

Desired Emotions across Cultures: A Value-Based Account

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Abstract

Values reflect how people want to experience the world; emotions reflect how people actually experience the world. Therefore, we propose that across cultures people desire emotions that are consistent with their values. Whereas prior research focused on the desirability of specific affective states or one or two target emotions, we offer a broader account of desired emotions. After reporting initial evidence for the potential causal effects of values on desired emotions in a preliminary study ($N = 200$), we tested the predictions of our proposed model in eight samples ($N = 2,328$) from distinct world cultural regions. Across cultural samples, we found that people who endorsed values of self-transcendence (e.g., benevolence) wanted to feel more empathy and compassion; people who endorsed values of self-enhancement (e.g., power) wanted to feel more anger and pride; people who endorsed values of openness to change (e.g., self-direction) wanted to feel more interest and excitement; and people who endorsed values of conservation (e.g., tradition) wanted to feel more calmness and less fear. These patterns were independent of differences in emotional experience. We discuss the implications of our value-based account of desired emotions for understanding emotion regulation, culture, and other individual differences.

Keywords: Emotion; Emotion regulation; Motivation; Values; Culture

Desired Emotions across Cultures: A Value-Based Account

Emotions are among the most powerful of human experiences. They inform us about our state in the world, they propel us to take action, and they influence our interactions with others (e.g., Barrett, 2012; Ekman & Davidson, 1994; Ellsworth & Scherer, 2003; Frijda, 1986). It is not surprising, therefore, that emotions themselves can be the object of desire (e.g., Eid & Diener, 2001; Izard, 1971; Tamir, 2015). The emotions people desire, in turn, can determine the direction in which people regulate their emotions, and ultimately influence how people feel (e.g., Millgram, Joormann, Huppert, & Tamir, 2015; Tamir, Bigman, Rhodes, Salerno, & Schreier, 2015). It is important, therefore, to understand what underlies the desirability of emotions. In this investigation, we suggest that across cultures people desire emotions that are consistent with their core values.

The Desirability of Emotions and Other Affective States

Acts of self-regulation are directed toward desired end states (e.g., Carver & Scheier, 2000; Kruglanski, Shah, Fishbach, Friedman, Chun, & Sleeth-Keppler, 2002). Therefore, it is important to identify which states are desired and why (e.g., Gollwitzer, Kappes, & Oettingen, 2012; Moskowitz & Grant, 2009). Much of the research on desired end states has focused on objective states (e.g., world peace) or behavioral outcomes (e.g., weight loss). Yet desired end states also refer to phenomenological states, such as affect (e.g., feeling good) and emotions (e.g., feeling happy).

The desirability of states derives, in part, from their instrumental value (e.g., Higgins, 2006). The desirability of pleasure is partly derived from its primary role in signaling need satisfaction (e.g., Cabanac, 1992; Carver & Scheier, 1998; Higgins, 2014). The desirability of

arousal derives in part from its role in mobilizing action (e.g., Eysenck, 1967; Geen, 1984; Zuckerman, 1983). Given that emotions involve pleasure and arousal, the desirability of emotions may be derived from the pleasure and arousal that comprise them. For instance, pleasant emotions are desirable, in part, because pleasure is desirable.

Emotions, however, are more than combinations of pleasure and arousal (e.g., Barrett, 2012; Ellsworth & Scherer, 2003; Frijda, 1986), and have unique instrumental value. They inform people of their state in the world in reference to their complex personal and interpersonal goals (e.g., Arnold, 1960; Clore, 1994; Ekman, 1994; Frijda, 1986; Scherer, 1984). Therefore, it may not be possible to reduce the desirability of emotions to its pleasure and arousal components. Instead, the desirability of emotions might also derive from the extent to which they propel or signal the effective pursuit of goals. According to this account, an unpleasant emotion may be desirable if it promotes goal pursuit, despite the fact that it involves displeasure, which itself is undesirable.

Desired Emotions Within and Across Contexts: Goals vs. Values

The desirability of emotions could be a function of goals that are activated either within or across contexts. Specific contexts dictate a given state of the world and make certain goals more salient than others. Within contexts, therefore, the desirability of emotions may depend on the extent to which they promote the attainment of the salient goal at hand. For example, instructing participants to confront (vs. collaborate) with another in a negotiation increased the temporary desirability of anger (Tamir & Ford, 2012). Such studies demonstrate that within contexts, people desire emotions that are linked to goals that are salient in that context.

Across contexts, however, desired emotions are no longer constrained by a specific state of the world or by specific situational demands. The desirability of emotions across contexts may

depend on how people want to see the world and on the goals they believe should be prioritized. Across contexts, therefore, the desirability of an emotion should increase to the extent that it reflects a desirable state of the world that is consistent with prioritized goals. Personal values reflect such prioritized goals.

Values as an Organizing Framework

Values reflect abstract goals that transcend specific situations, vary in importance, and guide evaluations and behavior of individuals and groups (Schwartz & Bilsky, 1987; Schwartz, 1992). Values reflect preferences for what ideally ought to be. The theory of basic values (Schwartz, 1992) identifies key categories of values that reflect basic requirements of human existence. These values are organized around a circular continuum according to the conflict and compatibility among the motivations they express (Schwartz, 1992; Schwartz et al., 2012).

The theory of basic values has highlighted four higher order categories of values (see Schwartz, 1992; Schwartz et al., 2012). First, values that concern *self-transcendence* reflect a motivation to connect with others and transcend selfish concerns. These values include universalism and benevolence. Second, values that concern *self-enhancement*¹ reflect a motivation to promote self-interests, even at the expense of others. These values include achievement and power. Third, values that concern *openness to change* reflect a general motivation to explore, discover, and approach novelty. These values include self-direction, stimulation, and hedonism. Fourth, values that concern *conservation* reflect a motivation to preserve and protect the status quo. These values include security, tradition, conformity, humility, and face.

¹ Following Schwartz (1992), we refer to self-enhancement as the value of improving and promoting the self. This definition should be distinguished from other available definitions that refer to self-enhancement as the tendency to exaggerate positive aspects of the self relative to one's weaknesses (e.g., Heine, 2003).

These categories of values differ in terms of the content and the direction of the motivational concerns they reflect. In terms of motivational content, self-transcendence and self-enhancement are values that reflect the way people regulate the self (i.e., self-regulating values), whereas openness and conservation are values that reflect the way people regulate change (i.e., change-regulating values). In terms of motivational direction, self-transcendence and openness are values that reflect a preference for active engagement (i.e., engagement values), whereas self-enhancement and conservation are values that reflect a preference for disengagement (i.e., disengagement values; see Schwartz, 1992). Because they represent a motivational continuum, these four categories of values capture key concerns in human motivation. Similar to values, emotions also reflect motivational concerns (e.g., Ellsworth & Scherer, 2003; Frijda, 1986; Roseman, 2001). If certain emotions map on to certain values, the more people endorse a certain value, the more they should desire the emotion that is consistent with it.

Value-Consistent Emotions

Several emotions have been consistently identified with the successful attainment of the target values described above. We compiled prominent examples of such emotions based on a review of functional and appraisal theories of emotion (e.g., Frijda, 1986; Keltner & Gross, 1999). To test the value-based account, our goal was to identify several representative emotions that are particularly relevant to the attainment of each value, rather than to produce a comprehensive list of all potentially relevant emotions. We identified several such candidates based on core themes and proposed functions of emotions, regardless of considerations of valence or arousal. Table 1 presents these examples of value-consistent emotions that we discuss in further detail below.

Emotions that reflect self-transcendence or self-enhancement. Emotions have been linked to key modes of interacting with others (e.g., DeRivera, 1984; Keltner & Haidt, 1999; 2001), varying in the extent to which they signal social engagement vs. disengagement (Kitayama, Markus, & Kurokawa, 2000; Kitayama, Mesquita, & Karasawa, 2006). Several emotions have been linked consistently to self-transcendence. First, love and trust play a primary role in interpersonal attachment. According to Bowlby (1969/1982), love and affection propel close and intimate proximity to others, and trust enables the maintenance of such bonds, when experienced as a source of security (see also Shaver, Hazan, & Bradshaw, 1988; Shaver & Mikulincer, 2006; Sternberg, 1988). Whereas love facilitates attraction and commitment to others, trust facilitates the maintenance of a satisfying relationships based on reciprocal concerns (Holmes & Rempel, 1989).

Relational engagement entails both attachment and caregiving (Bowlby, (1969/1982) and concerns the motivation to provide support and protection to others. Empathy and compassion facilitate caregiving. Indeed, many scholars have argued that empathy (e.g., Batson, 1991; Eisenberg & Miller, 1987; Hoffman, 1982) and compassion (Goetz, Keltner, & Simon-Thomas, 2010) play a crucial role in motivating and facilitating all forms of prosocial behavior. Because love, trust, empathy, and compassion reflect successful self-transcendence, we predicted that the more people endorse self-transcendence values, the more they desire such emotions.

Whereas some emotions are linked to self-transcendence, other emotions are linked to self-enhancement and social disengagement (Kitayama et al., 2000; 2006). Such emotions are those that reflect social dominance, an internal locus of control and high self-control (Scherer, Schorr, & Johnstone, 2001). In particular, pride, anger, and contempt, reflect perceptions of power and dominance, and separate the self from others (e.g., Fischer & Roseman, 2007; Frijda,

1986; Kitayama et al., 2006). Pride reflects personal success and promotes power and social status (Tracy, Weidman, Cheng, & Martens, 2014). Pride promotes self-esteem and propels further achievements (e.g., Tangney, 1999; Tracy & Robins, 2007). Consistent with our analysis, some have proposed that the functions of pride are opposite to those of compassion (Oveis, Horberg, & Keltner, 2010). Whereas compassion motivates caretaking behavior, pride promotes establishing and maintaining power hierarchies.

Unlike pride, anger arises in response to an actual or impending offense by others. Yet, like pride, anger reflects the belief that one has the ability to control such offenses and it serves to facilitate the restoration of power and dominance (e.g., Frijda, 1986; 1993; Frijda & Mesquita, 1994; Roseman, 2001; Scherer, 1984). Perhaps more than any other emotion, anger as well as hostility motivate the active restoration of power and control (de Wall, 1982). Because pride and anger reflect successful self-enhancement, we predicted that the more people endorse self-enhancement values, the more they desire such emotions.

Emotions that reflect openness to change or conservation. Emotions also vary in the extent to which they reflect successful engagement with desired stimuli vs. disengagement from undesired stimuli (e.g., Carver & Scheier, 1998; Higgins, 1987; Roseman, 2001). Two types of emotions have been linked consistently to distinct stages of openness to change. Emotions such as interest and curiosity motivate exploration and seeking of novel stimuli (for a review, see Silvia, 2008). According to Frijda (1986), curiosity reflects openness and orients people toward novelty, enabling them to identify potential rewards. Once rewards are identified, emotions such as excitement and enthusiasm propel active engagement with them. The role of excitement in approach behavior has been demonstrated empirically both at the behavioral and at the neurological levels (e.g., Carver, 2003; Carver & Scheier, 2000; Frijda, 1986; Harmon-Jones,

Price, Gable, & Peterson, 2014; Higgins, 1987; Knutson & Wimmer, 2007; Roseman, 1984).

Because emotions such as interest and excitement signal openness, we predicted that the more people endorse openness values, the more they desire such emotions.

Emotions are similarly linked to conservation. In particular, emotions such as calmness and relief reflect the successful avoidance of potential threats and promote inaction (e.g., Carver, 2003; Carver & Scheier, 1998; Frijda, 1986; Roseman, 2001). Because emotions such as calmness and relief promote the conservation of a desired state (i.e., successful avoidance of threats), we predicted that the more people endorse conservation values, the more they desire such emotions.

Whereas emotions such as excitement and calmness reflect success in engaging with rewards and disengaging with threats, respectively, other emotions reflect failure. In particular, emotions such as sadness and despair reflect failure in engaging with desirable outcomes, and emotions such as fear and anxiety reflect failure in disengaging from undesirable outcomes (e.g., Carver & Scheier, 1998; Higgins, 1987; Roseman, 2001). We propose that the more people endorse certain values, the more they should desire emotions that are consistent with them. In addition, the more people endorse certain values, the less they should desire emotions that are inconsistent with them. For instance, people who endorse openness to change may want to avoid sadness even more than others do, whereas people who endorse conservation may want to avoid fear even more than others do. Our investigation tested these possibilities.

The Importance of a Value-Based Account of Desired Emotions

Our theoretical account extends existing research on desired affect. For example, Jeanne Tsai and her colleagues examined ideal affective states across cultures. They found that European Americans valued high-arousal positive states (e.g., excitement) more and low-arousal

positive states (e.g., calmness) less than Chinese participants did (e.g., Tsai, Knutson, & Fung, 2006). They further showed that these differences were linked both within and across cultures to the relative importance of the goal of influencing vs. adjusting to others, respectively (Tsai, Miao, Seppala, Fung, & Yeung, 2007).

These findings are consistent with our proposed framework, to the extent that influencing others reflects openness to change and adjusting to others reflects conservation (for partial support of this mapping, see Tsai et al., 2006). However, our framework extends such research in several important ways. First, such prior research focused on affective states rather than emotions. Our framework accounts for the desirability of discrete emotions, in particular. Second, prior research focused on two specific affective states and two corresponding goals. In contrast, by encompassing the entire range of core values, our framework accounts for the universe of higher-order goals and identifies a range of theoretically-consistent emotions to study.

Third, by focusing on associations between core values and emotions, our account can potentially explain both similarities and differences across cultures. Given that the nature and structure of core values are consistent across cultures, the associations between values and desired emotions should be consistent across cultures. However, given that the relative importance of values varies across cultures, our framework could potentially explain differences in the desirability of emotions between cultures. Finally, because values can be studied in any cultural context, our framework is not limited to a comparison of individualistic vs. collectivistic cultures, but instead can be applied in any cross-cultural context.

Our account also builds on a prior investigation that tested associations between values and actual experiences of discrete emotions in a sample of Dutch undergraduates (Nelissen,

Dijker, & De Vries, 2007). The focus in that investigation was on experienced rather than desired emotions. Nonetheless, consistent with our proposed account, they found significant positive associations between values that reflect openness to change (i.e., stimulation and self-direction) and experiences of interest and excitement, and between values that reflect self-enhancement (i.e., power and achievement) and the experience of anger and pride. The current investigation extends this research by developing a value-based account of desired, rather than experienced, emotions. To ensure that links between values and experienced emotions do not drive links between corresponding values and desired emotions, we assessed and controlled for emotional experiences.

To establish the plausibility of our account, we conducted a preliminary study in which we tested whether values can change the desirability of value-consistent emotions. In our main study, we tested the key predictions of our account in a comprehensive cross-cultural study, where we assessed potential links between each of the four value categories and the corresponding categories of value-consistent emotions, as shown in Table 1. We predicted that: (1) the more people endorse self-transcendence values, the more they desire emotions such as love and empathy, (2) the more people endorse self-enhancement, the more they desire emotions such as pride, but also anger and contempt, (3) the more people endorse openness values, the more they desire emotions such as interest and excitement, and the less they desire emotions such as sadness, and (4) the more people endorse conservation values, the more they desire emotions such as calmness and relaxation, and the less they desire emotions such as fear. We expected the predicted associations between values and desired emotions to persist when controlling for emotional experiences.

Preliminary Study

The study was designed to test whether values could exert a causal effect on desired emotions. To this end, we manipulated the salience of each of the four key value categories and assessed their subsequent effects on desired emotions. To manipulate values, we followed one of the validated procedures developed by Arieli, Grant, and Sagiv (2014) to increase the importance of benevolence. The procedure entailed writing a persuasive essay to convince a panel of reviewers of the importance of benevolence-related attributes. They found that considering and advocating the importance of benevolence led people to value it more. In the Preliminary Study, therefore, we assigned participants to write essays to persuade others of the importance of attributes related to either self-transcendence, self-enhancement, openness to change, or conservation. We expected our manipulations to increase the desirability of emotions that are consistent with these values (i.e., trust, anger, excitement, and fear, respectively).

Methods

Participants. Participants were 200 Americans (54.5% male, $M_{\text{age}} = 22.51$)², who were recruited through Amazon's Mechanical Turk. Participants were native English-speakers, who received \$1.50 for their participation.

Procedure. Participants were told that the study examined factors that influence persuasive writing. Participants were asked to write an essay to convince other participants of the importance of certain goals. They were told that these goals would be selected for them at random from a list of goals that previous participants had identified as personally relevant. They

² Three additional participants had zero variation in their responses and were, therefore, omitted from the analyses.

were instructed to write why the target goal should be important to others as well as why it is personally important to them.

Participants in the self-transcendence condition were instructed to write about the importance of being *tolerant, generous, cooperative, and helpful*. Participants in the self-enhancement condition were instructed to write about the importance of being *influential, wealthy, dominant, and powerful*. Participants in the openness to change condition were instructed to write about the importance of being *creative, independent, adventurous, and daring*. Finally, participants in the conservation condition were instructed to write about the importance of being *stable, obedient, careful, and respectful*.

Participants had 5 minutes to write the essay. They were then asked to what extent they wanted to experience trust, anger, fear, and excitement (1 = very little or not at all, 5 = extremely). The emotions were presented in a random order. Participants indicated how difficult it was for them to demonstrate the personal importance of the target goal, and how persuasive they consider their essay to be (1 = not at all, 5 = very). Participants then rated the extent to which they currently felt trust, anger, fear, and excitement (1 = very little or not at all, 5 = extremely), with the items presented in a random order. Finally, participants provided demographic information, were probed for suspicion, and debriefed.

Results and Discussion

Participants did not find it difficult to write about the personal significance of the values assigned to them (M s ranged from 2.54-2.80) and considered their essays to be moderately persuasive (M s ranged from 3.10-3.47). Ratings of difficulty and persuasiveness did not differ by condition, F s < 2.0. Only one participant suspected the true purpose of the study, but results remained unchanged when we omitted this participant from the analysis.

To test whether our manipulation of values influenced desired emotions, we conducted a repeated-measures ANOVA, with Emotion (trust, anger, excitement, and fear) as a within-subject variable, Condition (self-transcendence, self-enhancement, openness, conservation) and gender as between-subjects variables, and age as a covariate. As predicted, the Emotion x Condition interaction was significant, $F(9, 573) = 2.04, p = .034, \eta^2 = .031$. Figure 1 presents the means of desired emotions in each condition. Follow-up tests of simple effects indicated that, as predicted, self-transcendence increased the desirability of trust, compared to self-enhancement, $p = .014, CI_{.95} [.115, 1.025]$, openness, $p = .007, CI_{.95} [.168, 1.070]$, and conservation, $p = .039, CI_{.95} [.025, .954]$. In addition, as predicted, self-enhancement increased the desirability of anger, compared to self-transcendence, $p = .020, CI_{.95} [.060, .678]$, openness, $p = .097, CI_{.95} [-.046, .554]$ (albeit marginally so), and conservation, $p = .040, CI_{.95} [.016, .626]$. Our hypotheses regarding openness and conservation received less support. Consistent with our view of conservation, the desirability of fear was the lowest among participants in the conservation condition, and significantly lower than the self-enhancement condition, $p = .021, CI_{.95} [-.781, -.063]$. This difference, however, could have resulted from either conservation or self-enhancement and the other comparisons were not significant, $ps > .20$. Finally, our manipulations did not influence the desirability of excitement, $ps > .64$.

Our analysis also yielded a significant Emotion x Gender interaction, $F(3, 189) = 2.71, p = .045, \eta^2 = .014$. Follow-up tests indicated that, on average, men found anger more desirable than women did ($M_s = 1.47$ and 1.23 , respectively), $F(1, 191) = 4.57, p = .034, \eta^2 = .023$. No other effects were significant, $F_s < 1.60$. We repeated the above analysis using experienced, rather than desired, emotions as dependent variables. The Emotion x Condition interaction was

not significant, $F < 1.39$, suggesting that potential effects on experienced emotions did not underlie the effects of values on desired emotions.

Taken together, our findings provide initial evidence for the causal role of values in shaping the desirability of value-consistent emotions. Leading people to value self-transcendence increased the desirability of trust, whereas leading people to value self-enhancement increased the desirability of anger. Our hypotheses were not supported with respect to conservation and openness. Given that the manipulation we used was originally developed to change self-regulating values, it may have been less effective in influencing change-regulating values. Nonetheless, our findings demonstrate that, at least in some cases, values can increase the desirability of value-consistent emotions.

Main Study

Our main study was designed to provide a comprehensive, cross-cultural test of the value-based account of desired emotions. We expected that even outside the laboratory, the more people endorse certain values, the more they would desire emotions that are consistent with them. We expected such patterns of associations to be largely consistent across cultures, despite the fact that cultures differ in the values their members prioritize (Schwartz, 2006) and in the emotions they desire (e.g., Tsai et al., 2006). We base our expectation on the consistency of the structure of values across cultures (e.g., Schwartz, 1992; Schwartz et al., 2012) and on the assumption that there is likely a universal tendency for individuals to desire emotions that promote their goal pursuit.

To assess whether the hypothesized relations between values and desired emotions hold across cultures, we tested our predictions in culturally diverse samples. Schwartz (2006) and Inglehart and Baker (2000) independently identified eight distinct regions around the world that

differ in their prevailing cultural values. These regions include West European, Anglo, East-Central European, Orthodox Eastern Europe, South and South-East Asian, Middle East and Sub-Saharan African, Confucian, and Latin American. Following recommendations for cross-cultural research, we sampled countries from these cultural regions.

Methods

Participants. Participants from eight countries (i.e., United States, Brazil, China, Germany, Ghana, Israel, Poland, and Singapore) participated in the study, representing seven of the distinct world cultural regions (i.e., Anglo, Latin American, Confucian, West European, Sub-Saharan African, East Central European, and South-Asian). Table 2 presents the characteristics of each sample. The entire sample included 2,324 undergraduate students (57.5% female, $M_{\text{age}} = 22.47$), who received monetary compensation (equivalent to \$3-\$5) or course credit for their participation.

Procedure. Participants completed the study in their native language or in their formal language of instruction either online or in writing (see Table 2). For non-English versions, we carried out iterations of translation and back-translation by independent bilinguals until we obtained satisfactory versions. Separate gender-matched versions of the survey were used in those languages that distinguish gender. After giving consent, participants completed the values scale, and rated desired emotions. At this point, to minimize carryover effects, participants completed an unrelated task for approximately five minutes. Specifically, they were given three neutral words (e.g., geography), and were asked to create as many new words as they could from the letters in each word (e.g., graph, go, ray). After completing the filler task, participants rated experienced emotions. They then completed several additional questionnaires that are beyond the scope of the current investigation. Finally, participants provided demographic information.

Materials.

Values. Values were assessed using the Portrait Values Questionnaire - Revised (PVQ-R; Schwartz et al., 2012). The PVQ-R includes 57 items that assess 19 distinct values. With respect to each item, participants rated the extent to which the person described is or is not like them. Responses included ‘not like me at all’ (later coded as 1), ‘not like me’, ‘a little like me’, ‘moderately like me’, ‘like me’, and ‘very much like me (later coded as 6). All items refer to desired attributes and ideal states of the world (e.g., “*It is important to her that people recognize what she achieves*”) and not to emotional experiences. This measure has good psychometric properties and has been validated in cross-cultural studies (see Schwartz et al., 2012; Schwartz & Butenko, 2014). Following Schwartz and colleagues (2012), to form an index of self-transcendence, we averaged across benevolence-caring, benevolence-dependability, universalism-concern, universalism-nature, and universalism-tolerance values. To form an index of self-enhancement, we averaged across achievement, power-dominance, and power-resources values. To form an index of openness to change, we averaged across self-direction-thought, self-direction-action, stimulation, and hedonism values. Finally, to form an index of conservation, we averaged across security-personal, security-societal, tradition, conformity-rules, conformity-interpersonal, humility, and face values. The scales of the four value categories had reasonable reliabilities (see Table 3 for the Cronbach’s α in each sample).

Desired emotions. Participants rated how often they wanted to experience specific emotions in their daily life. Responses included ‘never’ (later coded as 1), ‘rarely’, ‘sometimes’, ‘often’, and ‘most of the time’ (later coded as 5). Emotion terms were presented to all participants in a pre-determined and fixed random order. We selected the emotion terms for this study following a procedure similar to that outlined by Kitayama and colleagues (2000; 2006).

First, we compiled a list of discrete emotion terms based on a review of the literature (e.g., Frijda, 1986; Ekman, 1972; 1999; Izard & Malatesta, 1987; Lazarus & Lazarus, 1996; Parrott, 2001; Plutchik, 1980; Tomkins, 1962; Watson & Clark, 1994). Second, we analyzed these emotion terms based on their meaning and the function assigned to them in the literature. This procedure led us to identify a total of 26 terms that could map onto different the value categories, as listed in Table 1. Finally, we conducted a series of discussions among bilinguals in English and in the other languages in which we expected to administer the survey (i.e., Portuguese, Chinese, German, Hebrew, and Polish), to confirm that the selected terms have equivalent translations in each of these languages. We averaged across items that correspond to each of the four value categories to form four desired emotions scales (i.e., self-transcending, self-enhancing, opening, and conserving emotions) and two undesired emotions scales (i.e., non-opening and non-conserving). For the sake of simplicity, we refer to these six desired emotion categories as ‘desired emotions’. The internal reliabilities of these scales were reasonable across samples (see Table 3). Participants rated additional emotion terms that were not examined in the current investigation.

Experienced emotions. Participants rated how often they typically experienced specific emotions in their daily lives (1 = never; 5 = most of the time). They rated the same emotion terms that were included in the questionnaire of desired emotions. These emotion terms were presented in a pre-determined and fixed random order, which was different from the order in which items were presented in the questionnaire of desired emotions. As with desired emotions, we averaged across items that correspond to each of the four value categories to form six experienced emotions scales (i.e., self-transcending, self-enhancing, opening, conserving, non-opening, and non-conserving emotions). These scales had reasonable reliabilities (see Table 3).

Analyses.

Measurement equivalence. In order to know whether the analyses examine the same constructs in each culture, it is necessary to assess the cross-cultural equivalence of the measures used (e.g., Fischer & Fontaine, 2011; van de Vijver & Leung, 2011). We followed standard procedures (e.g., Byrne, Shavelson, & Muthen, 1989; Vandenberg & Lance, 2000), using separate multi-group confirmatory factor analyses (MGCFA) to test the measurement equivalence of each higher order value and each emotion index. We used multiple fit indices to evaluate the models, treating Comparative Fit Index (CFI) values $\geq .90$, Root Mean Square Error of Approximation (RMSEA) values $\leq .08$, and the Standardized Root Mean Square Residual (SRMR) values $\leq .06$ (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004) as indicating a reasonable model fit.

First, for each index, we tested and confirmed that all the items loaded on the same latent factor across cultures (i.e., configural invariance). Next, we tested whether the loadings of the items on the latent factor were equal across cultures (i.e., metric invariance). In cases where full metric invariance was not established, we tested for the partial metric invariance. Partial metric invariance requires that at least two loadings per latent variable are equal across groups (Byrne et al., 1989). It is sufficient to justify treating the associations between the value and emotion indices as comparable across the cultural samples. Table 4 presents fit coefficients for models at the level of the partial metric invariance. All the indices but one met at least two of the criteria above. They also met additional criteria that Chen (2007) proposed to assess whether the reduction in fit from configural to metric invariance suggests lack of metric invariance (CFI change $> .01$, supplemented by RMSEA change $> .015$ or SRMR change $> .03$). The only one exception was the desired self-transcending emotions that did not meet the Chen (2007) criteria

because of the Polish data. We chose to include Poland in the multilevel analysis for this emotion category, given the CFI and SRMR values and the inexpediency of dropping a country. Results were virtually unchanged when we excluded Poland from the analyses.³

Multilevel modeling. We postulated that the hypothesized associations would hold across the set of diverse cultural samples. Each individual respondent was nested within one cultural sample. To take the hierarchical structure of the data into account when testing the hypotheses, we conducted multilevel modeling analyses using the Hierarchical Linear Modeling program HLM 7.0 (Raudenbush, Bryk, Cheong, Congdon, & Du Toit., 2011). First, to test the hypothesized effect of values on desired emotions, we ran separate random-coefficients regression models for each desired emotion. We predicted each desired emotion with its corresponding value, controlling for the corresponding experienced emotion, age, and gender by including them as covariates in the level-1 regression model. Next, to assess whether each value predicted its corresponding desired emotion even when controlling for the effects of the other three values, we ran a model for each desired emotion that included all four values as predictors in addition to age and gender. In these analyses, age, the four values, and the four experienced emotions were group-mean centered and gender was grand-mean centered. By running random-coefficient regression models, we were able to assess whether the effects of the level-1 predictors varied across cultural samples. Below is an exemplary level-1 equation for a model that predicts desired emotion with gender, age, the corresponding experienced emotion, and the corresponding value.

$$\text{Desired Emotion}_{ij} = \beta_{0j} + \beta_{1j}\text{Gender} + \beta_{2j}\text{Age} + \beta_{3j}\text{Experienced Emotion} + \beta_{4j}\text{Value} + r_{ij}$$

³ A third level of invariance, scalar invariance, is necessary to justify comparing means across groups. Although we had no hypotheses regarding differences in means across cultural samples, we also tested for scalar invariance. It was not supported.

β_{0j} is the mean level of the desired emotion across groups. The β_{ij} are the average regression coefficients of the predictor variables across groups. r_{ij} is the level-1 residual variance, that is, the individual level variance in the desired emotion that the predictor variables do not explain. In the level-2 model, β_{0j} is the average intercept across groups (γ_{00}) plus the unique increment to the intercept (u_{0j}) associated with group j . Each random coefficient (β_{ij}) is the average regression coefficient across groups (γ_{i0}) plus the unique increment to the coefficient (u_{ij}) associated with group j .

Results and Discussion

Descriptive statistics. Table 5 presents the means and standard deviations of the values, desired emotions, and experienced emotions and the zero-order correlations among these variables across all individuals in the entire sample. Although these correlations do not take the nesting of individuals within groups into account, the tests of the hypotheses with multilevel modeling do. As noted in Footnote 1, the indices of the variables did not demonstrate scalar invariance. Hence, one must view the mean differences between groups as approximate and interpret them with caution.

Figure 2 displays the mean levels of desired emotions within each cultural sample to provide a sense of the relative desirability of the different emotions. Self-enhancing emotions were the least desired in all samples and self-transcending emotions were the most desired in five samples (not in Poland, China, or Israel). The HLM analyses below indicate that the sample means varied significantly across samples for most of the desired emotions. The significant X^2 in the first row under ‘Random effects’ in Tables 6 and 7 indicate this. We cannot confidently

interpret these mean differences, however, because the scaling of the emotions varied somewhat across samples, as indicated by the absence of scalar invariance.

Links between Values and Desired Emotions. Table 6 presents results of the HLM analyses that tested the effect of each value category on the corresponding desired emotion, controlling for the corresponding experienced emotion, age, and gender. The first row of the table presents the overall mean for each emotion across groups. It shows that these means differed significantly from zero. The second row indicates that females desired self-transcending, conserving, and opening emotions more than males did and that males desired self-enhancing emotions more than females did. The third row indicates that age did not relate significantly to the desirability of any of the emotion categories. Gender and age showed the same pattern of effects in the subsequent hypothesis tests. As indicated in the fourth row, the more people experienced a particular emotion, the more they wanted to experience that emotion. The coefficient for the experienced emotion was significant in this row for each of the desired emotions.

The regression coefficients in the fifth row provide the tests of our main hypotheses. In support of our predictions, the more people endorsed self-transcendence values, the more they wanted to experience self-transcending emotions (column 1). The more they endorsed self-enhancement values the more they wanted to experience self-enhancing emotions (column 3). The more they endorsed openness values the more they wanted to experience opening emotions (column 5). Finally, the more they endorsed conservation values the more they wanted to experience conserving emotions (column 7).

The rows under ‘Random effects’ for the predictor variables indicate whether the effects of each of the predictors (slopes) varied across cultural samples. Critical for our expectation that

the associations between values and desired emotions would be consistent across cultures, the effects of values on their corresponding emotions did not vary significantly across cultural groups (row 10). Neither gender nor age effects varied significantly across groups. The effects of the experienced emotions varied significantly across groups for self-enhancing and opening emotions (row 9). Desired self-enhancing emotions were positively and significantly linked to experienced self-enhancing emotions across cultures, but the magnitude of these associations varied, such that slopes ranged from .21 (in Brazil) to .57 (in China). Similarly, desired opening emotions were positively and significantly linked to experienced opening emotions across cultures, with the slopes ranging from .24 (in Israel) to .50 (in China). The last row of Table 6 indicates that the predictor variables explained 33% of the individual level variance in the desire for self-transcending emotions, 22% for self-enhancing emotions, 28% for opening emotions, and 10% for conserving emotions.

Table 7 presents results of the HLM analyses that tested whether each value predicted its corresponding desired emotion even when controlling for the effects of the other three values. As expected, in most cases, the corresponding value remained a significant predictor when the other values were included in the model, and it was the strongest predictor. The only exception involves the prediction of desired conserving emotions. The effect of conservation values became marginally significant when the other values were included in the model. In addition, when all values were included as simultaneous predictors in the model, associations between self-enhancement values and desired self-enhancing emotions varied across cultures, as indicated by a significant random effect. Self-enhancement values were significantly and positively associated with desired self-enhancing emotions across cultures, with slopes varying from .11-.26, except in Ghana, where the association was not significant ($B = -.01, p = .83$). The failure to

replicate the effect in Ghana may be due to specific characteristics of the culture or to methodological limitations (e.g., lower reliabilities within that sample).

Links between Values and Undesired Emotions. We repeated the above analyses using each of the two undesired emotions (i.e., non-opening and non-conserving) as the predicted variables. The four rightmost columns in Table 6 present the results of the HLM analyses that included age, gender, the corresponding emotional experience, and the corresponding value as predictors. As indicated by the regression coefficients in the fifth row, openness values did not significantly predict the desire for non-opening emotions. However, the more people endorsed conserving values the less they wanted to experience non-conserving emotions. The 10th row of Table 6 indicates that effects of openness values on the desire for non-opening emotions varied significantly by culture, ranging from -.23 in China to .02 in Singapore. In contrast, the effects of conservation values on the desire for non-conserving emotions did not vary significantly by culture.

The four rightmost columns in Table 7 present results of the HLM analyses that tested whether openness and conservation values predicted their corresponding undesired emotion even when controlling for the effects of the other three values. Again, openness values were not significantly related to the desire for non-opening emotions, and this association varied significantly by culture. Conservation values, however, were significantly and negatively related to the desire for non-opening emotions. Moreover, conservation remained a significant, and the only, negative predictor of desire for non-conserving emotions when the other values were included in the model. This effect did not vary by culture, as indicated by a non-significant random effect.

General Discussion

Values guide our behavior by pointing to desirable states of the world (Bardi & Schwartz, 2003; Schwartz & Bilsky, 1987; Schwartz, 1992). In this investigation, we demonstrate that values may also guide our emotions by pointing to desirable (and undesirable) states of emotion. Similar to the way basic values set standards for behavior, they may also set standards for emotions. Supporting a value-based account of desired emotions, we found that across eight distinct cultural samples, the more people endorsed values related to self-transcendence the more they wanted love and empathy, the more they endorsed values related to self-enhancement the more they wanted pride but also anger and contempt, the more they endorsed values related to openness to change the more they wanted interest and excitement, and the more they endorsed values related to conservation the more they wanted calmness and the less they wanted fear. These patterns persisted when controlling for differences in emotional experiences and largely held across cultural samples. In a preliminary study, we were further able to provide support for the idea that values might play a causal role in shaping desired emotions.

Desired Emotional States

Researchers have become increasingly interested in understanding what people want to feel. Some focused on identifying what people want to feel in specific contexts, showing that the emotions people want to experience vary as a function of context-dependent goals (e.g., Cameron & Payne, 2011; Tamir & Ford, 2012; Tamir, Mitchell, & Gross, 2008). Others focused on identifying what people want to feel across contexts, showing that members of different cultures desire different affective states that are consistent with culturally valued goals (e.g., Tsai et al., 2006; 2007).

Our framework builds on, but broadens, existing views of desired affect. First, by considering the unique features of emotional states and their core relational themes (e.g., Lazarus, 1991; Mesquita & Ellsworth, 2001), we explain the desirability of emotions, rather than the desirability of states of valence or arousal. Second, by covering the entire circle of values, we offer a framework to explain desired emotions, in general, rather than a theory that accounts for the desirability of one or two particular states.

Third, our framework demonstrates that links between values and desired emotions are not simply a function of arousal levels. For example, although both opening and self-enhancing emotions are high in arousal, they show different (and at times opposite) patterns of association with the same values. Fourth, our framework demonstrates that links between values and desired emotions are also not simply a function of pleasure or displeasure. Self-enhancing emotions, for instance, included both pleasant (i.e., pride) and unpleasant (e.g., anger, contempt) emotions. The link between self-enhancing values and desired emotions, therefore, is not simply a matter of valence.⁴ Although arousal and valence clearly influence the desirability of emotions, our findings demonstrate that they are not sufficient to fully account for it.

Fifth, our findings show that people can desire unpleasant emotions not only when they face immediate situational demands, but also when they consider ideal states of the world. Although preferences for anger, contempt, hatred, and hostility were evidently lower than preferences for more pleasant emotions, there was still substantial and meaningful variation in such preferences. People who endorsed values of self-enhancement wanted to feel these emotions more than others did, potentially because they signal power and dominance.

⁴ The effect of self-enhancement values on self-enhancing emotions replicated when predicting the desirability of pride only.

Finally, prior accounts of desired affect have typically focused on one or two cultural contexts, or on one cultural dimension (i.e., individualism vs. collectivism). Recent research, however, suggests that one cultural dimension may not be sufficient to account for differences in ideal affect (Ruby, Falk, Heine, Villa, & Silberstein, 2012). By focusing on the importance of core values, our account can serve as a framework for formulating diverse predictions about various cultural dimensions and different cultures. Differences in desired emotions across cultures may be linked to the profile of core values that is normative in each culture.

Culturally-Informed Desired Emotional States

Emotions capture meaningful global themes that reflect unique patterns of relations between individuals and their social and non-social environment (e.g., Lazarus, 1991; Mesquita & Ellsworth, 2001). Anger, for instance, reflects the availability of personal resources in the face of the unfair blockage of goals, whereas love reflects proximity to another (Frijda, 1986). Because emotions reflect themes that are relevant to human life, they may be available across cultures, but differ in their relative accessibility, giving rise to systematic cultural variation (e.g., Kitayama et al., 2006; Mesquita, 2010).

Accordingly, our investigation demonstrates both cultural consistency and cultural variation in desired emotions. In terms of cultural consistency, across cultures the endorsement of values was associated with a stronger desire for emotions that reflect value-consistent themes. For instance, the more individuals endorsed values of self-transcendence (e.g., dependability, caring and concern) the more they wanted to experience self-transcending emotions (e.g., empathy, compassion, love). In terms of cultural variation, we found consistent cultural differences in the mean desirability of emotions. For instance, on average, participants in the US desired opening emotions more than conserving emotions, whereas the opposite was the case

among participants in Ghana. Understanding the normative importance of core values in specific cultures may shed light on the desirability of emotional states in those specific cultures.

Emotional affordances refer to the potential of cultures to evoke different sets of emotions as a function of culturally relevant values and beliefs (Markus & Kitayama, 1994; Mesquita, 2010). Our investigation suggests that cultures not only afford different emotional reactions, they may shape these experiences by identifying the emotions that should be desired, in part, as a function of culturally grounded values. Such values encompass the distinction between dependence and interdependence, but go beyond them, and allow a more fine-tuned analysis of cultural variability (Schwartz, 1990).

Value-Based Accounts of Individual Differences in Desired Emotions

Values have been associated with various individual differences, in addition to individualism-collectivism (Schwartz, 1990). To the extent that values underlie other individual differences, our proposed framework can give rise to novel hypotheses regarding links between these individual differences and desired emotions.

For instance, some data suggest that compared to men, women attribute less importance to self-enhancement and greater importance to self-transcendence (Schwartz & Rubel, 2005). Based on our proposed account, one would expect to find gender differences in the desirability of self-enhancing and self-transcending emotions. Consistent with this prediction, we found that compared to men, women wanted to feel less self-enhancing emotions and more self-transcending emotions. Although these differences were consistent with recorded gender differences in self-enhancement and self-transcendence, they were statistically independent of values, suggesting that values may not fully account for the links between gender and desired emotions.

Political ideology has also been linked to differences in value priorities. For instance, some evidence suggests that compared to politically right-oriented individuals, left-oriented individuals endorse self-transcendence values more strongly and self-enhancement values less strongly (Caprara, Schwartz, Capanna, Vecchione & Barbaranelli, 2006; Piurko, Schwartz & Davidov, 2011; Schwartz, Caprara, & Vecchione, 2010). If so, according to our theoretical account, left-oriented individuals may desire more empathy and less anger than their right-oriented counterparts. Recent evidence provides preliminary support for these ideas, showing that compared to right-oriented Israelis, left-oriented Israelis wanted to experience less anger and more empathy toward Palestinians (Porat, Halperin, & Tamir, 2015). A value-based account of desired emotions, therefore, can give rise to testable predictions regarding how people differ from each other in the emotions they want to feel and why.

Undesired Emotional States

Just as people find emotions that are consistent with their values more desirable, they may find emotions that are inconsistent with their values less desirable. We could not identify emotions that people who endorse self-transcendence or self-enhancement values should theoretically be motivated to avoid. However, based on theories of emotion and motivation (e.g., Carver & Scheier, 2000; Higgins, 1987), we expected people who endorse openness to change to be motivated to avoid emotions that reflect failure in achieving openness (e.g., sadness), and people who endorse conservation to be motivated to avoid emotions that reflect failure in achieving conservation (i.e., fear). Our findings provided only partial support for our predictions. First, openness to change values were not significantly linked to the desirability of non-opening emotions such as sadness. Second, although people who endorsed conservation values were less likely to desire non-conserving emotions (e.g., fear), they were also less likely to desire other

unpleasant emotions, both non-opening (e.g., sadness), and self-enhancing (e.g., anger). This suggests that endorsing conservation values may be linked to avoiding unpleasant feelings in general, rather than non-conserving emotions, in particular. Perhaps values, as ideal states of the world, motivate ideal (i.e., desired) states of emotion, rather than undesired states. Future research should identify what underlies undesired emotions, and whether such factors are consistent across cultures.

Limitations and Future Directions

This investigation focused on testing the validity of a value-based account of desired emotions by assessing the associations between the endorsement of values and the desirability of emotions across cultures. Although we were able to provide initial support for the idea that values influence the desirability of emotions in our Preliminary Study, further research is needed to test the causal role that values play in shaping what people want to feel. First, we provided evidence for a causal role of self-transcendence and self-enhancement, but not for openness to change and conservation. Second, we tested the causal role of values in a single cultural context. In the future, it would be important to examine the causal role of all four value categories and the consistency of their effects across cultural contexts. Furthermore, both our studies were conducted on college-age students. Future research should also test whether associations between values and desired emotions are consistent or vary across the lifespan.

Our analysis focused on superordinate, higher order categories of values (i.e., self-transcendence, self-enhancement, openness, and conservation) rather than on more specific basic values (e.g., universalism, stimulation). However, our value-based account offers a framework useful for testing predictions about specific values in each category. For instance, in the future it should be possible to test whether desired emotions differ between specific basic values both

within and across higher order value categories. Focusing on specific values could also lead to predictions regarding other discrete emotions that were not included in the present analyses, such as shame and guilt. Extending the proposed account by looking at specific values or other discrete emotions is an important task for future research.

Finally, we demonstrated that values are linked to the emotions that people want to feel, but also to the emotions people actually feel. One possibility is that values shape emotional experiences either directly or indirectly, by pointing at desired end-states in emotion regulation. Although links between values and desired emotions were independent of emotional experiences in this investigation, whether and how desired emotions impact emotional experiences, and well-being more generally, remains to be tested.

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Table 1. *Value-consistent emotions, as a function of engagement vs. disengagement by self-vs. change-regulating values.*

	<u>Self-regulating values</u>	<u>Change-regulating values</u>
<u>Engagement</u>	<p>Self-transcendence</p> <p>Love Affection Trust Empathy Compassion</p>	<p>Openness to change</p> <p>Interest Curiosity Excitement Enthusiasm Passion</p> <p><i>NOT (Sadness Depression Despair)</i></p>
<u>Disengagement</u>	<p>Self-enhancement</p> <p>Anger Contempt Hostility Hatred Pride</p>	<p>Conservation</p> <p>Calmness Relaxation Relief Contentment</p> <p><i>NOT (Fear Anxiety Nervousness Stress)</i></p>

Table 2. *Sample characteristics.*

Country	<i>N</i>	% female	Language	Age <i>M</i> (<i>SD</i>)	Mode	% Psychology majors
Brazil	653	64	Portuguese	24.35 (5.78)	Online	17
China	213	53	Chinese	20.82 (1.97)	Paper and pencil	53
Germany	200	50	German	25.03 (4.12)	Paper and pencil and online	30
Ghana	207	59	English	22.90 (2.81)	Paper and pencil	46
Israel	248	53	Hebrew	24.21 (2.91)	Online	24
Poland	299	52	Polish	21.72 (1.74)	Paper and pencil	7
Singapore	201	69	English	21.23 (1.83)	Online	12
United States	303	54	English	19.51 (1.80)	Online	34

Table 3. Cronbach α 's of the measures of values, desired emotions, and experienced emotions by cultural sample.

		Brazil	China	Germany	Ghana	Israel	Poland	Singapore	USA
Values	Self-transcendence	.65	.74	.72	.78	.71	.80	.76	.75
	Self-enhancement	.72	.74	.72	.56	.75	.69	.78	.64
	Openness	.70	.71	.67	.70	.68	.70	.70	.73
	Conservation	.72	.77	.75	.75	.80	.79	.81	.72
Desired emotions	Self-transcending	.56	.40	.64	.44	.66	.36	.70	.72
	Self-enhancing	.46	.67	.52	.36	.54	.58	.59	.46
	Opening	.59	.76	.60	.50	.66	.68	.78	.77
	Conserving	.47	.60	.50	.54	.54	.59	.56	.55
	(Non-opening)	.64	.80	.55	.53	.64	.59	.74	.74
	(Non-conserving)	.69	.77	.67	.67	.72	.77	.80	.83
Experienced emotions	Self-transcending	.69	.45	.67	.62	.68	.35	.77	.76
	Self-enhancing	.69	.68	.57	.40	.63	.71	.68	.64
	Opening	.69	.77	.67	.54	.73	.73	.82	.76
	Conserving	.61	.62	.74	.55	.73	.62	.73	.64
	(Non-opening)	.75	.55	.83	.64	.76	.70	.73	.77
	(Non-conserving)	.76	.66	.75	.69	.76	.74	.76	.76

Table 4. *Fit indices from multi-group confirmatory factor analyses for assessing the partial metric measurement invariance of the values and emotions across eight cultural groups*

Variable	Fit indices				
	χ^2	df	CFI	RMSEA	SRMR
<i>Values</i>					
Self-transcendence	1062.65	608	.952	.050 [.045-.055]	.065
Self-enhancement	547.85	195	.936	.077 [.071-.086]	.067
Openness	891.70	360	.902	.070 [.064-.075]	.074
Conservation	2103.29	1120	.920	.054 [.050-.057]	.063
<i>Desired emotions</i>					
Self-transcending	130.50	34	.910	.097 [.079-.115]	.070
Self-enhancing	147.50	52	.924	.078 [.063-.093]	.048
Opening	49.45	40	.991	.028 [.000-.051]	.046
Conserving	39.69	26	.974	.042 [.008-.066]	.045
(Non-opening)	3.82	6	1.00	.000 [.000-.057]	.019
(Non-conserving)	34.01	19	.986	.051 [.021-.078]	.040
<i>Experienced emotions</i>					
Self-transcending	79.17	34	.964	.066 [.047-.085]	.050
Self-enhancing	84.36	47	.974	.051 [.033-.069]	.048
Opening	66.18	46	.986	.038 [.013-.057]	.048
Conserving	22.49	13	.988	.049 [.004-.082]	.048
(Non-opening)	8.11	6	.988	.034 [.000-.087]	.031
(Non-conserving)	22.15	17	.998	.023 [.000-.058]	.036

Note. Information about items released in partial metric are available upon request from authors.

Table 5. Zero-order correlations among the values, desired emotions, and experienced emotions across all individuals in the entire sample (N = 2,328)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	<i>M</i>	<i>SD</i>
<i>Values</i>																	
1. Self-transcendence	.02	.47**	.52**	.39**	-.21**	.27**	.23**	-.14**	-.12**	.42**	-.12**	.27**	.19**	-.004	.05	4.72	.66
2. Self-enhancement		.36**	.27**	.003	.21**	.17**	.07*	-.01	.03	-.001	.22**	.14**	.03	.01	.04	3.63	.86
3. Openness			.19**	.19**	.009	.37**	.19**	-.09	-.02	.18**	.07*	.35**	.14**	-.01	.06*	4.68	.64
4. Conservation				.21**	-.15**	.08**	.17**	-.11**	-.11**	.25**	-.12**	.14**	.20**	-.07*	.003	4.18	.69
<i>Desired emotions</i>																	
5. Self-transcending					-.17**	.47**	.39**	-.20**	-.16**	.59**	-.04	.26**	.16**	.03	.10**	4.06	.62
6. Self-enhancing						-.02	-.20**	.49**	.50**	-.12**	.40**	.02	-.05	.15**	.11**	1.90	.50
7. Opening							.38**	-.23**	-.11**	.31**	.05	.46**	.16**	-.01	.09**	4.05	.56
8. Conserving								-.32**	-.31**	.24**	.002	.19**	.23**	.01	.07*	4.08	.57
9. (Non-opening)									.62**	-.10**	.18**	-.05	-.06*	.22**	.06*	1.45	.54
10. (Non-conserving)										-.03	.15**	.05	-.007	.09**	.09**	1.83	.64
<i>Experienced emotions</i>																	
11. Self-transcending											-.14**	.54**	.42**	-.17**	-.08**	3.53	.62
12. Self-enhancing												-.04	-.20**	.48**	.41**	2.33	.56
13. Opening													.46**	-.22**	-.12**	3.46	.58
14. Conserving														-.41**	-.41**	3.25	.60
15. (Non-opening)															.61**	2.34	.74
16. (Non-conserving)																2.95	.72

* $p < .01$, ** $p < .001$

Table 6. *Multilevel models explaining desired emotions by the corresponding value, controlling for gender, age, and emotional experience*

	Desired Emotions						Undesired Emotions					
	Self-Transcending		Self-Enhancing		Opening		Conserving		Non-opening		Non-conserving	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
<i>Fixed effects</i>												
Overall emotion mean	4.05***	.12	1.92***	.02	4.05***	.05	4.09***	.05	1.47***	.05	1.86***	.06
Gender slope	.09**	.02	-.11**	.02	.07*	.03	.15***	.03	-.14**	.03	-.14**	.03
Age slope	.001	.005	.006	.003	-.0006	.004	-.005	.007	.003	.006	.01	.008
Experienced emotion slope	.42***	.02	.36***	.04	.35***	.03	.22***	.03	.22**	.05	.14**	.04
Value slope	.15***	.02	.08**	.02	.21***	.02	.11**	.03	-.06	.03	-.09**	.02
<i>Random effects</i>												
	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>
Culture sample mean	.12	1095.58***	.004	51.14***	.02	167.68***	.02	102.85***	.02	154.91***	.03	149.42***
Gender slope	.0004	6.31	.001	7.15	.002	9.27	.0006	2.75	.003	8.09	.0003	1.74
Age slope	.0001	8.52	.00002	8.47	.00005	7.51	.0002	9.53	.0001	13.38	.0003	23.18**
Experienced emotion slope	.001	7.36	.009	41.95***	.005	15.32*	.003	9.32	.02	53.35***	.008	24.56**
Value slope	.001	10.48	.001	12.49	.002	9.76	.003	12.20	.005	23.17**	.0008	6.45
L-1 residual variance	.20		.19		.21		.29		.25		.36	
<i>% variance explained</i>	.33		.22		.28		.10		.11		.06	

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 7. Multilevel models explaining desired emotions by all values, controlling for gender and age.

	Desired Emotions						Undesired Emotions					
	Self-Transcending		Self-Enhancing		Opening		Conserving		Non-opening		Non-conserving	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
<i>Fixed effects</i>												
Overall emotion mean	4.05***	.12	1.92***	.02	4.05***	.05	4.09***	.05	1.47***	.05	1.86***	.06
Gender slope	.16***	.03	-.11**	.03	.05	.02	.14**	.03	-.11*	.04	-.11**	.03
Age slope	.004	.005	.006	.004	-.004	.005	-.002	.005	.0002	.006	.01	.008
Self-transcendence slope	.28***	.03	-.08*	.03	.16**	.04	.10*	.03	-.02	.03	-.02	.04
Self-enhancement slope	-.04	.02	.15***	.03	.04	.02	-.0002	.02	.04	.03	.03	.03
Openness slope	.03	.03	-.01	.03	.25***	.03	.09*	.03	-.07	.04	.02	.03
Conservation slope	.03	.03	-.10*	.03	-.06	.04	.07	.03	-.07*	.03	-.09*	.03
<i>Random effects</i>												
	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>	<i>Variance</i>	<i>X²</i>
Culture sample mean	.12	890.42***	.004	45.45***	.02	147.92***	.02	101.83***	.02	145.22***	.03	146.73***
Gender slope	.003	9.35	.003	9.49	.0008	6.48	.003	5.31	.007	10.72	.001	2.57
Age slope	.0001	8.52	.00005	5.91	.00007	9.27	.0001	6.66	.0001	12.56	.0004	21.52**
Self-transcendence slope	.001	7.53	.003	9.45	.006	11.80	.004	7.80	.003	7.49	.007	7.43
Self-enhancement slope	.0008	7.54	.004	18.05*	.001	11.72	.003	12.50	.006	22.55**	.004	14.32*
Openness slope	.002	7.41	.003	12.81	.005	11.29	.005	10.55	.01	25.63***	.004	10.80
Conservation slope	.003	12.61	.003	12.63	.01	22.28**	.004	10.04	.003	8.70	.001	4.61
L-1 residual variance	.24		.21		.24		.29		.26		.37	
% variance explained	.17		.12		.18		.09		.05		.04	

* $p < .05$, ** $p < .01$, *** $p < .001$

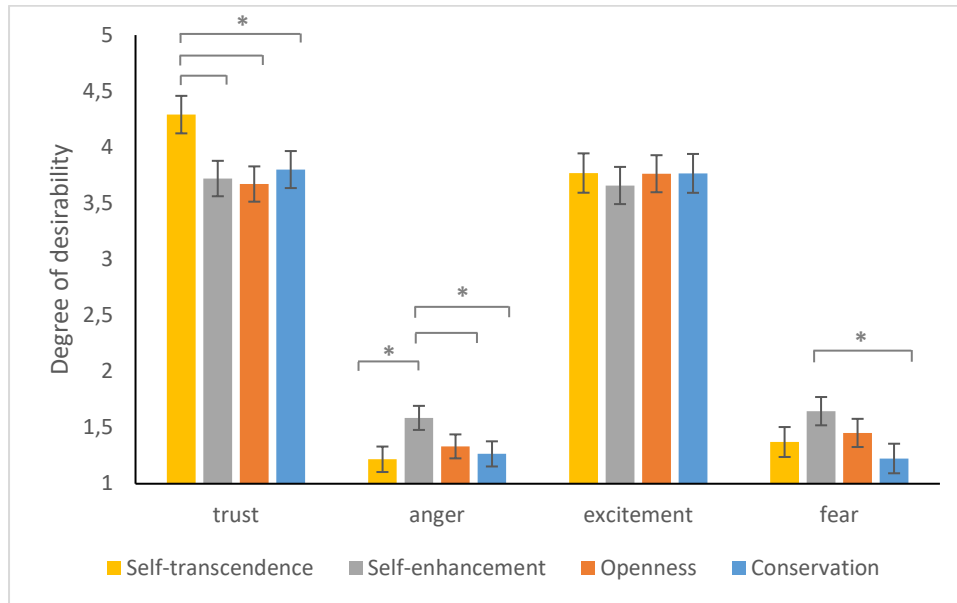


Figure 1. Mean desirability of emotions as a function of value priming conditions (Preliminary Study). Error bars reflect +/-1 standard errors of the mean.

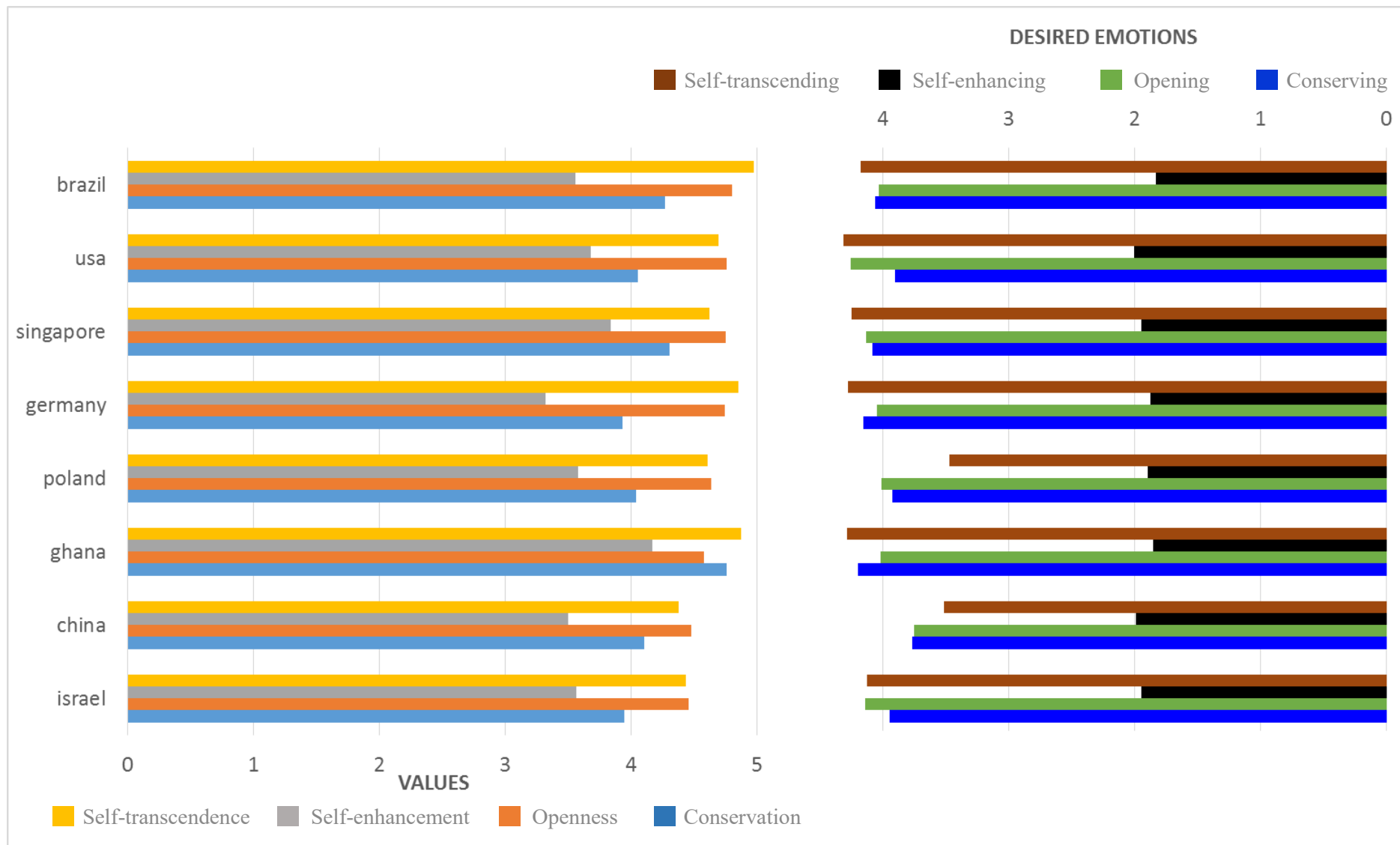


Figure 2. Mean desired emotions and values across cultures (Main Study).