Pleasure, meaning or spirituality: Cross-cultural differences in orientations to happiness across 12 countries

Abstract

Firms and institutions are increasingly embracing well-being initiatives as a critical way to retain and engage with their employees, customers and citizens all over the world. However, cross-cultural research on the paths to happiness remains scarce and fragmented, typically conceptualizing happiness as an individualistic pleasure-based construct without considering its collectivistic meaning-based dimension. This research investigates simultaneously how hedonic (pleasure) and eudaimonic (meaning and spirituality) orientations to happiness (life satisfaction) vary across 12 countries and among 2615 individuals representing different regions of the world (six continents) and different cultural contexts (individualism or collectivism). Findings reveal no significant difference in terms of the structure of happiness across countries, and that meaning emerges as a stronger predictor of life satisfaction compared to pleasure and spirituality. Accordingly, we inform human resource and marketing managers, policy makers and individuals about common routes to well-being in an international context.

1. Introduction

International companies are increasingly embracing well-being and happiness initiatives as a critical way to retain and engage with their employees and customers all over the world. For example, human resource managers often roll out various programs (e.g., yoga, meditation classes) designed to encourage employees to focus on wellness and avoid the harmful effects of stress (Nielsen et al., 2017). Marketing managers also develop a wide range of consumer consumption experiences to foster self-awareness and regulate negative behaviors by supporting, for example, healthful habits related to their brands (Schnebelen & Bruhn, 2018). Many of these well-being initiatives, however, are often criticized because they adopt a monolithic, universal view of happiness, focusing on individual and pleasure-based orientations or benefits while ignoring more collective and meaningful predictors or outputs (Peterson et al., 2005; Ryan & Deci, 2001). To better inform managers about the possible need to adapt their well-being initiatives to different cultural contexts, this study examines the different orientations or predictors of happiness across countries.

While research has investigated the construct of happiness and its related concept of well-being in the workplace (Danna & Griffin, 1999) and a classroom environment (Anic & Tončić, 2013), in the consumption realm (Lee & Ahn, 2016) and for society at large (Schimmel, 2009), a clear consensus on the cross-cultural differences in approaching happiness is lacking. Happiness and well-being are often approached through their pivotal dimensions of hedonia (e.g., pleasure, enjoyment, comfort) and eudaimonia (e.g., meaning, growth, excellence) (Ryan & Deci, 2001; Waterman, 1993), but those dimensions often fall into different categories of analysis (Huta & Waterman, 2014). While some research programs view hedonia and eudaimonia as ways of experiencing or functioning (e.g., Vitterso & Soholt, 2011), others focus on these pivotal dimensions as orientations to happiness (e.g.,

Peterson et al., 2005). Our research particularly falls into the latter category of analysis and adds to the conversation on the possible hedonic, pleasure-based and eudaimonic, meaning-based orientations toward happiness across countries.

The hedonic orientation toward happiness commonly encompasses the notion of positive affect, with pleasure as one of its core elements (Huta & Ryan, 2010; Peterson et al., 2005). Unlike the hedonic orientation, there is less agreement on the conceptual and operational definitions of the eudaimonic orientation toward happiness (Huta & Waterman, 2014). Seeking to use and develop the best of oneself is, nonetheless, a conception of eudaimonia that is often reflected through the core element of meaning (Huta & Ryan, 2010; Waterman, 2008). Although the presence of meaning is widely endorsed as a way to achieve happiness, the search for meaning, which is a key element of meaning (Steger et al., 2008), is not part of the frameworks of orientations to happiness, such as those proposed by Huta and Ryan (2010) or Peterson et al. (2005). To fill this gap, we include the pursuit of spirituality as an additional predictor of happiness, given that it is frequently related to the search for meaning (Chowdhury & Fernando, 2013; Van Dierendonck & Mohan, 2006). This study therefore investigates the influence of the pursuit of core elements related to hedonia (i.e., pleasure) and eudaimonia (i.e., meaning and spirituality) on the most commonly used outcome variable in the well-being literature—life satisfaction.

Originated by Western researchers and an individualist view of happiness, life satisfaction is often related to seeking pleasure and avoiding pain, as conceptualized by Diener's (1984) mainstream model of subjective well-being. This narrow view on individual hedonic happiness has received criticism from cross-cultural psychologists, who argue that a more collective pursuit of happiness may be more relevant to capture the cultural diversity that exists between and within countries (Krys et al., 2019a, 2019b; Uchida & Kitayama,

2009; Wang et al., 2018). The pursuit of a meaningful life for oneself, but also for others, as conceptualized by Peterson et al. (2005), includes this collective aspect. Across countries, however, the relative impact of either pleasure or meaning on life satisfaction remains unclear. Although a fair amount of evidence shows that, universally, life satisfaction relates to both hedonic and eudaimonic predictors, some studies find that pleasure is a slightly stronger predictor of life satisfaction than meaning (Huta & Ryan, 2010), and others show that across countries, meaning is a more robust predictor of life satisfaction than pleasure. For example, in a study conducted in 27 countries, Park et al. (2009) show that countries differ in their orientations toward life satisfaction and can be clustered into three groups: high in hedonia (i.e., life of pleasure), high in eudaimonia (i.e., life of meaning), and low in both hedonia and eudaimonia. The discrepancies in findings echo the variety of definitions of the eudaimonic, meaning-based orientation to happiness (e.g., Huta & Waterman, 2014) and the increasing criticism in cross-cultural research about the need to assess the validity of the measures across countries (e.g., Milfont & Fischer, 2010).

This research extends current cross-cultural understanding of orientations to happiness by examining 2615 individuals in 12 countries representing different regions of the world (six continents) associated with different cultural contexts (individualism or collectivism): Australia, Brazil, China, France, Germany, India, Nigeria, Russia, South Africa, Sweden, United Arab Emirates (UAE), and the United States. We draw from the operationalizations of the individual orientation of pleasure and the more collective orientation of meaning proposed by Peterson et al. (2005) and, importantly, add an additional spiritual orientation to better capture the uncovered dimension of search for meaning that is frequently associated with it (Chowdhury & Fernando, 2013; van Dierendonck, 2004; van Dierendonck & Mohan, 2006; Wills, 2009). In doing so, we address the following questions:

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What are the most important orientations to happiness across countries? Is happiness sought through similar paths across countries? and Do individualist cultures derive more happiness through the pleasure-based hedonic path while collectivist cultures derive more happiness through the meaning-based eudaimonic path?

Following the transformative research agenda (Mick et al., 2012), this research helps advance business theory and practice by examining cultural variations in happiness. Specifically, it promotes the study of happiness through its pivotal dimensions (hedonia and eudaimonia; Ryan & Deci, 2001) and adds to the ongoing debate on challenging traditional views of cultural differences based on geographic borders and cultural values (Henderson et al., 2013; Kastanakis & Voyer, 2014). From a managerial standpoint, this research provides additional insights for international firms into how to enhance the well-being of their employees (Pagán-Castaño et al., 2020; Salas-Vallina et al., 2020) or customers (Gaston-Breton et al., 2020; Kemp et al., 2020). Finally, it informs policy makers about programs and interventions geared to citizens' well-being and individuals, who often fail to maximize their happiness because they are unable to identify situations that make them happy (Hsee & Hastie, 2006), about potential personal routes to happiness.

2. Literature review

2.1. Hedonic and eudaimonic orientations to happiness

Social sciences research has conceptualized happiness as a multidimensional construct only within the past two decades (e.g., Ryan & Deci, 2001). Two dimensions are considered: hedonic happiness (*hedonia*) and eudaimonic happiness (*eudaimonia*). This relatively recent dichotomy is rooted in ancient Greek philosophy. According to the ancient Greek philosopher Aristippus and his school of thought focused on hedonia, happiness is about living a sensual

and pleasurable life and thus is perishable. Conversely, Aristotle led the study of eudaimonia with a different school of thought, emphasizing the importance of living a life of virtue to achieve long-lasting happiness.

Although modern psychologists recognize that both hedonia and eudaimonia are pivotal dimensions of happiness or well-being (Ryan & Deci, 2001; Waterman, 1993), a variety of conceptual and operational definitions fall into different categories of analysis (Huta & Waterman, 2014). While some researchers (e.g., Vittersø & Søholt, 2011) investigate the experiences and activities related to hedonic and eudaimonic well-being, others (e.g., Peterson et al., 2005) focus on the hedonic and eudaimonic orientations to happiness. The former group of researchers generally operationalize hedonic and eudaimonic happiness as outputs. The notion of subjective well-being (Diener, 1984), which assesses the balance between positive and negative emotions and life satisfaction, is the mainstream conceptualization of hedonic happiness. Alternatively, the notion of psychological well-being (Ryff, 1989), which assesses an individual's positive functioning across six dimensions (autonomy, environmental mastery, purpose in life, positive relationships with others, self-acceptance, and personal growth), is often used to assess eudaimonic happiness. These conceptualizations, however, are not suitable to study hedonia and eudaimonia as orientations or predictors of happiness. Huta and Waterman (2014), in particular, indicate that comparisons of affective experiential states of subjective well-being (Diener, 1984) with indices of positive mental functioning using the psychological well-being framework (Ryff, 1989) can lead to inappropriate asymmetrical comparisons. Alternatively, Huta and Ryan's (2010) and Peterson et al.'s (2005) frameworks of orientations to happiness provide a symmetric operationalization of hedonic and eudaimonic paths to happiness. Our study

follows this latter stream of research to better understand the hedonic and eudaimonic orientations to happiness cross-culturally.

According to Peterson et al. (2005), the hedonic pathway to happiness is reached by maximizing one's pleasurable moments, whereas the eudaimonic pathway to happiness relies on using and developing the best of oneself in the pursuit of the greater good, particularly the welfare of humankind. The pursuit of both a pleasurable life and a meaningful life (for oneself and for others) is indeed widely endorsed as a way to achieve happiness (see Peterson et al., 2005). Notably, the concept of a meaningful life conveys a more collective aspect than the hedonic concept of pleasurable life. Cross-cultural researchers have recently noted that the research bias in the hedonic pathway to happiness derives from the dominant Western, individualist-oriented research tradition (Krys et al., 2019a, 2019b; Uchida & Kitayama, 2009; Wang et al., 2018). Comparing the pursuit of happiness among individualist and collectivist cultures, empirical studies have further demonstrated that personal achievement and the maximization of pleasure lead to greater happiness for North Americans while social harmony and interdependent self-construal contribute more to East Asian happiness (Kastanakis & Voyer, 2014; Krys et al., 2019b; Uchida & Kitayama, 2009; Uchida et al., 2004). Our study adds to this conversation by investigating the potential differences between individualist and collectivist cultures in their orientations toward a more individual pursuit of life of pleasure or a more collective pursuit of life of meaning in their pathway to happiness.

2.2. Pleasure, meaning, and spiritual orientations to happiness

Peterson et al. (2005) developed a framework that focuses on orientations to happiness to assess the endorsement of pleasure (hedonia), meaning (eudaimonia) and engagement (flow) as ways to achieve life satisfaction (happiness). Note that the third path of engagement assessing the mental state of flow (Csikszentmihalyi, 1990) has been proved to be

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theoretically and empirically different from hedonia and eudaimonia and that it contributes less to happiness. Thus, we exclusively discuss Peterson et al.'s (2005) findings regarding the first two paths of pleasure and meaning. They showed that the eudaimonic orientation of meaning (for oneself and for others) was more strongly correlated with life satisfaction than the hedonic orientation of pleasure. Notably, most of their respondents were from the United States, so national differences were not the focus. In subsequent studies, however, Peterson et al. compared the orientations to happiness between US respondents and Swiss and Australian respondents (Park et al., 2009; Peterson et al., 2007). They also assessed a larger set of 27 countries through an online survey; however, some countries were poorly represented (e.g., 15 were represented by fewer than 40 respondents), which limited the validity of their findings. The results replicated their previous findings indicating that both pleasure and meaning were significant predictors of life satisfaction but showed some differences across countries. For example, countries such as Australia, France, and Hong Kong scored significantly higher on pleasure, while countries such as the United States, Brazil, and Singapore scored significantly higher on meaning, with meaning somewhat more strongly associated with life satisfaction.

According to the aforementioned studies, the differences reflect national differences in terms of gross domestic product for countries high in pleasure (hedonia) and in terms of religiosity for countries high in meaning (eudaimonia). The latter is not surprising, given that religiosity is an important contributor in the sense that life has meaning and purpose (Chowdhury & Fernando, 2013). We deem spirituality as more suitable to cover both macro-level (i.e., within different cultures) and micro-level (i.e., within different individuals: their internal life, subjective experience, and how these relate to the well-being of mind–body–spirit) variations in understanding of meaning and the eudaimonic path to happiness than the

narrower (i.e., more practice and communal-oriented) concept of religiosity. Spirituality, at large, is typically believed to encompass a search for meaning and to be a core element of the eudaimonic orientation to happiness (Van Dierendonck & Mohan, 2006). In particular, spirituality has been proved to be a valid and reliable orientation toward life satisfaction (Wills, 2009). Therefore, to extend previous findings, we argue that a more encompassing and relevant orientation to happiness framework should include spirituality in addition to pleasure and meaning. According to Steger et al. (2008), researchers assessing the eudaimonic, meaning-based orientation to happiness should overcome the narrow conceptualization of meaning as the presence of meaning to also include search for meaning. Moreover, such a model should be empirically tested among a large sample of respondents from each country under study. It should also shed light on the cultural differences that help explain the different orientations toward life satisfaction. Notably, previous findings show that national differences in the orientations toward life satisfaction reflect neither geographical proximity nor similarities in individualism versus collectivism (Park et al., 2009). Given the individual view in which pleasure (hedonia) is embedded compared with the more collective approach of meaning or spirituality (eudaimonia), this finding seems counter-intuitive and thus needs further elaboration.

2.3. Individualist versus collectivist cultural orientations to happiness

Research investigating cultural differences in approaching happiness and experiencing life satisfaction mainly draw from traditional individualist and collectivist cultures. Triandis (1994, p. 2) defines individualism as a "social pattern that consists of loosely linked individuals who view themselves as independent of collectives" and who "give priority to their personal goals over the goals of others." Collectivism, by contrast, is characterized by the prioritization of the group over the individual. Research typically shows that life

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satisfaction is greater in individualist cultures; however, such a conclusion is reached by researchers approaching happiness through its hedonic dimension (Diener & Suh, 2003; Diener et al., 1999), without considering the eudaimonic dimension of happiness.

An emerging line of research has begun investigating whether positive associations between individualism and happiness can be applied to other, collectivist-oriented types of happiness. Hitokoto and Uchida (2015) propose, for example, including a measure of interdependent happiness that assesses well-being through the achievement of collective instead of individual happiness. Krys et al. (2019b) show, in particular, that the link between individualism and life satisfaction is weaker when taking into consideration a measure of interdependent happiness, especially in collectivist cultures. This implies that evaluating the collective dimension of eudaimonic happiness, especially in the context of the effect of meaning and spirituality orientations versus the pleasure orientation to happiness, may offer a better understanding of cultural variations in the orientations to happiness.

An extensive body of research, which gradually developed from Hofstede's (1980) landmark work on culture, has investigated how individualist and collectivist cultural values shape individual behaviors. During the past three decades, the field has moved from the study of cultural differences at the group/national level to the study of the individual consequences of culture at a self-representation level (Markus & Kitayama, 1991). Markus and Kitayama's (1991) work highlights how cultural values not only affect social and group-level factors but also have a profound effect on cognition, emotions, and behaviors. Markus and Kitayama also suggest that different cultures shape the nature and types of emotions experienced. In collectivist cultures, individuals tend to experience other-focused emotions (e.g., guilt, shame, compassion) that put emphasis on connectedness with others. In individualist cultures, dominant emotions tend to be self-related. Ego-focused emotions include, for example, anger

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or guilt and take others as a point of reference (Kastanakis & Voyer, 2014). Empirical studies, however, show some discrepancies. Contrary to expectations, Ohtsubo et al. (2019) find that forgiveness—a collectivist personality trait—had a similar impact on well-being in Canada (an individualist culture) and Japan (a collectivist culture). Therefore, the role of a match between cultures and personality traits in enhancing orientations to happiness may not necessarily be straightforward.

A growing body of work calls for a more cautious approach to traditional individualist/collectivist studies of culture. Kastanakis and Voyer (2014) suggest that the individual-level perspective of self-construal offers a more granular view of culture than a social-level type of analysis. The field of cross-cultural psychology has tried to address the limitations of Hofstede's work on culture, with the main perceived limitation being that the framework is deterministic and does not offer a way to fully and accurately explain individual differences (Markus & Kitayama, 1991). The field of culture has also moved to a more cognitive and evolutionary approach (Franks, 2011). Thus, the study of a phenomenon such as happiness, traditionally considered an individualist concept, may be further shaped by different cultural contexts and mindsets. More specifically, the way country-level happiness interacts with individual-level happiness may offer not only a better understanding of how happiness forms but also shed light on how cultural differences shape individual behaviors.

3. Method

3.1. Data collection

We collected data from an average of 216 respondents in each of the 12 countries (2615 respondents in total) through a panel provider and administered the questionnaires via Qualtrics. The use of a panel provider allowed us to collect data from samples that matched

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key demographic criteria of the studied countries (e.g., gender, age). We chose countries that offered cultural diversity and represented under-studied countries in the literature. Australia, France, Germany, South Africa, Sweden, and the United States are representative of more individualist cultural contexts, while Brazil, China, Nigeria, Russia, and the UAE are representative of more collectivist contexts. India represents a separate case, as it is neither individualist nor collectivist.[1] Sinha et al. (2001) argue that Indians display behaviors that are individualist in nature but serve collectivist purposes. Thus, they conclude that individualism and collectivism co-exist in values and practices Table 1 reports the demographic characteristics for all country samples.

[INSERT TABLE 1 HERE]

3.1.1. Life satisfaction

Respondents completed the Satisfaction With Life Scale (Diener et al., 1985), rating items on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The scale comprises one dimension and five items (e.g., "In most ways, my life is close to my ideal"). It has good internal reliability ($\alpha = 0.87$).

3.1.2. Pleasure

We used the pleasure orientation to happiness sub-scale (Peterson et al., 2005) to assess hedonic happiness. Respondents rated items on a 5-point scale (1 = very much unlike me, 5 = very much like me). This measure consists of one dimension and six items (e.g., "Life is too short to postpone the pleasures it can provide"). It also has good internal reliability ($\alpha = 0.84$).

3.1.3. Meaning

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[1] See https://www.hofstede-insights.com/country-comparison/india/.

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We used the meaning orientation to happiness sub-scale (Peterson et al., 2005) to assess eudaimonic happiness (i.e., the core element of presence of meaning). Respondents rated items on a 5-point scale (1 = very much unlike me, 5 = very much like me). This measure comprises one dimension and six items assessing both the presence of meaning for oneself (e.g., "My life has a lasting meaning") and the presence of meaning for others (e.g., "I have a responsibility to make the world a better place"). It has good internal reliability (α = 0.88).

3.1.4. Spirituality

We used the relationship with a higher power scale (Van Dierendonck, 2004) to assess eudaimonic happiness (i.e., the core element of search for meaning). Respondents rated items on a 5-point Likert scale (1 = totally disagree, 5 = totally agree). This measure consists of one dimension and four items (e.g., "I experience a spiritual dimension that gives me strength and love"). It has good internal reliability (α = 0.87).

3.1.5. Socio-demographic information

At the end of the questionnaire, we asked respondents to provide information on their age and gender. The survey was presented in English in Australia, India, Nigeria, South Africa, the UAE, and the United States and was translated in Brazilian Portuguese, Chinese, French, German, Russian, and Swedish. To establish linguistic equivalence of the instructions and demographic items, we followed the back-translation procedure suggested by Brislin (1970). Specifically, each scale was first translated from English to each of the languages in which the research was conducted by a bilingual translator. Then, the transcribed test was translated again back to English by a different bilingual translator. The research team compared both English versions and clarified any meaning with the translators.

3.2. Data analyses

We conducted all analyses with R software (R Core Team, 2020). The analytic procedure occurred in three steps. First, we conducted confirmatory factor analyses (CFAs) on the four measures on the 12 samples to check the construct validity of our instruments in the different countries. We ran the CFAs using the lavaan package (Rosseel, 2012). We followed the recommendation of Jöreskog and Sörbom (1989), Hu and Bentler (1999), Marsh et al. (2004), and Chen et al. (2008) to interpret the model fit. Therefore, we used several complementary indices and interpreted the overall model fit rather than using specific cutoff values. We used chi-square, the comparative fit index (CFI; Bentler, 1990), the Tucker–Lewis index (TLI; Tucker & Lewis, 1973), and the standardized root mean square residual (SRMR; Jöreskog & Sörbom, 1989).

Second, we tested measurement invariance using the alignment optimization method (Asparouhov & Muthén, 2014) with the sirt package (Robitzsch, 2020). This method is an approximate measure of invariance developed to address the limitations of the more common multi-group CFA; multi-group CFA is an exact approach to measurement invariance and assumes that parameters (i.e., factor loadings and intercepts) are exactly equal across groups, which in reality is impractical when comparing many groups (Asparouhov & Muthén, 2014). Muthén and Asparouhov (2013) and Van de Schoot et al. (2013) suggest that to perform group comparisons, it is sufficient if the parameters are approximately equal rather than exactly equal. Alignment optimization computes the latent means without constraining the parameters to be equal, which allows estimating latent means while considering the actual differences in factor loadings and intercepts (Asparouhov & Muthén, 2014; Muthén & Asparouhov, 2014, 2018). Alignment optimization uses the effect size R^2 (i.e., the proportion of variance in the factor loadings and intercepts across all groups explained by the variation in

the factor means and factor variances) as a measure of the degree of invariance. A higher R^2 indicates a higher level of invariance, with values close to 1 indicating high levels of invariance and values close to 0 indicating low levels of invariance. Alignment optimization also allows investigating the factor loadings (i.e., metric invariance) and intercepts (i.e., scalar invariance) of each item per country, as it provides information about all the combinations of items per country. As alignment optimization assumes approximate invariance rather than exact invariance, group comparison is possible even if not all factor loadings and intercepts are invariant. In a simulation study, Muthén and Asparouhov (2014) found that the results of an alignment procedure were still valid with up to 25% of non-invariant parameters.

Third, we carried out structural equation modeling (SEM) to investigate (1) whether pleasure, meaning, and spirituality predict life satisfaction and (2) whether the relationships between pleasure, meaning, and spirituality and life satisfaction are similar or different across countries. For the SEMs, we used the lavaan package (Rosseel, 2012) and also the same fit indices (i.e., χ^2, CFI, TLI, and SRMR), as well as the root mean square error of approximation (RMSEA; Steiger, 1990) with a 90% confidence interval. We estimated two models: a free model (Model 1) in which we allowed the regression coefficients to vary freely across the 12 countries and a constraint model (Model 2) in which we constrained the regression coefficients to be equal across the countries. We used the chi-square difference to compare the two nested models and to assess the difference in fit between Models 1 and 2.[2]

4. Results

4.1. Measurement validity

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[2]Additional packages used but not reported in the core text are ggplot2 (Wickham, 2016), Hmisc (Harrell, 2019), moments (Komsta & Novomestky, 2015), psych (Revelle, 2019).

We tested for univariate and multivariate normality assumptions by assessing the skewness and kurtosis of each variable with the psych package (Revelle, 2019) and by using Mardia's (1970) multivariate test of the MVN package (Korkmaz et al., 2014). The results indicated that the data were not normally distributed (Kline, 2016). Table 2 presents the means, standard deviations, correlations, and Cronbach's alphas of the four scales (i.e., satisfaction with life, pleasure, meaning, and spirituality) as well as gender and age.

[INSERT TABLE 2 HERE]

We assessed the factor structure of the four measures on the 12 countries using CFAs. We used the Satorra–Bentler chi-square, which is robust to non-normally distributed data (Satorra & Bentler, 1988), because the data were not normally distributed. Table 3 reports the fit indices of the 48 CFAs (four scales in 12 countries).[3] The results show a good fit for the satisfaction with life scale in all countries except Nigeria. The fit of the spirituality orientation to happiness scale was acceptable in all countries except Sweden. The pleasure orientation to happiness measure also had a good fit in nine countries, while the fit in China, Germany, and the UAE was insufficient. Nevertheless, we did not modify the factorial structure of these three measures because we wanted to use the same scales across all countries. Finally, for the meaning orientation to happiness measure, the fit was acceptable in China, India, Russia, and the United States but insufficient in the other countries.

After examining the CFAs of the meaning orientation to happiness scale, we dropped problematic items. We dropped Item 6 and conducted CFAs using the five remaining items. The results indicated an acceptable fit in half the countries but an insufficient fit in the other half (see Table 4).[4] Next, we dropped Item 2 and conducted the CFAs using the four remaining items. The results showed good fit in all countries except Australia.

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[3] All factor loadings of the CFAs are available from the authors on request.
[4] All fit indices are available from the authors on request.

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[INSERT TABLES 3 and 4 HERE]

4.2. Measurement invariance

We assessed measurement invariances using the alignment optimization methods on the samples from the 12 countries for each of the four measures separately. To keep the paper length manageable, we report only the analyses for one measure, though supplementary material is available for the other measures. Note that all four measures (satisfaction with life, pleasure, meaning, and spirituality) show invariance across countries.

For satisfaction with life, both the factor loading ($R^2 = 0.995$) and the intercept ($R^2 = 0.997$) were good. These R^2 values suggested a high level of invariance of the satisfaction with life scale. We also examined whether each combination of items per country had invariant factor loadings and intercepts. As there were five items and 12 countries, we had 60 combinations of item/country. All 60 combinations had invariant factor loadings (see Table 5). However, there were 13 combinations (21.7%) of item/country that had non-invariant intercepts. The results showed that Item 1 was the least invariant item (i.e., five non-invariant countries) while Item 3 was the most invariant item (i.e., all 12 countries were invariant). Moreover, Nigeria was the least invariant country (i.e., four non-invariant items), while Brazil, France, and the United States were the most invariant countries (i.e., five items were invariant). Averaging the proportion of non-invariant factor loadings and intercepts, we found that the total invariance of the satisfaction with life scale was 10.8%, which is below the 25% threshold (Muthén & Asparouhov, 2014). These results, as well as the results for the remaining three variables (pleasure, meaning, and spirituality), suggest that there is approximate invariance of the satisfaction with life scale among the 12 countries (see supplementary material).

[INSERT TABLE 5 HERE]

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4.3. Orientations to happiness cross-countries

Pleasure, meaning, and spirituality orientations to happiness are differently weighted across countries. Table 6 displays the latent means and standard deviations per country.

[INSERT TABLE 6 HERE]

India has the highest level of life satisfaction, followed by the UAE and Brazil, while Sweden, France, and Australia have the lowest level of life satisfaction. For the pleasure orientation to happiness, we observe a similar pattern, with the highest latent means for India, followed by Brazil and the UAE, and the lowest latent means for Australia, Russia, and Germany. For the meaning and spirituality orientations to happiness, Nigeria shows the highest scores, followed by India and the UAE. The lowest scores are slightly different, with Australia, France, and Russia ranking the lowest in meaning orientation to happiness and Germany, Sweden, and France ranking the lowest in spirituality. These differences in the weight of each dimension, however, do not affect the modelization of the orientations of pleasure, meaning, and spirituality toward life satisfaction.

As noted previously, using multi-group SEM, we tested Model 1 in which we allowed the regression coefficients to vary freely across the 12 countries. The chi-square value was not satisfactory (χ^2(1752, N = 2615) = 3045.31, p < .001). However, the robust CFI (0.93), the robust TLI (0.92), the robust RMSEA (0.07, 90% confidence interval [CI] 0.06–0.07), and the SRMR (0.07) indicated an acceptable fit. We then tested Model 2, in which we constrained the regression coefficients to be equal across the 12 countries. The chi-square value also was not satisfactory (χ^2(1785, N = 2615) = 3082.49, p < .001). However, the robust CFI (0.93), the robust TLI (0.92), the robust RMSEA (0.07, 90% CI 0.06–0.07), and the SRMR (0.07) indicated an acceptable fit. The chi-square difference showed no significant difference between Model 1 and Model 2 (χ^2(33) = 44.15, p = .093). This means that the constraint

model (Model 2) is equivalent to the free model (Model 1) and that the regression coefficients do not significantly vary between the 12 countries.

Thus, the constraint model well represents the data. The results show that pleasure (β = 0.20, $p < .001$, see Fig. 1), meaning (β = 0.58, $p < .001$, see Fig. 2), and spirituality (β = 0.06, $p = .020$, see Fig. 3) are related to life satisfaction. Therefore, we can conclude that these three orientations to happiness predict life satisfaction and that the magnitudes of their effects do not vary across the 12 countries.

[INSERT FIGURES 1, 2, and 3 HERE]

5. Discussion

5.1. Toward a unified theory of cultural orientations to happiness

This study investigates three orientations to happiness (pleasure, meaning, and spirituality) and the relationship of these orientations to life satisfaction among respondents from 12 countries representing individualist or collectivist values. Despite decades of research on cultural differences in terms of individual and collective values (Kastanakis & Voyer, 2014; Markus & Kitayama, 1991), little is known about how these shape higher-order aspirations such as happiness or well-being. The core contributions are threefold.

First, the study contributes to the literature on well-being by showing that life satisfaction can universally be approached through pleasure, meaning, and, unique to this study, spirituality. This particular finding extends Peterson et al.'s (2005) traditional framework of orientations to happiness by introducing spirituality as an additional path, given its importance for eudaimonic happiness (Van Dierendonck & Mohan, 2006; Wills, 2009). Considering both the elements of presence of meaning (as proposed by Peterson et al., 2005) and search for meaning (as we propose through spirituality) provides a more precise conceptualization of the eudaimonic, meaning-based orientation to happiness (Steger et al.,

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2008). In addition, spirituality is a construct broad enough to encompass additional macro- and micro-level variations in understanding of meaning; that is, it refers to both communal and subjective aspects of meaning as related to eudaimonic happiness (Van Dierendonck & Mohan, 2006) and its eventual link to life satisfaction (Wills, 2009).

Second, we provide a first-of-its-kind, robust cross-cultural comparison, showing that for all studied countries, meaning (eudaimonia) is a stronger predictor of life satisfaction than pleasure (hedonia). This replicates Peterson et al.'s (2005) findings but contradicts previous research arguing that pleasure is a stronger predictor of life satisfaction than meaning (e.g., Huta & Ryan, 2010). We also find support for Peterson et al.'s (2005) full life hypothesis, which states that high scores on both pleasure and meaning lead to greater satisfaction than the isolated effect of high scores on pleasure or meaning.

Third, our findings question traditional binary conceptualizations of culture that rely on individualism and collectivism as powerful drivers of radically different behaviors (Markus & Kitayama, 1991). Our data show that both East (collectivist) and West (individualist) regions of the world follow the same orientations to happiness. Although the impact of acculturation on cultural values remains unknown (Craig & Douglas, 2006; Triandis, 2001), this finding contradicts the assumption that individualist (vs. collectivist) countries derive more happiness from a hedonic (vs. an eudaimonic) approach.

Our results also show that the effect of gender on the level of life satisfaction and the pleasure orientation to happiness is more complex than previously suggested. We find rather weak negative and significant correlations between gender and meaning and spirituality orientations to happiness. These findings are in line with both Peterson et al. (2005) and LeFebvre and Huta (2020), who show no or very little effect of gender on happiness. In addition, the results show a weak negative relationship between age and life satisfaction and

between age and pleasure, meaning, and spirituality orientations to happiness. These results partly differ from those of Peterson et al. (2005) and LeFebvre and Huta (2020). However, LeFebvre and Huta (2020) find that the relationship between age and happiness is not linear and varies between men and women.

5.2. Cross-cultural conceptualizations

Previous research has found that individualist countries tend to approach happiness through the search of pleasure (hedonia) rather than meaning or spirituality (eudaimonia) (Krys et al., 2019a). Our research suggests that there are alternative, universal pathways when conceptualizing happiness that are not adequately explained by traditional country-level differences. Our findings echo current cross-cultural research challenging the traditional view that culture can be reduced to geographic borders or values (Henderson et al., 2013; Kastanakis & Voyer, 2014). The idea that cultures may be becoming more homogenized began to emerge in the 2000s with the work of Triandis (2001) and Craig and Douglas (2006). Triandis (2001, p. 920) notes that, at a time when the World Wide Web was growing rapidly, "a global culture is emerging, which is especially compatible with idiocentrism." He also calls for more work to unpack the effect of this global culture.

The effect of social media on shaping values and connecting individuals is well documented (Manago & Vaughn, 2015; Wellman, 2002). Given that respondents across the 12 countries answered an online survey, the results may reflect patterns specific to an Internet-connected population. Research is increasingly discussing the relationship between social media and happiness (e.g., Brooks, 2015). The convergence of both structural changes in the way individuals socialize and build and share identity markers may thus have accelerated changes in how happiness and well-being structures evolve around the world to eventually result in cross-cultural convergence.

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5.3. Cross-cultural measurement issues

This research also contributes to ongoing debates about the importance of measurement in cross-cultural research. The acceptable psychometric properties of the scales across 12 countries may suggest that common cross-cultural research methods are not as prevalent as they once were. Research on cross-cultural method biases traditionally focuses on two main issues: response biases and method or item biases.

First, Van Herk et al. (2004) suggest that response-biases, a known methodological issue affecting cross-cultural research, can affect the results and interpretation of cross-cultural research. Specifically, they argue that though scores on a given scale may be comparable across different countries (as proxies to cultures), that does not necessarily mean that responses reflect actual differences in terms of attitudes and values. We show that the structure of the happiness and well-being scales holds across cultures, despite differences in averages. Second, method biases have traditionally accounted for cultural differences in response styles. Baumgartner and Steenkamp (2001) identify five response styles that are susceptible to cross-cultural variations: acquiescence, dis-acquiescence, net acquiescence, extreme response range mid-point responding, and non-contingent responding. This may explain why, for instance, differences in scores can sometimes seem to contradict theoretical predictions. For example, when comparing scores for individualism between respondents from collectivist and individualist cultures, the collectivist sample might have a higher score than the individualist one, but this may reflect differences in terms of acquiescence. This echoes Matsumoto and Van de Vijver's (2010) call for caution when interpreting raw scores in cross-cultural research.

Nevertheless, these issues may not affect this research for two reasons. First, we purposely selected research instruments that were validated and used across a wide range of

cultural contexts (Diener et al., 1985, Peterson et al., 2005; Van Dierendonck, 2004). Second, the previously discussed changes in cultural environment, especially in terms of the homogenization of cultures (Craig & Douglas 2006; Kastanakis & Voyer, 2014; Triandis, 2001), tend to render cultural comparisons using traditional Western instruments more comparable, as the use of such instruments (i.e., scales) is now more widespread across cultures (e.g., through market research surveys).

5.4. Managerial and policy implications

This research may be valuable to managers in multiple management fields. From an organizational psychology perspective, managers could use the findings to design smarter corporate incentives, such as pleasure-driven incentives (e.g., financial rewards) or meaning-driven ones (e.g., altruistic time allocation), to reduce employee turnover and promote well-being whatever the cultural context they are embedded in. In particular, whatever the cultural values (i.e., individualism or collectivism) and the importance given to some dimensions (e.g., spirituality is more important than pleasure and meaning for India, Nigeria, UAE, and Brazil), meaning-based initiatives will contribute in a greater extent to the life satisfaction of workers all over the globe. Those findings add to the current conversations related to the drivers of well-being at work (for a recent review, see Pagán-Castaño, 2020).

In marketing, in which cultural values and aspirations play an important role in communication and buying behavior, the findings may help managers adapt product development, need identification, and communication across cultures (Kastanakis & Voyer, 2014). For example, they may consider promoting a product such as a smartphone by the pleasures people derive from using it (e.g., taking pictures, watching a movie) or its life-enhancing functionalities (e.g., connecting with loved ones, using a meditation app). In terms of consumer psychology, the findings suggest that meaning and religiosity may be important

dimensions to consider when developing and communicating about pleasure-driven and well-being products. Traditionally, providers of well-being services such as gyms or spas have focused on the personal and individualist benefits of their services. The recent rise in popularity of gym communities (e.g., CrossFit, Peloton online) may be due to the provision of more meaningful experiences. This research, in turn, adds to the current conversations related to the drivers of consumer well-being and happiness (e.g., Gaston-Breton et al., 2020; Kemp et al., 2020).

Importantly, these findings also carry implications for policy makers (e.g., governments, regions, city councils) and legislators, who can communicate with citizens and/or design policies, (proactive or reactive) programs, and social interventions at various levels and in different sectors (e.g., education, hospitals, social work, immigration planning) to account for cultural and context differences. They can also work to maximize well-being and/or align initiatives with other important interacting variables (e.g., social welfare, laws).

5.5. Limitations and future research

This cross-cultural study has limitations related to the data collection compromises that we made to achieve a large dataset (12 countries and 2615 respondents). We collected the dataset following a convenience sampling approach, led by a panel provider, with the aim to assemble a sample that would match the gender and ethnicity spread in each country. In addition, although our cultural contexts had significant diversity, going beyond those traditionally captured in cross-cultural research, we were not able to capture a wider range of cultural contexts, including regional contexts, because of the high costs of doing so. Thus, we focused on a range of contexts—from traditional, economically stable Western countries (e.g., France) to cultural contexts experiencing rapid and significant economic and cultural growth

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(e.g., India). Further research could extend our work to other cultural contexts, reflecting more dimensions.

In addition, our study provides two main areas to serve as a basis for future research. First, drawing on our results, research could examine how hedonia and eudaimonia orientations to happiness are related to other organizational factors, such as employee turnover or job satisfaction, or social welfare initiatives. Second, given the ever-changing nature of cultures, conducting a longitudinal study on happiness orientations may offer a way to track cultural changes at a more granular level. Conducting a meta-analysis on cultural orientations to happiness could offer similar insights into how cultures have evolved over time and whether cultures have converged, in the last decades, in terms of the motivations behind happiness.

References

Anic, P., & Tončić, M. (2013). Orientations to happiness, subjective well-being and life goals. *Psihologijske teme, 22*(1), 135-153.

Asparouhov, T., & Muthén, B. (2014). Multiple-group factor analysis alignment. *Structural Equation Modeling: A Multidisciplinary Journal*, *21*(4), 495-508.

Baumgartner, H., & Steenkamp, J.-B. E. M. (2001). Response styles in marketing research: A cross-national investigation. *Journal of Marketing Research*, *38*(2), 143-156.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238-246.

Brislin, R. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, *1*, 185–216.

Brooks, S. (2015). Does personal social media usage affect efficiency and well-being? *Computers in Human Behavior*, *46*, 26-37.

Chen, F., Curran, P. J., Bollen, K. A., Kirby, J., & Paxton, P. (2008). An empirical evaluation of the use of fixed cutoff points in RMSEA test statistic in structural equation models. *Sociological Methods & Research*, *36*(4), 462-494.

Chowdhury, R. M., & Fernando, M. (2013). The role of spiritual well-being and materialism in determining consumers' ethical beliefs: An empirical study with Australian consumers. *Journal of Business Ethics*, *113*(1), 61-79.

Craig, C. S., & Douglas, S. P. (2006). Beyond national culture: Implications of cultural dynamics for consumer research. *International Marketing Review*, *23*(3), 322-342.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management, 25*(3), 357-384.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542–575.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.

Diener, E., & Suh, E. M. (2003). National differences in subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 434-452). Russell Sage Foundation.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302.

Franks, B. (2011), *Culture and cognition: Evolutionary perspectives*. Palgrave Macmillan.

Gaston-Breton, C., Sørensen, E. B., & Thomsen, T. U. (2020). "I want to break free!" How experiences of freedom foster consumer happiness. *Journal of Business Research*, *121*, 22-32.

Harrell Jr., F. E. (2019). *Hmisc: Harrell miscellaneous. R package version 4.2-0*. https://CRAN.R-project.org/package=Hmisc.

Henderson, G. R., Guzmán, F., Huff, L., & Motley, C. M. (2013). The Ian's pizza tribe: Reconceptualizing cross-cultural research in the digital age. *Journal of Business Research*, *66*(3), 283-287.

Hitokoto, H., & Uchida, Y. (2015). Interdependent happiness: Theoretical importance and measurement validity. *Journal of Happiness Studies*, *16*(1), 211-239.

Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization, 10*(4), 15-41.

Hsee, C. K., & Hastie, R. (2006). Decision and experience: Why don't we choose what makes us happy? *Trends in Cognitive Sciences*, *10*(1), 31-37.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, *11*(6), 735-762.

Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, *15*(6), 1425-1456.

Jöreskog, K. G., & Sörbom, D. (1989). *LISREL 7: A guide to the program and applications*. SPSS.

Kastanakis, M. N., & Voyer, B. G. (2014). The effect of culture on perception and cognition: A conceptual framework. *Journal of Business Research*, *67*(4), 425-433.

Kemp, E., Cowart, K., & Bui, M. M. (2020). Promoting consumer well-being: Examining emotion regulation strategies in social advertising messages. *Journal of Business Research*, *112*, 200-209.

Kline, R. B. (2016), *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Komsta, L., & Novomestky, F. (2015). *moments: Moments, cumulants, skewness, kurtosis and related tests* (R package version 0.14) [computer software].

Korkmaz, S., Goksuluk, D., & Zararsiz, G. (2014). MVN: An R package for assessing multivariate normality. *The R Journal, 6*(2), 151-162.

Krys, K., Uchida, Y., Oishi, S., & Diener, E. (2019a). Open society fosters satisfaction:

    Explanation to why individualism associates with country level measures of

    satisfaction. *Journal of Positive Psychology*, *14*(6), 768-778.

Krys, K., Zelenski, J.M., Capaldi, C.A., Park, J., van Tilburg, W., van Osch, Y., Haas, B.W.,

    Bond, M.H., Dominguez-Espinoza, A., Xing, C., & Igbokwe, D.O. (2019b). Putting

    the "we" into well-being: Using collectivism-themed measures of well-being

    attenuates well-being's association with individualism. *Asian Journal of Social*

    Psychology, 22(3), 256-267.

Lee, M. S., & Ahn, C. S. Y. (2016). Anti-consumption, materialism, and consumer well-

    being. *Journal of Consumer Affairs, 50*(1), 18-47.

LeFebvre, A., & Huta, V. (2020). Age and gender differences in eudaimonic, hedonic, and

    extrinsic motivations. *Journal of Happiness Studies*, doi: 10.1007/s10902-020-00319-

    4.

Manago, A. M., & Vaughn, L. (2015). Social media, friendship, and happiness in the

    millennial generation. In M. Demir (Ed.), *Friendship and happiness* (pp. 187-206).

    Springer.

Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications.

    Biometrika, *57*(3), 519-530.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition,

    emotion, and motivation. *Psychological Review*, *98*(2), 224-253.

Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on

    hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in

    overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*,

    11(3), 320-341.

Matsumoto, D., & Van de Vijver, F. J. (Eds.). (2010). *Cross-cultural research methods in psychology*. Cambridge University Press.

Mick, D. G., Pettigrew, S., Pechmann, C. C., & Ozanne, J. L. (Eds.) (2012). *Transformative consumer research for personal and collective well-being*. Routledge.

Milfont, T. L., & Fischer, R. (2010). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological Research*, *3*(1), 111-130.

Muthén, B., & Asparouhov, T. (2013). BSEM measurement invariance analysis. *Mplus Web Notes*, *17*, 1-48.

Muthén, B., & Asparouhov, T. (2014). IRT studies of many groups: The alignment method. *Frontiers in Psychology*, *978*, 1-7.

Muthén, B., & Asparouhov, T. (2018). Recent methods for the study of measurement invariance with many groups: Alignment and random effects. *Sociological Methods & Research*, *47*(4), 637-664.

Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Känsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, *31*(2), 101–120.

Ohtsubo, Y., Masuda, T., Matsunaga, M., Noguchi, Y., Yamasue, H., & Ishii, K. (2019). Is collectivistic forgiveness different from individualistic forgiveness? Dispositional correlates of trait forgivingness in Canada and Japan. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *51*(4), 290-295.

Pagán-Castaño, E. A., Maseda-Moreno, A., & Santos-Rojo C. (2020). Wellbeing in work environments. *Journal of Business Research*, *115*, 469-474.

Park, N., Peterson, C., & Ruch, W. (2009). Orientations to happiness and life satisfaction in twenty-seven nations. *Journal of Positive Psychology*, *4*(4), 273-279.

Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of Happiness Studies, 6*(1), 25-41.

Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. (2007). Strengths of character, orientations to happiness, and life satisfaction. *Journal of Positive Psychology*, *2*(3), 149-156.

R Core Team. (2020), *R: A language and environment for statistical computing* [computer software]. R Foundation for Statistical Computing.

Revelle, W. (2019). *psych: Procedures for psychological, psychometric, and personality research.* (R Package Version 1.9.12) [computer software]. Northwestern University.

Robitzsch, A. (2020). *sirt: Supplementary item response theory models.* (R package version 3.9-4) [computer software]. https://CRAN.R-project.org/package=sirt.

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software, 48*(2), 1-36.

Ryan, R., & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141–66.

Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081.

Salas-Vallina, A., Simone, C., & Fernández-Guerrero, R. (2020). The human side of leadership: Inspirational leadership effects on follower characteristics and happiness at work (HAW). *Journal of Business Research*, *107*, 162-171.

Satorra, A., & Bentler, P. M. (1988). Scaling corrections for chi-square statistics in covariance

    structure analysis. In *American Statistical Association Proceedings of the Business*

    and Economic Section (pp. 308-313). American Statistical Association.

Schimmel, J. (2009). Development as happiness: The subjective perception of happiness and

    UNDP's analysis of poverty, wealth and development. *Journal of Happiness Studies,*

    10(1), 93-111.

Schnebelen, S., & Bruhn, M. (2018). An appraisal framework of the determinants and

    consequences of brand happiness. *Psychology & Marketing, 35*(2), 101–119.

Sinha, J. B., Sinha, T. N., Verma, J., & Sinha, R. B. N. (2001). Collectivism coexisting with

    individualism: An Indian scenario. *Asian Journal of Social Psychology, 4*(2), 133-145.

Steger, M. F, Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search

    for meaning in life: Personality, cognitive style, and the dynamic between seeking and

    experiencing meaning. *Journal of Personality*, *76*(2), 199-228.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation

    approach. *Multivariate Behavioral Research*, *25*(2), 173-180.

Triandis, H. C. (1994). *Culture and social behavior.* McGraw-Hill.

Triandis, H. C. (2001). Individualism-collectivism and personality. *Journal of Personality,*

    69(6), 907-924.

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor

    analysis. *Psychometrika*, *38*(1), 1-10.

Uchida, Y., & Kitayama, S. (2009). Happiness and unhappiness in east and west: Themes and

    variations. *Emotion*, *9*, 441–456.

Uchida, Y., Norasakkunkit, V., & Kitayama, S. (2004). Cultural constructions of happiness:

    Theory and empirical evidence. *Journal of Happiness Studies*, *5*, 223–239.

Van de Schoot, R., Kluytmans, A., Tummers, L., Lugtig, P., Hox, J., & Muthén, B. (2013).

    Facing off with Scylla and Charybdis: A comparison of scalar, partial, and the novel

    possibility of approximate measurement invariance. *Frontiers in Psychology*, *770*, 1-

    15.

Van Dierendonck, D. (2004). The construct validity of Ryff's Scales of Psychological Well-

    being and its extension with spiritual well-being. *Personality and Individual*

    Differences, *36*(3), 629-643.

Van Dierendonck, D., & Mohan, K. (2006). Some thoughts on spirituality and eudaimonic

    well-being. *Mental Health, Religion and Culture*, *9*(3), 227-238.

Van Herk, H., Poortinga, Y. H., & Verhallen, T. M. (2004). Response styles in rating scales.

    Journal of Cross-Cultural Psychology, *35*(3), 346-360.

Vittersø, J., & Søholt, Y. (2011). Life satisfaction goes with pleasure and personal growth

    goes with interest: Further arguments for separating hedonic and eudaimonic well-

    being. *Journal of Positive Psychology*, *6*(4), 326-335.

Wang, S. Y., Wong, Y. J., Yeh, K. H., & Wang, L. (2018). What makes a meaningful life?

    Examining the effects of interpersonal harmony, dialectical coping, and

    nonattachment. *Asian Journal of Social Psychology*, *21*(3), 198-204.

Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness

    (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*,

    64(4), 678-691.

Waterman, A. S. (2008). Reconsidering happiness: A eudaimonist's perspective. *Journal of*

    Positive Psychology, 3(4), 234-252.

Wellman, B. (2002). Little boxes, globalization, and networked individualism. In M. Tanabe, P. van den Besselaar, & T. Ishida (Eds.), *Digital cities II: Computational and sociological approaches* (pp. 10–25). Springer.

Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*. Springer-Verlag.

Wills, E. (2009). Spirituality and subjective well-being: Evidences for a new domain in the personal well-being index. *Journal of Happiness Studies*, *10*(1), 49.

Table 1

Sample characteristics.

Country	N	% female	Age M (SD)	Life satisfaction M (SD)	Pleasure M (SD)	Meaning M (SD)	Spirituality M (SD)
1. Australia	219	50.23	45.5 (16.0)	4.17 (1.35)	3.31 (0.73)	3.21 (0.87)	2.96 (1.58)
2. Brazil	215	50.23	35.7 (12.4)	4.82 (1.48)	3.79 (0.76)	3.87 (0.90)	4.59 (1.53)
3. China	215	50.23	31.9 (8.7)	4.47 (1.20)	3.83 (0.62)	3.73 (0.72)	3.91 (1.10)
4. France	215	49.77	40.5 (13.0)	4.16 (1.27)	3.84 (0.71)	3.09 (0.86)	2.85 (1.51)
5. Germany	217	49.31	49.3 (14.1)	4.13 (1.37)	3.41 (0.65)	3.18 (0.86)	2.29 (1.40)
6. India	221	50.23	31.8 (8.6)	5.28 (1.12)	3.99 (0.68)	4.05 (0.69)	4.88 (1.01)
7. Nigeria	220	50.00	30.5 (7.5)	4.53 (1.19)	3.64 (0.87)	4.48 (0.58)	5.52 (0.73)
8. Russia	216	50.00	41.9 (11.9)	4.20 (1.32)	3.44 (0.82)	3.32 (0.86)	3.45 (1.43)
9. South Africa	220	50.00	35.4 (11.8)	4.50 (1.31)	3.67 (0.74)	3.70 (0.88)	4.47 (1.45)
10. Sweden	220	49.09	37.7 (13.1)	4.04 (1.45)	3.49 (0.73)	3.28 (0.87)	2.42 (1.49)
11. UAE	213	47.89	31.9 (8.3)	4.89 (1.27)	3.82 (0.79)	3.98 (0.74)	4.98 (1.15)
12. US	224	50.45	47.3 (17.4)	4.35 (1.33)	3.42 (0.79)	3.50 (0.91)	3.71 (1.70)
Total	2615	49.79	38.3 (13.8)	4.46 (1.35)	3.64 (0.77)	3.62 (0.91)	3.84 (1.70)

Table 2

Means, standard deviations, correlations, and Cronbach's alphas.

	M	SD	1	2	3	4	5
1. Life satisfaction	4.46	1.35	*.82-.98*				
2. Pleasure	3.64	0.77	.30***	*.72-.87*			
3. Meaning	3.62	0.91	.46***	.28***	*.73-.82*		
4. Spirituality	3.84	1.70	.35***	.20***	.58***	*.81-.95*	
5. Gender	-	-	-.01	-.03	-.05*	-.09**	-
6. Age	38.29	13.78	-.04*	-.15***	-.22***	-.17***	.10***

Note: Lowest and highest Cronbach's alphas are reported on the diagonal in italics; for gender, female was coded 1 and male 2; * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3
Fit indices for the satisfaction with life scale, the pleasure orientation to happiness scale, the meaning orientation to happiness scale, and the spirituality orientation to happiness by country.

	Satorra–Bentler χ^2	df	Scale correction	Robust CFI	Robust TLI	Robust SRMR
Life satisfaction						
1. Australia	10.98	5	1.29	0.99	0.98	0.03
2. Brazil	2.45	5	1.44	1.00	1.01	0.01
3. China	11.48	5	1.38	0.99	0.97	0.03
4. France	9.52	5	1.66	0.99	0.97	0.03
5. Germany	19.24	5	2.01	0.96	0.91	0.04
6. India	10.92	5	1.04	0.99	0.98	0.02
7. Nigeria	46.97	5	1.29	0.87	0.74	0.07
8. Russia	12.42	5	1.12	0.99	0.97	0.02
9. South Africa	8.70	5	1.25	0.99	0.98	0.02
10. Sweden	13.03	5	1.61	0.98	0.96	0.03
11. UAE	12.71	5	1.68	0.97	0.95	0.04
12. US	11.74	5	1.55	0.99	0.97	0.03
Pleasure						
1. Australia	21.41	9	1.52	0.95	0.92	0.04
2. Brazil	11.75	9	1.53	0.99	0.98	0.03
3. China	28.26	9	1.77	0.87	0.78	0.07
4. France	16.42	9	1.54	0.98	0.96	0.03
5. Germany	39.64	9	1.41	0.83	0.72	0.07
6. India	21.43	9	1.59	0.94	0.90	0.05
7. Nigeria	19.84	9	1.79	0.96	0.93	0.04
8. Russia	12.60	9	1.63	0.99	0.98	0.03
9. South Africa	13.42	9	1.38	0.99	0.98	0.03
10. Sweden	23.47	9	1.28	0.95	0.92	0.04
11. UAE	39.51	9	1.41	0.89	0.81	0.06
12. US	23.37	9	1.24	0.96	0.93	0.04
Meaning						
1. Australia	49.57	9	1.51	0.88	0.80	0.07
2. Brazil	51.91	9	1.67	0.85	0.74	0.08
3. China	26.26	9	2.04	0.92	0.86	0.05
4. France	34.22	9	1.37	0.89	0.81	0.06
5. Germany	86.80	9	1.21	0.82	0.71	0.12
6. India	23.48	9	1.84	0.92	0.87	0.05
7. Nigeria	39.84	9	1.53	0.88	0.80	0.06
8. Russia	23.79	9	1.65	0.94	0.90	0.06
9. South Africa	59.53	9	1.70	0.85	0.75	0.07
10. Sweden	77.43	9	1.36	0.78	0.63	0.09
11. UAE	46.76	9	1.48	0.85	0.76	0.07
12. US	56.17	9	1.45	0.89	0.82	0.06

Spirituality

1. Australia	16.64	2	1.59	0.98	0.93	0.03
2. Brazil	18.54	2	2.66	0.95	0.85	0.05
3. China	11.59	2	2.11	0.95	0.85	0.06
4. France	27.80	2	1.63	0.93	0.80	0.06
5. Germany	5.53	2	1.92	0.99	0.97	0.03
6. India	4.57	2	2.75	0.98	0.95	0.03
7. Nigeria	10.95	2	2.55	0.94	0.81	0.05
8. Russia	9.82	2	1.48	0.98	0.95	0.02
9. South Africa	32.72	2	1.62	0.94	0.81	0.06
10. Sweden	50.01	2	1.80	0.89	0.67	0.08
11. UAE	5.34	2	1.57	0.99	0.97	0.02
12. US	35.54	2	1.27	0.96	0.88	0.04

Table 4

Fit indices for the meaning orientation to happiness scale by country.

	Satorra–Bentler χ²	*df*	Scale correction	Robust CFI	Robust TLI	Robust SRMR
Meaning (without Item 6)						
1. Australia	34.19	5	1.55	0.90	0.80	0.07
2. Brazil	35.76	5	1.93	0.86	0.73	0.08
3. China	18.78	5	1.97	0.92	0.84	0.05
4. France	13.27	5	1.39	0.95	0.90	0.04
5. Germany	58.97	5	1.21	0.87	0.73	0.10
6. India	19.83	5	1.72	0.91	0.81	0.06
7. Nigeria	23.50	5	1.69	0.91	0.81	0.06
8. Russia	7.08	5	2.00	0.99	0.98	0.03
9. South Africa	41.63	5	1.99	0.86	0.72	0.07
10. Sweden	51.39	5	1.27	0.83	0.66	0.08
11. UAE	44.14	5	1.50	0.84	0.67	0.08
12. US	54.79	5	1.35	0.87	0.75	0.07
Meaning (without Item 6 and Item 2)						
1. Australia	17.76	2	1.72	0.89	0.66	0.06
2. Brazil	0.33	2	2.24	1.00	1.05	0.01
3. China	7.68	2	1.17	0.97	0.92	0.03
4. France	1.33	2	1.25	1.00	1.02	0.01
5. Germany	0.51	2	1.38	1.00	1.03	0.01
6. India	2.34	2	2.00	1.00	0.99	0.02
7. Nigeria	4.60	2	1.95	0.98	0.93	0.03
8. Russia	0.44	2	2.11	1.00	1.03	0.01
9. South Africa	5.63	2	1.37	0.98	0.95	0.02
10. Sweden	1.37	2	1.18	1.00	1.01	0.01
11. UAE	4.09	2	1.85	0.98	0.94	0.03
12. US	7.10	2	0.95	0.98	0.95	0.02

Table 5

Approximate measurement invariance (non-invariance) for the satisfaction with life scale for countries.

Item	Invariance (non-invariance) for countries
Factor loadings	
LS1	UAE AU BR CN DE FR IN NG RU SE US ZA
LS2	UAE AU BR CN DE FR IN NG RU SE US ZA
LS3	UAE AU BR CN DE FR IN NG RU SE US ZA
LS4	UAE AU BR CN DE FR IN NG RU SE US ZA
LS5	UAE AU BR CN DE FR IN NG RU SE US ZA
Intercepts	
LS1	(UAE) AU BR CN DE FR IN (NG) (RU) (SE) US (ZA)
LS2	UAE AU BR CN (DE) FR IN (NG) (RU) SE US ZA
LS3	UAE AU BR CN DE FR IN NG RU SE US ZA
LS4	(UAE) AU BR CN DE FR IN (NG) (RU) SE US ZA
LS5	UAE (AU) BR CN DE FR IN (NG) RU SE US ZA

Note: LS = life satisfaction; AU = Australia; BR = Brazil; CN = China; DE = Germany; FR = France; IN = India; NG = Nigeria; RU = Russia; SE = Sweden; US = United States; ZA = South Africa.

Table 6

Latent means and standard deviations for the measures of satisfaction with life, pleasure, meaning, and spirituality per country.

| Country	Life satisfaction		Pleasure		Meaning		Spirituality	
	Latent mean	Latent SD	Latent mean	Latent SD	Latent mean	Latent SD	Latent mean	Latent SD
1. Australia	-0.23	1.07	-0.49	0.98	-0.55	1.00	-0.71	1.17
2. Brazil	0.23	1.13	0.37	0.98	0.36	1.20	0.64	1.13
3. China	0.01	0.91	0.02	0.99	0.06	0.92	-0.26	0.97
4. France	-0.25	0.96	0.04	1.00	-0.55	1.01	-0.76	1.14
5. Germany	-0.18	1.00	-0.25	0.85	-0.35	0.92	-1.14	1.13
6. India	0.64	0.91	0.51	0.88	0.47	0.91	0.88	0.86
7. Nigeria	0.05	0.90	0.08	1.16	1.02	0.79	1.30	0.49
8. Russia	-0.11	1.01	-0.29	1.17	-0.37	1.10	-0.35	1.08
9. South Africa	-0.07	0.99	0.07	1.00	-0.01	1.09	0.60	1.16
10. Sweden	-0.31	1.15	-0.10	0.95	-0.37	1.09	-1.09	1.08
11. UAE	0.36	0.95	0.19	1.07	0.39	0.92	0.96	0.84
12. US	-0.13	1.07	-0.15	1.02	-0.11	1.15	-0.06	1.27
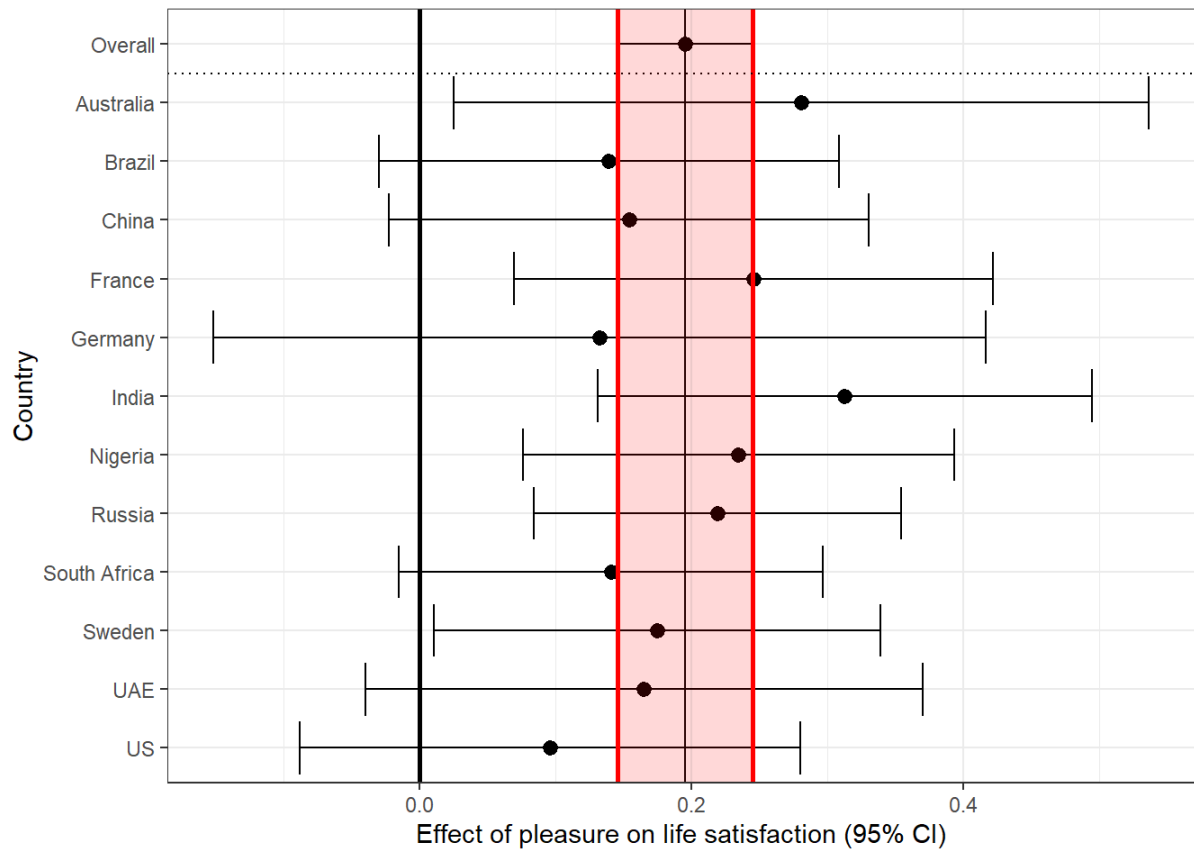
Fig. 1. Effect of pleasure on life satisfaction by country.

Note: The overall effect is represented by the thin black line, and the 95% CIs of the overall effect are represented by the red vertical lines and the red shaded area. The specific effects by country are illustrated by the black dots with their 95% CI.
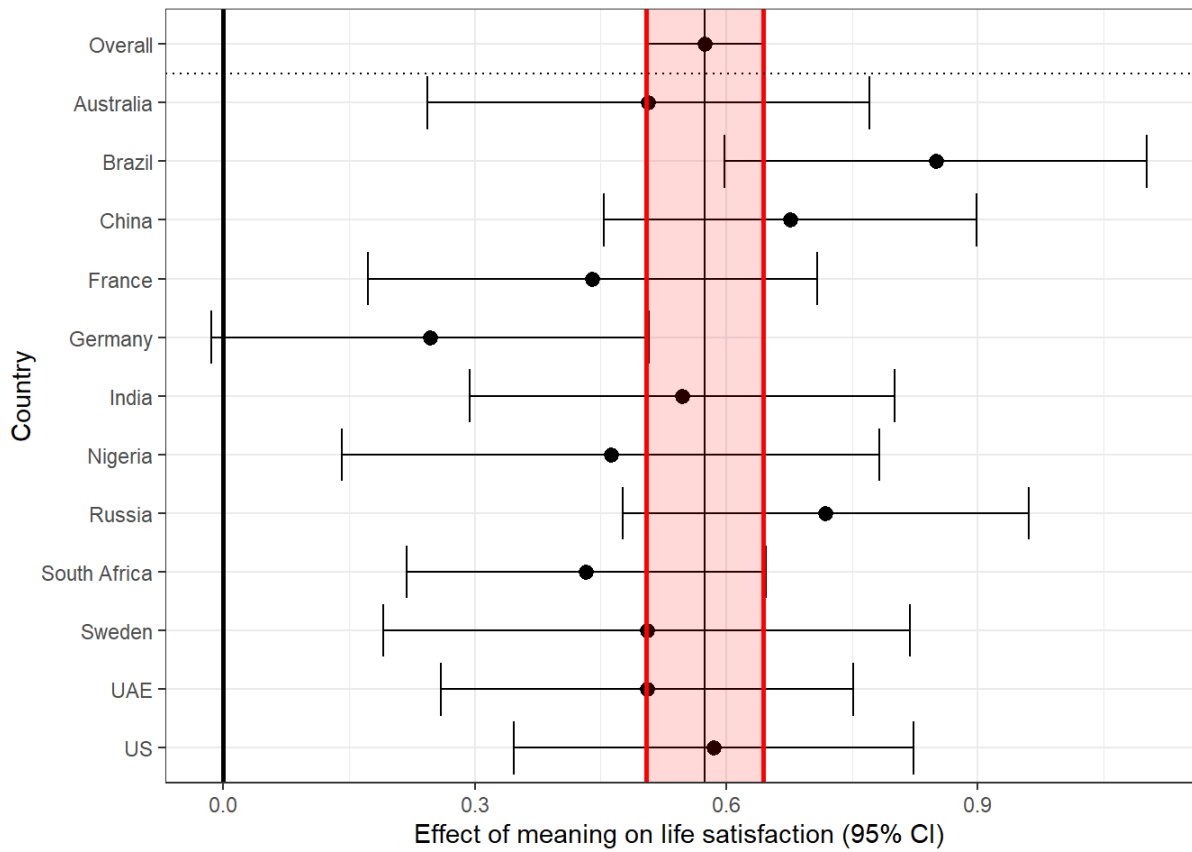
Fig. 2. Effect of meaning on life satisfaction by country.

Note: The overall effect is represented by the thin black line, and the 95% CIs of the overall effect are represented by the red vertical lines and the red shaded area. The specific effects by country are illustrated by the black dots with their 95% CI.
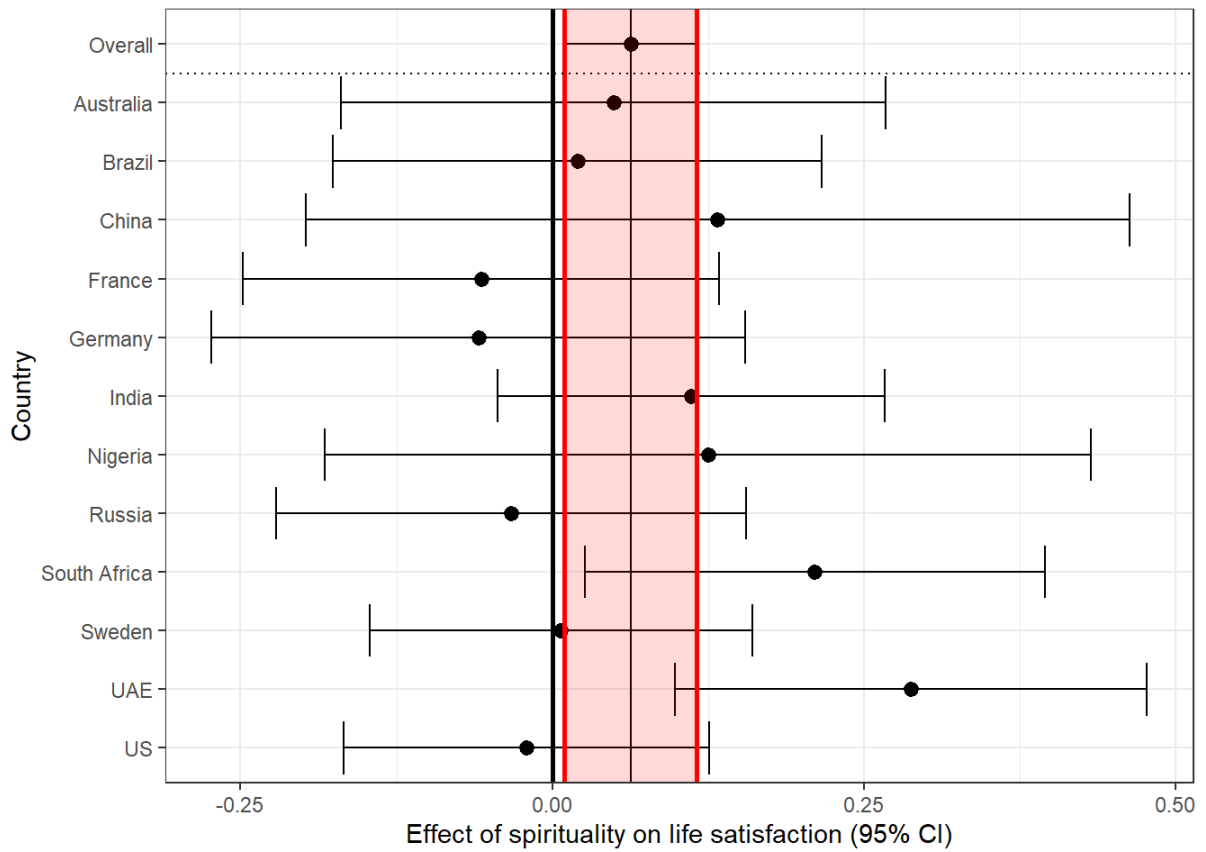
Fig. 3. Effect of spirituality on life satisfaction by country.

Note: The overall effect is represented by the thin black line, and the 95% CIs of the overall effect are represented by the red vertical lines and the red shaded area. The specific effects by country are illustrated by the black dots with their 95% CI.