

I Want to Be a Billionaire: How Do Extrinsic and Intrinsic Values Influence Youngsters' Well-Being?

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Values guide our attitudes and behavior, but to what extent and how do individual values determine our overall well-being? Self-determination theory holds that particular types of values (i.e., intrinsic or extrinsic) matter most, but the person-environment fit perspective argues that any values can be beneficial as long as they align with values prevalent in one's environment. The evidentiary support for these competing claims is inconclusive. We use the World Value Survey to see how these perspectives do in predicting life satisfaction, happiness, and health in youngsters aged 18 to 30 around the world. Our results generally confirm hypotheses derived from self-determination theory, showing that the type of values held by youngsters and the type of values prevailing in their environments account for significant variation in young peoples' life satisfaction, happiness, and health. The pattern of evidence suggests that youngsters benefit from attaching greater importance to intrinsic values related to affiliation and community contribution rather than to extrinsic values that relate to financial success and accumulation of power.

Keywords: values; materialism; person-environment fit; self-determination theory; well-being; health; World Value Survey

People may hold a myriad of different values in various domains of life such as work, schooling, or sports. While some attach high importance to material wealth, other people attach more importance to building good relationships and making a contribution to society. The types of values people pursue matter: values direct our thoughts, determine

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our actions, and thus guide us through our lives (Schwartz 1992). To date, however, there is inconclusive evidence about what kinds of values matter most to individuals' long-term well-being.

Two contrasting views have emerged in the scientific literature. On one hand, self-determination theory (SDT; Kasser and Ryan 1993; Deci and Ryan 2000) maintains that particular types of values (i.e., intrinsic or extrinsic) matter when predicting variations in individuals' well-being. On the other hand, the person-environment fit perspective (Kristof-Brown, Zimmerman, and Johnson 2005; Kristof 1996) argues that any type of values can yield potential benefits to well-being, depending on whether one's personal values are aligned with the values stressed in one's environment. Although both views have empirical support (see Dittmar et al. 2014; Kristof-Brown, Zimmerman, and Johnson 2005, among others) and some studies have even begun addressing these contradicting perspectives (e.g., Sagiv and Schwartz 2000; Vansteenkiste et al. 2008), no conclusive answers have been given about whether the type or the fit of values matters most.

This study adds to this literature by testing the validity of both perspectives in a large sample of youngsters (aged 18 to 30 years) across the globe (i.e., the World Value Survey [WVS]; Inglehart et al. 2014). SDT or person-environment fit theory makes general assumptions, regardless of people's age. However, understanding how values relate to youngsters' well-being is particularly important because experimentation and forming of values is an integral aspect of youngsters' identity formation (Erikson 1968), and their well-being is increasingly at risk due to growing poverty, increased migration, and technological evolutions worldwide (see Call et al. [2002] for a review among adolescents). Additionally, environments become increasingly materialistic (Edmunds and Turner 2005), as do the youngsters, aged 17 to 18 years, living in those environments (Twenge and Kasser 2013). The

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present research provides insights into whether we should be worried about the latter trends. Based on SDT, it can be assumed that youngsters' well-being may be increasingly at risk, which would warrant actions renewing the focus on intrinsic values. Based on the fit perspective, in contrast, the evolution toward more materialistic values may optimize the fit with the social environment, thereby safeguarding youngsters' well-being.

Values and Well-Being from the Perspective of Self-Determination Theory

SDT is a broad theory on human motivation, well-being, and integrity and the factors promoting or derailing individuals' optimal functioning (Deci and Ryan 2000; Ryan and Deci 2017). One key factor of SDT concerns the type of values people hold in terms of intrinsic or extrinsic values (Kasser 2016; Kasser and Ryan 1993). Intrinsic values are closely aligned with people's growth-oriented nature and include the pursuit of self-development, affiliation, and community contribution. Youngsters who find it important to extend their skills, to build strong bonds with peers, and to take up responsibility by contributing to the community act on values that are predominantly intrinsic. Extrinsic values, in contrast, include striving for financial success, status, and power. Youngsters who dream of earning a lot of money and who want to obtain social status or gain power and prestige in social networks have extrinsic values. These type of values are said to emerge especially when individuals' growth gets actively blocked or undermined; they (extrinsic values) emerge when people feel the need to compensate for negative experiences (Deci and Ryan 2000).

Whether youngsters have intrinsic or extrinsic values thus matters for their well-being. While some studies have examined the impact of intrinsic and extrinsic values separately, others have examined the effect of the pursuit of extrinsic relative to intrinsic values. Meta-analytic evidence shows that people having extrinsic rather than intrinsic values suffer from poor psychological and physical health (Dittmar et al. 2014): They are less satisfied with their life, experience less positive and more negative emotions, and have a negative self-image. They also report more symptoms of anxiety and depression, have more somatic complaints (e.g., headaches), and engage more in risk behaviors (e.g., compulsive shopping, smoking, and alcohol misuse). This pattern of findings has emerged in diverse countries and cultures across the globe (Chen et al. 2015; Unanue et al. 2017) and among both adults and youngsters. For example, a study by Tang, Wang, and Zhang (2017) showed that valuing extrinsic values caused Chinese youngsters, aged 17 to 23 years, to become less satisfied with their lives and more depressed over the course of one and a half years.

Not only can individuals differ in the type of values they hold, environments may also stress or promote intrinsic and extrinsic values to different degrees (Vansteenkiste, Lens, and Deci 2006). Such environmental intrinsic and extrinsic values may yield parallel effects on people's well-being as those being observed

for personal pursuit. Research in diverse life domains such as education (Vansteenkiste et al. 2008), parenting (Duriez 2011; Mouratidis et al. 2013), and work (Van den Broeck et al. 2014; Schreurs et al. 2014) provides evidence that an environment promoting the pursuit of intrinsic values is better for one's well-being than a context in which extrinsic values prevail.

Person-Environment Fit Perspective

The person-environment fit perspective has been prevalent in the motivation literature for almost 100 years (e.g., Murray 1938). It assumes that people thrive when their personal characteristics (i.e., needs and values) are compatible with the environmental characteristics (i.e., supplies and values). Rather than assuming that individual and environmental values impact well-being separately, this perspective considers their interplay, thereby suggesting that a fit or correspondence in personal and environmental values—regardless of the type of values—is the most critical predictor of individuals' well-being (see van Vianen [2018] for an overview).

In line with this perspective, several meta-analyses in the work domain have shown that employees who fit with their organization are more satisfied with their job, committed, and willing to stay in the organization (Kristof-Brown, Zimmerman, and Johnson 2005; Verquer, Beehr, and Wagner 2003). They also perform better and help their colleagues more often (Hoffman and Woehr 2006). Such results have been found when people report their feelings of “fitting in,” as well as when fit is calculated based on the separate assessment of individual and environmental values. The benefits of fit have been documented across the globe (Oh et al. 2014) and also emerge outside work. A fit in values between consumers and online sellers, for example, has been shown to increase consumers' trust in the seller, purchase intentions, and the price they want to pay for a product (Cazier, Shao, and Louis 2017); and people have been found to be happier when their values match with the culture of their country in terms of individualistic (Musiol and Boehnke 2013) and transcendence values (van Vianen et al. 2004).

Conflicting Hypotheses

Because SDT and the fit perspective collide, a number of studies have begun contrasting both. Specifically, a series of questionnaire studies examined whether students majoring in psychology or business benefit more from having intrinsic or extrinsic values, respectively, assuming that psychology students find themselves in an intrinsic environment, whereas business students study in an environment that promotes extrinsic values (Sagiv and Schwartz 2000; Kasser and Ahuvia 2002; Vansteenkiste et al. 2006). Two of these studies (Kasser and Ahuvia 2002; Vansteenkiste et al. 2006) indicated that both students majoring in psychology and business felt less good when they acted upon extrinsic values and benefited

from acting upon intrinsic values, as suggested by SDT. Sagiv and Schwartz (2000), in contrast, reported that valuing power, for example, was associated with life satisfaction among business students, but proved detrimental for psychology students, suggesting evidence for the fit-perspective. However, none of these studies measured students' environmental values, instead assuming that different values were salient in these different environments, thereby failing to allow for a fair test of the fit perspective. To overcome this limitation, Vansteenkiste et al. (2008) examined the impact of intrinsic and extrinsic values in the context of a fundraising activity among elementary school children aged 11 to 12 years old. They manipulated the activity as instrumental for attaining intrinsic (i.e., helping the community) versus extrinsic (i.e., making a good impression on others) goals and assessed children's perspective of the activity independently from this manipulation. Framing the activity in intrinsic terms proved to stimulate children's motivation and performance, as did holding intrinsic values. Again, no evidence for the fit perspective was found. Finally, in a more recent study, Vanderstucken, Van den Broeck, and Proost (2016) reported that business students pursuing extrinsic values were more attracted to potential employers conveying extrinsic values, yet such a value-congruent effect was not observed in the case of intrinsic values. Yet choosing to apply for an employer who holds a similar value-profile as oneself does not necessarily guarantee that one will thrive in the job.

Current Study

The question whether intrinsic and extrinsic values relate to individuals' well-being depending on or irrespective of those being promoted in the social environment deserves further investigation given the paucity of previous studies on this topic. This study seeks to add novel data to this debate by, first, drawing upon a large, international, and hence culturally diverse sample, comprising fifty-four countries. As such, we expand the study of the environmental values to the country level. Studies in the framework of Hofstede (Hofstede and Bond 1984), the Globe project (Dorfman et al. 2012), or Schwartz (1992) suggest that people in different countries may pursue different values and therefore create a different context (Gallie, this volume). Grouzet and colleagues (2005) were the first to study intrinsic and extrinsic values at the country level. We add to this line of research by documenting mean levels of intrinsic and extrinsic values for fifty-four countries involved in the WVS and, most importantly, study the associations of these country-level values with youngsters' well-being in conjunction with their individual values.

We make use of multilevel analyses to examine whether the contribution of individuals' personal intrinsic and extrinsic values to their well-being depends on the values prevailing within their country. Finally, instead of creating a composite score that pits intrinsic against extrinsic values and masks whether observed effects are carried by the benefits associated with intrinsic values or the poor outcomes associated with extrinsic values, both sets of values are studied

separately here (see also Unanue et al. 2014, 2017). Based on SDT, we expect independent effects of personal and environmental intrinsic and extrinsic values such that

Hypothesis 1a: Pursuing intrinsic values associates positively with life satisfaction, happiness, and health.

Hypothesis 1b: Pursuing extrinsic values associates negatively with life satisfaction, happiness, and health.

Hypothesis 2a: Contexts that promote intrinsic values associate positively with individuals' life satisfaction, happiness, and health.

Hypothesis 2b: Contexts that promote extrinsic values associate negatively with individuals' life satisfaction, happiness, and health.

Based on the fit perspective, however, we expect the combination of personal and environmental intrinsic and extrinsic values to matter most such that

Hypothesis 3a: A fit between the intrinsic values of youngsters with the intrinsic values of their environment associates positively with their life satisfaction, happiness, and health.

Hypothesis 3b: A fit between the extrinsic values of youngsters with the extrinsic values of their environment associates positively with their life satisfaction, happiness, and health.

Method

Procedure and participants

To study our hypotheses, we combined data from the sixth wave of the WVS and the World Bank's Databank. The WVS has conducted face-to-face, nationally representative surveys in a multitude of different countries since 1981 and is the largest noncommercial survey in the world. The sixth wave was collected over the period 2010–2014.¹ For the purpose of this study, we studied the associations of individual value pursuit with well-being among individuals aged 18 to 30. This sample consisted of 25,442 individuals from fifty-eight countries. The list of countries included in our analyses and country-specific descriptives can be found in the online appendix.

Measures

Individual values. To measure individual values, respondents were asked to indicate on a scale from 1 (*very much like me*) to 6 (*not at all like me*) the extent to which they resemble person descriptions presented by the interviewer. We reversed the items so that higher scores reflected greater similarity. We used the following items to measure *intrinsic values*: “It is important to this person to do something for the good of society” and “Looking after the environment is

important to this person; to care for nature and to save life resources.” The interitem correlation was .45. *Extrinsic values* were measured using the following items: “It is important to this person to be rich; to have a lot of money and expensive things” and “Being very successful is important to this person; to have people recognize one’s achievements.” The interitem correlation was .28.

Environmental values at country level. The intrinsic and extrinsic values fostered in the youngsters’ environment were derived from the total samples of each of the countries including 88,754 individuals in total. We assessed within-country agreement by calculating r_{wg} , using the expected variance of a 6-point scale with a uniform null distribution (James, Demaree, and Wolf 1984). The mean r_{wg} across countries was .65 for intrinsic values and .62 for extrinsic values. Next, we computed the intraclass correlation coefficient ICC(1) to examine the relative consistency of responses among nationals. ICC(1) was .14 for intrinsic values and .18 for extrinsic values. This suggests that people within one country share, at least to some extent, the same values (LeBreton and Senter 2008). These indices provide justification for aggregating individual-level values to the country level.

Individual well-being. We included three common indicators of individual well-being: happiness, life satisfaction, and perceived health. *Happiness* was measured via the question, “Taking all things together, would you say you are [very happy, quite happy, not very happy, not at all happy]?” We reversed the item so that higher scores reflected higher levels of happiness. *Life satisfaction* was measured via the question, “All things considered, how satisfied are you with your life as a whole these days?” measured on a scale from 1 to 10, with 1 representing *completely dissatisfied* and 10 *completely satisfied*. *Perceived health* was measured via the question, “All in all, how would you describe your state of health these days? Would you say it is [very good, good, fair, poor]?” We reversed the item so that higher scores reflected better health. The three-item well-being aggregate had a Cronbach’s alpha of .44, well below the recommended cutoff of .70. We therefore decided to treat the indicators as separate outcomes.

Covariates. As country wealth associates with individual well-being (Diener, Diener, and Diener 1995), we included *gross domestic product (GDP) per capita* (current US\$) and *GDP growth* (annual percent) for the year in which the survey was conducted as country-level covariates in the analyses (Dittmar et al. 2014). In addition, to account for the effect of socioeconomic status on health and well-being (Adler and Rehkopf 2008), we included the following three individual-level covariates: educational level (from 1 = *no formal education* to 9 = *university-level education, with degree*), social class (from 1 = *lower class* to 5 = *upper class*), and household income (from 1 = *lowest income group in country* to 10 = *highest income group in country*).

Data analyses

Data are structured such that the measurements at the individual level (level 1) are nested within countries (level 2). To account for the dependent nature of the measurements at level 1, we conducted multilevel analysis using Stata/SE 14.2. Level-2 predictor variables were centered around the grand mean, and level-1 predictor variables were centered around the country mean to rule out interpretations referring to stable between-country differences (Enders and Tofghi 2007).

We conducted separate analyses for each of the dependent variables and did so in a stepwise manner (see the online appendix). First, we estimated the unconditional means model (model 1), including the intercept as the only predictor. In the second step, we added the level-1 covariates (model 2). In step 3, intrinsic and extrinsic values were added to the equation to test SDT's Hypotheses 1a and 1b (model 3). We treated level-1 intrinsic and extrinsic values as random effects at level 2. In the fourth step, we entered the level-2 variables (model 4). We added the covariates GDP per capita and GDP growth, together with country-level intrinsic and extrinsic values, to test SDT's hypotheses 2a and 2b. In the fifth and final step (model 5), we entered the cross-level interaction terms individual-level \times country-level intrinsic values and individual-level \times country-level extrinsic values to examine the hypothesis of the fit perspective (hypotheses 3a and 3b) that corresponding levels of values would yield higher levels of individual well-being.

We estimated the models using the full maximum likelihood estimation method (the *mle* Stata command). We calculated pseudo- R^2 s after each step indicating the within- and between-country variance explained by the variables in that step (Snijders and Bosker 2012). The improvement of each model over the previous one was tested using the difference between the respective likelihood ratios. This difference follows a chi-square distribution (degree of freedom equal to the number of new parameters added to the model).

Results

Descriptive statistics and correlations among the study variables are shown in Table 1. At the individual level, the three indicators of well-being are positively associated. Intrinsic and extrinsic values are also positively correlated. Further, having intrinsic values is positively correlated with all three well-being indicators, while having extrinsic values related positively with perceived health and happiness yet negatively with life satisfaction. At the country level, intrinsic values are positively correlated with GDP growth, and extrinsic values are negatively correlated with GDP per capita and positively correlated with GDP growth and intrinsic values.

Test of hypotheses

The results of the multilevel analyses for happiness, life satisfaction, and perceived health are presented in Table 2. We first ran intercept-only models to

TABLE 1
Correlations between Study Variables

	<i>M</i>	<i>SD</i>	2	3	4	5	6	7	8	9	10	11
Country-level variables												
1 GDP per capita	12,966.05	16,287.36	-.09	-.25	-.27	—	—	—	—	—	—	—
2 GDP growth	4.86	3.44	—	.26	.37	—	—	—	—	—	—	—
3 Intrinsic values	4.52	0.39	—	—	.42	—	—	—	—	—	—	—
4 Extrinsic values	4.02	0.49	—	—	—	—	—	—	—	—	—	—
Individual-level variables												
5 Educational level	6.24	2.12	—	—	—	—	—	—	—	—	—	—
6 Social class	2.78	1.02	—	—	—	.26	—	—	—	—	—	—
7 Household income	5.17	2.05	—	—	—	.20	.44	—	—	—	—	—
8 Intrinsic values	4.52	1.08	—	—	—	.00	.03	.02	—	—	—	—
9 Extrinsic values	4.02	1.16	—	—	—	-.01	.06	.10	.27	—	—	—
10 Happiness	3.23	0.73	—	—	—	.05	.12	.16	.09	.02	—	—
11 Life satisfaction	6.98	2.20	—	—	—	.12	.16	.23	.08	-.03	.42	—
12 Perceived health	3.20	0.76	—	—	—	.04	.07	.13	.10	.11	.35	.23

NOTE: Numbers below the diagonal represent individual-level correlations ($N_{\text{individual}} = 25,442$); numbers above the diagonal represent country-level correlations ($N_{\text{country}} = 58$). At country-level: $r \geq .43$, $ps < .001$; $r \geq .34$, $ps < .01$; $r \geq .26$, $ps < .05$. At individual-level: $r \geq .021$, $ps < .001$; $r \geq .016$, $ps < .01$; $r \geq .013$, $ps < .05$.

examine whether there was systematic variance in the dependent variables. ICC(1) was used as an indicator of nonindependence for the dependent variables and can be interpreted as the proportion of total variance that can be explained by group (i.e., country) membership (Bliese 2000). For happiness, the ICC(1) was .11 [95 percent confidence interval [CI]: .08; .15], $F(57, 25,384) = 60.55$, $p < .001$; for life satisfaction, the ICC(1) was .09 [95 percent CI: .06; .12], $F(57, 25,384) = 49.58$, $p < .001$; for perceived health, the ICC(1) was .07 [95 percent CI: .05; .10], $F(57, 25,384) = 38.47$, $p < .001$. Although these effects are small, they are significant, and there is enough variance in the dependent variables accounted for by country level (LeBreton and Senter 2008).

We found support for hypothesis 1a: individual-level intrinsic values related positively to happiness ($B = 0.04$, $p < .001$), life satisfaction ($B = 0.15$, $p < .001$), and perceived health ($B = 0.04$, $p < .001$). Contrary to hypothesis 1b, individual-level extrinsic values were unrelated to happiness ($B = 0.00$, ns) and life satisfaction ($B = -0.02$, ns) and even positively related to perceived health ($B = 0.03$, $p < .001$). In support of hypothesis 2a, country-level intrinsic values were positively associated with youngsters' happiness ($B = 0.16$, $p = .06$), albeit this relationship was only marginally significant. These values were significantly positively related to life satisfaction ($B = 0.63$, $p < .001$) and perceived health ($B = 0.20$, $p < .001$). In line with hypothesis 2b, country-level extrinsic values were negatively related to happiness ($B = -0.14$, $p < .05$) and life satisfaction ($B = -0.71$,

TABLE 2
Unstandardized Regression Coefficients of Personal and Country Values Predicting Youngsters' Well-Being and Health

Fixed Effects	Happiness (Model 5)		Life Satisfaction (Model 5)		Perceived Health (Model 5)	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Intercept	3.22***	0.03	7.01***	0.08	3.19***	0.02
Individual-level predictors						
Educational level	0.00°	0.00	0.03***	0.01	0.02***	0.00
Social class	0.05***	0.01	0.12***	0.02	0.04***	0.01
Household income	0.05***	0.00	0.23***	0.01	0.03***	0.00
Intrinsic values	0.04***	0.01	0.15***	0.02	0.04***	0.01
Extrinsic values	0.00	0.00	-0.01	0.02	0.03***	0.01
Country-level predictors						
GDP per capita	0.00	0.00	0.00	0.00	0.00°	0.00
GDP growth	0.02°	0.01	0.01	0.02	0.00	0.01
Intrinsic values	0.16†	0.08	0.63**	0.20	0.20**	0.07
Extrinsic values	-0.14°	0.07	-0.71***	0.17	0.09	0.06
Cross-level interactions						
IV _{individual} × IV _{country}	0.01	0.02	0.06	0.06	-0.01	0.02
EV _{individual} × EV _{country}	0.02°	0.01	0.13***	0.04	0.01	0.01
Random parameters						
Level 2						
Var intercept		0.05		0.29		0.03
Var slope _{intrinsic values}		0.00		0.02		0.00
Var slope _{extrinsic values}		0.00		0.01		0.00
Level 1						
Var intercept		0.45		4.04		0.51
-2 × log likelihood		50232.94		103894.73		53098.30
Δ -2 × log likelihood (<i>df</i>)		5.31 (2)		12.76** (2)		1.74 (2)
Pseudo- <i>R</i> ² (level-2)		17%		30%		26%
Pseudo- <i>R</i> ² (level-1)		5%		9%		4%

NOTE: IV = intrinsic values; EV = extrinsic values.

†*p* = .06. °*p* < .05. ***p* < .01. ****p* < .001.

p < .001). However, they were unrelated to perceived health (*B* = 0.09, *ns*). Hence, hypothesis 2b was partially supported. Note that GDP per capita and GDP growth were unrelated to these outcomes, except for the positive relation between GDP growth and youngsters' happiness (*B* = 0.02, *p* < .001).

As respects the hypotheses from the fit perspective, contrary to hypothesis 3a, individual-level and country-level intrinsic values did not significantly interact to predict happiness (*B* = 0.01, *ns*), life satisfaction (*B* = 0.06, *ns*), or perceived

health ($B = -0.01$, *ns*). Similarly individual-level and country-level extrinsic values did not significantly interact to predict perceived health ($B = 0.01$, *ns*), but—in line with hypothesis 3b—they interacted in predicting happiness ($B = 0.02$, $p < .05$) and life satisfaction ($B = 0.13$, $p = .001$). As seen in Figure 1, a plot of these interactions showed that increases in individual-level extrinsic values associated with more happiness ($b = 0.02$, $SE = 0.01$, $t = 2.19$, $p < .05$) and satisfaction ($b = 0.14$, $SE = 0.05$, $t = 2.93$, $p < .01$) in highly extrinsic countries, but were unrelated to happiness ($b = -0.02$, $SE = 0.01$, $t = 1.97$, *ns*) and negatively related to satisfaction ($b = -0.15$, $SE = 0.04$, $t = 3.53$, $p < .001$) when country-level extrinsic values were low.

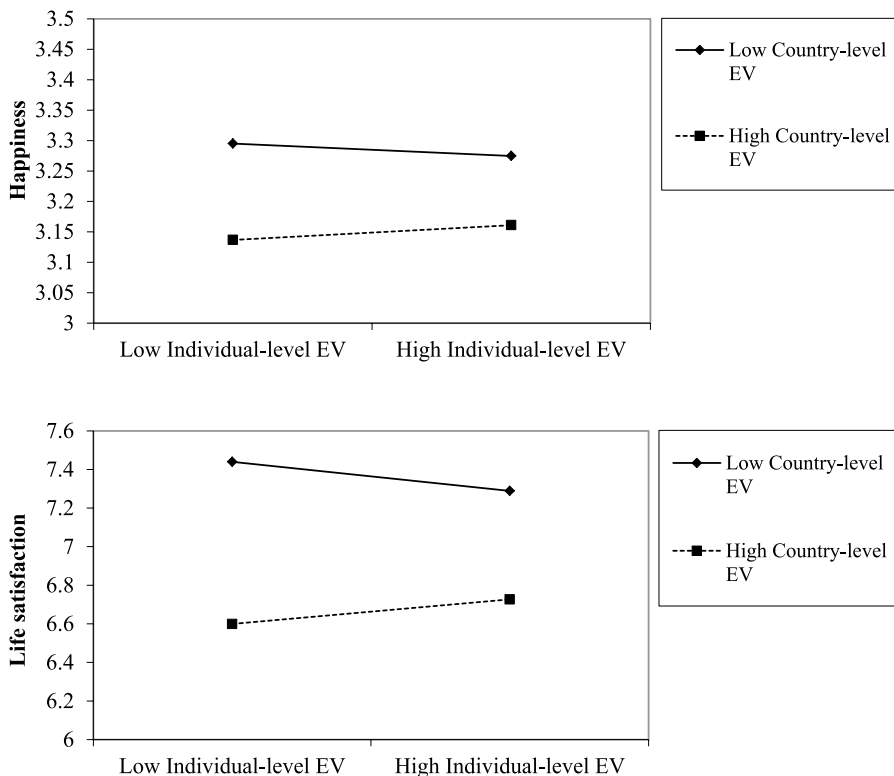
Conclusion

This article set out to understand the relationship between youngsters' values and their well-being, contrasting SDT and the person-environment fit perspective. SDT assumes that intrinsic values such as community contribution support well-being and health, while extrinsic values such as materialism are detrimental, both when people hold these values as well as when these values are promoted by their environment. The person-environment fit perspective, in contrast, does not differentiate “good” from “bad” values and argues that the pursuit of all values can be beneficial as long as similar values are supported by the context.

Our results largely support SDT: youngsters are happier, more satisfied with their lives, and healthier if they have intrinsic values or live in countries where intrinsic values prevail and/or when extrinsic values are deemed less important (Kasser 2016; Ryan and Deci 2017). However, two findings contradict this overall conclusion. First, youngsters residing in a country where extrinsic values predominate were happier and more satisfied with their life when they act upon extrinsic values than when their values did not match their context. Although this may seem to fit the person-environment fit perspective, given the strong negative main effect of extrinsic country values, Figure 1 suggests that even youngsters fitting in such a context still experience less well-being than youngsters in less extrinsic environments. As such, having extrinsic values in an extrinsic environment may play a protective role but does not yield such a boost in well-being, which would require the presence of a cross-over interaction.

Second, youngsters who have extrinsic values did not experience less well-being. To the contrary, although they were not happier or more satisfied with their life, they reported being healthier. Some, albeit short-lived, benefits associated with extrinsic values have been reported before (Vansteenkiste, Lens, and Deci 2006) and may be explained by the fact that extrinsic values also provide some direction in people's life, which could be inherently satisfying (Locke and Latham 1990). However, the positive relationship of personal extrinsic values with life satisfaction and health may also be caused by the different meaning attached to these values in different countries. For some, the pursuit of money and status may yield a more ego-validating character and represent an attempt to

FIGURE 1
Interaction of Individual- and Country-Level Extrinsic Values Predicting
Happiness and Life Satisfaction



acquire approval or be a necessary mean to secure survival or support one’s family and, hence, be less detrimental to their well-being (see also Chen et al. 2015; Grouzet et al. 2005; Houson, Brodbeck, and Forest 2016). Second, in the WVS only a few items tapping into intrinsic and extrinsic values were available, and not all types of intrinsic and extrinsic values could be included. For example, we did not have items tapping into personal development or power, although these are important intrinsic and extrinsic values, too. Multifaceted measures that do include all types of intrinsic and extrinsic values generally generate stronger results (Dittmar et al. 2014). Studies using such multifaceted measures could further disentangle our results, especially when such studies would explore different ways of analyzing the impact of intrinsic and extrinsic values. Specifically, we argue that much can be learned from comparing the results of different computational models to assess the values including (1) intrinsic and extrinsic values separately, as we did in this study; (2) their relative importance, for example, by subtracting intrinsic values from extrinsic values, or (3) focus on one’s dominant values.

Practical implications

Despite this need for future research, our results yield practical implications, both at the individual and policy levels. First, youngsters could be stimulated to attach high importance to intrinsic values. Although values are relatively stable from childhood onward, the importance attached to particular values may still change through life experiences (Döring, Daniel, and Knafo-Noam 2016). Hence, youngsters may try to develop intrinsic values by deliberately exposing themselves to activities fitting intrinsic values such as engaging in community service (Horn 2012) or be stimulated by others ranging from their nuclear family to the society in general to pursue intrinsic goals. For example, parents who have intrinsic values themselves (see Duriez [2011] for a study among 16-year-olds) or are autonomy supportive rather than controlling may stimulate the development of intrinsic values among their children (Lekes et al. 2010). Parents thus need to be mindful of the values they convey.

Contextual values may thus strike twice as hard in youngsters' well-being: once by influencing youngsters' values and again by impacting youngsters' well-being directly. Changing the culture of a country and the underlying values is challenging, however, as cultural values are shaped by a complex system of factors that can be changed only in the long term. For example, socioeconomic developments lead to a greater cultural emphasis on autonomy (Welzel, Inglehart, and Klingemann 2003); while social instability, disconnection, consumerism, or war leads to the development of a materialistic outlook (see Daniel et al. [2013] for a study among 14-year-olds and Twenge and Kasser [2013] for a study on 17- to 18-year-olds). Political changes such as a movement to more democratic regimes and economic changes such as industrialization and increased digitalization may be powerful tools to enable cultural change (Inglehart 1997), but policy-makers could also pay attention to the amount and tone of advertising and factors that increase insecurity, such as job insecurity, unemployment, and violence (Gallie, this volume; Kalleberg and Marsden, this volume; Twenge and Kasser 2013).

Note

1. See <http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>.

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