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Running Head: VALUES AS SELF-GUIDES

Cultural Differences in Values as Self-Guides

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### Abstract

Three studies tested whether individualism–collectivism moderates the extent to which values are endorsed as ideal self-guides and ought self-guides, and the consequences for regulatory focus and emotion. Across Studies 1 and 2, individualists endorsed values that are relatively central to the self as stronger ideals than oughts, whereas collectivists endorsed them as ideals and oughts to a similar degree. Study 2 found that individualists justified central values using reasons that were more promotion-focused than prevention-focused, whereas collectivists used similar amount of prevention-focused and promotion-focused reasons. In Study 3, individualists felt more dejected after violating a central (vs. peripheral) value and more agitated after violating a peripheral (vs. central) value. Collectivists felt a similar amount of dejection regardless of values centrality and more agitation after violating central (vs. peripheral) values. Overall, culture has important implications for how we regulate values that are central or peripheral to our self-concept.

**Keywords:** Culture, Values, Self-guide, Regulatory focus, Affect

Maintaining the balance between pursuing personal strivings and fulfilling others' expectations is one of the many acts one has to juggle in life. The relative importance people place on personal strivings and others' expectations is at least partly influenced by whether the broader culture emphasizes the independent or the interdependent aspect of the self (Markus & Kitayama, 1991). Similar cultural differences pertain to the amount of importance people place on ideal self-guides and ought self-guides. According to Higgins (1998), ideal self-guides include individuals' representation of attributes that they would ideally possess, and they function as personal aspirations. In contrast, ought self-guides include individuals' representations of attributes that they should or ought to possess, and they function as norms or external standards.

Cultural differences in self-guides are the starting point for this paper. Ideals serve as the predominant self-guide in individualist cultures, whereas the role of duties and obligations is higher and can be fused with that of ideals in collectivist cultures, such that oughts and ideals both play prominent roles as self-guide (e.g., Chan, 1997; Higgins, 1996). These cultural differences also have important implications for regulatory focus (e.g., Lee, Aaker, & Gardner, 2000) and emotion (e.g., Kim & Aubrey, in press), as comprehensively depicted by Higgins, Shah, and Friedman (1997). Yet, no research thus far has assessed the associations between self-guides, regulatory focus and emotion simultaneously in a cross-cultural context.

More important, no research has addressed this issue in the context of values. Values are widely conceived as trans-situational goals that serve as guiding principles in one's life (Allport, Vernon, & Lindzey, 1960; C. Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992), thereby helping to guide behaviour in various ways (Bardi & Schwartz, 2003; Roccas, Sagiv, Schwartz, & Knafo, 2002). Values have long been an important construct in cross-cultural studies research, which has revealed many similarities in values. In over 70 nations, there are

(a) consistent patterns of correlations between values (Schwartz et al., 2012), and (b) similarities in meaning and content (Schwartz & Sagiv, 1995). Nonetheless, there are unanswered questions about the extent to which the psychological use and meaning of values is culturally invariant (e.g., Morris, 2013; Peng, Nisbett, & Wong, 1997; Schwartz, 2013). In the present research, we address this topic by investigating how basic values (e.g., equality, freedom) are endorsed as ideal and ought self-guides in two different cultures. Are values that are more central to the self more likely to be endorsed as ideal self-guides than as ought self-guides? How does culture shape the role of values as self-guide? We also assess the regulatory focus of values endorsed as ideals and oughts, and the emotional consequences of violating values endorsed as ideals and oughts.

### **Values as Self-Guides**

When we consider a value to be important, are we cherishing the value as an ideal, as an important duty and obligation, or equally as an ideal and ought? Extant theory has suggested that values serve as *both* personally desired modes of conduct and externally imposed behavioral standards, and many models of values encompass this would-should duality (see Rohan, 2000), including theories proposed by F. R. Kluckhohn and Strodtbeck (1961), Allport et al. (1960), and Schwartz (1992). Values often contain an intrinsically motivating element; at the same time, people are socialized to support values in order to avoid social and moral sanctions (Schwartz, 1999). Thus, perspectives on values have been open to roles of values as both ideals and oughts.

We propose that there are important cultural differences in the role of values as ideals and oughts. Potential cultural differences in the use of values as self-guides can be seen by considering Rokeach's (1973) proposition that values vary in their centrality to the self. Values that are judged to be highly important are more central to the individual's self-concept, while values that are more moderate or low in importance are relatively peripheral to

the self-concept. In this sense, central values, compared to peripheral values, are more likely to reflect the core self. However, as indicated above, the ideal-ought conceptualization of the core self varies across cultures. Because culture plays a role in shaping the self, we propose that culture also shapes whether values connected to the self are held as a personal ideal, a social obligation, or both.

To elaborate, studies on cross-cultural differences in self-construal have revealed that individualists tend to consider the self as the basic unit of analysis (Triandis, McCusker, & Hui, 1990), and they exert their independence by expressing their unique internal attributes (Johnson, 1985). Independent self-construal features the realization of internal potential and the promotion of own goals (Markus & Kitayama, 1991). Hence, within individualist cultures, where an independent self-construal is dominant, the endorsement of central values should be more relevant to internal aspirations than to external prescriptions from others. The role of central values as ideals may therefore be particularly strong and dominant. In contrast, because peripheral values are not as closely connected to the core self, these values may display qualities that are less typical of ideals and may instead be more relevant to what is deemed as secondary obligations and responsibilities. As a result, in comparison to central values, the role of ideal self-guides in peripheral values may decrease and the role of ought self-guides in peripheral values may increase, potentially leading to a greater emphasis on ought self-guides than ideal self-guides.

Within a collectivist culture, there is an emphasis on both the individual and the group (Nakane, 1970), wherein the maintenance of a harmonious, interdependent relationship within the group is vital (Miller, 1988). It is important for collectivists to fit in the group, engage in actions approved by the norm, and promote others' goals (Higgins, 1996; Kim & Markus, 1999; Markus & Kitayama, 1991). As a result, the difference between ideals and oughts is more blurred in self-representations in collectivist cultures than in individualist

cultures (Chan, 1997; Miller, Das, & Chakravarthy, 2011). Hence, in collectivist cultures, the endorsement of central values should be relevant to both personally valuable ideals and socially prescribed standards. That is, central values should be held more strongly as *both* ideals and oughts, while peripheral values should also be held less strongly and endorsed equally as ideals and oughts.

### **Effects on Regulatory Focus and Emotion**

These predictions provide clues about the potential role of values in regulatory focus and emotion. The extent to which values are held as ideals versus oughts should affect the extent to which people strive to fulfill the values using a promotion focus or prevention focus. According to regulatory focus theory (Higgins, 1997, 1998), promotion-focused strategies seek matches to a goal. They induce a state of eagerness or approach, which fosters behavior designed to attain a goal. In contrast, prevention-focused strategies avoid mismatches to the goal. They induce a state of vigilance or avoidance, causing behavior that avoids moving away from a goal. In regulatory focus theory, perceived discrepancy between the actual self and ideal self-guides activates a promotion focus and increases sensitivity to positive outcomes, while perceived discrepancy between the actual self and ought self-guides triggers a prevention focus and increases sensitivity to negative outcomes (Higgins & Tykocinski, 1992). Consequently, if central values are more likely to function as ideal self-guides within individualist cultures, thoughts about central values should reflect eagerness, approach, and positive outcomes, whereas if peripheral values are more likely to function as ought self-guides, thoughts about peripheral values should emphasize vigilance and avoidance and more reflection on negative outcomes. This difference in regulatory focus should be diminished within collectivist cultures, where the distinction between ideals and oughts is blurred.

The roles of ideals and oughts for central and peripheral values also have ramifications for understanding the emotional consequences of successful and failed attempts

to fulfill values. In general, actual-ideal discrepancies lead to dejection-oriented emotions (e.g., sadness). In contrast, actual-ought discrepancies lead to agitation-oriented emotions (e.g., anxiety; Higgins, 1989; Higgins, Klein, & Strauman, 1985; Higgins, Shah, & Friedman, 1997), especially when one becomes aware of observation from the public (Carver & Scheier, 1986; Higgins, 1996). Thus, within an individualist culture, if central values function more strongly as ideal self-guides, violation of the values should elicit dejection-related emotions. Conversely, if peripheral values function more strongly as ought self-guides, violation of the values in a public setting should elicit agitation-related emotions. Within a collectivist culture, violation of central and peripheral values should engender both dejection-related and agitation-related emotional outcomes, due to the lack of difference in the role of ideal and ought concerns between the values.

### **The Present Research**

The present research examined three implications of the hypothesis that there are cross-cultural differences in the roles of central and peripheral values as self-guides. We tested whether there are cultural differences in the role of value centrality in predicting (a) values' roles as self-guides (Study 1), (b) the extent to which thoughts about values encapsulate eagerness, approach, and positive outcomes versus vigilance, avoidance and negative outcomes (Study 2), and (c) the extent to which the violation of values elicits dejection-related and agitation-related emotions (Study 3).

To provide these tests, the studies focused on comparing Western participants from predominantly Britain and/or the USA with Eastern participants from India. Extant evidence indicates that Britain and the USA are relatively individualist nations, while India is relatively collectivist (e.g., Suh et al., 1998). In addition, we measured value centrality in a manner congruent with the precedent set by Rokeach (1973). Specifically, we asked participants to rank the importance of the values to them as guiding principles in their lives. There is no firm



line to segregate central values from peripheral values, but we regarded the highest ranked values as the most central to the self, and values rated in the middle or lower as relatively peripheral to the self. Consideration of the middle values as being peripheral provided a conservative test of centrality (especially in Studies 2 and 3) by ensuring that the values conceived as relatively peripheral were nonetheless at least average in importance, thereby still clearly qualifying as “values”.

### **Study 1**

Study 1 tested whether value centrality plays a role in self-guide endorsement (ideal vs. ought) among British and Indian participants. Participants rated the roles of values as self-guides using items developed by Higgins (1987). Higgins asked participants to provide self-related attributes (e.g., honesty) and rate the degree to which they ideally wish to possess (ideal self-guide), should possess (ought self-guide), and actually possess the attributes (actual self). Similarly, people can be asked to rate the extent to which they ideally would be guided by specific values (ideal self-guides), the extent to which they should be guided by the values (ought self-guides), and the degree to which they actually are guided by the values (actual self).

These ratings enabled us to test whether, within the individualist culture, central values are endorsed more strongly as ideal self-guides than as ought self-guides. Furthermore, the ratings enabled us to test whether the role of ideals decreases as values become peripheral to the self while the role of oughts increases, potentially leading to a greater emphasis on oughts than ideals. Finally, we investigated whether this interaction between value centrality and self-guide is eliminated in the collectivist culture, such that central values are endorsed (equally) more strongly as ideals and oughts than are peripheral values.

### **Method**

**Participants.** 139 participants were recruited. In the United Kingdom, 39 Cardiff University undergraduate students (26 women, 13 men) received course credit for participating. Their age ranged from 18 to 26 ( $M=20.92$ ,  $SD= 2.08$ ). In India, 100 Karnataka University undergraduate students (47 women, 53 men) received course credit for participating. Their ages ranged from 21 to 29 ( $M=22.75$ ,  $SD= 1.42$ ). The smaller UK sample was due to availability of participants during the time of year when the research was conducted.

**Procedure and materials.** For 20 values, participants completed measures of (a) value centrality and (b) the values' roles as ideal, ought, and actual self-guides. The order of these two tasks was randomized.

The measure of value centrality was based on Rokeach's (1973) ranking approach. Participants ranked 20 values by placing a number from 1 to 20 next to each value. The values were core examples of each of the four higher-order orthogonal value domains in Schwartz's Value Survey (1992): self-enhancement, self-transcendence, conservation, and openness to change. The self-enhancement domain serves self-interest and was represented in this research by the values of achievement, social power, success, and authority; the self-transcendence domain promotes the welfare of others and was represented here by the values helpful, broadminded, social justice, and forgiving; the conservation domain serves to protect the status quo and was represented by the values self-discipline, obedient, devout, reciprocation of favors, respect for tradition, and national security; the openness domain serves quests for novelty and independence and was represented by the values exciting life, enjoying life, creativity, daring, freedom, and pleasure. Values ranked closer to 1st were considered more central for a subsequent task (see below).

The measure of values as self-guides was presented on a computer in the UK and on paper in India. For each of the 20 values, participants rated the extent to which they (a)

ideally, (b) should, and (c) actually possess the value. For example, participants were asked “to what degree should you possess this value?” We provided additional instructions adapted from Higgins (1987) describing the actual self (i.e., your beliefs about the values you think you *actually* possess), the ideal self (i.e., your beliefs about the values you would like *ideally* to possess), and the ought self (i.e., your beliefs about the values you believe you *should* or *ought* to possess). Participants’ ratings utilized a scale from 0 (not at all) to 3 (very much so). The order of presentation of the ideal and ought rating scales was randomized after each value, and the actual scale appeared last for each value. Two extra values were used at the start of the task as practice.

## Results

**Functioning as ideal versus ought self-guides.** To assess the relative strength of self-guides (ought vs ideal<sup>2</sup>) as a function of value centrality in different cultures, we conducted a random-intercept multilevel analysis. We assigned a participant number to each participant and entered these numbers in the model as the higher level (level 2) random variable. The two types of self-guide rating (effect coded: ought=-1, ideal=1) were included as the lower level (level 1) predictor. We then included value centrality as a continuous fixed predictor. We reversed-coded the value rankings such that a bigger number represent higher centrality and then centered them around the mid-point of the ranking such that -9 represents the most peripheral value, 0 represents a value ranked in the middle, and 10 represents the most central value. We also included culture of each participant as a fixed predictor (effect coded: collectivist=-1, individualist=1). Because gender and value domain (i.e., self-enhancement, self-transcendence, openness, vs. conservation) did not contribute to higher order interactions, we omitted these variables from subsequent analyses.

To prepare the data for analysis, we disaggregated them (see Heck, Scott, & Lynn, 2013; Snijders & Bosker, 2004). For each participant, there were 20 rows of data reflecting

the ideal ratings for values ranked from -9 to 10 and another 20 rows of data reflecting the ought ratings for values ranked from -9 to 10.

The results showed that values were held significantly more strongly as ideal self-guides than ought self-guides,  $\beta=0.03$ ,  $S_e=0.01$ ,  $t(5268.13)=2.50$ ,  $p=.013$ . Also, more central values served as stronger self-guides than more peripheral values,  $\beta=0.05$ ,  $S_e=0.002$ ,  $t(5269.13)=26.82$ ,  $p<.001$ . In addition, individualist participants and collectivist participants endorsed their values to a similar degree,  $\beta=0.04$ ,  $S_e=0.03$ ,  $t(136.01)=1.28$ ,  $p=.20$ . The two-way interactions between self-guide and value centrality, self-guide and culture, and value centrality and culture were all significant,  $\beta=0.004$ ,  $S_e=0.002$ ,  $t(5268.13)=2.01$ ,  $p=.04$ ,  $\beta=0.04$ ,  $S_e=0.01$ ,  $t(5268.13)=3.41$ ,  $p=.001$ , and  $\beta=0.02$ ,  $S_e=0.002$ ,  $t(5269.13)=8.71$ ,  $p<.001$ , respectively.

More important, the three-way interaction among self-guide, value centrality, and culture was significant,  $\beta=0.004$ ,  $S_e=0.002$ ,  $t(5268.13)=2.01$ ,  $p=.04$  (see Figure 1). We conducted simple slopes analyses using the computational tools developed by Preacher, Curran, and Bauer (2006). We estimated value endorsement as ideals and oughts at two values of value centrality: the middle ranking (0) and the top-most rank (10). The results revealed that individualist participants held their most important values as ideal self-guides more strongly than ought self-guides,  $\gamma=0.144$ ,  $S_e=.035$ ,  $Z=4.165$ ,  $p < .001$ . The same was true for values ranked in the middle,  $\gamma=0.063$ ,  $S_e=.018$ ,  $Z=3.482$ ,  $p < .001$ . Hence, in an individualist culture, the most important values and values ranked in the middle were both held more strongly as ideals than oughts, although this difference was more pronounced in magnitude for the most important values than those ranked in the middle. Of interest, the region of significance analyses revealed that ideals were held more strongly than oughts when values centrality was higher than -2.758. This corresponds to values ranged from

position 1 (the most important) to approximately 14 in the original ranking scale. Beyond the 14<sup>th</sup> rank (the more peripheral values), ideals and oughts were endorsed to a similar degree.

Participants from the collectivist culture endorsed ideal self-guides and ought self-guides to a similar degree for values ranked as the most important,  $\gamma=-0.017$ ,  $Se=.022$ ,  $Z=-0.768$ ,  $p=.442$ , and for values ranked in the middle of the scale,  $\gamma=-0.010$ ,  $Se=.011$ ,  $Z=-0.864$ ,  $p=.388$ . Further, the region of significance analyses revealed that ideals and oughts were held with similar strength across the whole spectrum of values centrality. In other words, participants from a collectivist culture endorsed central values strongly as ideals and oughts to a similar degree and they endorsed peripheral values less strongly as ideals and oughts, but also to a similar degree.

## **Discussion**

Study 1 found that value centrality played a role in the endorsement of ideal self-guides and ought self-guides in an individualist culture (the United Kingdom). In this culture, values deemed more central to the self are endorsed more strongly as ideals than oughts. These results support the hypothesis that the central values carry more idealistic features than ought features for people from an individualist cultural background. In addition, this difference was significantly attenuated as the values became more peripheral to the self. As the values became more peripheral, the difference in self-guide strength for ideal and ought values decreased. Unexpectedly, the difference in ideal vs ought self-guide strength was completely eliminated only in the lower third of the value rankings, and not at the middle peripheral value. This suggests a weaker attenuation than expected, but a reliable attenuation nonetheless. Furthermore, as expected, the central and peripheral values were both endorsed at least as strongly as oughts as ideals in the collectivist culture (India). These results support the hypothesis that people from a collectivist cultural background regard their most central

values as ideals *and* ought self-guides, consistent with theory and evidence that these cultures show greater assimilation of the self to collective, external needs (Miller, 1988).

## Study 2

In Study 2, we sought to replicate the findings in Study 1, while broadening the recruitment of participants beyond student samples by conducting the study over the Internet. Further, we examined the implications of self-guide differences for regulatory focus. We expected that values endorsed as ideals should entail a regulatory focus that emphasizes the promotion of positive outcomes, whereas values endorsed as oughts should entail a regulatory focus that emphasizes the prevention of negative outcomes. The findings in Study 1 revealed that only participants from an individualist culture endorsed more central values as ideals (vs. ought). Hence, we expected that only participants from the individualist culture, but not the collectivist culture, would provide reasons in line with a promotion (vs. prevention) focus for central values. Further, the findings in Study 1 revealed that participants from an individualist culture endorsed values ranked in the middle as ideals (vs. oughts), but the strength of endorsement was smaller in magnitude compared to the value ranked as the most important. Hence, participants from the individualist culture should also provide more reasons in line with a promotion (vs. prevention) focus for values ranked in the middle, but to a lesser degree than the value ranked as the most important.

## Method

**Participants.** The online study included 378 participants. In our individualist sample, 220 participants self-identified as American, British, Irish, or any other White background. They comprised 153 women and 67 men, whose age ranged from 18-73 ( $M=32.28$ ,  $SD=13.17$ ). They were either volunteers recruited via Psychological Research on the Net (Krantz, 1995-2015;  $n=53$ ), a Southampton University participant panel ( $n=47$ ), or Amazon Mechanical Turk (MTurk;  $n=121$ ). In our collectivist sample, 158 participants self-identified

as Indian. They comprised 56 women and 102 men, from 19-62 years of age ( $M=29.60$ ,  $SD=8.07$ ), recruited via Mturk. We screened for workers on Mturk who live in the United States or India and had a job acceptance rate record of 95% or above. Interclass correlations (ICCs) showed that the proportion of variance in the outcome measure that was due to the source of data (e.g., MTurk, university) was close to zero and redundant. Hence, the source of data was excluded from the analyses below.

**Procedure.** The values ranking and values-as-self-guides tasks were identical to Study 1. Participants then read instructions adapted from a procedure developed by Higgins, Bond, Klein, and Strauman (1986). We asked participants to provide reasons why several values should be considered important or not important. Participants were informed that the values would be randomly picked from the list they had seen at the start of the study. In fact, the assigned values had been given the positions of 1 (central), 10 (middle peripheral), or 20 (most peripheral) in the ranking task.

Participants' reasons were then coded for promotion, prevention, or neutral focus. Our coding scheme was based on previous research (e.g., Friedman & Forster, 2001; Higgins, 1997; Semin, Higgins, de Montes, & Estourget, 2005). A coder labeled reasons as promotion focused when they expressed the positive symbolic nature of the value and went beyond the immediate concrete value outcomes (e.g., "ambition provides competition hence goals and achievement"). These reasons focused on eagerness, approach, and positive outcomes. Reasons were coded as prevention focused when they focused on vigilance against or avoidance of negative outcomes (e.g., "it is important because it enables you to avoid doing wrong"). Reasons were coded as non-regulatory when they were neither promotion nor prevention focused, did not directly address the task, or seemed out of context (e.g., "don't live in London"). The non-regulatory reasons were not included in the analyses.

We used two trained coders. They independently coded all participants' reasons and were both blind to the centrality of the values. The reliability of coding was satisfactory (Krippendorff's  $\alpha=.90$ ; Hayes and Krippendorff, 2007). The coders resolved disagreements between them by discussion.

## Results

**Functioning as ideal versus ought self-guides.** To assess the relative strength of self-guides (ought vs ideal<sup>2</sup>) as a function of value centrality in different cultures, we conducted a random-intercept multilevel analysis as in Study 1. We entered the participant identification number in the model as the higher level random variable and the types of self-guide rating (ought=-1, ideal=1) as the lower level predictor. We also included value centrality (reverse-coded and centered: middle ranked value=0, most central value=10) and culture (collectivist=-1, individualist=1) as fixed predictors. Because gender and value domain did not contribute to further higher order interactions, we omitted these variables from subsequent analyses.

The results showed that values were held significantly more strongly as ideal self-guides than ought self-guides,  $\beta=0.04$ ,  $S_e=0.006$ ,  $t(14560.08)=6.37$ ,  $p < .001$ . Also, more central values served as stronger self-guides than more peripheral values,  $\beta=0.05$ ,  $S_e=0.0009$ ,  $t(14564.723)=54.04$ ,  $p < .001$ . In addition, individualist participants and collectivist participants endorsed their values to a similar degree,  $\beta=0.02$ ,  $S_e=0.02$ ,  $t(376.39)=0.99$ ,  $p=.33$ . The two-way interaction between self-guide and value centrality was marginally significant,  $\beta=0.002$ ,  $S_e=0.01$ ,  $t(14560.06)=1.87$ ,  $p=.06$ . The two-way interactions between self-guide and culture, and value centrality and culture were significant,  $\beta=0.02$ ,  $S_e=0.006$ ,  $t(14560.08)=2.72$ ,  $p=.006$ , and  $\beta=0.02$ ,  $S_e=0.001$ ,  $t(14564.72)=19.49$ ,  $p < .001$ , respectively.

More important, the three-way interaction among self-guide, value centrality, and culture was significant,  $\beta=0.004$ ,  $S_e=0.001$ ,  $t(14560.06)=4.03$ ,  $p < .001$  (see Figure 2). In the



individualist culture, ideal self-guides were endorsed more strongly than ought self-guides for values ranked as the most important,  $\beta=0.110$ ,  $Se=.014$ ,  $Z=7.783$ ,  $p < .001$ . The same was true for values ranked in the middle,  $\beta=0.052$ ,  $Se=.007$ ,  $Z=7.029$ ,  $p < .001$ , but the difference between ideal and ought self-guides was more pronounced for the most important values than those ranked in the middle. Further, the region of significance analyses revealed that ideals were held more strongly than oughts when values centrality was higher than  $-5.387$ . This corresponds to values ranged from position 1 (most important) to approximately 16 in the original ranking scale. Beyond the 16<sup>th</sup> rank (more peripheral values), ideals and oughts were endorsed to a similar degree.

Among participants from a collectivist culture, ideal self-guides and ought self-guides were held similarly strongly for values ranked as the most important,  $\beta=-0.0005$ ,  $Se=.017$ ,  $Z=-0.028$ ,  $p=.977$ . Unexpectedly, for values ranked in the middle, collectivist participants endorsed ideal self-guides more strongly than ought self-guides,  $\beta=0.021$ ,  $Se=.009$ ,  $Z=2.39$ ,  $p=.017$ . Further, the region of significance analyses revealed that values were endorsed more strongly as ideals than oughts when values centrality is lower than  $1.649$ . This corresponds to values ranged approximately from position 9 to 20 in the original ranking. For values ranked from position 1 to 8 (the more central values), ideals and oughts were endorsed to a similar degree.

Hence, for central values, participants from an individualist culture endorsed them as ideals more strongly than oughts and participants from a collectivist culture endorsed them equally strongly as ideals and oughts. These findings were consistent across Studies 1 and 2. As for more peripheral values, participants from an individualist culture showed little differentiation between ideals and oughts, as in Study 1. However, unlike Study 1, participants from a collectivist culture endorsed their peripheral values as ideals more strongly than as oughts.

**Reasons for central and peripheral values.** For values ranked as the most important, 8 participants gave no reason why their value was important, and 54 participants gave non-regulatory responses (e.g., “because it is important”). For values ranked in the middle, 26 participants gave no reason why their value was important, and 42 participants gave non-regulatory responses. The following analyses focused on the valid responses only.

We examined the use of reasons within each culture. In the individualist cultures, a 2x2 chi-square analyses revealed that the type of reasons participants gave to support their values depended marginally on value centrality,  $\chi^2(1)= 3.00, p=.08$ . Specifically, participants used more promotion-focused reasons ( $n=131$ ) than prevention-focused reasons ( $n=70$ ) to support their central values,  $\chi^2(1)= 18.51, p<.001$ . For peripheral values, participants used only marginally more promotion-focused reasons ( $n=107$ ) than prevention-focused reasons ( $n=82$ ),  $\chi^2(1)= 3.31, p=.07$ .

In the collectivist sample, the 2x2 chi-square analyses revealed that the type of reasons participants gave to support their values depended on value centrality,  $\chi^2(1)= 6.01, p=.014$ . Specifically, participants used promotion ( $n=62$ ) and prevention ( $n=53$ ) reasons to the same extent for their central values,  $\chi^2(1)= 0.70, p=.40$ . In contrast, they used more promotion-focused reasons ( $n=84$ ) than prevention-focused reasons ( $n=37$ ) to support the values they ranked in the middle,  $\chi^2(1)= 18.26, p<.001$ .

## **Discussion**

Results once again indicated that central values were endorsed primarily as ideals in an individualist culture, whereas they were endorsed equally strongly as ideals and oughts in a collectivist culture. In addition, when participants in an individualist culture provided reasons to support their central values, which they endorsed as ideal self-guides, the participants exhibited more promotion focus than prevention-focus. When participants in a collectivist culture provided reasons to support their central values, which they endorsed as

both ideal and ought self-guides, the participants exhibited as much promotion focus as prevention focus.

For values ranked in the middle, participants from an individualist culture endorsed them more strongly as ideals than oughts, but to a lesser degree in magnitude compared to central values. In turn, these participants provided reasons that did not exhibit significantly more promotion focus than prevention focus when supporting their peripheral values. Both results were consistent with Study 1.

The interesting exceptions to Study 1 occurred when we examined the peripheral values among participants in the collectivist culture. Study 1 found no significant difference between ideal and ought ratings for peripheral value, whereas Study 2 found that the peripheral values were endorsed more strongly as ideals than oughts. Further, this difference was also exhibited on the measure of regulatory focus in values, with participants from the collectivist culture providing reasons that exhibited more promotion focus than prevention focus when supporting their peripheral values. This evidence suggests that participants in a collectivistic culture regarded peripheral values as equally ideal and ought-related in Study 1, but more as ideal self-guides in Study 2.

As a post-hoc explanation for this finding, we suggest that central values in a collectivist culture may help to meet necessary obligations and requirements from the social environment by merging them with the ideal self, whereas peripheral values may be more like personal ideals that are pursued only after important obligations are met. In other words, the striving for personal ideals per se may be relegated to those values that are less central. Although we believe this mechanism is plausible, it does not explain why the enhanced role of ideals in peripheral values was revealed in Study 2 and not Study 1. It may be the case that the greater diversity of participants in Study 2 (from the online sample) than in Study 1 (the

student sample) represented a greater diversity of interests, enabling the role of the ideal self-guides for peripheral values to emerge.

Notwithstanding this exception to the consistency across both studies, the importance of culture in the differential use of central vs peripheral values as self-guides was again demonstrated, using both our measure of self-guide strength and a measure of regulatory focus. Thus, Study 3 considered implications of these findings for emotional processes.

### **Study 3**

Self-discrepancy theory indicates that the differences in the use of values as self-guides and regulatory focus have implications for the emotions that people experience after value violation (Higgins, 1989; Higgins et al., 1997). To examine these emotional implications, we followed the precedent of abundant past research on cognitive dissonance, which has often induced a counter-attitudinal behavior by asking people to write an essay opposing their own position on a topic (e.g., Cooper, 1999; Elliot & Devine, 1994). We manipulated whether participants wrote an essay against either a central or peripheral value.

To facilitate experimental control similar to that in prior research on counter-attitudinal behaviors, this study returned to utilizing student samples in a laboratory context. Consistent with our results with these samples (Study 1) and our broader theorizing, the emotional effects of arguing against values in these samples should depend on culture and value centrality. As outlined earlier, actual-ideal discrepancies should predict dejection-type emotions and actual-ought discrepancies should elicit agitation-type emotions. Our evidence indicated that, in an individualistic culture, central values function predominantly as ideal self-guides and less so as ought self-guides and this difference is attenuated for more peripheral values (Studies 1 and 2). Hence, we expected that individuals from an individualistic culture who oppose their central values should experience more dejection than agitation. Those who oppose their peripheral values may also experience more agitation than

dejection. In contrast, Study 1's evidence indicated that students in the collectivist culture hold their central values equally more strongly as ideal and ought self-guides and peripheral values equally less strongly as ideal and ought self-guides. Hence, these students who oppose their central values should not experience different levels of dejection and agitation. Those who oppose their peripheral values may also experience similar levels of dejection and agitation.

In addition, we explored whether the setting in which the violation of values took place moderated the emotional experiences of values violation. Visibility is one way that makes ought self-guides become more self-relevant (Carver & Scheier, 1986; Higgins, 1996). We assessed whether participants experienced more agitation than dejection after violating their peripheral values when they become aware that their responses are highly visible to others, compared to when they violated their peripheral values in private. We also examined whether individuals from an individualistic culture and a collectivistic culture would have different emotional experiences due to the visibility setting.

## **Method**

**Participants.** We recruited 216 participants. In the United Kingdom, 92 Cardiff University undergraduate students (69 women, 23 men) received £3 for participating. Their age ranged from 18-45 ( $M=21.78$ ,  $SD= 4.40$ ). In India, 124 Karnatak University undergraduate students (30 women, 94 men) volunteered to take part. Their age ranged from 20 to 29 ( $M=22.06$ ,  $SD= 1.95$ ).

### **Experimental Manipulation**

**Value opposition.** Participants first completed the ranking task as described in Study 1. In a so-called second study, participants were informed that the researcher would randomly select a value from the list that they had seen in the previous study. In fact, the researcher verbally provided the most central value (rank 1) or a peripheral value (rank 10) from the

ranking task. To induce a discrepancy between the chosen value and the relevant self-guide, participants were asked to write a short essay arguing *against* the values. They were asked to identify reasons why this value is unimportant by describing the negative consequences associated with the value.

***Public versus private setting.*** Half of the participants in each of the value conditions were randomly assigned to either the public or private settings. In the public condition, participants were told that the researcher would copy their reasons and distribute them in order to influence participants in subsequent studies. Participants in the private condition were told that the reasons were very rarely examined and, to maintain their privacy, participants should seal the reasons in an envelope provided by the researcher.

***Emotions.*** The “third study” was introduced as a pilot study for a new emotion measure. Participants were asked to indicate how dejected and agitated they felt at that time. The measure of dejection (0=*not at all*, 4=*extremely*) comprised four-item: discouraged, disappointed, low, and sad ( $\alpha=.75$ ). The measure of agitation also comprised four-item: agitated, on edge, uneasy, and tense ( $\alpha=.76$ ).

## **Results**

To test whether the violation of central and peripheral values elicit different types of emotion under different setting and cultures, we conducted a 2 (setting: public, private) x 2 (culture: individualist, collectivist) x 2 (values: central, peripheral) x 2 (emotion: dejection, agitation) mixed-model analysis of variance (ANOVA) on ratings of emotion elicited by the value violations, with repeated measures on the first factor. Results revealed a significant main effect of setting,  $F(1, 208)= 13.87, p < .001, \eta_p^2 = .06[.020, .122]^1$ , such that the value violations elicited more emotions in a public setting ( $M= 1.54, SE= 0.08$ ) than in a private setting ( $M= 1.12, SE= 0.08$ ). The main effect of culture was significant,  $F(1, 208)= 121.12, p < .001, \eta_p^2 = .37[.284, .441]$ , such that collectivist participants experienced more emotions

after violating values ( $M= 1.95$ ,  $SE= 0.07$ ) than did individualist participants ( $M= 0.71$ ,  $SE= 0.09$ ). There was a significant main effect of values,  $F(1, 208)= 4.18$ ,  $p= .04$ ,  $\eta_p^2 = .02$  [.001, .061], such that violations of central values elicited more emotions ( $M= 1.44$ ,  $SE= 0.08$ ) than violations of peripheral values ( $M= 1.21$ ,  $SE= 0.08$ ). Also, there was a significant main effect of types of emotion,  $F(1, 208)= 11.04$ ,  $p= .001$ ,  $\eta_p^2 = .05$  [.013, .106]. After violating their values, participants experienced more agitation ( $M= 1.41$ ,  $SE= 0.06$ ) than dejection ( $M= 1.25$ ,  $SE= 0.06$ ).

These main effects were not qualified by any two-way or three-way interactions,  $F_s(1, 208) < 3.13$ ,  $p_s > .08$ ,  $\eta_p^2_s < .02$ , except for the three-way interaction between culture, values, and emotion,  $F(1, 208)= 13.59$ ,  $p < .001$ ,  $\eta_p^2 = .06$  [.019, .120] (see Figure 3). Among participants from an individualist culture, the crucial interaction between values and emotion was significant,  $F(1, 90)= 14.42$ ,  $p < .001$ ,  $\eta_p^2 = .14$  [.045, .247]. Within this culture, the violation of central values elicited marginally more dejection ( $M= 0.84$ ,  $SE= 0.11$ ) than agitation ( $M= 0.69$ ,  $SE= 0.12$ ),  $F(1, 45)= 3.38$ ,  $p= .07$ ,  $\eta_p^2 = .07$  [.000, .207]. The violation of peripheral values elicited more agitation ( $M= 0.83$ ,  $SE= 0.12$ ) than dejection ( $M= 0.52$ ,  $SE= 0.11$ ),  $F(1, 45)= 11.80$ ,  $p= .001$ ,  $\eta_p^2 = .21$  [.056, .362]. Also, participants from an individualist culture experienced significantly more dejection after arguing against a central value than after arguing against a peripheral value,  $F(1, 90)= 4.67$ ,  $p= .03$ ,  $\eta_p^2 = .05$  [.002, .137]. They experienced a similar level of agitation after arguing against a central value and after arguing a peripheral value,  $F(1, 90)= .69$ ,  $p= .41$ ,  $\eta_p^2 = .008$  [.000, .062].

Among participants from a collectivist culture, the two-way interaction between values and emotion was marginally significant,  $F(1, 122)= 3.85$ ,  $p= .052$ ,  $\eta_p^2 = .03$  [.000, .095]. Within this culture, the violation of central values elicited more agitation ( $M= 2.33$ ,  $SE= 0.13$ ) than dejection ( $M= 1.92$ ,  $SE= 0.13$ ),  $F(1, 62)= 15.49$ ,  $p < .001$ ,  $\eta_p^2 = .20$  [.069, .334]. The violation of peripheral values elicited similar levels of dejection ( $M= 1.72$ ,  $SE=$

0.13) and agitation ( $M= 1.83, SE= 0.13$ ),  $F(1, 60)= 1.03, p= .32, \eta_p^2 = .02[.000, .103]$ . Also, participants from a collectivist culture experienced a similar level of dejection after arguing against a central value than after arguing a peripheral value,  $F(1, 122)= 1.12, p=.29, \eta_p^2 = .009[.000, .056]$ . They experienced more agitation after arguing against a central value than after arguing a peripheral value,  $F(1, 122)= 7.58, p=.007, \eta_p^2 = .06[.009, .136]$ .

## Discussion

In Study 3, we found that the emotional consequences of value violation depended on culture. In both an individualist and a collectivist culture, the violations of central values led to different emotional consequences than the violation of peripheral values. In the individualist culture, violation of central values evoked relatively more dejection-related emotion (compared to agitation-related emotion) than the violation of peripheral values, which evoked relatively more agitation-type emotions (compared to dejection-type emotions). These results support the hypothesis that, within an individualist culture, central values function more as ideal self-guides than ought self-guides, whereas peripheral values, which are endorsed relatively less strongly as ideals, function more as ought self-guides than ideal self-guides. In the collectivist culture, this pattern reversed: violations of central values evoked relatively more agitation-related emotion (compared to dejection-related emotion) than violations of peripheral values (which elicited similar levels of both emotions).

These results fit our expectations for the individualistic culture, but our prior findings with a collectivist student sample led us to expect no differential impact of central vs peripheral values in this group. Nonetheless, this result fits our conjecture about the mechanism separating the central versus peripheral values following the data obtained in Study 2. If the central values are prioritized partly because of their roles as oughts, while the peripheral values are relegated to serving those ideals that are secondary in importance, then violation of the central values may elicit relatively more agitation-related emotion (compared



to dejection-related emotion) than violations of peripheral values. On balance, these effects appear to reside between the implications of the results of Studies 1 and 2. More important, the effects are robustly different from those obtained consistently in the individualist cultures. Thus, regardless of the precise pattern of role of values as self-guides in a collectivist setting, it is clear that it differs in a predictable direction from the consistent role of values as self-guides in an individualistic setting.

Another finding of interest was that the emotional impact of value violation was higher in the public setting than in the private setting in both cultures, and regardless of whether the values were central or peripheral. Past research showed that the violation of ought self-guides elicits agitation in a public setting but not in a private setting; whereas the violation of ideal self-guides elicits dejection in both public and private settings (Carver & Scheier, 1986; Higgins, 1996). The lack of any interactions between setting and value type and culture in our design indicates that the violations of values were generally more pronounced in a public setting, suggesting that this setting did not activate ought self-guides *alone* – the public setting may have augmented the personal importance of both types of self-guide. Perhaps an interesting question for future research is whether this dual augmentation is more likely for value violations than for other types of activity in which self-guides are relevant (e.g., violating specific personal goals, advocating particular self-relevant actions).

### **General Discussion**

Cultures have strong influences on the manifestation of self-construal, with implications on motivation and emotion (Hamamura, Meijer, Heine, Kamaya, & Hori, 2009; Markus & Kitayama, 1991; Tsai, Knutson, & Fung, 2006). As such, if there is a cultural basis for the way values act as self-guides, it should have matching implications of values as self-guides on regulatory focus and emotional outcomes of values violation. We assessed this proposition across three studies.

In both Studies 1 and 2, ideals and oughts mapped onto different levels of value centrality depending on the culture. In an individualist culture, central values were rated as stronger ideal self-guides than ought self-guides, whereas, in a collectivist culture, central values were endorsed as ideals and oughts to a similar degree. In an individualist culture, the difference between the two types of self-guides was weaker in magnitude and nonsignificant among the most peripheral values, whereas, in a collectivist culture, peripheral values were endorsed as ideals and oughts to a similar degree in Study 1 (using a university student sample) and peripheral values were endorsed more strongly as ideals than oughts in Study 2 (using an online community sample).

These results are consistent with past research on how the self is construed in different cultures. Independent self-construal emphasizes the actualization of personal aspirations (Markus & Kitayama, 1991). The pursuit of personal ideals becomes the top priority in the values system, whereas the difference between the pursuit of personal ideals and the fulfillment of social obligations gradually diminishes as values become more peripheral to the self. In contrast, interdependent self-construal has a strong emphasis on the needs and goals of the group (Miller, Bersoff, & Harwood, 1990). Hence, the pursuit of personal ideals *and* the fulfillment of social duties both play a central role in cultures that stress collective interdependence. In these cultures, central values are more likely than peripheral values to reflect pursuits that are highly relevant to the self and to demands from the group.

These cultural differences have matching effects on the regulatory focus of values. In Study 2, participants in an individualist culture justified their central values using reasons that emphasized the promotion of positive outcomes, and this difference in favor of promotion was attenuated when they justified their peripheral values. The use of promotion-focused reasons for central values reflects an urge to approach a goal, which is a typical aim of ideal self-guides. Hence, in an individualist culture, central values embed promotion regulatory

focus consistent with the nature of ideal self-guides, and peripheral values embed a relatively weaker promotion focus. These differences in the roles of central and peripheral values were virtually reversed among participants from a collectivist culture. These participants used prevention-focused and promotion-focused reasons to a similar extent for their central values, whereas they were more likely to exhibit a promotion focus than a prevention focus for their peripheral values, consistent with the data regarding the role of ideal self-guides in peripheral values within this sample.

Study 3 demonstrated that the dominant roles of ideal and ought self-guides for central versus peripheral values have important emotional consequences. In an individualist culture, violations of central values cause more dejection-related emotion (compared to agitation-related emotion) than the violation of peripheral values (which elicited more agitation than dejection). Falling short of one's ideals triggers dejection-related emotions, and falling short of one's oughts triggers agitation-related emotions. These effects fit our findings that, in an individualist culture, central values are endorsed as ideals and pursued with a promotion focus. Consequently, when people fail to live up to their ideal self-guide, they feel sad and disappointed. These effects on emotion also fit our findings that, in an individualist culture, central values function predominantly as ideal self-guides and less as ought self-guides (Studies 1 and 2); thus, those who oppose their peripheral values should experience more agitation-related emotion.

Again, these effects on emotional outcomes were different among participants from a collectivist culture. In this culture, the violations of central values triggered more agitation (compared to dejection) than violations of peripheral values (which induced similar levels of both emotions). These results extend Study 2's evidence that, in a collectivist culture, central values are endorsed as both ideals and oughts and are pursued with both promotion and prevention focus, whereas peripheral values are endorsed relatively more strongly as ideals

than oughts and are pursued with more promotion focus. It seems that, compared to peripheral values, central values display features that are closer to ought self-guides in a collectivist setting and hence the violation of central values made people feel relatively agitated and tense. Although peripheral values may display features that are closer to ideal self-guides, they do not fully translate into distinct feelings of sadness and disappointment.

Overall, then the manifestation of values as self-guides depends on culture in all three studies. In an individualist culture, central values exhibit features that are prototypical of ideal self-guides rather than ought self-guides. Individualists' central values evince a prioritization of ideals over oughts, leaving their peripheral values to endeavor ought self-guides. In contrast, in a collectivist culture, central values display mixed features that are prototypical of ideals and oughts. This indicates that collectivists' central values manifest themselves as ideal and ought self-guides more equally – a pattern that corroborates findings showing collectivists' strong sense of obligation to respond to demands from the group (Kim & Markus, 1999; Markus & Kitayama, 1991).

Together, these studies make several key contributions. First, they provide novel evidence of the complex links between self-guides, regulatory focus and emotion in a cross-cultural context. Second, the studies reveal these links by integrating research on the individualist-collectivist dimension in culture and research on self-guides with an important concept that has been subjected to abundant cross-cultural research: values. Third, by integrating these perspectives, we are able to better predict how people may respond to values in different cultures. For example, in an individualist culture, people who hold environmental preservation as a central value may feel sad and dejected when they notice that they are using a car more often than necessary. In contrast, people who hold environmental preservation as a peripheral value may feel anxious and agitated. In contrast, in a collectivist culture, failure to

fulfill values may simply elicit more anxiety and agitation when the values are central to the self than when they are peripheral to the self.

It is also noteworthy that values centrality predicted the endorsement of values as self-guides and the content of values did not contribute to this effect in Studies 1 and 2<sup>3</sup>. We included all of the values identified by Schwartz (1992) in our research and the content of some values may seem more likely to fulfill roles as “ideals” than as “oughts” (Leikas, Lonnqvist, Verkasalo, & Lindeman, 2009). For example, people may more easily imagine the value of “freedom” as involving the pursuit of a desired personal ideal, rather than as the pursuit of a required obligation. Yet, the content of values did not moderate the associations between values centrality and type of self-guide. What matters is the importance people place on values. To our knowledge, this is the first evidence separating the role of value centrality from value content for understanding value-relevant self-regulation and emotion.

### **Limitations and Broader Implications**

The present research delineated important associations between value endorsement and self-guides in two different cultures. We obtained findings consistent with abundant prior evidence of differences in self-construal between individualistic and collectivistic cultures (e.g., Chan, 1997; Markus & Kitayama, 1991). These findings also raise a number of interesting issues for future study, and we highlight two issues here.

First, we chose to compare participants from Britain, United States, and India because of prior evidence indicating that these nations are far apart on the individualist-collectivist dimension (e.g., Suh et al., 1998). Yet, it would be interesting to examine the functioning of values as self-guides in nations other than those examined in this research because recent research showed that individualism and collectivism manifest themselves differently in different countries (Vignoles et al., 2014). Further, past research identified slight variations in the relative dominance of prevention and promotion regulatory focus in different collectivist

nations. Some studies found that Indians considered their personal ideals and social duties as equally important (Chan, 1997) and that Indians internalized their social duties more closely to their core self than Americans (Miller et al., 2011), whereas Chinese (Lee et al., 2000) and Asian Canadian (Lockwood, Marshall, & Sadler, 2005) people are more prevention-focused than promotion-focused. These variations may also apply to the regulatory focus of value endorsement, such that central values may be endorsed more strongly as oughts than ideals in some collectivist nations outside of India.

Second, we assessed the extent to which violation of different values triggered dejection and agitation in different cultures; in other words, our focus was on the relative differences between dejection and agitation as a function of central vs peripheral values in each culture. It would be interesting to compare these emotional responses to conditions in which no values were violated. Although such an experimental condition is tangential to our primary interest in the *relative* prominence of different self-guide orientations (as a function of value centrality and culture), an experimental condition without values violation could provide an additional baseline to test whether the violation of central and peripheral values leads to a *net* increase or a decrease in both dejection and agitation.

### **Coda**

In sum, the present research reveals novel evidence that cultural differences in the role of self-guides extend to how people construe basic values. This indicates that mental representations of values as self-guides vary between cultures. Moreover, these cultural differences matter, because they have predictable ramifications for individuals' regulatory focus toward the values and the emotional consequences of value violation.

## Footnote

<sup>1</sup>In reporting effect sizes, we used partial eta-squared and we presented the confidence intervals (CI) in brackets. The CIs were calculated using scripts developed by Wuensch (2012) and were computed at 90% because it represents the .05 criterion of statistical significance (Steiger, 2004).

<sup>2</sup>Supplementary analyses controlling for actual self ratings produced very similar results. We therefore presented a more parsimonious model without this covariate.

<sup>3</sup>Past research indicates that individualistic cultures tend to prioritize openness values (Schultz & Zelezny, 2003) and self-transcendence values (Schwartz & Bardi, 2001), whereas collectivistic cultures tend to value conservation values (Schwartz, 2007). Indians, in particular, tend to prioritize values that are congruent with self-enhancement values (e.g., being successful, getting ahead; Schwartz, 2008). We found consistent cultural differences in Studies 1 and 2. Individualist participants ranked openness values (Study 1:  $\beta=0.54$ ,  $S_e=0.22$ ,  $t(136.34)=2.51$ ,  $p=.013$ ; Study 2:  $\beta=0.44$ ,  $S_e=0.14$ ,  $t(376.46)=3.15$ ,  $p=.002$ ) and self-transcendence values (Study 1:  $\beta=0.87$ ,  $S_e=0.25$ ,  $t(136)=3.47$ ,  $p=.001$ ; Study 2:  $\beta=0.49$ ,  $S_e=0.15$ ,  $t(375.65)=3.31$ ,  $p=.001$ ) as more central, whereas collectivist participants ranked conservation values (Study 1:  $\beta=-0.57$ ,  $S_e=0.21$ ,  $t(136)=-2.74$ ,  $p=.007$ ; Study 2:  $\beta=-0.30$ ,  $S_e=0.14$ ,  $t(376.32)=-2.21$ ,  $p=.028$ ) and self-enhancement values (Study 1:  $\beta=-0.73$ ,  $S_e=0.26$ ,  $t(136)=-2.75$ ,  $p=.007$ ; Study 2:  $\beta=-0.68$ ,  $S_e=0.14$ ,  $t(375.61)=-4.94$ ,  $p<.001$ ) as more central. Yet, content of the values does not account for the endorsement of values as ideal or ought self-guides.

<sup>3</sup> For values ranked as the least important, 11 participants gave no reason why their value was important, 64 participants gave non-regulatory responses (e.g., “because it is important”), and 216 participants gave reasons explaining why the value was not important (e.g., “I don't put much value on this issue because the issue of national security brings fear in people's lives

and the world”). The following analyses focused on the remaining 87 valid responses. In the individualist sample, participants used promotion ( $n=16$ ) and prevention reasons ( $n=11$ ) to a similar extent for the values they ranked as the least important,  $\chi^2(1) = .93$ ,  $p = .34$ . Similarly, in the collectivist sample, participants used promotion ( $n=24$ ) and prevention ( $n=36$ ) reasons to a similar extent for the values they ranked as the least important,  $\chi^2(1) = 2.40$ ,  $p = .12$ .



Table 1.

*Distribution of Types of Reason Given to Central Values and Peripheral Values within Individualist and Collectivist cultures in Study 2*

	Total Sample	Individualist	Collectivist
Types of reason given to central values	( <i>N</i> )	( <i>n</i> <sub>1</sub> )	( <i>n</i> <sub>2</sub> )
Prevention	127	77	50
Promotion	183	123	60
Summary	310	200	110
Types of reason given to peripheral values			
Prevention	127	82	45
Promotion	182	107	75
Summary	309	189	120

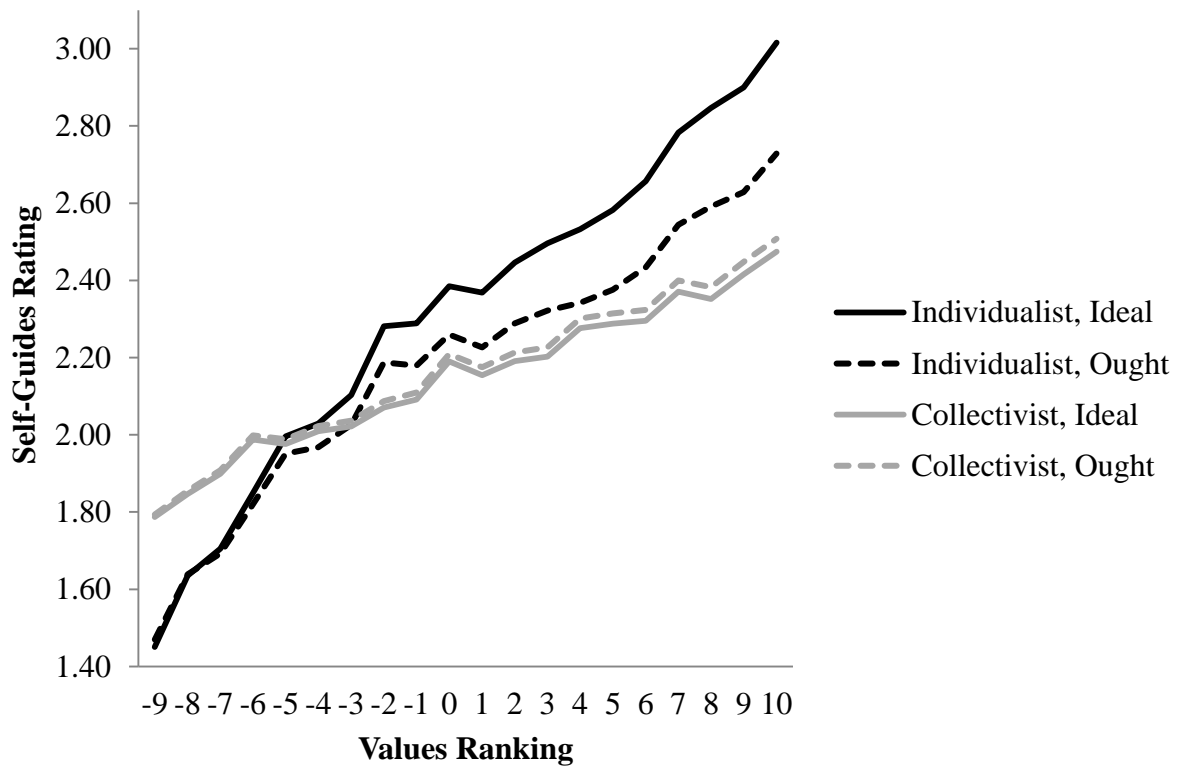


Figure 1. Self-guides ratings as a function of values centrality and culture in Study 1.

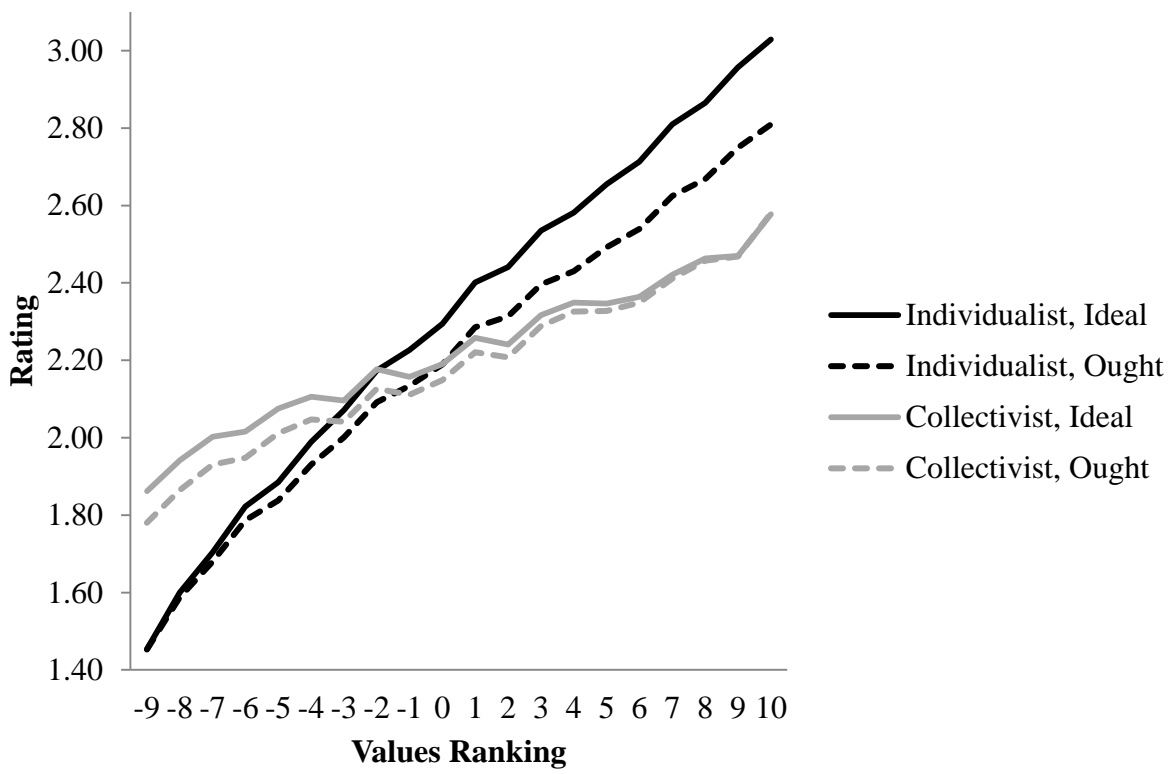


Figure 2. Self-guides ratings as a function of values centrality and culture in Study 2.

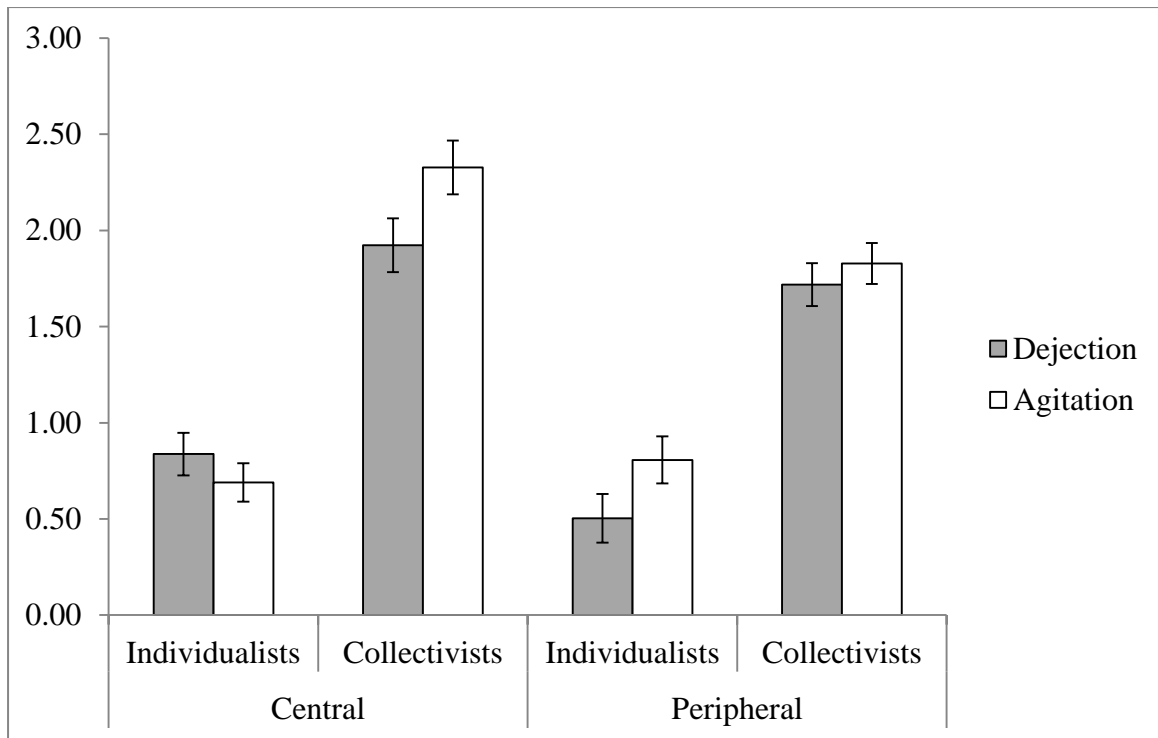


Figure 3. Dejection and Agitation as a function value centrality and culture in Study 3

### References

- Allport, G. W., Vernon, P. E., & Lindzey, G. (1960). *Study of values: Manual and test booklet* (3rd ed.). Boston: Houghton Mifflin.
- Bardi, A., & Schwartz, S. H. (2003). Values and Behavior: Strength and Structure of Relations. *Personality and Social Psychology Bulletin*, *29*, 1207–1220. doi: 10.1177/0146167203254602
- Camacho, C. J., Higgins, E. T., & Luger, L. (2003). Moral value transfer from regulatory fit: What feels right is right and what feels wrong is wrong. *Journal of personality and social psychology*, *84*, 498-510. doi: 10.1037/0022-3514.84.3.498
- Carver, C. S., & Scheier, M. F. (1986). Functional and dysfunctional responses to anxiety: The interaction between expectancies and self-focused attention. In R. Schwarzer (Ed.), *Self-related cognitions in anxiety and motivation* (pp. 111-141). Hillsdale, NJ: Erlbaum.
- Chan, P. R. D. K. S. (1997). Cultural differences in the relation between self-discrepancy and life satisfaction. *International Journal of Psychology*, *32*, 387-398. doi: 10.1080/002075997400638
- Cooper, J. (1999). Unwanted consequences and the self: In search of the motivation for dissonance reduction. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 149-173). Washington: American Psychological Association.
- Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, *67*, 382-394. doi: 10.1037/0022-3514.67.3.382

- Friedman, R., & Forster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology, 81*, 1001-1013. doi: 10.1037/0022-3514.81.6.1001
- Hamamura, T., Meijer, Z., Heine, S. J., Kamaya, K., & Hori, I. (2009). Approach—Avoidance Motivation and Information Processing: A Cross-Cultural Analysis. *Personality and Social Psychology Bulletin, 35*, 454-462. doi: 10.1177/0146167208329512
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures, 1*, 77-89. doi: 10.1080/19312450709336664
- Heck, Thomas, & Tabata. (2013). *Multilevel and Longitudinal Modeling with IBM SPSS* (2nd ed.). NY: Routledge.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319-340. doi: 10.1037/0033-295X.94.3.319
- Higgins, E. T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 20, pp. 93-136). San Diego, CA: Academic Press.
- Higgins, E. T. (1996). The "self digest": self-knowledge serving self-regulatory functions. *Journal of personality and social psychology, 71*, 1062-1083. doi: 10.1037/0022-3514.71.6.1062
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280-1300. doi: 10.1037/0003-066X.52.12.1280
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (pp. 1-46.). San Diego, CA: Academic Press.

- Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: how magnitude, accessibility, and type of discrepancy influence affect. *Journal of personality and social psychology*, *51*, 5-15. doi: 10.1037/0022-3514.51.1.5
- Higgins, E. T., Klein, R., & Strauman, T. (1985). Self-concept discrepancy theory: A psychological model for distinguishing among different aspects of depression and anxiety. *Social cognition*, *3*, 51-76. doi: 10.1521/soco.1985.3.1.51
- Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality & Social Psychology*, *72*, 515-525. doi: 10.1037/0022-3514.72.3.515
- Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality and Social Psychology Bulletin*, *18*, 527-535. doi: 10.1177/0146167292185002
- Johnson, F. (1985). The Western concept of self. In A. Marsella, G. D. Vos & F. L. K. Hsu (Eds.), *Culture and self: Asian and Western perspectives* (pp. 91- 138). New York: Tavistock.
- Krantz, J. H. (1995-2015), Psychological Research on the Net.  
<http://psych.hanover.edu/Research/exponnet.html>
- Kim, H., & Markus, H. R. (1999). Uniqueness or deviance, harmony or conformity: A cultural analysis. *Journal of Personality and Social Psychology*, *77*, 785–800. doi: 10.1037/0022-3514.77.4.785
- Kim, K. B., & Aubrey, J. S. (in press). A cross-cultural comparison of cognitive and affective mediators in the relationship between media use and body image disturbance: focusing on US and Korean women. *Asian Journal of Communication*, 1-18. doi: 10.1080/01292986.2014.995681

- Kluckhohn, C. (1951). Values and value-orientations in the theory of action: an exploration in definition and classification. In T. Parsons & E. Shils (Eds.), *Toward a general theory of action* (pp. 388-433). Cambridge, MA: Harvard University Press.
- Kluckhohn, F. R., & Strodtbeck, F. L. (1961). *Variations in value orientations*. Evanston IL: Row, Peterson.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: the role of interdependence in regulatory focus. *Journal of personality and social psychology*, 78, 1122-1134. doi: 10.1037/0022-3514.78.6.1122
- Leikas, S., Lonnqvist, J., Verkasalo, M., & Lindeman, M. (2009). Regulatory focus systems and personal values. *European Journal of Social Psychology*, 39, 415-429. doi: 10.1002/ejsp.547
- Lockwood, P., Marshall, T. C., & Sadler, P. (2005). Promoting success or preventing failure: Cultural differences in motivation by positive and negative role models. *Personality and Social Psychology Bulletin*, 31(3), 379-392. doi: 10.1177/0146167204271598
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253. doi: 10.1037/0033-295X.98.2.224
- Miller, J. G. (1988). Bridging the content-structure dichotomy: Culture and the self. In M. H. Bond (Ed.), *The cross-cultural challenge to social psychology* (pp. 266-281). Beverly Hills, CA: Sage.
- Miller, J. G., Bersoff, D. M., & Harwood, R. L. (1990). Perceptions of social responsibilities in India and in the United States: moral imperatives or personal decisions? *Journal of personality and social psychology*, 58, 33-47. doi: 10.1037/0022-3514.58.1.33
- Miller, J. G., Das, R., & Chakravarthy, S. (2011). Culture and the role of choice in agency. *Journal of personality and social psychology*, 101, 46-61. doi: 10.1037/a0023330



- Morris, M. W. (2013). Values as the Essence of Culture: Foundation or Fallacy? *Journal of Cross-Cultural Psychology*, 45(1), 14-24. doi: 10.1177/0022022113513400
- Nakane, C. (1970). *Japanese society*. Berkeley: University of California Press.
- Peng, K., Nisbett, R. E., & Wong, N. Y. C. (1997). Validity problems comparing values across cultures and possible solutions. *Psychological Methods*, 2, 329-344.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437-448. doi: 10.3102/10769986031004437
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The Big Five Personality Factors and Personal Values. *Personality and Social Psychology Bulletin*, 28, 789-801. doi: 10.1177/0146167202289008
- Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4, 255-277. doi: 10.1207/S15327957PSPR0403\_4
- Rokeach, M. (1973). *The Nature of Human Values*. New York: Free Press.
- Snijders T. A. B., Bosker R. J. Multilevel Analysis. *An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage Publications; 2004.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 10, pp. 221-279). San Diego, CA: Academic Press.
- Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review*, 48, 23-47. doi: 10.1111/j.1464-0597.1999.tb00047.x

- Schwartz, S. H. (2013). Rethinking the Concept and Measurement of Societal Culture in Light of Empirical Findings. *Journal of Cross-Cultural Psychology, 45*(1), 5-13. doi: 10.1177/0022022113490830
- Schwartz, S. H., Cieciuch, J., Vecchione, M., Davidov, E., Fischer, R., Beierlein, C., . . . Konty, M. (2012). Refining the theory of basic individual values. *Journal of Personality & Social Psychology, 103*, 663-688. doi: 10.1037/a0029393
- Schwartz, S. H., & Sagiv, L. (1995). Identifying Culture-Specifics in the Content and Structure of Values. *Journal of Cross-Cultural Psychology, 26*, 92-116. doi: 10.1177/0022022195261007
- Semin, G. R., Higgins, E. T., de Montes, L. G., & Estourget, Y. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology, 89*. doi: 10.1037/0022-3514.89.1.36
- Steiger, J. H. (2004). Beyond the F test: Effect size confidence intervals and tests of close fit in the analysis of variance and contrast analysis. *Psychological Methods, 9*, 164-182.
- Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology, 74*, 482-493. doi: 10.1037/0022-3514.74.2.482
- Triandis, H. C., McCusker, C., & Hui, C. (1990). Multimethod probes of individualism and collectivism. *Journal Of Personality And Social Psychology, 59*, 1006-1020. doi: 10.1037/0022-3514.59.5.1006
- Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of personality and social psychology, 90*, 288-307. doi: 10.1037/0022-3514.90.2.288
- Vignoles, V. L., Owe, E., Becker, M., Brown, R. B., Smith P., M., Easterbrook., . . . Yamakoglu, N. (2014). *Deconstructing "Independence vs. Interdependence": A multidimensional approach to cultural models of selfhood*. Paper presented at the The 17th General

Meeting of the European Association of Social Psychology, Amsterdam, The Netherlands

Wuensch, K. L. (2012). Using SPSS to obtain a confidence interval for Cohen's d. from

<http://core.ecu.edu/psyc/wuenschk/SPSS/CI-d-SPSS.pdf>