. Furthermore, as much as he is interested on the cross effects on happiness of different levels of freedom, the exercise the he conducts does not explicitly explore the role of self-determination. Verme (2009) adopts the concept of the "locus of control" proposed in social and personality psychology (Rotter, 1954; 1990). Accordingly, people who believe that their achievements depend more on effort than fate better appreciate freedom of choice and control. He gives evidence that a measure that combines freedom of choice with the locus of control predicts happiness better than freedom alone.

2.2   Political Freedom

Comparative survey data reveal that the emancipative effect of political freedom is significantly related to an increase in happiness (Inglehart et al. 2008; Dorn et al. 2007; Haller and Hadler 2004; Inglehart and Klingmann 2000). In contrast to the studies that relate political freedom to happiness, Lane (2000) finds that clinical depression is increasing in advanced democracies as a consequence of a loss in personal relationships.

We know less about predictors of happiness in an authoritarian political context. The studies we reference here are largely conducted among Western populations, where political freedom is a sort of background constant, and the literature offers very little guidance on how this set of predictors perform in a context marked by a higher degree of governmental coercion. There are

a small number of studies, nonetheless, that have examined social mobility in the former Soviet Union. These studies find low rates of mobility, though the final years of the Soviet Union exhibited higher than average mobility (Gerber and Hout 2004; Titma et al. 2003; Marshall et al. 1995). Daniels (1991, 26) relates a conversation with a couple of Albanian college students that reflects the low potential for advancement in the People's Socialist Republic of Albania. "As for their aspirations, the students looked blank. When they completed their courses, the government would send them wherever they were needed, a decision against which there was no appeal. Personal aspirations were not for young Albanians; everything was decided for them. In a certain sense, they had achieved that liberation from desire that Buddhists seek. 'We are already dead,' one of them said ..." The absence of social mobility, then, may be evidence of widespread unhappiness in the Soviet Union and among its satellites, though evidence bearing on this question is scarce.

Democratic institutions are one way to translate an ethic of choice and competition into the political realm (Schumpeter 1950). Parties may win or lose elections, but a pluralistic system must provide for a minority view to be expressed. Such a political system recognizes that individuals have differing opinions and interests, and allows them to associate freely in pursuit of those interests (Inglehart and Welzel 2005) and to ensure peaceful coexistence of different convictions and lifestyles (Dahl 1982; Held 2006). Diversity guarantees that political power can be dispersed and balanced among multiple groups of individuals (Miller 1983). In one illustrative example, Frey and Stutzer (2000; 2002) find federalism and direct democracy are associated with higher happiness in Switzerland.

Providing for a particular institution, however, is quite different from people acting in accordance with the regime. To be successful in the electoral realm–to vote correctly (Lau and Redlawsk 2006; Lau et al. 2014)–voters must be able to accomplish two tasks. First, they must be able to estimate their own position on a left-right continuum and, second, they must be able to estimate the location of at least some of the political parties (or candidates) on the same spectrum. Equipped with this information, voters should be able to identify the party (or candidate) nearest to their position and vote accordingly. Cognitive heuristics can be used to simplify the information processing demands of decision-making (Thaler and Sunstein 2008; Lau and Redlawsk 2006; Herstein 1981). Party affiliation is a common voting heuristic, with strong predictive power for the vote itself (Lau et al. 2014; Bartels 2000; Finkel 1993). Voting in accordance to one's policy preferences may

take time and experience to successfully accomplish. We expect–though do not directly test–autonomous individuals to vote correctly more often than other voters.

There is evidence to suggest that voters in transitional countries, most notably in the cases of the states that emerged from the collapse of the Soviet Union, struggle to adjust to the demands of free and competitive elections. Survey data from 1993 and 1994 indicate a widespread lack of party identification in either Central and Eastern Europe or the former Soviet Union. Furthermore, these surveys also indicate higher rates of electoral volatility in the initial democratic elections in the region than in either established democracies or in post-war democratic elections (Rose 1995). In short, the collapse of the Soviet Union left people without a clear picture of which party was closest to their ideal position.

Subsequent evidence from the 2004 European Parliament elections, by which time many of the former Soviet satellites were members of the European Union, show these voters are aware of the distance between themselves and the political parties on a left-right spectrum, but that this heuristic is less salient in these countries than in the established democracies of Western Europe (van der Brug et al. 2008). The heuristic may also be less instructive for Eastern European voters because the structure of party competition is different than in Western Europe (Marks et al. 2006). Van der Brug and colleagues claim "voters who misperceived their own or their party's location [on a left-right spectrum] would not be happy in retrospect with the choices they made" (van der Brug et al. 2008, 592). We approach the question of democratic politics and happiness from a different perspective, but ultimately arrive at conclusions supporting the claim that individual autonomy and democratic political institutions contribute to a greater sense of happiness among individuals.

2.3 Demographic Predictors of Happiness

Happiness is also related to individual characteristics. Scholars have identified a number variables correlated with happiness. Graham (2011, 64) nicely summarizes the literature addressing some of the main variables correlated with happiness:

> Virtually all within-country studies find that wealthier people are, on average, happier than poorer ones. They also find remarkable

consistency in the effects of other variables, such as age (which has a U-shaped relationship with happiness, with the low point being in the mid- to late forties), marital status (marriage is good for happiness, for the most part), unemployment (bad for happiness), and health (very important for happiness).

The literature highlights additional factors related to happiness. Verme (2009) finds women are, on average, happier than men and highly educated people are happier than the less educated. Bok (2010, 19) considers a number of psychological studies assessing the effect of children on happiness. He concludes that "the effects of having children are not entirely clear, although the weight of the evidence suggests that parenthood often fails to increase well-being significantly, let alone bring as much happiness to most parents as popular opinion would suggest." Social capital, when understood in terms of a generalized sense of trust, is positively related to happiness (Helliwell 2003). One's location on a left-right political dimension–at least in Europe–also has an effect on happiness, as Alesina et al. (2004) demonstrate in their study of inequality.

Many scholars have observed a strong and robust relationship between income and happiness (see Frey and Stutzer, 2002; Graham, 2009 for a review). This relationship, though, is best understood as a function of relative income. Increasing income contributes to a greater level of happiness among the socially mobile subpopulation, but appears to have less of an effect when income increases within an entire population. Furthermore, empirical analyses have shown that income matters for happiness, but only up to a point, beyond which greater income has little to no effect on happiness (Easterlin 1974; Lane 2000). In sum, factors that expand the opportunity set for an individual appear to be positively related with happiness.

3   Theoretical hypotheses

Consider two countries. In the first, where political rights and civil liberties are well established, citizens freely and actively engage in the political process by voting in elections and publicly expressing their views and opinions. In such a country we expect that people exercising their autonomy achieve high levels of happiness, since they contribute actively to further their interests and opinions in the political arena. By contrast, we expect the effect on happiness of civic engagement in an authoritarian state to be much lower

than in a politically free state. Authoritarian governments suffocate citizens' participation in the political process; individuals are passive spectators of a political show that takes place within small circles of power from which they are excluded. In such a country, we expect that acting upon their autonomy is unlikely to significantly increase the level of happiness among the population.

These considerations lead us to formulate the following theoretical hypothesis:

H1 *High levels of autonomy freedom and political freedom raise the level of happiness.*

$H1$ implies that a given level of autonomy freedom is more likely to grant higher happiness in those countries characterized by a higher level of political freedom and vice versa.

We are also interested in the interplay between these different aspects of freedom. More specifically, we aim to measure the effect that changes in autonomy freedom yield on the degrees of happiness at different levels of political freedom.

Consider again two countries with different levels of political freedom. In the first, political freedom allows more options in the political arena, which increases the deliberative costs of decision making. Citizens have to actively examine and evaluate a larger amount of information to choose a political party or to vote on a referendum in accordance with their ideological disposition. Increased political freedom, then, may result in higher levels of regret or disappointment among the population. However, we also expect that autonomy freedom can counteract the pressure toward disappointment. Autonomous individuals, we expect, will be disposed to invest the time and energy to investigate the range of options before selecting the most preferable option, and thus avoid the potential pitfalls of the increase in the opportunity cost that comes with political freedom. In countries with lower levels of political freedom, the citizens are presented with a restricted number of options to select among in the political arena. In this context, an increase in the level of autonomy freedom is unlikely to complicate the deliberative process, given relatively small number of alternatives. Therefore, we expect that a given increase in the level of autonomy freedom brings about greater happiness in those countries characterized by a higher level of political freedom.

This argument leads us to formulate the following hypothesis:

12

H2 *The positive effect on the level of happiness due to an increase in the level of autonomy freedom is larger in those countries displaying higher levels of political freedom and vice versa..*

Taking two individuals enjoying the same level of autonomy freedom, we expect the level of happiness is greater for the one who lives in a country displaying a higher level of political freedom (hypothesis $H1$). We also expect that the same change in autonomy freedom for both individuals grant higher happiness returns to the one who lives in a country with a high level of political freedom (hypothesis $H2$). If we are correct, autonomy should be positively related to happiness, and this relationship should be stronger in countries with high levels of political freedom.

If supported by empirical evidence, this hypothesis runs against a popular literature, based on experimental evidence that emphasizes the toll that complex deliberative processes impose upon happiness. This literature claims that, as the extent of opportunities increases beyond a certain point, it depresses the level of happiness people report. The burden imposed on deliberation derives from various sources. For example, the probability of making incorrect choices increases, especially in markets with many similar goods (Schwartz 2004; Shah and Wolford 2007; Iyengar 2010). Regret, disappointment, and material loss can result from such incorrect choices. Sethi-Iyengar et al. (2004) examine investment rates in 401(k) pensions plans in the United States, finding choice is inversely related to participation. "If there were only two funds offered, participation rates peaked at 75 percent, but when there were 59 funds offered, participation rates dipped to a low of approximately 60 percent" (Sethi-Iyengar et al., 2004, 91). In the case of the privatization of the Swedish pension system, consumers were given a series of investment options with a default plan available, but discouraged in the marketing campaign associated with the policy change. According to one analysis, the consumers who actively selected a plan for their investments and ignored the default plan actually performed worse than the default plan (Cronqvist and Thaler 2004). While choice may be attractive from a normative perspective, these findings suggest choice can quickly become overwhelming and lead to unfavorable consequences for happiness.

One way to reconcile this literature with our empirical findings is to acknowledge that choice is worthy and has value (Iyengar, 2010). Choice is worthy because it is a principle connected with self-determination. Without choice, self determination would not be possible. At the same time, choice

13

has value because each alternative opportunity or course of action open to the decision maker can be attributed a value. Choice worthiness—or choice as principle—can neither be affected by the extent of opportunities a person may select from, nor by the complexity of the deliberative process. The empirical confirmation of $H2$ suggests that, in the political realm, people perceive choice as an unalienable part of their political endowment. It must then produce happiness no matter how taxing its consequences are. Another way to interpret $H2$ touches upon the cost of processing the information available to make a decision. More options to choose from entail higher decision-making costs. It can be argued that while consumers in the market of consumption goods are engaged in comparing a multitude of options in order to make an informed choice, in the political arena the options are much lower due to the small number of competing parties, even in established democracies. In our view, however, this claim is not entirely correct because different parties bring along different political platforms containing a wealth of policy recommendations that involve a complex evaluation process. Therefore, if $H2$ is confirmed by the data, it leads to conclude that the cost of processing complex information in the political market is offset by the enjoyment of taking informed political choices associated with the exercise of autonomy by the individuals as well as by more effective heuristics.

4   Data and Methodology

4.1   The Data

The bulk of the data used in our empirical analysis are drawn from the World Values Survey.[1] The WVS provides a wealth of public opinion data for a

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[1]We are quite aware that some scholars may cast doubt upon the validity of self-reported data. For any number of reasons (e.g. tailoring survey answers to accord with socially desirable outcomes, misremembering, or producing inaccurate estimates) self-reported data could be suspect of some underlying bias. Despite these potential sources of error, however, we have little cause for concern. On the one hand, the WVS has been widely cited since its first round and the administrators of the survey have adhered to commonly accepted practices for survey research. As Alesina et al. observe (2004, p. 2015) "[p]resumably people who insist on using bad data would be driven out of the market" and the fact that the WVS persists through time is evidence that the survey produces unbiased data. More importantly, scholars unaffiliated with the survey have sought to establish the validity of the data, and have found no reason to suspect bias in the data (see Veenhoven 2000 and Alesina et al. 2004 for a discussion of the validity of self-reported survey data).

large sample of countries, and over a broad period of time (1981-2008). The survey includes questions concerned with happiness, autonomy freedom, and a variety of demographic and attitudinal variables. The countries included in these analyses are reported in Table 1.

Our dependent variable is the level of happiness enjoyed by individuals. Happiness is assessed by asking survey respondents to indicate how happy they are, using four categories: 'very happy', 'rather happy', 'not very happy', and 'not at all happy.'

The two main independent variables are autonomy freedom and political freedom. The measure of autonomy freedom is based on individual-level data collected from WVS data. Respondents are asked to indicate to what extent they feel they have free choice and control over their lives, using a scale that ranges from 1 (none at all) to 10 (a great deal). Therefore, the higher the value of responses to this survey item, the greater the extent of autonomy freedom. The second main independent variable is political freedom. We measure the level of political freedom existing in the countries under consideration in this study by adopting the Polity IV indicator (Marshall and Jaggers, 2012). The country-level polity scores take a count of autocratic and democratic elements in a country and then generate a score between -10 and 10 to quantify the degree to which the regime embraces freedom.[2]

We included in the regressions a set of socio-demographic control variables and some individual attitudes and preferences regarding politics and society. The choice of the control variables is based on the predictors of happiness investigated in the literature as well as on the availability and cross-country coverage of the data.

In Table 1 we report the list of countries included in the empirical analysis. In Table 2 we show the summary statistics and the correlation matrix of the main dependent and independent variables. In the Appendix we describe all the data used in the empirical investigation and indicate their sources.

Insert Table 1 and Table 2 about here

4.2 Empirical Methodology

According to hypotheses 1 and 2, we expect that a person's level of happiness is affected by both individual and contextual variables. While the former refer

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[2]See http://www.systemicpeace.org/inscrdata.html for the most recent version of the Polity IV data.

to the individual's demographic and attitudinal characteristics, the latter concern environmental variables describing the macro-context in which she lives. A linear model could conceivably relate autonomy and political freedom to happiness. At the same time, a linear model also suffers from some obvious statistical errors which would bias any results. The nested structure of the data allows for the existence of correlation between individuals in the same country. This generates a dangerous bias because the standard errors will be underestimated, leading to fallacious statistical significance with regard to the parameters of a regression. In particular, this downward bias appears to be more severe with respect to the country level variable (Skrondal and Rabe-Hesketh 2004; Rabe-Hesketh and Skrondal 2012).

In contrast to a linear model, we use a multi-level approach (ML) that allows us to overcome the problem of correlation among variables clustered within the same country. Amongst the individual-level variables a critical role is played by the level of a person's autonomy freedom (AF). The relevant variable at the country-level is political freedom (PF). Consider the following simple linear model:

$$HP_{ij} = \alpha_{0j} + \alpha_{1j}AF_{ij} + \varepsilon_{ij} \tag{1}$$

Our research hypothesis is based on the idea that the relationship between autonomy freedom and individual happiness is determined by a shock measured at country level. This shock may be caused by the extent of political freedom in a given country. The simplest way to incorporate the degree of political freedom in equation (1) is to specify a separate equation for the intercept as follows:

$$\alpha_{0j} = \theta_{00} + \theta_{01}PF_j + \omega_{0j} \tag{2}$$

where θ_{00} is the average intercept for the entire population, if all the other regressors are set to be equal to 0, $\theta_{01}PF_j$ links the characteristics of the external environment to the extent of political freedom and ω_{0j} is a country-specific random variable with mean 0 and variance τ_{00}. Incorporating equation (2) into equation (1) yields:

$$HP_{ij} = \theta_{00} + \alpha_{1j}AF_{ij} + \theta_{01}PF_j + \omega_{0j} + \varepsilon_{ij} \tag{3}$$

We estimate equation (3) by using a random intercept multilevel ($RIML$) estimator. It is important to note that the country-specific effect ω_{0j} shifts

the intercept of the relationship between autonomy freedom and happiness either above or below the mean according to the extent of the country's political freedom. For the purposes of our analysis, the coefficients α_{1j} and θ_{01} will signal if our theoretical hypotheses are supported by these data. If they are positive and statistically significant, we may safely claim the correctness of Hypothesis $H1$: other things being equal, higher autonomy freedom and higher political freedom enhance individual happiness.

We should stress that the estimation of equation (3) implies that the marginal impact of autonomy freedom on happiness is assumed to be the same for all individuals. However, one might reasonably argue that this assumption may seem to be too strong. According to Hypothesis $H2$, the environmental context should also affect the impact of autonomy freedom on individual happiness. Therefore, we need to specify a separate equation also for the parameter α_{1j} as follows:

$$\alpha_{1j} = \theta_{10} + \theta_{11}PF_j + \omega_{1j} \tag{4}$$

Plugging equation (4) into equation (3) for α_{1j} and expanding it yields:

$$HP_{ij} = \theta_{00} + \theta_{10}AF_{ij} + \theta_{01}PF_j + \theta_{11}AF_{ij} \times PF_j + \omega_{0j} + \omega_{1j}AF_{ij} + \varepsilon_{ij} \tag{5}$$

We estimate equation (5) by using a random slope multilevel ($RSML$) estimator. Differently from equation (3), we have two new regressors: the interaction term between AF and PF and a random component, $\omega_{1j}AF_{ij}$ which can be interpreted as the random shock on the marginal impact of AF on individual happiness determined by the extent of PF. The term $\omega_{1j}AF_{ij}$ allows the slope of the relationship between autonomy freedom and happiness to be either steeper or flatter than the mean according to the level of the country's political freedom. Therefore, according to equation (5), the level of political freedom existing in a specific country shifts the intercept term of the regression line above or below the mean and makes its slope flatter or steeper. The interaction term $\theta_{11}AF_{ij} \times PF_j$ is much more appealing for our purposes. In particular, we are interested in the parameter θ_{11}. If positive and statistically significant, we have evidence to support Hypotheses $H2$: the marginal impact of autonomy freedom enjoyed by an individual is larger if she lives in a country displaying higher levels of political freedom.

5 Estimation and results

In Table 3 we report regression estimates from three different $RIML$ specifications. From column (a) to (c) we display econometric results from a reduced to a fully specified model. In the reduced model we only include the two explanatory variables of interest: autonomy and political freedom. In the model specification whose estimates are shown in column (b) we add a series of demographic variables and controls for whether the country underwent a political transition and whether the country is located in Eastern Europe. In this model we also control for change over the multiple waves of the World Values Survey. Our most elaborate specification is displayed in column (c) where we include attitudinal controls for political orientation and generalized trust.

Insert Table 3 here

We note that the level of autonomy freedom enjoyed by individuals has a positive and significant effect on the level of happiness. Likewise, political freedom is associated with a significantly higher level of happiness. These results indicate that the level of happiness individuals report is associated with high levels of autonomy and political freedom. Said differently, individuals enjoying a given level of autonomy freedom are happier in those countries where the extent of political freedom is higher. Therefore, hypothesis $H1$ is supported by the data. The support for our theoretical predictions is strengthened by stability of the results across model specifications.

As far as the control variables are concerned, they are broadly supportive of the literature we addressed in Section 2. Happiness is less likely if an individual is male, but more likely for respondents either young or old, married, employed, healthy, and rich, relative to other respondents in the same country. Those individuals who express right-wing political attitudes and who trust others also enjoy a greater probability of being happy. People living in countries that underwent a political transition since 1981 and those who live in Eastern European countries are more likely to display lower levels of happiness. Our framework suggests lower happiness in these regimes is an enduring legacy of government policies designed to hinder the expression of autonomy freedom. Lastly, we observe that the probability of happiness is increasing over time.

In Table 4 we show the regression results of three different $RSML$ specifications. Again, both autonomy and political freedom are positive and

statistically significant. These results further support hypothesis $H1$: for a given level of autonomy freedom the level of happiness is higher in countries where individuals enjoy greater political freedom. The interaction effect of autonomy and political freedom is also positive and significant. This finding supports our hypothesis $H2$: the positive effect of a marginal increase in autonomy freedom on happiness is larger in countries with higher levels of political freedom. The regression results also confirm the effects of the control variables on individual happiness as shown in Table 3.

Insert Table 4 here

It is important to note that the empirical findings reported in Table 4 contrast the claim that increasing choice may results in lower happiness (Schwartz 2004; Iyengar 2010). Our result offers evidence to suggest that autonomous individuals in the political market (i.e., voters) derive happiness from evaluating multiple related alternatives (i.e., political parties and/or platforms) before casting a ballot. This result indicates autonomy freedom and political freedom are complements in fostering the level of happiness enjoyed by individuals.

5.1   Robustness Checks

In order to corroborate our empirical findings in this section we carry out some robustness checks by using different variables to proxy both the level of political freedom existing in the countries under scrutiny in our study and the level of happiness enjoyed by individuals considered in the analysis. The summary statistics and the correlation matrix of the variables used to carry out the robustness checks are shown in Table 5.

Insert Table 5 here

Political freedom is a difficult concept to measure. All the metrics thus far developed suffer from limitations (Munck and Verkuilen 2002). To address this concern, in the first two columns of Table 6 we replace the Polity IV measure of political freedom with a dichotomous composite index drawn from Acemoglu et al. (2014). The composite index scores a country as a democracy if Freedom House rates the country as "Free" or "Partly Free" and the Polity IV score is positive. If these measures are inconsistent, two dichotomous measures of democracy are used to determine the democratic

nature of the regime (Boix et al., 2012; Cheibub et al., 2010). Regression estimates confirms the results obtained in Tables 3 and 4. Individual happiness is higher in countries characterized by higher political freedom and for individuals enjoying greater autonomy freedom. The magnitude of the positive happiness effects of autonomy freedom is greater in those countries that display higher levels of political freedom. Hypotheses $H1$ and $H2$ are therefore reinforced by the empirical findings shown in the first two columns of Table 6.

In the third and fourth columns of Table 6 we display regression estimates of both $RIML$ and $RSML$ model specifications in which the dependent variable happiness is replaced by a composite measure of subjective well-being. We combine each person's responses to the questions about happiness and life satisfaction by giving equal weight to each variable. However, to accomplish this task we should take into consideration that life satisfaction is measured on a 10-point scale, while happiness is measured on a 4-point scale and the two survey questions have opposite polarity. Following Inglehart et al. (2008), we construct the SWB composite index as follows: $SWB = (lifesatisfaction - 2.5) * happiness$. Regression estimates, once again, show a similar pattern to the results already presented in Tables 2 and 3. Therefore, Hypothesis $H1$ and $H2$ are strengthened by the second robustness check carried out in this study.

Insert Table 6 here

A crucial aspect of our findings rests upon the impact of the interaction between autonomy freedom and political freedom on happiness: the positive effect of autonomy freedom on happiness is greater in those countries displaying higher levels of political freedom. Therefore, more established democracies provide more opportunities to reap the benefits of autonomy and translate them into personal well-being.

However, it can be claimed that since the political freedom variable also captures covariance in economic development, a different interpretation of our results may be argued for. One can affirm that in less developed societies, individuals adopt a materialist strategy for maximizing happiness, and this is why income correlates better with happiness there. This would imply that, above certain development threshold, there are diminishing marginal returns to wealth and individuals can only get happier by expanding their freedom and autonomy. Hence, the interactive effect: in higher political freedom–and

20

also, because they are collinear, more economically developed–societies, autonomy freedom correlates highly with reported happiness. In lower political freedom–and generally, lower income–societies, it is not autonomy, but other factors (such as income and material security) that explain better variation in happiness (Easterlin, 1974).

In order to rule out the above interpretation and corroborate the validity of our theoretical hypotheses we need to show that political freedom works better than economic development in our model specifications. Therefore, in Table 6 we run additional $RIML$ and $RSML$ models replacing the political freedom measure with the indicator of purchasing power parity converted per capita gross domestic product collected from The Penn World Table dataset version 7.1 (Heston et al. 2012). These data allow us to compare the degree of economic development across countries while comparing countries on an even basis (inflation adjusted 2005 international dollars).

Regression results are shown in the last two columns of Table 6. We note that economic development has almost zero relationship with happiness, measured either at the individual level (when interacted with autonomy freedom) or at the national level. These findings lend further support to our hypotheses, and allow us to reject the alternative explanation that happiness is merely a product of economic development.

5.2   Sensitivity analyses

To further corroborate the results of this study, we implement a sensitivity analysis to evaluate whether educational attainment or income have a confounding effect on the multilevel results we reported in Tables 2 and 3. There are strong theoretical reasons to expect that greater educational attainment will increase individual autonomy. Education, among other things, provides citizens with the conceptual tools to weigh alternatives and select from among a group of possible choices. Similarly, education and income are usually correlated.

We show regression results separately accounting for the effect of education and income on the relationship between freedom and happiness in Table 7. We display estimates from four different $RSML$ model specifications to quantify the effects of high and low education and high and low relative income levels.

Insert Table 7 here

Regression estimates show that neither education nor income level has any substantively significant impact on the complementarity between autonomy and political freedom in affecting the level of happiness. Therefore, these results give a further support to our interpretation of the findings displayed in Table 3.

6   Conclusions

In this paper our aim is to examine the conceptual relationship between political freedom, autonomy, and happiness. We construct a multilevel model incorporating survey data from 68 countries over more than thirty years to test two hypotheses. First whether an increase in the level of autonomy freedom and political freedom leads to an increase in happiness. Second, whether a given increase in autonomy freedom has a larger effect in high political freedom countries relative to low political freedom countries.

Several important results emerge from the empirical analysis. First, greater levels of political freedom and autonomy freedom are associated to higher happiness. More specifically, two individuals sharing the same extent of autonomy freedom enjoy different levels of happiness according to the degree of political freedom existing in the country where they live. For a given extent of autonomy freedom, the higher the political freedom in a country, the higher the level of happiness.

Second, an increase in autonomy freedom grants higher happiness returns in countries where the level of political freedom is higher. This finding shows that the fear of inundating voters with a surfeit of choices, a pattern noted in the consumer market, does not carry over to the political market. As voters become more autonomous, they appear to take joy in weighing alternatives in the political realm and to handle more effectively the burden of choice, as their heuristic improves. Said differently, as political freedom rises, the greater variety of options to choose from available to voters increases the cost of choice. Such a cost is even higher for autonomous individuals who make choices out of a process of conscious evaluation of the different alternatives offered in the political arena. However, our empirical analysis shows that the positive effect of autonomy freedom on individual happiness seems to offset the increased cost of choice determined by the rising number of political options competing for electoral consensus in established democracies. Autonomous citizens, therefore, enjoy exercising their freedom by con-

sciously processing and evaluating the information available in the political market although this activity brings significant costs for choosing. Furthermore, despite higher costs, they are likely to possess more effective heuristics. Therefore, an increase in choice does not depress their happiness.

Finally, citizens in stable democratic states will exhibit larger benefits in terms of happiness than citizens in either authoritarian or transitional states. We consistently find that Eastern European countries show a significantly lower level of happiness relative to other countries. This finding for Eastern European countries is in accordance with an idea of democracy as a learned behavior. Voters in consolidated democratic countries have a multitude of aids when estimating their own position on a left-right dimension and, from there, the party closer to their preferences. Voters in transitional countries, by contrast, lack these social aids when deciding how to vote after a transition. As if pushed into the deep end of a swimming pool, voters in transitional countries are confronted with an overwhelming amount of information to process in order to vote correctly, and that this wave of information limits the balancing effect of an increase in autonomy and political freedom.

One might point out that the argument we used to account for the complementary effect of autonomy and political freedom on happiness does not take into account the effect of education. Greater education and higher relative income can provide a voter with heuristics better able to simplify the vote decision and increase the chance of a correct vote. However, when we tested for any moderating effects of education and income we found no substantive effects. Education and income in and of themselves do not alter the increased information processing costs of democratic elections. Furthermore, our main results are robust when considering rival explanations that economic development has a larger effect on happiness, or that our findings are an artifact of a particular measure of political freedom.

Making a choice can be a costly activity. The empirical results that we obtained in this study, however, indicate that the costs of making a choice are offset by freedom to choose. Increasing political freedom makes people happy. At the same time, equipping people with the tools to direct the course of their lives (i.e. increasing autonomy freedom) leads to the desire to investigate alternatives (e.g. political parties) before making a decision. Pursuing policies that increase autonomy, then, has the potential to pay societal goods in the form of government congruent with individual desires.

7 Appendix

Insert Table A1 here

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Table 1: List of Countries Included in Analyses

Albania*	Hong Kong*	Russia*
Algeria*	Hungary	Rwanda
Argentina*	India	Singapore
Australia	Indonesia*	Slovakia*
Bangladesh*	Iran	Slovenia*
Brazil*	Italy	South Africa*
Bulgaria*	Japan	South Korea*
Canada	Jordan	Spain
Chile*	Latvia*	Sweden
China	Lithuania*	Switzerland
Colombia	Malaysia	Taiwan*
Croatia*	Mali*	Tanzania
Cyprus	Mexico*	Thailand
Czech Republic*	Morocco	Trinidad and Tobago
Dominican Republic	Netherlands	Turkey
Egypt	New Zealand	Uganda
El Salvador	Nigeria*	Ukraine*
Estonia*	Norway	United Kingdom
Finland	Pakistan*	United States
France	Peru	Uruguay*
Germany	Philippines*	Venezuela*
Ghana*	Poland*	Zambia*
Guatemala*	Romania*	Zimbabwe

* Indicates the country is included in the *transition* variable.

Table 2: Summary Statistics and Correlation Matrix of Key Variables

Variable	Observations	Mean	Standard Deviation	Range
Autonomy Freedom	193,018	6.87	2.45	1 to 10
Political Freedom	191,787	5.61	5.43	-7 to 10
Happiness	193,018	2.08	.74	0 to 3

	Autonomy Freedom	Political Freedom	Happiness
Autonomy Freedom	1		
Political Freedom	0.082	1	
Happiness	0.22	0.072	1

Table 3: Autonomy Freedom, Political Freedom, & Happiness: RIML Approach

	(a)	(b)	(c)
Individual-Level Results			
Autonomy Freedom	0.057***	0.038***	0.038***
	(0.001)	(0.001)	(0.001)
Male		-0.067***	-0.067***
		(0.004)	(0.004)
Age		-0.017***	-0.017***
		(0.001)	(0.001)
Age^2		0.000***	0.000***
		(0.000)	(0.000)
Married		0.160***	0.163***
		(0.004)	(0.005)
Children		-0.001	-0.002
		(0.001)	(0.002)
Unemployed		-0.101***	-0.109***
		(0.006)	(0.008)
Health Status		0.253***	0.245***
		(0.002)	(0.003)
Education		0.001	-0.003
		(0.003)	(0.003)
Relative Income		0.029***	0.025***
		(0.001)	(0.001)
Political Orientation			0.009***
			(0.001)
Trust			0.033***
			(0.005)
National-Level Results			
Political Freedom	0.018***	0.013***	0.029***
	(0.001)	(0.001)	(0.002)
Transition		-0.105**	-0.102*
		(0.049)	(0.058)
Eastern Europe		-0.251***	-0.262***
		(0.084)	(0.099)
Survey Year		0.004***	0.002***
		(0.000)	(0.001)
Constant	1.580***	-6.197***	-2.835**
	(0.030)	(0.932)	(1.173)
Observations	191,787	136,005	97,337
Number of groups	68	64	62
Log Likelihood	-201,773.56	-134,792.95	-95,907.209
Wald χ^2	7,635.83***	24,586.41***	16,843.16***
Likelihood Ratio	14,702.04***	6,796.56***	5,234.55***

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Autonomy Freedom, Political Freedom, & Happiness: RSML Approach

	(a)	(b)	(c)
Individual-Level Results			
Autonomy Freedom	0.049***	0.030***	0.028***
	(0.001)	(0.001)	(0.002)
AF * PF	0.002***	0.001***	0.002***
	(0.000)	(0.000)	(0.000)
Male		-0.067***	-0.067***
		(0.004)	(0.004)
Age		-0.017***	-0.017***
		(0.001)	(0.001)
Age^2		0.000***	0.000***
		(0.000)	(0.000)
Married		0.160***	0.162***
		(0.004)	(0.005)
Children		-0.001	-0.002
		(0.001)	(0.002)
Unemployed		-0.100***	-0.109***
		(0.006)	(0.008)
Health Status		0.252***	0.245***
		(0.002)	(0.003)
Education		0.001	-0.003
		(0.003)	(0.003)
Relative Income		0.029***	0.025***
		(0.001)	(0.001)
Political Orientation			0.009***
			(0.001)
Trust			0.032***
			(0.005)
Political Freedom	0.007***	0.003**	0.019***
	(0.001)	(0.002)	(0.002)
Transition		-0.105**	-0.102*
		(0.049)	(0.058)
Eastern Europe		-0.247***	-0.261***
		(0.084)	(0.098)
Survey Year		0.004***	0.002***
		(0.000)	(0.001)
Constant	1.634***	-6.000***	-2.445**
	(0.030)	(0.932)	(1.174)
Observations	191,787	136,005	97,337
Number of groups	68	64	62
Log Likelihood	-201,685.19	-134,730.89	-95,881.783
Wald χ^2	7,819.83***	24,733.62***	16,903.08***
Likelihood Ratio	14,457.05***	6,727.77***	5,244.87***

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Summary Statistics and Correlation Matrix of Alternative Measures of Key Variables

Variable	Observations	Mean	Standard Deviation	Range
Autonomy Freedom	193,018	6.87	2.45	1 to 10
Subjective Well-Being	191,932	9.59	6.82	-4.5 to 22.5
Composite Political Freedom	191,787	0.77	0.42	0 or 1
Per Capita GDP	193,018	11,603.49	11,557.64	374.1 to 62,714.2

	Autonomy Freedom	Subjective Well-Being	Composite Political Freedom	Per Capita GDP
Autonomy Freedom	1			
Subjective Well-Being	0.36	1		
Composite Political Freedom	0.064	0.12	1	
Per Capita GDP	0.10	0.18	0.28	1

Table 6: Robustness Checks

	Composite Political Freedom		Subjective Well-Being		Economic Development	
	(a)	(b)	(a)	(b)	(a)	(b)
Individual-Level Results						
Autonomy Freedom	0.038***	0.027***	0.671***	0.555***	0.038***	0.031***
	(0.001)	(0.002)	(0.008)	(0.014)	(0.001)	(0.001)
AF * Composite PF		0.013***				
		(0.003)				
AF * PF				0.018***		
				(0.002)		
AF * GDP Per Capita						0.000***
						(0.000)
Male	-0.067***	-0.066***	-0.697***	-0.691***	-0.068***	-0.067***
	(0.004)	(0.004)	(0.037)	(0.037)	(0.004)	(0.004)
Age	-0.017***	-0.017***	-0.17***	-0.17***	-0.017***	-0.017***
	(0.001)	(0.001)	(0.007)	(0.007)	(0.001)	(0.001)
Age^2	0.000***	0.000***	0.002***	0.002***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Married	0.162***	0.162***	1.311***	1.308***	0.160***	0.160***
	(0.005)	(0.005)	(0.045)	(0.045)	(0.005)	(0.005)
Children	-0.002	-0.002	0.006	0.006	-0.002	-0.002
	(0.002)	(0.002)	(0.014)	(0.013)	(0.002)	(0.002)
Unemployed	-0.108***	-0.108***	-1.109***	-1.103***	-0.111***	-0.110***
	(0.008)	(0.008)	(0.067)	(0.067)	(0.008)	(0.008)
Health Status	0.246***	0.246***	2.062***	2.055***	0.247***	0.246***
	(0.003)	(0.003)	(0.024)	(0.024)	(0.003)	(0.003)
Education	-0.005	-0.005	-0.032	-0.030	-0.004	-0.003
	(0.003)	(0.003)	(0.028)	(0.028)	(0.003)	(0.003)
Relative Income	0.025***	0.025***	0.349***	0.349***	0.025***	0.025***
	(0.001)	(0.001)	(0.009)	(0.009)	(0.001)	(0.001)
Political Orientation	0.009***	0.009***	0.135***	0.135***	0.009***	0.009***
	(0.001)	(0.001)	(0.008)	(0.008)	(0.001)	(0.001)
Trust	0.031***	0.030***	0.294***	0.283***	0.033***	0.031***
	(0.005)	(0.005)	(0.044)	(0.044)	(0.005)	(0.005)
National-Level Results						
Composite Political Freedom	0.217***	0.128***				
	(0.021)	(0.028)				
Political Freedom			0.133***	0.011		
			(0.014)	(0.019)		
GDP Per Capita					-0.000***	-0.000***
					(0.000)	(0.000)
Transition	-0.127**	-0.126**	-0.952**	-0.946**	-0.133**	-0.140**
	(0.052)	(0.052)	(0.454)	(0.456)	(0.054)	(0.055)
Eastern Europe	-0.245***	-0.243***	-1.682**	-1.666**	-0.214**	-0.214**
	(0.088)	(0.087)	(0.767)	(0.771)	(0.091)	(0.093)
Survey Year	0.005***	0.005***	0.025***	0.023***	0.009***	0.010***
	(0.001)	(0.001)	(0.005)	(0.005)	(0.001)	(0.001)
Constant	-8.890***	-8.664***	-51.271***	-46.554***	-17.111***	-17.594***
	(1.102)	(1.103)	(10.265)	(10.273)	(1.517)	(1.518)
Observations	97,337	97,337	96,992	96,992	98,243	98,243
Number of groups	62	62	62	62	63	63
Log Likelihood	-96,006.084	-95,994.013	-306,023.68	-305,977.57	-96,685.385	-96,649.841
Wald χ^2	16,617.56***	16,646.24***	24,732.29***	24,847.03***	16,700.40***	16,782.82***
Likelihood Ratio	5,056.72***	5,045.35***	5,797.13***	5,822.51***	5,172.87***	5,204.28***

Standard errors in parentheses.   *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 7: Sensitivity Analyses

	Education		Relative Income	
	(a)	(b)	(c)	(d)
Individual-Level Results				
Autonomy Freedom	0.043***	0.044***	0.044***	0.046***
	(0.001)	(0.001)	(0.001)	(0.001)
AF * PF	0.002***	0.002***	0.001***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Low Education	-0.103***			
	(0.005)			
AF * PF * Low Education	-0.000			
	(0.000)			
High Education		0.025***		
		(0.002)		
AF * PF * High Education		0.000		
		(0.000)		
Low Relative Income			-0.206***	
			(0.005)	
AF * PF * Low Relative Income			0.000***	
			(0.000)	
High Relative Income				0.175***
				(0.008)
AF * PF * High Relative Income				-0.000
				(0.000)
National-Level Results				
Political Freedom	0.006***	0.007***	0.006***	0.006***
	(0.001)	(0.001)	(0.001)	(0.001)
Survey Year	0.005***	0.005***	0.004***	0.004***
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-8.493***	-8.691***	-5.781***	-6.418***
	(0.831)	(0.832) (0.731)	(0.735)	
Observations	172,987	172,987	166,301	166,301
Number of groups	67	67	67	67
Log Likelihood	-181,801.2	-182,040.81	-173,828.06	-174,703.24
Wald χ^2	7,917.95***	7,417.66***	9,836.85***	7,992.87***
Likelihood Ratio	14,375.39***	13,976.54***	13,236.86***	12,886.08***

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A1: Variable Description

Variable	Description	Source
Happiness	Respondent's self-reported level of happiness on a 4-point scale, from "not at all happy" (0) to "very happy" (3)	World Values Survey
Autonomy Freedom	Self-reported variable on a ten-point scale ordered from low (1) to high (10) autonomy	World Values Survey
Male	Dummy variable taking the value of 1 if the respondent is male, 0 if female	World Values Survey
Age Respondent's age in years	World Values Survey	
Married	Dummy variable coded as 1 if Respondent reports being married, and 0 otherwise	World Values Survey
Children	9-point scale for number of children, ranging from 0 to 8 (or more) children	World Values Survey
Unemployed	Dummy variable coded as 1 if Respondent reports being unemployed, and 0 otherwise	World Values Survey
Health Status	4-point scale of self-reported health status, from 1 (poor) to 4 (very good)	World Values Survey
Education	Variable ordered on an eight-point scale from 1 (uncompleted primary education) to 8 (university degree). In Table 5 low education refers to the bottom three education categories; high education refers to the top three	World Values Survey
Relative Income	Self-reported variable on a ten-point scale ordered from low (1) to high (10) income. In Table 5 low income refers to the bottom three income categories; high income refers to the top three.	World Values Survey
Political Orientation	Self positioning over a political scale from extreme left (1) to extreme right (10)	World Values Survey
Trust	Dummy variable coded 1 if Respondent agrees that "most people can be trusted," and 0 otherwise	World Values Survey
Survey Year	Year of the World Values Survey, from 1981 to 2008	World Values Survey
Political Freedom	Polity IV regime score, from -10 (autocratic) to 10 (democratic)	Marshall and Jaggers (2012)
Composite Political Freedom	Dichotomous measure of Political Freedom coded as 1 for democracies and 0 otherwise	Acemoglu et al. (2014)
Subjective Well-Being	An index created from self-reported levels of happiness and life satisfaction, calculated according to $SWB = (LifeSatisfaction - 2.5) * Happiness$	World Values Survey
GDP	Penn World Table (version 7.1) data on purchasing power parity per capita gross domestic product	Heston et al. (2012)
Transition	Dummy variable coded as 1 if the country underwent a political transition since 1981 and 0 otherwise. See Table 1 for a list of countries	Marshall and Jaggers (2012)
Eastern Europe	Dummy variable coded as 1 for countries in Eastern Europe and 0 otherwise	United Nations Statistics Division