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## **Peering Into the "Magnum Mysterium" of Culture**

## **The Explanatory Power of Descriptive Norms**

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The purpose of this research is to test whether descriptive norms, or cognitions about typical beliefs, values, and behaviors of one's group, can explain cultural influence in the domains of blame attribution and harm perception. In Study 1, using participants from the United States and South Korea, the authors find that individuals with lower (vs. higher) collectivistic descriptive norms ascribed more blame after more intentional acts and less blame after less intentional acts. In the second study, using American and South Korean participants, the authors find that individuals with lower (vs. higher) collectivistic descriptive norms perceived more harm after right violations and less harm after duty violations. Collectivistic personal attitudes did not predict the expected differences in attribution of blame or perception of harm. The descriptive norm account of cultural influence provides an alternative to the currently dominant personal attitude paradigm.

*Keywords:* collectivism; descriptive norms; cultural influence; blame attribution; harm perception

Fascination with cultural differences predates cross-cultural psychology. The fields of ethnology and anthropology born out of increased exposure to "exotic" cultures first asked the inevitable question—why are *they* so different from *us*? Cross-cultural psychology is a new academic arrival that aims to augment long-standing sociological understandings with those of a more cognitive pedigree. The offering of psychological explanations for cultural influence has been expressed in vivid metaphors such as "unpackaging culture" (Whiting & Whiting, 1975), "peeling the onion" (Poortinga, van de Vijver, Joe, & van de Koppel, 1987), and, more recently, "dispelling the fog" or the "magnum mysterium" of culture (Bond & van de Vijver, in press). Thus, the mandate of scholarly cross-cultural study is not simply to note culture's consequences but also to account for them. As Bond and van de Vijver (in press) admonished us, "We must organize our findings theoretically before we

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drown in a welter of differences, we must dispel the thickening fog of culture" (p. 9). Accordingly, the purpose of our research is to go beyond documenting cultural differences in behavior and more directly measure and test the mediating psychological mechanisms by which culture exerts its influence.

As is standard in many fields of scientific inquiry, there is a dominant paradigm firmly entrenched in the quest to understand cultural influence. Benefiting from the pioneering theoretical and empirical work of Hofstede (1980), Schwartz (1992), Triandis (1972), and Kluckhohn and Strodtbeck (1961), cross-cultural psychology has adopted the difference in attitudes and values perspective as a nearly paradigmatic explanation of culture influence. Indeed, personal attitudes have been used to explain cultural differences in a wide range of phenomena such as well-being, self-esteem, emotions, attribution style, persuasion, duty violations, negotiation, conflict management, communication, group work, and organizational behavior (for reviews see Gelfand, Erez, & Aycan, 2007; Lehman, Chiu, & Schaller, 2004; Oyserman, Coon, & Kemmelmeier, 2002a; Smith, Bond, & Kagitcibasi, 2006). Although personal attitudes may be fruitful explanatory concepts, a single paradigm is unlikely to serve as a theoretical panacea for understanding all cultural influence (Bond, 1997; Bond & van de Vijver, in press; Kagitcibasi, 1997; Markus & Kitayama, 2003; Miller, 2002; Oyserman, Kemmelmeier, & Coon, 2002). Accordingly, we posit that the quest to demystify cultural influence may be aided by considering a wider range of psychological constructs, thus developing a broader tool kit of theoretical accounts for cultural influence. In particular, we explore the possibility that descriptive norms, or cognitions about typical beliefs, values, and behaviors of one's group, might also serve as powerful cultural "defoggers."

#### The Descriptive Norms Perspective

The cognitive construct of a descriptive norm has a long history in social psychology (for a review, see Cialdini & Trost, 1998). Indeed, a plethora of social cognitive theory (e.g., Hardin & Higgins, 1996; Hogg & Abrams, 1993; Latané, 1996) and laboratory and field evidence (e.g., Aarts & Dijksterhuis, 2003; Lowery, Hardin, & Sinclair, 2001; Sechrist & Stangor, 2001) support the notion that people's cognitive and behavioral reactions are partly shaped by cognitions about the beliefs and behaviors of their social groups. For instance, in an example of descriptive norms' psychological power, Sechrist and Stangor (2001) showed that the relationship between attitudes and behavior is strengthened when there is a perceived social consensus surrounding the attitude (i.e., a perception of a descriptive norm). Relatedly, Lowery et al. (2001) demonstrated that stereotypes are particularly powerful in affecting behavior when the stereotypes are perceived to be held by important reference groups. Finally, meta-analytic evidence (Rivis & Sheeran, 2003) suggests that descriptive norms have a medium to strong correlation with behavioral intentions. In sum, psychologists have clearly illustrated that descriptive norms can be regarded as personally held cognitions concerning important others' attitudes and behaviors (Cialdini & Trost, 1998), which is different than more sociologically inclined perspectives (e.g., Durkheim, 1895/1950; Pelto, 1968) that consider norms to be society-level constructs that exist outside of the individual (e.g., codified system of laws).

Although far from typical, the descriptive norm perspective is slowly emerging in crosscultural research. In one important line of research, Wan, Chiu, Peng, and Tam (2007) and Wan, Chiu, Tam, et al. (2007) demonstrated the predictive utility of a perceived cultural importance approach to cultural identification. The authors showed that individuals' perceptions of what is normative in a given culture plays a key role in determining individuals' attachment to that particular culture. In another pioneering line of research, Fischer (2006) found correlational evidence for the relationship between perceptions of nationwide values (e.g., universalism and conformity values) and self-reported behaviors (e.g., avoid-ing arguments; Also see Fischer et al., in press; Bierbrauer, Meyer, & Wolfradt, 1994). Also notable is recent laboratory research that suggests that cultural frame switching in bicultural individuals is mediated by descriptive norm perceptions (Zou, Tam, Morris, Lee, Lau, Chiu, 2008). Finally, normative perceptions have been repeatedly theorized to drive cultural differences in behavior (Matsumoto, 2007; Smith & Bond, 2003). However, to date there has been no direct evidence that differences in perceptions of what is socially normative across nations can account for cultural influences on behavior across experimental conditions. The purpose of our research is to provide such evidence.

We adopt a shared reality perspective (e.g., Hardin & Higgins, 1996; Hogg & Abrams, 1993) and argue that descriptive norms can be seen as a part and parcel of a situational construal that informs the individual as to the state of his or her social reality that is important for both epistemological and utilitarian reasons. In other words, knowledge of their groups' shared realities helps individuals ascertain correct and useful courses of action (Hardin & Higgins, 1996). This implies that to thrive in a social environment, people must not only be keenly aware of the thoughts and intentions of others in that social environment but also allow such social cognitions a unique status in their behavioral decisions. Building on this shared reality perspective, descriptive norms can be understood as perceptions of shared realities that (a) vary systematically across cultures and (b) have considerable effects on behavior. We test this idea by examining the predictive efficacy of collectivistic descriptive norms in the domains of blame attribution (Study 1) and harm perception (Study 2). We also test the collectivistic personal attitudes account of cultural differences in both domains. We do so to establish the discriminant validity of collectivistic descriptive norms as well as compare their predictive validity vis-à-vis collectivistic personal attitudes.

#### **Study 1: Intent and Blame Attribution**

Social psychological theory and evidence have suggested that the perceived intentionality in committing a violation has a significant influence on blame attribution (e.g., Schlenker, Britt, Pennington, Murphy, & Doherty, 1994). However, cross-cultural research has shown that actor intentionality plays a less important role in collectivistic cultures. Collectivists have been found to be less likely to note actors' intentionality (e.g., Chua, Leu, & Nisbett, 2005; Menon, Morris, Chiu, & Hong, 1999) and use it to ascertain blameworthiness (Hamilton & Sanders, 1992). Consistent with previous findings, we expected that individuals who are more collectivistic would be less influenced by the intentionality of an act in blame attribution. In other words, because more collectivistic individuals are less attuned to intentionality concerns, they should blame less after highly intentional acts. However, when an act has little intentionality, more collectivistic individuals who are not as attuned to levels of intent should not reduce their blame attribution as precipitously as less collectivistic individuals who are attentive to intentionality concerns.

#### Hypotheses

Culture-level data have repeatedly shown that South Korea is indeed more collectivistic than the United States (e.g., Hofstede, 1980; Oyserman, Coon, et al., 2002). As such, we expect that South Koreans will be more collectivistic in their descriptive norms than Americans (Hypothesis 1). Second, we expect that the level of collectivism will interact with level of actor intentionality to predict ascribed blame. Consistent with the research cited, we expect that after a highly intentional act *less* blame will be ascribed by individuals with higher (vs. lower) collectivistic descriptive norms, whereas after an act with little intentionality *more* blame will be ascribed by individuals with higher (vs. lower) collectivistic descriptive norms, whether collectivistic personal attitudes varied by country and interacted with intentionality to influence ascribed blame.

We use nation as the descriptive norm target because the focal cultural concerns of collectivism, intentionally, duties, and rights are theorized to be widespread throughout national institutions, producing influential shared meanings and practices. Arguably, nationally shared language and common communication channels are some of the aspects that have allowed for the creation of national socialities that help define and shape focal cultural concerns (Anderson, 1983; Gellner, 1997). In sum, although only one of many possible reference groups, national groups have become important perceived epistemic authorities (Kruglanski, Pierro, Mannetti, & De Grada, 2006) that are influential arbiters of everyday behavior.

#### **Participants**

Study 1 involved 158 participants from a mid-Atlantic U.S. university and from a university in Seoul, South Korea (US n = 77, SK n = 81). The average age for participants was 19.8 ( $M_{\rm US} = 19.2$ ;  $M_{\rm SK} = 20.2$ ). The overall gender composition was 63.9% female (US = 66.2% female; SK = 61.7% female).

#### **Experimental Design and Procedure**

The study consisted of a 2 (collectivism: high vs. low)  $\times$  2 (level of intent: high vs. low) design. Collectivism was measured by both personal attitudes and descriptive norms scales (see Appendixes A and B for complete measures and below for sample items). After being assigned to conditions, participants read scenarios and responded to blame ascription items. Following the administration of a distracter task to avoid priming effects (Macrae & Johnston, 1998), participants responded to collectivistic personal attitude and descriptive norm scales that were counterbalanced.

#### **Materials**

Based on previous scenario manipulation of intentionality (Gonzales, Manning, & Haugen, 1992), a team of American and South Korean researchers designed the materials to reflect everyday acts of intentional and unintentional behavior that are realistic in both U.S. and South Korean cultural contexts. To confirm local realism of our materials, we utilized focus groups consisting of Americans and South Koreans. Finally, we embedded realism and manipulation checks after experimental manipulations.

We manipulated the high versus low intentionality of an offense in the following manner:

- You work at an advertising agency. Last month you were asked to come up with a new advertising campaign for a mobile phone company. Your agency was very interested in attracting more business from this mobile phone company in the future.
- A co-worker, with whom you work regularly, was going to deliver your project by 5 p.m. that day, the deadline for the job.
- **High intention:** Unfortunately, later in the day he decided that the delivery of your project was not a priority. As a result, he intentionally turned in your project after the 5 p.m. dead-line. Due to the lateness of the project the mobile phone company could not consider your advertising campaign and did not buy it.
- **Low intention:** Unfortunately, on the way to delivery, he got into a car accident that was completely not his fault. As a result, he turned in your project after the 5 p.m. deadline. Due to the lateness of the project the mobile phone company could not consider your advertising campaign and did not buy it.

*Manipulation and realism checks*. A manipulation check for the intent condition was employed. Perceived intentional control level was measured via the following 5-point Likert-type scale item  $(1 = strongly \ disagree, 5 = strongly \ agree)$ : "The co-worker acted on purpose." It was expected that participants would perceive greater intentional control in the high intent condition than the low intent condition. The realism of the scenarios was ascertained by asking participants to agree or disagree on a 5-point Likert-type scale  $(1 = strongly \ disagree, 5 = strongly \ agree)$  to the following statement: "The situation described in the story is realistic."

Measures. To test for convergent validity, we examined two personal attitudes and two descriptive norms scales that were drawn from Singelis (1994) and Triandis and Gelfand (1998). Appendix A presents the Singelis (1994) collectivistic personal attitude and descriptive norm scales. To measure personal attitude collectivism, we used Singelis's interdependent self construal scale, which consisted of 15 items that were answered on a 7-point scale (1 = strongly disagree, 7 = strongly agree). A sample item is the following: "I will sacrifice my self interest for the benefit of the group I am in." To develop the descriptive norm scale based on Singelis's items, we replaced the personal referent of the attitude items with that of the appropriate nationality in the descriptive norm items (for a similar approach, see Chirkov & Ryan, 2001; Fischer, 2006; Wan, Chiu, Peng, et al., 2007; Wan, Chiu, Tam, et al., 2007). For instance, the descriptive norm scale based on adapted Singelis's items asked how frequently most Koreans (or Americans) sacrifice their own self-interest for the benefit of their group. To bolster statistical conclusion validity, we also used Triandis and Gelfand's (1998) personal attitude scale as well as its descriptive norm counterpart (see Appendix B). The personal attitude scale consists of 12 items that were answered on a 5-point scale (1 = not at all important, 5 = very important). A sample item is the following: "To respect decisions made by one's group/collective." The descriptive norm scale based on adapted Triandis and Gelfand items asked how frequently most Koreans (or Americans) respect decisions made by their group or collective. Attribution of blame was measured with a three-item scale consisting of the following items: "I blame the co-worker for the way he acted," "The co-worker is solely to blame for his actions," and

"The co-worker wronged me" (1 = strongly disagree, 5 = strongly agree). The attribution of blame scale had good reliability ( $\alpha_{\text{US}} = .89$ ,  $\alpha_{\text{SK}} = .75$ ).

We tested the cross-cultural model fit of all personal attitude and descriptive norm scales via multigroup confirmatory factor analyses (CFAs). To maximize the statistical power of the multigroup CFAs, we pooled participants from both studies, resulting in a sample of 157 Americans and 164 South Koreans. The grouping variable was country because we tested for measurement equivalence across countries. Given that individual items tend to have low reliabilities and often violate assumptions of multivariate normality, we used the more common parceling method where three-item clusters or "parcels" are used as indicators instead of individual items (Bandalos, 2002; Nasser & Wisenbaker, 2003). The multigroup model fit was very good for the Singelis (1994) personal attitude scale,  $\chi^2(14) = 0.93$ , p = .52 (comparative fit index [CFI] = 1.00, standardized root mean square residual [SRMR] = .05, root mean square error of approximation [RMSEA] = 0), for the Triandis and Gelfand (1998) personal attitude scale,  $\chi^2(7) = 1.56$ , p = .14 (CFI = .99, SRMR = .05, RMSEA = .06), for the Singelis descriptive norm scale,  $\chi^2(14) = 1.67$ , p = .05 (CFI = .97, SRMR = .06, RMSEA = .07), and for the Triandis and Gelfand descriptive norm scale,  $\chi^2(7) = 0.66$ , p = .70 (CFI = 1.00, SRMR = .03, RMSEA = 0). All parcel loadings were above .40. Also, we tested the reliability of the personal attitude and descriptive norm scales within both United States and South Korea. Across both countries, scale reliabilities were adequate for the Singelis personal attitude scale  $(\alpha_{\rm US} = .71, \alpha_{\rm SK} = .66)$ , for the Triandis and Gelfand personal attitude scale  $(\alpha_{\rm US} = .77, \alpha_{\rm SK} = .72)$ , for the Singelis descriptive norm scale ( $\alpha_{US} = .73$ ,  $\alpha_{SK} = .76$ ), and for the Triandis and Gelfand descriptive norm scale ( $\alpha_{\text{US}} = .80, \alpha_{\text{SK}} = .78$ ).

All translation procedures of materials included initial translation by Korean collaborators, independent back translation by a bilingual individual, comparison of original scenarios to the back-translated version, and finally resolution of remaining discrepancies.

#### Study 1 Results

Table 1 present the means, standard deviations, intercorrelations, and overall scale alphas for all the variables in the study. As can be seen in Table 1, the Singelis (1994) and the Triandis and Gelfand (1998) descriptive norms scales are strongly related (r = .52, p < .01), as are the two personal attitude scales (r = .69, p < .01). Consistent with the notion that descriptive norms are different from personal attitudes, Table 1 shows that there was no relationship between the Singelis (1994) based descriptive norm and personal attitude scales (r = .02, p > .05) or the Triandis and Gelfand (1998) based descriptive norm and personal attitude scales (r = .03, p > .05). These results suggest both convergent and discriminant validity of the descriptive norm construct (Campbell & Fiske, 1959).

*Manipulation and realism checks.* The manipulation check revealed a significant main effect of the intent condition ( $\beta = -1.11, p < .0001$ ), with participants agreeing that the actor had more intentional control in the high intent condition than in the low intent condition. The realism check revealed no significant effect of country ( $\beta = -.02, p = .78$ ) or intention condition ( $\beta = -.06, p = .31$ ).

*Hypothesis testing*. The study's hypotheses were tested using a SPSS procedure for testing moderated mediation models (Preacher, Rucker, & Hayes, 2007). The moderated

		Study	1 Descr	iptive Sta	tistics				
						Correlatio	u		
	Μ	SD		2	3	4	5	9	7
1. Country $(-1 = US, 1 = SK)$	N/A	N/A		N/A	.17*	18*	38**	.66**	.38**
2. Level of intent $(-1 = high, 1 = low)$	N/A	N/A			72**	02	04	11	05
3. Attribution of blame	3.04	1.10			.83	01	.01	.20*	.12
4. Personal attitudes collectivism	4.70	0.59				.68	.52**	02	00.
(Singelis, 1994)									
5. Personal attitudes collectivism	3.44	0.50					LL.	23**	03
(Triandis & Gelfand, 1998)									
<ol> <li>Descriptive norms collectivism (based on Singelis, 1994)</li> </ol>	3.38	0.58						.85	.69*
7. Descriptive norms collectivism	3.44	0.53							.81
(Dascu VII IIIAIIUIS & UCHAIU, 1990)									
Note: Scale alphas are on the diagonal.									

Table 1

\*p < .05, two-tailed. \*\*p < .01, two-tailed.

t	<i>p</i> <
-0.28	.78
11.10	.0001
52.68	.0001
2.84	.06
-0.41	.69
-13.67	.0001
3.82	.001
	-0.28 11.10 52.68 2.84 -0.41 -13.67 3.82

# Table 2 Study 1 Regressions With Collectivistic Descriptive Norms (Based on Singelis, 1994)

Study 1 Regressions With Collectivistic Descriptive Norms (Based on Triandis & Gelfand, 1998)

	β	SE	t	<i>p</i> <
DV = collectivistic descriptive norms				
Constant	01	.07	-0.13	.90
Country $(-1 = US, 1 = SK)$	.38	.07	5.17	.0001
DV = attribution of blame				
Constant	3.03	.06	51.77	.0001
Country	.20	.06	3.18	.002
Descriptive norms	.01	.06	0.15	.89
Intent $(-1 = high, 1 = low)$	79	.06	-13.52	.0001
Norms × intent	.17	.06	2.97	.01

mediation test can be broken down into two regression tests: (a) a test of the country variable's effect on collectivism and (b) a test of the collectivism by level of intent interaction on attribution of blame, while controlling for the country effect. The two personal attitude and two descriptive norm scales were converted into z scores for this analysis.

In our first hypothesis, we expected that South Koreans would be more collectivistic in their descriptive norms than Americans. In our second hypothesis, we expected that descriptive norms would interact with level of intent to influence level of ascribed blame. The test of Hypotheses 1 and 2 using both of the descriptive norm scales yielded supporting results. As Table 2 shows, South Koreans scored higher on the Singelis descriptive norm measure ( $\beta = .66$ , p < .0001, d = 1.78;  $M_{\rm US} = 2.99$ , SD = 0.42;  $M_{\rm SK} = 3.76$ , SD = 0.45) and the Triandis and Gelfand measure ( $\beta = .38$ , p < .0001, d = 0.83;  $M_{\rm US} = 3.23$ , SD = 0.47;  $M_{\rm SK} = 3.63$ , SD = 0.51). Thus, hypothesis 1 was supported. In addition, in support of Hypothesis 2, both descriptive norm measures interacted with level of intentionality to predict blame in the hypothesized direction ( $\beta = .22$ , p < .001, d = 0.33, Singelis descriptive norm scale;  $\beta = .17$ , p < .01, d = 0.35, Triandis and Gelfand descriptive norm scale). Figure 1 depicts the interaction with the descriptive norm scale based on Singelis's items. The interaction with the descriptive norm scale based on Triandis and Gelfand's items exhibits the same pattern. Figure 1 shows that in the high intent condition, less blame





was attributed by individuals who perceived their national context as more (vs. less) collectivistic. The opposite is seen in the low intent condition, where more blame was attributed by individuals who perceived their national context as more (vs. less) collectivistic. Put differently, individuals with low collectivistic descriptive norms were more influenced by both high and low intentionality when attributing blame than individuals with high collectivistic descriptive norms.

As can be seen in Table 3, tests exploring personal attitude scales were more equivocal. First, the effects were in the opposite direction from extant cross-cultural theory, with Americans scoring higher on the Singelis personal attitude scale ( $\beta = -.18$ , p < .05, d = -0.38;  $M_{\rm US} = 4.82$ , SD = 0.58;  $M_{\rm SK} = 4.60$ , SD = 0.58) and the Triandis and Gelfand personal attitude scale ( $\beta = -.37$ , p < .0001, d = -0.81;  $M_{\rm US} = 3.63$ , SD = 0.48;  $M_{\rm SK} = 3.26$ , SD = 0.45). Also, neither the Singelis (1994) personal attitude scale nor the Triandis and Gelfand (1998) attitudes scale interacted with level of intent to predict blame attribution (see Table 3).

We also explored whether descriptive norms continue to predict after the influence of collectivistic personal attitudes was statistically controlled. Examining Singelis (1994) and Triandis and Gelfand (1998) scales separately, we found that, controlling for the corresponding collectivistic personal attitude scales, South Koreans still exhibited significantly higher descriptive norms than Americans (Singelis:  $\beta = .68$ , p < .0001; Triandis and Gelfand:  $\beta = .43$ , p < .0001). In addition, controlling for the interaction between the corresponding collectivistic personal attitudes and condition, descriptive norm by condition interactions remained significant (Singelis:  $\beta = .22$ , p < .001; Triandis and Gelfand:  $\beta = .17$ , p < .01). Thus, Hypotheses 1 and 2 were supported for both of the descriptive norms scales, even when the personal attitude scales and the personal attitudes by condition interactions were statistically controlled. We also did not find any significant three-way interactions among condition, personal attitudes, and descriptive norms on ascription of blame.



#### Figure 2 SEMs for Study 1

Note: Unstandardized beta weights are reported. The path from collectivism to attribution of blame was allowed to vary as a function of the intent condition. All other paths were constrained to be equal across intent conditions. \*p < .05, two-tailed. \*\*p < .01, two-tailed.

• 0				
	β	SE	t	<i>p</i> <
DV = collectivistic personal attitudes				
Constant	.00	.08	0.06	.95
Country $(-1 = US, 1 = SK)$	18	.08	-2.34	.02
DV = attribution of blame				
Constant	3.02	.06	50.34	.0001
Country	.20	.06	3.30	.01
Personal attitudes	.01	.06	0.13	.90
Intent $(-1 = high, 1 = low)$	79	.06	-13.21	.0001
Attitudes × intent	05	.06	-0.84	.40

 Table 3

 Study 1 Regressions With Collectivistic Personal Attitudes (Singelis, 1994)

#### Study 1 Regressions With Collectivistic Personal Attitudes (Triandis & Gelfand, 1998)

	β	SE	t	<i>p</i> <
DV = collectivistic personal attitudes				
Constant	.01	.07	0.13	.90
Country $(-1 = US, 1 = SK)$	37	.07	-5.06	.0001
DV = attribution of blame				
Constant	.02	.06	50.33	.0001
Country	.22	.07	3.46	.001
Personal attitudes	.06	.07	0.95	.35
Intent $(-1 = high, 1 = low)$	79	.06	-13.17	.0001
Attitudes × intent	01	.06	-0.15	.88

Structural equation model (SEM) tests of hypotheses. To test the overall fit of the moderated mediation model, we tested a multigroup SEM where the grouping variable was the intent condition (high vs. low intent). Given the high correlation between the descriptive norm scales as well as their identical interactions with condition on blame, we utilized the average of all scale items for the descriptive norm score.

To avoid possible violations of standard error normality assumptions, we obtained biascorrected bootstrapped standard errors based on 20,000 replications. To model the moderated mediation, the path from collectivism to attribution of blame was allowed to vary as a function of the intent condition. The paths from country to collectivism and country to attribution of blame were constrained to be equal across the intent conditions. The SEM analyses were carried out in MPLUS Version 3.11. The overall fit of the model was very good,  $\chi^2(2) = 3.98$ , p = .13 (CFI = .98, SRMR = .05, RMSEA = .11). As can be seen in Figure 2, this model's path coefficients supported our hypotheses, with collectivistic descriptive norms relating negatively to the attribution of blame in the high intent condition ( $\beta = -.43$ , p < .05) and positively to the attribution of blame in the low intent condition ( $\beta = .41$ , p < .05). Taken together, these slopes indicated a significant two-way interaction.

We also ran identical SEM analysis with an overall personal attitudes collectivism score for each individual. Consistent with our regression findings, the overall fit of the model was poor,  $\chi^2(2) = 14.24$ , p < .001 (CFI = .62, SRMR = .13, RMSEA = .28). As can be seen in Figure 2, this model's path coefficients were not significant in the high intent condition ( $\beta = -.15$ ) and the low intent condition ( $\beta = -.02$ ).

#### **Study 1 Discussion**

In Study 1, we tested both the descriptive norm and personal attitude explanations for cultural influence in the domain of attribution. Both constructs were tested twice, using two scales for each construct. Following previous culture theory and evidence, we expected that South Koreans would exhibit higher collectivistic descriptive norms than Americans and that individuals scoring higher on collectivistic descriptive norms would be less influenced by the intentionality of an act in their blame attributions than individuals scoring lower on collectivistic descriptive norms. Our hypotheses were supported for both of the descriptive norm scales of collectivism. Koreans scored significantly higher on both descriptive norm scales. And, as anticipated by individualism–collectivism theory, higher collectivism defined by the descriptive norm method resulted in lower blame after more intentional acts and higher blame after less intentional acts.

Conversely, personal attitudes did not reflect the expected cultural influence, with Americans scoring higher than South Koreans on both of the two personal attitude collectivism scales. Also, personal attitudes did not interact with intentionality to influence blame attribution. We further address the personal attitudes results in the final discussion. In sum, the overall consistency of evidence for the descriptive norm account of collectivism suggests some optimism that descriptive norms can help broaden the conceptual tool kit used to explain cultural differences. However, given that these findings are isolated to a single domain of cross-cultural theory, they should be considered preliminary. Further conceptual replication in a different domain of cross-cultural theory would provide more confidence in the explanatory power of descriptive norms. As such, Study 2 examines the descriptive norm and personal attitude constructs in the harm perception domain.

#### **Study 2: Right Versus Duty Violations**

The purpose of the second study was to test the collectivistic descriptive norm account of cultural influence on harm perception. The notion that rights are focal concerns in Western cultures whereas duties are focal concerns in Asian cultures is a central part of individualism–collectivism theory (Oyserman, Coon, et al., 2002; Shweder & Miller, 1985). As Darley and Pittman (2003) noted, "We are in a [Western] culture in which we would expect anger to be the most frequent response . . . [when] people's autonomy of action has been violated by harms to their person or property" (p. 333). Studies have found that although fulfillment of duties and obligations is critically important in Asian cultures, the sanctity of individual rights is of higher relevance in Western cultures (e.g., Gelfand et al., 2001; Hong, Ip, Chui, Morris, & Menon, 2001). As such, we expected that when rights are violated, those higher (vs. lower) on collectivism will perceive *less* harm, whereas when duties are violated, individuals higher (vs. lower) on collectivism will perceive *more* harm.

#### Hypotheses

First, to replicate Study 1's findings, we examined whether South Koreans are more collectivistic than Americans in their descriptive norms (Hypothesis 3). This hypothesis is identical to Hypothesis 1 in the previous study. Second, we tested whether individuals' perceptions of collectivistic descriptive norms interacted with the type of violation (right vs. duty) to predict perceived harm (Hypothesis 4). As in Study 1, these hypotheses can be represented by a moderated mediation model. We also explored whether collectivistic personal attitudes varied by country and interacted with violation type to influence perceived harm.

#### **Participants**

Study 2 involved 163 participants from the same universities as in Study 1 (US n = 80, SK n = 83). The average age for participants was 19.8 ( $M_{\text{US}} = 18.7$ ,  $M_{\text{SK}} = 20.8$ ). The overall gender composition was 66.3% female (US = 76.3% female, SK = 56.6% female). Because of the different gender ratios across countries, we examined whether controlling for gender changed our results. Controlling for gender did not change our results, nor was gender a significant predictor of harm. As such, gender was excluded from analyses reported in the article.

#### **Experimental Design and Procedure**

The design, procedures, and analyses were identical to those of Study 1, except that instead of act intentionality, violation type was the manipulated. The study consisted of a 2 (collectivism: high vs. low)  $\times$  2 (type of violation: right vs. duty) design.

#### **Materials**

A team of American and South Korean researchers designed the right and duty violation manipulations that are realistic in both U.S. and South Korean contexts. To confirm the local realism of our materials, as in Study 1, we utilized focus groups consisting of Americans and South Koreans. Finally, we embedded realism and manipulation checks after experimental manipulations.

We manipulated the right versus duty nature of the violations as follows:

- You work at an advertising agency. Last month your agency was asked to come up with a new advertising campaign for a mobile phone company. You and your coworkers were given two weeks to brainstorm ideas for the project. You were told that at the end of the two weeks all of you would meet and present your suggestions.
- **Right violation:** After considerable effort, you came up with some unique and creative ideas for the advertising campaign. As the deadline approached, you happened to share your ideas with a co-worker, with whom you work regularly. However, at the end of the two weeks, during your meeting, that co-worker spoke before you and presented your rightful ideas as his own without giving you any credit.
- **Duty violation:** A co-worker, with whom you work regularly, owed you favor and promised to help. While you were going to brainstorm for ideas, he promised to do research on your client, the mobile phone company, which was vital to completing your recommendations. As the deadline approached, your co-worker informed you that he didn't do the research he owed you, and was not going to fulfill his obligation to you.

*Manipulation and realism checks.* Manipulation checks for the violation variable were employed. Participants were asked to agree or disagree on a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree) to the following statements: "My rights were severely violated in this situation" (rights); "The co-worker went back on promise he made to me" (duties). It was expected that participants would perceive the violation to be more right violating in the right condition and more duty violating in the duty condition. The realism of the scenarios presented was ascertained by asking participants to agree or disagree on 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree) with the following statement: "The situation described in the story is realistic."

*Measures.* The personal attitudes and descriptive norms scales used were the same as those used in Study 1 and were included in the confirmatory multigroup factor analyses performed in Study 1. As reported in Study 1, each of the four scales exhibited acceptable equivalence across cultures.

To test the reliability of personal attitude and descriptive norm scales in Study 2, we computed separate Cronbach's alphas for each country. Across both countries, scale reliabilities were adequate for the Singelis (1994) personal attitude scale ( $\alpha_{US} = .77$ ,  $\alpha_{SK} = .77$ ), for the Triandis and Gelfand (1998) personal attitude scale ( $\alpha_{US} = .79$ ,  $\alpha_{SK} = .77$ ), for the Singelis descriptive norm scale ( $\alpha_{US} = .65$ ,  $\alpha_{SK} = .71$ ), and for the Triandis and Gelfand descriptive norm scale ( $\alpha_{US} = .81$ ,  $\alpha_{SK} = .72$ ).

Perception of harm was measured by a three-item scale consisting of the following questions: "How hurtful was your co-worker's behavior to you?" (1 = not at all hurtful, 5 = extremely hurt-ful), "How offensive was your co-worker's behavior to you?" (1 = not at all, 5 = extremely), "How much did your co-worker's behavior bother you?" (1 = not at all, 5 = extremely). The perception of harm scale had acceptable reliability ( $\alpha_{US} = .76, \alpha_{SK} = .66$ ).

#### **Study 2 Results**

Table 4 presents the means, standard deviations, intercorrelations, and overall scale alphas for all the variables in the study. As can be seen in Table 4, the Singelis (1994) and

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	Μ	SD	1	2	3	4	5	9	L
1. Country $(-1 = US, 1 = SK)$	N/A	N/A		N/A	.03	.05	20*	.64**	.39**
2. Violation type $(-1 = right, 1 = duty)$	N/A	N/A			33*	.11	.01	07	09
3. Perception of harm	4.48	0.54			.70	01	02	.04	.11
4. Personal attitudes collectivism (Singelis, 1994)	4.84	0.66				.75	.65**	.20**	.27**
5. Personal attitudes collectivism (Triandis & Gelfand, 1998)	3.54	0.51					LL.	90.	.19*
6. Descriptive norms collectivism (based on Singelis, 1994)	3.46	0.52						.80	.69*
7. Descriptive norms collectivism (based on Triandis & Gelfand, 1998)	3.51	0.51							.80
Note: Scale alphas are on the diagonal. * $p < .05$ , two-tailed. ** $p < .01$ , two-tailed.									

	Stati
Table 4	<b>2</b> Descriptive

the Triandis and Gelfand (1998) descriptive norms scales were strongly related (r = .65, p < .01), as were the two personal attitude scales (r = .69, p < .01). However, the relationship was weaker between the Singelis-based descriptive norm and personal attitude scales (r = .20, p < .01) and the Triandis and Gelfand–based descriptive norm and personal attitude scales (r = .19, p < .05). Similar to the results of Study 1, these results suggested both convergent and discriminant validity of the descriptive norm construct.

*Manipulation and realism checks.* The manipulation check revealed a significant main effect of the violation condition on the perception of a right violation ( $\beta = -.65$ , p < .0001) and a duty violation ( $\beta = .50$ , p < .0001), with participants agreeing that the offense was more right violating in the right condition and more duty violating in the duty condition. The realism check revealed no significant effect of country ( $\beta = .03$ , p = .56) or violation condition ( $\beta = -.05$ , p = .26).

*Hypothesis testing*. As in Study 1, the hypotheses were tested using two regression tests. In our first hypothesis, we expected that South Koreans would be more collectivistic in their descriptive norms than Americans. In our second hypothesis, we expected that, controlling for country, descriptive norms would interact with type of violation to influence the level of perceived harm. The test of Hypotheses 1 and 2 using both of the descriptive norm scales yielded supporting results. As Table 5 shows, South Koreans scored higher on the Singelis descriptive norm measure ( $\beta = .64$ , p < .0001, d = 1.65;  $M_{\text{US}} = 3.13$ , SD = 0.38;  $M_{\text{SK}} = 3.79$ , SD = 0.42) and the Triandis and Gelfand (1998) measure ( $\beta = .39$ , p < .0001, d = 0.84;  $M_{\rm US} = 3.31$ , SD = 0.52;  $M_{\rm SK} = 3.71$ , SD = 0.43). Thus, Hypothesis 1 was supported. In addition, in support of Hypothesis 2, both descriptive norm measures interacted with type of violation in the expected direction ( $\beta = .08$ , p < .05, d = 0.33, Singelis descriptive norm scale;  $\beta = .09$ , p < .05, d = 0.34, Triandis and Gelfand descriptive norm scale). Figure 3 depicts the interaction with descriptive norm measure based on Singelis's items. The interaction with descriptive norm scale based on Triandis and Gelfand's items exhibits the same pattern. Figure 3 shows that, in the right violation condition, individuals who perceived their national context as more (vs. less) collectivistic felt less harm. The opposite is seen in the duty violation condition, where individuals who perceived their national context as more (vs. less) collectivistic felt more harm.

As Table 6 indicates, tests utilizing personal attitude scales did not yield results similar to those of descriptive norm scales. First, Koreans did not score significantly higher on the Singelis personal attitude scale ( $\beta = .05$ , p < .52;  $M_{\rm US} = 4.81$ , SD = 0.68;  $M_{\rm SK} = 4.87$ , SD = 0.65) and scored significantly lower on the Triandis and Gelfand personal attitude scale ( $\beta = ..20$ , p < .01, d = -0.40;  $M_{\rm US} = 3.64$ , SD = 0.51;  $M_{\rm SK} = 3.44$ , SD = 0.48). Also, neither the Singelis (1994) personal attitude scale nor Triandis and Gelfand (1998) attitude scale interacted with the type of violation to predict the perception of harm (see Table 6).

As in Study 1, we also explored whether descriptive norms continue to predict after the influence of collectivistic personal attitudes was statistically controlled. Controlling for the corresponding personal attitudes scales, Hypothesis 3 still found support (Singelis:  $\beta = .17$ , p < .0001; Triandis and Gelfand:  $\beta = .23$ , p < .0001). Also, controlling for the corresponding personal attitude scale interaction with condition, Hypothesis 4 still found support (Singelis:  $\beta = .08$ , p < .05; Triandis and Gelfand:  $\beta = .08$ , p < .05). We also did not find any





 Table 5

 Study 2 Regressions With Collectivistic Descriptive

 Norms (Based on Singelis, 1994)

	β	SE	t	<i>p</i> <
DV = collectivistic descriptive norms				
Constant	01	.06	-0.19	.85
Country $(-1 = US, 1 = SK)$	.64	.06	10.49	.0001
DV = perception of harm				
Constant	4.48	.04	113.05	.0001
Country	.02	.05	0.41	.68
Descriptive norms	01	.05	-0.20	.84
Violation $(-1 = right, 1 = duty)$	18	.04	-4.52	.0001
Norms $\times$ violation	.08	.04	2.06	.04

#### Study 2 Regressions With Collectivistic Descriptive Norms (Based on Triandis & Gelfand, 1998)

	β	SE	t	<i>p</i> <
DV = collectivistic descriptive norms				
Constant	01	.07	-0.10	.92
Country $(-1 = US, 1 = SK)$	.39	.07	5.35	.0001
DV = perception of harm				
Constant	4.49	.04	113.47	.0001
Country	.00	.04	0.01	.99
Descriptive norms	.04	.04	0.90	.37
Violation $(-1 = right, 1 = duty)$	18	.04	-4.43	.0001
Norms × violation	.09	.04	2.15	.03

SE	t	<i>p</i> <
.08	-0.01	.95
.08	0.65	.52
.04	111.07	.0001
.04	0.37	.71
.04	0.29	.77
.04	-4.47	.0001
.04	0.42	.68
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 Table 6

 Study 2 Regressions With Collectivistic Personal Attitudes (Singelis, 1994)

#### Study 2 Regressions With Collectivistic Personal Attitudes (Triandis & Gelfand, 1998)

	β	SE	t	<i>p</i> <
DV = collectivistic personal attitudes				
Constant	.00	.08	0.05	.96
Country $(-1 = US, 1 = SK)$	20	.08	-2.54	.01
DV = perception of harm				
Constant	4.48	.04	111.81	.0001
Country	.02	.04	0.39	.69
Personal attitudes	00	.04	-0.10	.92
Violation $(-1 = right, 1 = duty)$	18	.04	-4.47	.0001
Attitudes × violation	.02	.04	0.60	.55

significant three-way interactions among condition, personal attitudes, and descriptive norms on perceptions of harm.

*SEM tests of hypotheses.* Similar to Study 1, we tested a multigroup SEM where the grouping variable was type of violation (right vs. duty). Again, given the high correlation between the descriptive norm scales and their almost identical interactions with condition on harm, we utilized the average of all scale items for the descriptive norm score.

As in Study 1, we obtained bias-corrected bootstrapped standard errors based on 20,000 replications. The path from collectivism to perception of harm was allowed to vary as a function of the violation condition. All other paths were constrained to be equal across the violation conditions. The overall fit of the model was very good,  $\chi^2(2) = 0.27$ , p = .87; CFI = 1, SRMR = .02, RMSEA = 0). As can be seen in Figure 4, this model's path coefficients supported our hypotheses, with collectivistic descriptive norms relating positively to the perception of harm in the duty violation condition ( $\beta = .24$ , p < .05) and relating negatively to the perception of harm in the right violation condition ( $\beta = .15$ ), albeit the latter relationship did not reach statistical significance. Taken together, these slopes indicate a significantly different from 0, indicating that it is also significantly different from the negative slope in the right violation condition).



Figure 4 SEMs for Study 2

Note: Unstandardized beta weights are reported. The path from collectivism to perception of harm was allowed to vary as a function of the violation condition. All other paths were constrained to be equal across violation conditions.

\*p < .05, two-tailed. \*\*p < .01, two-tailed.

We also ran identical SEM analysis with an overall personal attitudes collectivism score for each individual. Consistent with out regression findings, the overall fit of the model was poor, with CFI equaling zero. As can be seen in Figure 4, the extremely poor fit was because none of the model's path coefficients were significant.

#### **Study 2 Discussion**

The purpose of Study 2 was to provide additional evidence for the descriptive norm construct and predictive validity in an additional domain of cross-cultural research. Consistent with Study 1, collectivistic descriptive norms were found to be distinct construct from collectivistic personal attitudes. Moreover, as anticipated by individualism–collectivism theory, after right violations higher collectivism yielded lower perceptions of harm, whereas after duty violations higher collectivism as defined by the descriptive norm construct resulted in higher perceptions of harm. Conversely, Koreans were not higher on either of the collectivistic personal attitude scales, and personal attitudes did not account for the effect of violation type on harm.

#### **General Discussion**

Explaining cultural influence through the use of psychological constructs is the sine qua non of cross-cultural psychology. Accordingly, following calls for diversification in theoretical approaches to cross-cultural research, we aimed to expand the cultural theory tool kit by developing and testing the descriptive norm perspective. Already shown to be useful in cross-cultural research on cultural identification (Wan, Chiu, Peng, et al., 2007; Wan, Chiu, Tam, et al., 2007) and national values to behavior relationships (Fischer, 2006; Fischer et al., in press; Zou et al. 2008), we explored whether the descriptive norm approach can serve as a powerful account of cultural influence in blame attribution and harm perception domains. The evidence was consistent with our expectations. In our first study, across two separate collectivistic descriptive norm scales, we found that collectivistic descriptive norms interacted with the level of act interacted with the type of violation to influence experienced harm.

More generally, the descriptive norm perspective offers a socially situated lens on crosscultural theory that is rooted in the social psychological tradition (e.g., Asch, 1951) and is in line with more recent social cognitive theory (e.g., Hardin & Higgins, 1996; Hogg & Abrams, 1993). It is possible that descriptive norms are particularly potent representations of social others' beliefs, as they are grounded in perceptions of culturewide meanings and practices. If so, the study of cultural influence through the prism of perceived descriptive norms is warranted. It is important to stress that such perceived descriptive norms are psychological representations of group norms residing in individual minds that may not correspond to actual group norms.

In addition, although our descriptive norm scales focused on the collectivistic content at the level of one's nationality, researchers may be interested in the perceived norms of other influential socialities such as gender, family, organization, community, religious group, or ethnicity. Moreover, a descriptive norm approach is agnostic on the *content* of the norms themselves. Future research should move beyond the individualism–collectivism dimension and include descriptive norms scales that are relevant to the dependent variable of interest.

Notably, in a test of two well-established collectivistic personal attitudes scales, we did not find evidence that personal attitudes accounted for cultural influence in the blame attribution and harm perception domains. Also, our results indicate that South Koreans see themselves as less collectivistic in their personal attitudes than Americans. The failure of personal attitude scales to capture cross-cultural differences can be because of a variety of theoretical and methodological reasons that have been extensively discussed in the literature (e.g., Heine, Lehman, Peng, & Greenholtz, 2002; Oyserman, Kemmelmeier, et al., 2002; Peng, Nisbett, & Wong, 1997). In particular, in line with the cultural-level findings from the Globe project (House, Hanges, Javidan, Dorfman, & Gupta, 2004), we suspected that personal attitude scales could be vulnerable to a deprivation effect, where Americans, given their already high degree of individualism, would want to present themselves as more collectivistic. Conversely, South Koreans, given their high degree of collectivism, would want to appear less collectivistic. To explore this possibility, we examined the relationship between personal attitudes and perceptions of their conationals. We expected that if Americans wanted to appear more collectivistic, then they would consistently rate themselves as more collectivistic than their conationals. Paired-samples t tests confirm our expectations. Both Singelis-based scales (Study 1: t = 6.07, p < .001; Study 2: t = 4.54, p < .001.001) and Triandis and Gelfand–based scales (Study 1: t = 5.37, p < .001; Study 2: t = 4.50, p < .001) indicate that Americans see themselves as more collectivistic than they see other Americans. Conversely, the opposite relationship was found in the South Korean sample. Both Singelis-based scale (Study 1: t = -6.96, p < .001; Study 2: t = -4.90, p < .001) and Triandis and Gelfand–based scales (t = -5.61, p < .001; Study 2: t = -4.79, p < .001) indicate that South Koreans rated themselves as less collectivistic than they rated other South Koreans. It is thus possible that both Americans and South Koreans prefer to think of themselves as possessing those attitudes and values that their society is missing the most. However, as our data suggest, such self-perceptions lack in predictive validity.

Also, as we have argued, the primary difference between the constructs of personal attitudes and descriptive norms is that the latter incorporates aspects of situational construal whereas the former does not. Put differently, the descriptive norm scales are focused on particular socialities that are part and parcel of the situational context. Given that the research domains of blame attribution and harm perception engross the individual in specific social situations that are norm governed, one would expect that descriptive norms that capture an important aspect of the situational construal are more likely to predict context-specific behaviors. Clearly, the dismissal of personal attitude measures is premature. It is conceivable that personal attitudes are more predictive of psychological reactions and behavior in situations that are relatively norm free or situationally weak (Mischel, 1968). However, further theoretical and empirical efforts are needed to delineate the conditions under which personal attitudes and descriptive norms are more influential.

In 2003, Smith and Bond argued that "if one wishes to predict and understand [social behavior] . . . one needs to know about its norms" (p. 55). Consistent with this observation, the evidence presented calls out for more regular attention to cross-cultural differences in perceptions of social environments as well as their psychological and behavioral consequences. To this end, we have aimed to forward and develop the descriptive norm perspective on cultural influence and, more generally, motivate a wider discussion on metatheory in cross-cultural psychology—a discussion that may inspire novel perspectives on our most pressing questions.

#### Appendix A Collectivistic Attitudes and Norms (Based on Singelis, 1994)

#### Attitudes

Tell us about yourself

- 1. Even when I strongly disagree with group members, I avoid an argument
- 2. I have respect for the authority figures with whom I interact
- 3. I respect people who are modest about themselves
- 4. I will sacrifice my self interest for the benefit of the group I am in
- 5. I should take into consideration my parents' advice when making education/career plans
- 6. I feel my fate is intertwined with the fate of those around me
- 7. I feel good when I cooperate with others
- 8. If my brother or sister fails, I feel responsible
- 9. I often have the feeling that my relationships with others are more important than my own accomplishments
- 10. I would offer my seat in a bus to my professor (or my boss)
- 11. My happiness depends on the happiness of those around me
- 12. I will stay in a group if they need me, even when I am not happy with the group
- 13. It is important to me to respect decisions made by the group
- 14. It is important for me to maintain harmony within my group
- 15. I usually go along with what others want to do, even when I would rather do something different

### Appendix A (continued)

#### Norms

How frequently do most Americans/Koreans do this?

- 1. Even when strongly disagreeing with group members, avoid an argument
- 2. Have respect for the authority figures with whom one interacts
- 3. Respect people who are modest about themselves
- 4. Sacrifice own self interest for the benefit of one's group
- 5. Take into consideration parents' advice when making education/career plans
- 6. Feel that a person's fate is intertwined with the fate of those around them
- 7. Feel good when cooperating with others
- 8. Feel responsible if one's brother or sister fails
- 9. Feel that one's relationships with others are more important than one's own accomplishments
- 10. Offer one's seat in a bus to my professor (or one's boss)
- 11. Have one's happiness depend on the happiness of those around them
- 12. Stay in a group if one is needed, even when one is not happy with the group
- 13. Respect decisions made by the group
- 14. Maintain harmony within one's group
- 15. Go along with what others want to do, even when one would rather do something different

## Appendix B

#### Collectivistic Attitudes and Norms (Based on Triandis & Gelfand, 1998)

#### Attitudes

What is important to you?

- 1. To help a relative (within your means), if the relative has financial problems
- 2. To maintain harmony within any group that one belongs to
- 3. To do something to maintain coworkers'/classmates' well-being (such as caring for them or emotionally supporting them)
- 4. To consult close friends and get their ideas before making a decision
- 5. To share little things (tools, kitchen stuff, books, etc.) with one's neighbors
- 6. To cooperate with and spend time with others
- 7. To do what would please one's family, even if one detests the activity
- 8. To teach children to place duty before pleasure
- 9. To sacrifice an activity that one enjoys very much (e.g., fishing, collecting, or other hobbies) if one's family did not approve of it
- 10. To respect decisions made by one's group/collective
- 11. To sacrifice self-interest for the benefit of group/collective
- 12. To take care of one's family, even when one has to sacrifice what he/she wants

#### Norms

How frequently do most Americans/Koreans do this?

- 1. Help a relative (within your means), if the relative has financial problems
- 2. Maintain harmony within any group that one belongs to
- 3. Do something to maintain coworkers'/classmates' well-being (such as caring for them or emotionally supporting them)
- 4. Consult close friends and get their ideas before making a decision
- 5. Share little things (tools, kitchen stuff, books, etc.) with one's neighbors

#### **Appendix B** (continued)

- 6. Cooperate with and spend time with others
- 7. Do what would please one's family, even if one detests the activity
- 8. Teach children to place duty before pleasure
- 9. Sacrifice an activity that one enjoys very much (e.g., fishing, collecting, or other hobbies) if one's family did not approve of it
- 10. Respect decisions made by one's group/collective
- 11. Sacrifice self-interest for the benefit of group/collective
- 12. Take care of one's family, even when one has to sacrifice what he/she wants

#### References

- Aarts, H., & Dijksterhuis, A. (2003). The silence of the library: Environment, situational norm, and social behavior. *Journal of Personality and Social Psychology*, 84, 18-28.
- Anderson, B. (1983). Imagined communities: Reflections on the origin and spread of nationalism. London: Verso.
- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), *Groups, leadership and men* (pp. 117-190). Pittsburgh, PA: Carnegie Press.
- Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling*, 9, 78-102.
- Bierbrauer, G., Meyer, H., & Wolfradt, U. (1994). Measurement of normative and evaluative aspects in individualistic and collectivistic orientations: The cultural orientation scale (COS). In U. Kim, H. C. Triandis, C. Kagitcibasi, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 189-199). Thousand Oaks, CA: Sage.
- Bond, M. H. (1997). Adding value to the cross-cultural study of organizational behavior. In P. C. Earley & M. Erez (Eds.), *New perspectives in international industrial/organizational psychology* (pp. 256-275). San Francisco: New Lexington Press.
- Bond, M. H., & Van de Vijver, F. J. R. (in press). Making scientific sense of cultural differences in psychological outcomes: Unpackaging the magnum mysterium. In D. Matsumoto & F. Van de Vijver (Eds.), *Cross-cultural research methods*. Oxford: Oxford University Press.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix, *Psychological Bulletin*, 56, 81-105.
- Chirkov, V. I., & Ryan, R. M. (2001). Parent and teacher autonomy support in Russian and U.S. adolescents: Common effects on well-being and academic motivation. *Journal of Cross-Cultural Psychology*, 32, 618-635.
- Chua, H. F., Leu, J., & Nisbett, R. E. (2005). Culture and diverging views of social events. *Personality and Social Psychology Bulletin*, 31, 925-934.
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, pp. 151-192). New York: McGraw-Hill.
- Darley, J. M., & Pittman, T. S. (2003). The psychology of compensatory and retributive justice. *Personality and Social Psychology Review*, 7, 324-336.
- Durkheim, E. (1950). *The rules of sociological method* (S. A. Solovay & J. H. Mueller, Trans.). Glencoe, IL: Free Press. (Original work published 1895)
- Fischer, R. (2006). Congruence and functions of personal and cultural values: Do my values reflect my culture's values? *Personality and Social Psychology Bulletin, 32*, 1419-1431.
- Fischer, R., Ferreira, M., C., & 11 coauthors. (in press). Individualism-collectivism as descriptive norms: Development of a subjective norm approach to culture measurement. Journal of Cross-Cultural Psychology.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. Annual Review of Psychology, 58, 479-514.

- Gelfand, M. J., Nishii, L. H., Holcombe, K., Dyer, N., Ohbuchi, K., & Fukumo, M. (2001). Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the U.S. and Japan. *Journal* of Applied Psychology, 86, 1059-1074.
- Gellner, E. (1997). Nationalism. London: Weidenfeld and Nicolson.
- Gonzales, M. H., Manning, D. J., & Haugen, J. A. (1992). Explaining our sins: Fact influencing offender accounts and anticipated victim responses. *Journal of Personality and Social Psychology*, 62, 958-971.
- Hamilton, V. L., & Sanders, J. (1992). Everyday justice: Responsibility and the individual in Japan and the United States. New Haven, CT: Yale University Press.
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: The interpersonal context* (Vol. 3, pp. 28-84). New York: Guilford.
- Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology*, 82, 903-918.
- Hofstede, G. (1980). Culture's consequences. Beverly Hills, CA: Sage.
- Hogg, M. A., & Abrams, D. (1993). Towards a single-process uncertainty-reduction model of social motivation in groups. In M. A. Hogg & D. Abrams (Eds.), *Group motivation: Social psychological perspectives* (pp. 173-190). New York: Prentice Hall.
- Hong, Y. Y., Ip, G., Chui, C. Y., Morris, M. W., & Menon, T. (2001). Cultural identity and dynamic construction of the self: Collective duties and individual rights. *Social Cognition*, 19, 251-268.
- House, R. M., Hanges, P. J., Javidan, P. W., Dorfman, V., Gupta, V., & GLOBE Associates. (2004). Cultures, leadership, and organizations: The Globe Study of 62 Societies. Thousand Oaks, CA: Sage.
- Kagitcibasi, C. (1997). Individualism and collectivism. In J. W. Berry, M. H. Segall, & C. Kagitcibasi (Eds.), Handbook of cross-cultural psychology: Social behavior and applications (Vol. 3, pp. 1-49). Boston: Allyn & Bacon.
- Kluckhohn, F. R., & Strodtbeck, F. L. (1961). Variations in value orientations. Evanston, IL: Row, Peterson.
- Kruglanski, A. W., Pierro, A., Mannetti, L., & De Grada, E. (2006). Groups as epistemic providers: Need for closure and the unfolding of group-centrism. *Psychological Review*, 113, 84-100.
- Latané, B. (1996). Dynamic social impact: The creation of culture by communication. *Journal of Communication*, *6*, 13-25.
- Lehman, D. R., Chiu, C. Y., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology*, 55, 689-714.
- Lowery, B. S., Hardin, C. D., & Sinclair, S. (2001). Social influence on automatic racial prejudice. *Journal of Personality and Social Psychology*, 81, 842-855.
- Macrae, C. N., & Johnston, L. (1998). "Help, I need somebody": Automatic action and inaction. Social Cognition, 16, 400-417.
- Markus, H., & Kitayama, S. (2003). Culture, self, and the reality of the social. Psychological Inquiry, 14, 277-283.
- Matsumoto, D. (2007). Culture, context, and behavior. Journal of Personality, 75, 1285-1319.
- Menon, T., Morris, M. W., Chiu, C., & Hong, Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology*, 76, 701-717.
- Miller, J. G. (2002). Bringing culture to basic psychological theory—Beyond individualism and collectivism: Comment on Oyserman et al. (2002). *Psychological Bulletin*, *128*, 97-109.
- Mischel, W. (1968). Personality and assessment. New York: John Wiley.
- Nasser, F., & Wisenbaker, J. (2003). A Monte Carlo study investigating the impact of item parceling on measure of fit in confirmatory factor analysis. *Educational and Psychological Measurement*, 63, 729-757.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002a). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3-72.
- Oyserman, D., Kemmelmeier, M., & Coon, H. M. (2002b). Cultural psychology, a new look: Reply to Bond (2002), Fiske (2002), Kitayama (2002), and Miller (2002). *Psychological Bulletin, 128*, 110-117.
- Pelto, P. (1968). The difference between "tight" and "loose" societies. Transaction, 5, 37-40.
- Peng, K., Nisbett, R., & Wong, N. (1997). Validity problems comparing value across cultures and possible solutions. *Psychological Methods*, 2, 329-344.
- Poortinga, Y. H., van de Vijver, F. J. R., Joe, R. C., & van de Koppel, J. M. H. (1987). Peeling the onion called culture: A synopsis. In C. Kagitcibasi (Ed.), *Growth and progress in cross-cultural psychology* (pp. 22-34). Lisse, Netherlands: Swets & Zeitlinger.

- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185-227.
- Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology: Developmental, Learning, Personality, Social, 22,* 218-233.
- Schlenker, B. R., Britt, T. W., Pennington, J., Murphy, R., & Doherty, K. (1994). The triangle model of responsibility. *Psychological Review*, 101, 632-652.
- Schwartz, S. H. (1992). The universal content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), Advanced experimental social psychology (Vol. 25, pp. 1-65). New York: Academic.
- Sechrist, G. B., & Stangor, C. (2001). Perceived consensus influences intergroup behavior and stereotype accessibility. *Journal of Personality and Social Psychology*, 80, 645-654.
- Shweder, R. A., & Miller, J. G. (1985). The social construction of the person: How is it possible? In K. J. Kenneth & K. E. Davis (Eds.), *The social construction of the person* (pp. 41-69). New York: Springer-Verlag.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality & Social Psychology Bulletin, 20,* 580-591.
- Smith, P. B., & Bond, M. H. (2003). Honoring culture scientifically when doing social psychology. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 43-61). London: Sage.
- Smith, P. B., Bond, M. H., & Kagitcibasi, C. (2006). Understanding social behaviour across cultures: Living and working in a changing world. London: Sage.
- Triandis, H. C. (1972). The analysis of subjective culture. New York: John Wiley.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118-128.
- Wan, C., Chiu, C.-Y., Peng, S., & Tam, K.-P. (2007). Measuring cultures through intersubjective cultural norms: Implications for predicting relative identification with two or more cultures. *Journal of Cross-Cultural Psychology*, 38, 213-226.
- Wan, C., Chiu, C.-Y., Tam, K.-P., Lee, S.-L., Lau, I. Y.-M., & Peng, S. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337-354.
- Whiting, B. B., & Whiting, J. W. (1975). *Children of six cultures: A psycho-cultural analysis*. Cambridge, MA: Harvard University Press.
- Zou, X., Tam, K-P., Morris, M. W., Lee, S-L., Lau, Y-M., Chiu, C-Y. (2008). Culture as *Common* Sense: Perceived Consensus vs. Personal Beliefs as Mechanisms of Cultural Influence. Working paper, Columbia University, New York, NY.

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