

A cross-cultural examination on global orientations and moral foundations

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Abstract: Although there is a flourishing literature on the psychology of globalization and the psychology of morality, respectively, the moral dimension has been largely absent in the discourse of globalization psychology. Our current work attempts to fill this gap by establishing a conceptual and empirical link between global orientations and moral foundations. Our results indicated that (1) multicultural acquisition was positively linked with both individualizing and binding values; (2) ethnic protection was positively linked with only binding values; and (3) the relation patterns between global orientations and moral foundations were essentially congruent across cultures albeit with some cultural variations. Our findings provide direct evidence to map out the relation patterns between how people mentally cope with globalization and their explicit moral matrices.

Keywords: cultural variations; global orientations; globalization; moral foundations

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Globalization is undoubtedly one of the central and most controversial topics of our time. It is defined as the interaction and integration among peoples, governments, and companies of different nations (Chiu, Gries, Torelli, & Cheng, 2011). For better or for worse, this rapid and large-scale process has considerably reshaped our lifestyles, mobility patterns, cultural identities, and value systems in profound ways (Chiu et al., 2011; Yang et al., 2011). In the academic discourse of humanities and social sciences, philosophers, economists, sociologists, and political scientists have hotly debated the beneficial and detrimental effects of globalization on human societies at a macro level (Giddens, 2000; Rodrik, 1997; Singer, 2002). Social psychologists have also become increasingly interested in tapping into the process underlying how and why globalization impacts psychological processes and behavioral patterns at the

individual level (Chiu et al., 2011; Gelfand, Lyons, & Lun, 2011; Yang et al., 2011).

Paradoxically, research suggests that globalization has affected our mindsets in complex and mixed ways. At the societal level, cultures, on the one hand, are becoming increasingly homogeneous in response to globalization and large-scale modernization, such as the rise of individualism in Japan (Hamamura, 2011) and China (Yu et al., 2016). On the other hand, traditional societies and value systems have persisted in culturally specific ways (Inglehart & Baker, 2000), such as the pervasive caste system in India and the value of filial piety in China. At the individual level, some view globalization as a life enhancement, while others experience it as an identity threat (Gelfand et al., 2011). Based on these mixed findings, more challenging and interesting questions may naturally follow: Is

globalization truly a double-edged sword? How and why does globalization affect individuals' mental contents and structures? What might be the underlying mental processes? These questions require exploration and responses from contemporary social psychologists.

Fortunately, a growing body of empirical work has examined how globalization affects individuals' psychological functioning, such as lay perceptions of globalization (Chiu, Hong, & Dweck, 1997; Yang et al., 2011), potential upsides and downsides (Chiu et al., 2011), differing psychological reactions to foreign cultural inflow (e.g., exclusionary and integrative responses; Torelli, Chiu, Tam, Au, & Keh, 2011), and influence on identity development (Arnett, 2002), just to name a few. Furthermore, people nowadays increasingly possess higher levels of multicultural experiences because of globalization and cultural mobility. Evidence shows that multicultural experiences enhance creativity in problem-solving (Leung, Maddux, Galinsky, & Chiu, 2008), cognitive flexibility (Gino & Ariely, 2012), and generalized trust (Cao, Galinsky, & Maddux, 2013), and reduce intergroup bias (Tadmor, Hong, Chao, Wiruchnipawan, & Wang, 2012).

Aiming to capture individual differences in response to globalization, Chen et al. (2016) proposed a construct termed—"global orientations"—which consists of two sub-dimensions: multicultural acquisition and ethnic protection. Specifically, people who score high on multicultural acquisition proactively engage in multicultural interactions and cultural learning. Conversely, people who score high on ethnic protection defensively protect their cultural heritage and prevent cultural contamination from foreign cultures. Existing findings show that this two-factor construct is applicable across majority and minority groups, multicultural and monocultural cultural contexts, Westerners and Easterners, as well as immigrants and sojourners (Chen et al., 2016). Evidence has also demonstrated its unique predictive utility on an array of attitudinal and behavioral outcomes, including psychological adaptation, attitudes towards ethno-cultural groups, multicultural ideology, personality characteristics, and acculturation strategies (Chen et al., 2016).

When globalization meets morality

Past work on cosmopolitanism in humanities and social sciences has, however, formulated discussions about "moral cosmopolitanism in a global context" (Brock, 2013), patriotism and cosmopolitanism (Nussbaum, 1994), or other related

topics. Moreover, recent work has probed the intersection of globalization and morality. On one hand, globalization promotes the idea of respect for universal duties and rights, such as global justice and gender equality. On the other hand, moral disagreements and value conflicts among major civilizations (Huntington, 1996) can be exacerbated and polarized by frequent intercultural contacts and enhanced global interconnectedness (e.g., Islamic vs. Western culture). Real-world examples include street protests against the opening of a mosque near Ground Zero in New York City (Goodstein, 2010) and online protests against the opening of a Starbucks coffee shop in the Forbidden City in Beijing (Associated Press, 2007). Empirical evidence does suggest that higher levels of multicultural experiences are positively associated with postconventional moral judgments (Narvaez & Hill, 2014) and intercultural sensitivity (Endicott, Bock, & Narvaez, 2003). Another line of work has revealed that disgust responses were linked with cultural mixing (i.e., simultaneous exposure to cultural elements from more than two cultures; Cheon, Christopoulos, & Hong, 2016; Chiu, Mallorie, Keh, & Law, 2009). Moreover, the breadth of foreign experiences (i.e., experiences in multiple foreign countries) increases moral relativism, which in turn leads to more unethical behavior (Lu et al., 2017).

Moral foundations theory (MFT) is one of the most influential and well-recognized contemporary social psychological approaches to conceptualizing and understanding human morality (Graham et al., 2013). MFT maintains that there exist five moral contents that can be found across cultures with cultural variations in the importance attached to each (Graham et al., 2013). These foundations include: care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation. We endorse the central tenets of MFT and embrace its culturally pluralistic approach. MFT researchers make a further distinction among the five foundations to form a two-factor model. Care and fairness cluster together and are termed "individualizing foundations," while loyalty, authority, and sanctity cluster together and are termed "binding foundations" (Graham et al., 2013). In the context of U.S. culture, endorsements of individualizing foundations are related to protecting individual rights, such as autonomy and independence, whereas endorsements of binding foundations are related to protecting legitimate groups, communities, and institutions, such as family, country, and government.

Cross-cultural perspectives on morality stress that human morality differs substantially across diverse cultural regions

(Graham et al., 2013), ethnic groups (Lee, Ottati, Bornman, & Yang, 2011; Miller & Bersoff, 1992; Shweder, Mahapatra, & Miller, 1987), social class (Côté, Piff, & Willer, 2013; Dubois, Rucker, & Galinsky, 2015), political spectrum (Frimer, Tell, & Haidt, 2015; Graham et al., 2009), religious affiliations (Cohen, 2015; Shariff, Piazza, & Kramer, 2014), and gender (Gilligan, 1977; Jaffee & Hyde, 2000; Stimpson, Jensen, & Neff, 1992). MFT theorists contend that morality is both evolutionarily prepared and culturally shaped (Graham et al., 2013; Haidt, 2007). There exist substantial cultural differences in morality as a function of religious beliefs, social ecology, and institutional regulation, such as kinship structure and economic markets (for a review, see Graham, Meindl, Beall, Johnson, & Zhang, 2016).

Global orientations and moral foundations

Theoretically speaking, examining individuals' moral patterns through the lens of globalization transcends the conventional academic discourse of between-cultural and within-cultural variations by orienting us towards how "an emergent third culture" (Benet-Martínez, Leu, Lee, & Morris, 2002) impacts individuals' moral thoughts and behaviors. Novel theoretical perspectives and conceptual formations may emerge by deconstructing the dimensions of globalization and intersecting them with the moral domain. Practically speaking, as globalization broadens and deepens, individuals are getting more exposed to multicultural experiences. To function effectively in a global context, individuals are required to be well prepared to interact with people from diverse cultural backgrounds and divergent moral worldviews.

Past research has not yet examined the impact of global orientations on individuals' moral functioning. MFT research to date has mostly focused on either the link between political ideology and moral foundations or cultural variations of foundation endorsements. The former discourse is ideologically charged and bound to U.S. cultural contexts. The latter has not taken into account how and why individuals' moral differences are affected by globalization. Directly linking global orientations and moral foundations would better our understanding on the interplay between individual differences in responses to globalization and explicit value endorsements. Psychologists have highlighted the importance of discussing the

moral dimension of globalization and have proposed that MFT may be a suitable framework (Gelfand et al., 2011).

The present research

To our knowledge, the current investigation is one of the first attempts to examine whether and how global orientations will predict value endorsements, and whether these relation patterns will be culturally similar or vary substantially across cultures. Our work seeks to unveil the relation patterns between global orientations and endorsements of moral foundations among three cultural groups: U.S. domestic college students, Chinese domestic college students, and Chinese international college students.

Drawing upon past work, we hypothesized that multicultural acquisition would positively predict endorsements of both the individualizing and binding foundations (Hypothesis 1). Individuals who scored high on multicultural acquisition should view foreign cultures as intellectual resources, embrace cultural diversity, and promote cultural innovation. They should therefore place greater emphasis on individualizing values such as care, compassion, justice, and egalitarianism. Moreover, individuals who score high on multicultural acquisition should also endorse binding foundations, such as loyalty, authority, and sanctity. This prediction may seem counterintuitive but we reasoned that because people who are high on multicultural acquisition should hold favorable attitudes towards foreign cultures, they should show relatively equal respect for all moral principles (even if they endorse binding values to a much lesser extent than individualizing ones). This prediction is consistent with the report by Chen et al. (2016). They found that multicultural acquisition positively predicted both individualism and collectivism, independent and interdependent self-construal, and individuating and modest behavior (Chen et al., 2016).

Conversely, we anticipated that ethnic protection should positively predict binding foundations but negatively predict individualizing foundations (Hypothesis 2). Individuals who are high on ethnic protection should see foreign cultures as identity threats. They would be more likely to affirm their cultural identity and preserve their own cultural tradition especially when they felt that their cultural heritage was threatened and contaminated. They should therefore put much more weight on moral concerns, such as loyalty, authority, and sanctity.

Method

Participants and procedure

Samples were recruited from three different groups. The first sample included a total of 805 U.S. domestic students for the final analyses (61.9% females; $M_{\text{age}} = 19.45$ years, $SD_{\text{age}} = 2.66$ years; 39.4% European Americans, 6.7% African Americans, 7.7% Latino/Hispanic Americans, 31.9% Asian Americans, 4.2% multiracial, and 10.1% others; 48.2% Christian, 5% Jewish, 7.3% Muslim, 11.1% atheist, and 28.4% others). Participants were recruited from general psychology courses and the human subject pool at a U.S. public university. Participants who were non-domestic students or failed the test items were excluded. Participants completed a set of online questionnaires in English via Qualtrics. Each participant was debriefed and received 0.5 research credits as compensation. Given that global orientations and moral foundations are both culturally specific psychological constructs, 317 European Americans students (65.9% females; $M_{\text{age}} = 19.62$ years, $SD_{\text{age}} = 2.65$ years) and 257 Asian American students (61.5% females; $M_{\text{age}} = 19.14$ years, $SD_{\text{age}} = 2.09$ years) were subtracted and analyzed separately.

The third sample was recruited from multiple universities/colleges in Mainland China through psychology courses (e.g., Beijing Normal University and Jiangxi University of Science and Technology). Participants who were non-domestic students or failed the test items were excluded. A total of 331 Chinese domestic students were included for the final analyses (31.1% female; $M_{\text{age}} = 20.97$ years, $SD_{\text{age}} = 2.12$ years; 89.1% Han Chinese; 87.9% atheists). Participants completed a set of online questionnaires in Mandarin Chinese via Qualtrics. The cross-cultural equivalence of all measures was validated by either direct adoption of published versions or the standard translation and back-translation procedure (Brislin, 1970). Each participant was debriefed and paid \$5 U.S. as compensation.

The fourth sample was collected from the human subject pool at a U.S. public university and online platforms. Those who were not currently studying in the United States or failed the test items were excluded, resulting in a total of 216 Chinese international students in the final analyses (31.9% female; $M_{\text{age}} = 22.51$ years, $SD_{\text{age}} = 3.80$ years; 89.8% Han Chinese; 79.6% atheists). Participants completed a set of online questionnaires using Mandarin Chinese via Qualtrics. The cross-cultural equivalence of all measures has been validated by either direct adoption of

published versions or standard translation and back-translation (Brislin, 1970). All participants were debriefed and paid \$10 U.S. as compensation.

Measures

Global Orientations Scale

The 25-item Global Orientations Scale assesses individual differences in response to globalization (Chen et al., 2016). It consists of two factors: multicultural acquisition and ethnic protection. Endorsement of each item was assessed with a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Larger values indicate greater endorsement of cultural learning or cultural protection. Sample items are “Cultural diversity is beneficial to a society” (multicultural acquisition) and “Immigrants and ethnic minorities should forget their cultures of origin as much as possible for better adaptation to their new environment” (ethnic protection). Cronbach’s alphas of multicultural acquisition and ethnic protection were .87 and .83 for the European American sample, .86 and .82 for the Asian American sample, .89 and .74 for the Chinese sample, and .93 and .84 for the Chinese international student sample, respectively.

Moral Foundations Questionnaire

The 30-item Moral Foundations Questionnaire (MFQ; Graham et al., 2011) assesses the emphasis that an individual places on each of the five moral foundations: care, fairness, loyalty, authority, and sanctity. Larger values indicate greater endorsement of those moral values. Cronbach’s alphas were: .60 (care), .66 (fairness), .62 (loyalty), .63 (authority), and .68 (sanctity) for the European American sample; .62 (care), .73 (fairness), .69 (loyalty), .61 (authority), and .68 (sanctity) for the Asian American sample; .56 (care), .53 (fairness), .60 (loyalty), .55 (authority), and .61 (sanctity) for the Chinese sample; and .63 (care), .72 (fairness), .67 (loyalty), .65 (authority), and .73 (sanctity) for the Chinese international student sample, respectively. Due to the low reliability of several subscales, results should be interpreted with caution.

General demographics

Participants were asked to provide their general demographic information, including gender, age, race/ethnicity, education level, religious affiliation, and average yearly household and individual income.

Results

We combined the four samples so there were in total 1,121 participants for data analyses. Descriptive statistics are summarized in Table 1.

Measurement invariance

Measurement invariance was examined across the four samples using Mplus 7.4 before testing the hypotheses. We used increasingly restrictive equality constraints to evaluate model fit. Based on methodological recommendations from Penzger, von der Embse, Kilgus, and Eklund (2017), we first specified a model in which factor loadings were allowed to differ across groups (configural model) and then compared the fit of the configural model to a model with the factor loadings constrained across groups (metric model; Table 2).

Building upon the past work of Hall, Snell, and Foust (1999), we used item parceling to test measurement invariance and created three parcels for each factor of global orientations and moral foundations. For the Global Orientations Scale, the configural model indicated good model fit, $\chi^2_{(32)} = 99.42$, $p < .001$, root-mean-square error of approximation (RMSEA) = .087, comparative fit index (CFI) = .967. The metric model was then evaluated by constraining the factor loadings across groups, $\chi^2_{(44)} = 123.82$, $p < .001$, RMSEA = .080, CFI = .961. Comparing the metric model with the configural model, the chi-square difference test was not significant ($\Delta\chi^2/\Delta df = 2.03$, $p = .154$). Additional fit indices also provided evidence for metric invariance across the four groups ($\Delta RMSEA = -.007 < 0$, $\Delta CFI .006 < .01$; see Table 3).

As for the individualizing foundations, the configural model showed acceptable model fit, $\chi^2_{(32)} = 126.02$, $p < .001$, RMSEA = .102, CFI = .924. However, the metric model did not reach very good model fit, $\chi^2_{(44)} = 171.66$, $p < .001$, RMSEA = .102, CFI = .897. The chi-square difference test

was marginally significant ($\Delta\chi^2/\Delta df = 3.80$, $p = .051$, $\Delta CFI = .027 > .01$). According to modification indices, we relieved the constraint of factor loadings of one parcel in the Care subscale and one in the Fairness subscale for the Chinese and Chinese international samples, respectively, and achieved a better model fit, $\chi^2_{(42)} = 148.57$, $p < .001$, RMSEA = .095, CFI = .914. Compared to the configural model, this partial metric invariance model had a nonsignificant chi-square change ($\Delta\chi^2/\Delta df = 2.26$, $p = .133$) and lower CFI change ($\Delta CFI = .010$). These results indicated partial metric invariance for individualizing foundations (see Table 3).

As for the binding foundations, the configural invariance model achieved good model fit, $\chi^2_{(96)} = 174.58$, $p < .001$, RMSEA = .054, CFI = .964. The metric invariance model also indicated good fit, $\chi^2_{(114)} = 239.80$, $p < .001$, RMSEA = .063, CFI = .942. However, the chi-square change was marginally significant ($\Delta\chi^2/\Delta df = 3.62$, $p = .057$) with a high CFI change ($\Delta CFI = .022 > .01$). After freeing the factor loading of a parcel in loyalty for the two U.S. domestic samples based on modification indices, the partial metric model reached a better model fit, $\chi^2_{(113)} = 208.68$, $p < .001$, RMSEA = .055, CFI = .956, with a nonsignificant chi-square change ($\Delta\chi^2/\Delta df = 2.01$, $p = .157$) and lower CFI change ($\Delta CFI = .008 < .01$) compared to the configural model. The results also indicated partial metric invariance for binding foundations (see Table 3). Although partial metric invariance was achieved by the two components of moral foundation, the factor loadings of only one or two parcels were freed for only two homogeneous samples, respectively (a parcel of the Care and Fairness subscales freed for the two Chinese samples, respectively, in individualizing foundation, and a parcel of the Loyalty subscale for two U.S. domestic samples in binding foundation). Therefore, we continued to analyze the prediction of global orientation on moral foundations.

Table 1

Means and Standard Deviations Among the Key Measures for the Four Samples

	European American domestic, $n = 317$		Asian American domestic, $n = 257$		Chinese domestic, $n = 331$		Chinese international, $n = 216$	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1. MA	2.67	.93	2.11	.74	2.28	.69	1.98	.82
2. EP	4.77	.92	4.94	.91	4.10	.63	4.24	.89
3. IND	2.12	.57	2.09	.60	2.70	.55	2.68	.69
4. BIN	3.24	.65	3.09	.66	3.10	.56	3.30	.71

Note. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations.

Table 2
Zero-Order Correlations Among the Key Measures for the Four Samples

	European American domestic, <i>n</i> = 317				Asian American domestic, <i>n</i> = 257				Chinese domestic, <i>n</i> = 331				Chinese international, <i>n</i> = 216			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. MA	—				—				—				—			
2. EP	-.36***	—			-.34***	—			-.09	-.12			-.47***	-.04		
3. IND	.33***	-.33***	—		.38***	-.15*	—		.34***	.06	-.59***		.47***	-.04		
4. BIN	-.04	.27***	.14*	—	.11	.24***	.42***	—	.11*	.24***	.59***	-.13	.25***	.58***	—	

Note. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations.

* $p < .05$. *** $p < .001$.

Multiple group analyses

To compare subgroup differences of the path models, we conducted a multiple group analysis (controlling for gender and age; see Figure 1). First, we restricted all the paths equally across the four cultural groups. This restricted model (Model 1) achieved a good fit, $\chi^2_{(12)} = 34.18$, $p < .001$, RMSEA = .082, CFI = .962 (see Table 4). Multicultural acquisition positively predicted both individualizing foundations ($b = .24$, $SE = .02$, $t = 9.98$, $p < .001$, Cohen's $f^2 = .12$) and binding foundations ($b = .09$, $SE = .03$, $t = 3.65$, $p < .001$, Cohen's $f^2 = .01$), while ethnic protection positively predicted binding foundations ($b = .20$, $SE = .02$, $t = 8.27$, $p < .001$, Cohen's $f^2 = .07$) but not individualizing foundations ($b = -.02$, $SE = .02$, $t = -.89$, $p = .372$; see Figure 2).

Since the modification indices of Model 1 indicated that the prediction of multicultural acquisition and ethnic protection on individualizing foundations were different between European Americans and the other three groups, we freed the path coefficients from multicultural acquisition and ethnic protection to individualizing foundations for only the European American group in Model 2. As shown in Table 2, Model 2 reached a better fit, $\chi^2_{(10)} = 11.54$, $p = .317$, RMSEA = .024, CFI = .997. Multicultural acquisition had a positive prediction on individualizing foundations in the European American sample ($b = .15$, $SE = .04$, $t = 3.93$, $p < .001$, Cohen's $f^2 = .06$) while significantly higher positive effect in the other three groups ($b = .29$, $SE = .03$, $t = 10.51$, $p < .001$, Cohen's $f^2 = .15$). Ethnic protection negatively predicted individualizing foundations in European Americans ($b = -.14$, $SE = .04$, $t = -3.92$, $p < .001$, Cohen's $f^2 = .05$) but not in the other three groups ($b = .03$, $SE = .03$, $t = 1.23$, $p = .218$; see Figures 3 and 4). The effects on binding foundations of multicultural acquisition ($b = .11$, $SE = .03$, $t = 4.20$, $p < .001$, Cohen's $f^2 = .02$) and ethnic protection ($b = .22$, $SE = .02$, $t = 8.89$, $p < .001$, Cohen's $f^2 = .08$) were still equal across the four groups.

Discussion

Summary of findings

The current work examined the relation patterns between global orientations and moral foundations. Across four cultural samples, we consistently found that multicultural acquisition positively predicted both individualizing and binding values (Hypothesis 1 was supported) and that

Table 3
Measurement Invariance of the Key Variables

	χ^2	df	$\Delta\chi^2/\Delta df$	RMSEA	CFI
Global orientation					
Configural model	99.42***	32		.087	.967
Metric model	123.82***	44	2.03	.080	.961
Individualizing foundation					
Configural model	126.02***	32		.102	.924
Metric model	171.66***	44	3.80*	.102	.897
Partial metric model	148.57***	42	2.26	.095	.914
Binding foundation					
Configural model	174.58***	96		.054	.964
Metric model	239.80***	114	3.62*	.063	.942
Partial metric model	208.68***	113	2.01	.055	.956

Note. RMSEA = root-mean-square error of approximation; CFI = comparative fit index.
* .05 < p < .10. *** p < .001.

ethnic protection positively predicted only binding values (Hypothesis 2 was partially supported). Interestingly, the relations between multicultural acquisition and individualizing foundations slightly varied across the four cultural groups. The link was stronger for Asian Americans and Chinese domestic and international students compared to European Americans. Moreover, the relation between ethnic protection and binding foundations did not differ across the four cultural groups.

Multicultural acquisition and moral foundations

Why do people who are high on multicultural acquisition consistently show greater endorsements of all five moral foundations? One possibility is multicultural ideology. People who score high in multicultural acquisition are more likely to embrace cultural diversity, appreciate distinctive moral principles, and even see differing moral codes as valuable and adaptive. They may possess a broader set of moral values and therefore endorse both individualizing and binding foundations. Then why was the relation between multicultural acquisition and individualizing

foundations stronger for the Asian cultural groups than for the European Americans? One interpretation may be the global inequalities of cultural status. People who score high in multicultural acquisition among Asian cultural groups may much more strongly endorse care and fairness than their European counterparts, which may be partly due to their relatively lower cultural status.

Ethnic protection and moral foundations

Why do people who are high in ethnic protection consistently show greater endorsement of binding foundations? One possibility is that people who are high in ethnic protection more likely believe that their own culture is much superior to other cultures so they emphasize loyalty, authority, and sanctity values and deemphasize egalitarian values, such as care and fairness, to maintain the current cultural order. Then why was the relation between ethnic protection and binding foundations similar across the four groups? We postulate that people who score high in ethnic protection may strongly endorse binding foundations regardless of their cultural status, which may be partly due to strong motives for protecting their cultural traditions and the existing order.

Why is the relation between ethnic protection and individualizing foundations slightly varied across cultural groups? One possible explanation is that European cultures are viewed as dominant and mainstream cultures in the global context as well as in U.S. society while Asian cultures or Chinese culture are seen as subordinate and marginal cultures. If European American students are motivated to protect their cultural traditions, they would have to value loyalty, authority, and sanctity and at the same time devalue care and fairness. However, if Asian

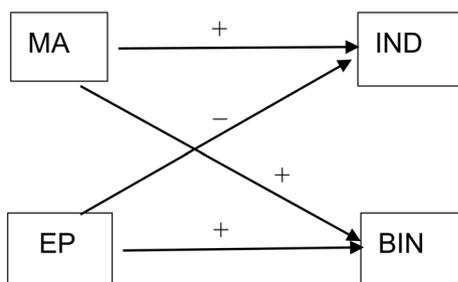


Figure 1. Proposed model of the relation patterns between global orientations and moral foundations. N = 1,121. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations.

Table 4
Multiple Group Analysis Among the Four Cultural Samples

	χ^2	df	RMSEA	CFI
Model 1	34.18*	12	.082	.962
Model 2	11.54	10	.024	.997

Note. RMSEA = root-mean-square error of approximation; CFI = comparative fit index.

* $p < .001$.

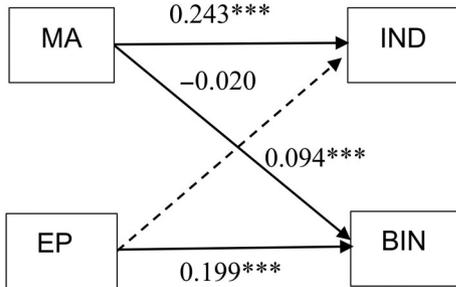


Figure 2. Final model of the relation patterns between global orientations and moral foundations (path coefficients restrained to be equal across four samples). $N = 1,121$. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations. *** $p < .001$.

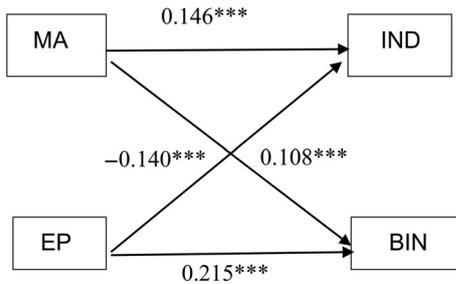


Figure 3. Final model of the relation patterns between global orientations and moral foundations among European American students. $n = 317$. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations. *** $p < .001$.

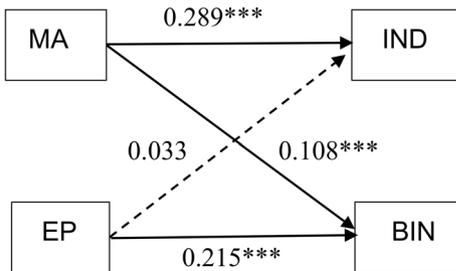


Figure 4. Final model of the relation patterns between global orientations and moral foundations among Asian American, Chinese, and Chinese international students. $n = 804$. MA = multicultural acquisition; EP = ethnic protection; IND = individualizing foundations; BIN = binding foundations. *** $p < .001$.

American students or Chinese students (domestic or international) are motivated to preserve their own cultural heritage, they do not have to make compromises among competing moral concerns, such as deemphasizing individual rights and human welfare. These interpretations are just our post hoc theoretical speculations and need further empirical support. More work is needed to test these plausible hypotheses by identifying the moderating role of culture and the underlying processes.

Implications and future directions

Our current work sheds new light on the interplay of globalization and morality. First, we have provided conceptual formulations and direct empirical evidence to map out the relations between global orientations and complex moral matrices. Second, we have found interesting and novel evidence concerning cultural similarities and differences among three cultural groups. Third, our results have also demonstrated the unique explanatory power of global orientations in accounting for psychological processes in the moral domain. Practically speaking, unpacking the relations between global orientations and moral foundations may offer us novel insights into how to maximize the benefits of globalization and minimize the detriments of moral disagreements and value conflicts.

Our research also entails some limitations. First, all of our samples consisted of college students who were not sufficiently culturally representative populations. More diverse community and international samples are needed to further validate the generalizability and reproducibility of our findings. Second, all of our data were cross-sectional in nature, thus limiting our ability to make any directional claims. Experimental evidence or longitudinal work is needed to infer causal relationships.

Nonetheless, our findings contribute to the growing body of research seeking to map out morality in this increasingly globalizing world. Promising future directions may entail but may not be limited to the following. First, researchers can validate the robustness of the predictive utility of global orientations on moral endorsements by replicating and extending our findings. Second, experimental work can be conducted by manipulating global orientations in lab settings to test their causal influence on moral functioning. Third, future work can tap into how and why differing global experiences reshape individuals' pre-existing value systems. To conclude, it is our hope that this initial investigation will inspire more researchers to further probe the

dynamic interplay between globalization-related constructs and moral patterns. We are convinced that this line of research is both theoretically insightful and practically meaningful and thus worth pursuing for 21st-century moral psychologists.

Disclosure of conflict of interest

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