

Uncovering the Diverse Cultural Bases of Social Identity:
In-group Ties Predict Self-Stereotyping Among Individualists but not Among Collectivists

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Abstract

On what basis do people form their social identities? To investigate this issue, the present research investigated cross-cultural differences in self-stereotyping, a key outcome of social identification. In particular, the research tested the hypothesis that in-group ties are a stronger predictor of self-stereotyping among people from individualist cultures than among people from collectivist cultures. In Study 1, university students ($N = 117$) completed measures of in-group ties and self-stereotyping with respect to an intimacy group (family and friends). Consistent with predictions, in-group ties significantly predicted self-stereotyping among individualists but not among collectivists. Study 2 ($N = 104$) found a similar pattern of results among members of the global internet community who considered either an intimacy group (their friends), a task group (their work group), or a social category (their gender). These results indicate that people in individualist cultures are more likely than those in collectivist cultures to base their social identities on in-group ties. The implications of these results are discussed in relation to self-categorization theory's depersonalization account of social identification.

KEYWORDS: cross-cultural; in-group identification; in-group ties; self-stereotyping; self-categorization theory.

Social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner, 1987, p. 50) provide major theoretical advances in understanding how individuals are psychologically connected with their social groups via social identities. A key component of this social identity explanation is the construct of self-stereotyping, which involves the perception of similarities between the self and other in-group members (e.g., Bennett & Sani, 2008; Simon & Hamilton, 1994; Spears, Doosje, & Ellemers, 1997). According to self-categorization theory, self-stereotyping follows a process of *depersonalization* in which people no longer perceive themselves as unique, idiosyncratic individuals who are different from one another – *personal identity* – but as interchangeable, stereotypical group members who are similar to one another – *social identity*. This process of depersonalization is thought to underlie a diverse range of group phenomena, including prejudice, stereotyping, conformity, group polarization, group cohesiveness, crowd behavior, and leadership (for a review, see Hornsey, 2008). Hence, a better understanding of self-stereotyping and depersonalization has important implications for our understanding of group processes and behaviours.

In the present research, we investigated cultural differences in the basis for self-stereotyping. In particular, we considered cross-cultural differences in the extent to which close interpersonal relations with other in-group members – or *in-group ties* – form the basis for self-stereotyping. We begin by considering how in-group ties might serve as a basis for self-stereotyping, and we then move on to consider how this basis might vary as a function of culture.

The Relation Between In-Group Ties and Self-Stereotyping

According to self-categorization theory, self-stereotyping can be based on “any variable such as common fate, shared threat, proximity, similarity, shared interests, co-operative interaction or positive interdependence which...[can] function *cognitively as a criterion of social categorization to produce an awareness of shared social identity*” (Turner & Bourhis, 1996, p. 34, emphasis in original). Hence, like several other variables, in-group ties have the potential to act as the basis for self-stereotyping. In other words, as close interpersonal bonds with other people become more salient, they are more likely to act as the cognitive basis for a shared social identity and lead to a relatively high degree of perceived similarity between the self and other in-group members.

Previous research has supported this prediction of a positive relation between in-group ties and self-stereotyping. Hogg and Turner (1985) experimentally manipulated interpersonal attraction and observed its effects on a measure of in-group identification. They found that participants who thought that they would like and get on with anonymous in-group members showed greater in-group identification than participants who thought that they would not like or get on with in-group members. On the basis of these results, the researchers concluded that in-group ties can “act as a cognitive criterion for common category membership and hence promote psychological group formation through identification” (p. 61).

Critically however, although Hogg and Turner's (1985) measure of in-group identification assessed cohesiveness, in-group evaluation, in-group favoritism, and helping behavior, it did not provide a direct measure of self-stereotyping. Hence, their research only provides indirect support for self-categorization theory's prediction of a relation between in-group ties and self-stereotyping.

The Moderating Effect of Culture on the Relation Between In-Group Ties and Self-Stereotyping

We hypothesised that the relation between in-group ties and self-stereotyping is stronger in individualist cultures than it is in collectivist cultures. We explain the theoretical rationale and evidential basis for this hypothesis below.

According to self-categorization theory, self-stereotyping is more likely to occur when the prospective category criterion is subjectively important and accessible to people (Oakes, 1987, p. 128-129; Turner, 1987, p. 55). In other words, people should be more likely to perceive themselves as interchangeable, stereotypical group members when they consider themselves along social dimensions that are personally important to them. Based on this reasoning, we hypothesized that in-group ties would be more likely to act as a cognitive criterion for category membership in cultures that place greater importance on the interpersonal aspects of social groups (i.e., in-group ties).

Previous evidence indicates that individualist cultures place greater importance on the interpersonal aspects of social groups than collectivist cultures even if they place less importance on social groups than collectivist cultures. Indirect evidence comes from Oyserman, Coon, and Kimmelmeier's (2002) extensive meta-analysis of cross-cultural research studies. This large body of evidence shows that Americans (an individualist culture) score higher than people from collectivist countries on relational interpersonal dimensions such as feeling close to in-group members and sense of belonging to in-groups. Hence, although Americans have a less collectivist orientation than other cultures, they also have a more interpersonal and relational orientation than other cultures. As Oyserman et al. concluded, "Americans reported feeling close to members of their groups, enjoying being with them, and seeking other's advice. In that sense, Americans are relational" (p. 43).

More direct evidence that individualist cultures place greater importance on in-group ties comes from Triandis, McCusker and Hui (1990). In this study, American and Chinese participants rated the extent to which several different values were guiding principles in their lives. Participants rated each value on a scale ranging from "not important" to "of supreme importance." Again, the results showed that although Americans are more individualistic than the Chinese, they also place more importance on relational interpersonal values such as "true friendship" and "loyalty."

Based on the above evidence, and following self-categorization theory, we assumed that in-group ties, or close interpersonal relations with other in-group members, would be more likely to act as a cognitive criterion for category membership in individualist cultures than in collectivist cultures because they are more highly valued and important in individualist cultures than in collectivist cultures. Hence, we expected in-group ties to act as a stronger basis for self-stereotyping in individualist cultures than in collectivist cultures. In other words, we hypothesized that in-group ties would be a stronger predictor of self-stereotyping among individualists than among collectivists.

Study 1

Method

Participants. We recruited participants from the university campus. We oversampled people from collectivist cultures by recruiting participants from international student societies. Participants received AUD\$15 reimbursement for their participation.

Culture categorization. We categorized participants as either individualist or collectivist based on their response to an item near the end of the questionnaire that they completed that asked them to state their nationality. We used the results of Oyserman et al.'s (2002) meta-analysis as empirical criteria for identifying nationalities that had individualist and collectivist cultures. This meta-analysis showed that, in general, people from English-speaking countries are more individualistic, more relational, and less collectivist than people from non-English-speaking countries, and that English-speaking countries comprise an "overarching Western culture" (p. 13). Hence, we categorized participants as individualists if they were nationals of Australia, Canada, New Zealand, the UK, the USA, or White South Africa (for a

similar approach, see Bos, Picavet, & Sandfort, 2012; Liu et al., 2012; Rubin, 2013).

Notably, Oyserman et al. (2002, p. 13, 17-18) found that Americans are more individualistic and less collectivistic than most non-English-speaking countries in Europe (e.g., Austria, Denmark, Norway, Spain, Greece, Hungary). Consequently, it is inappropriate to categorize people from these countries as individualists. To deal with this issue, we conducted two sets of analyses. In the first set of analyses, we categorized participants from non-English-speaking European countries as collectivists.¹ In the second set of analyses, we excluded these participants from our analyses and retained only participants from non-English-speaking, non-European countries in our collectivist sample. We obtained the same pattern of significant and nonsignificant results in both sets of analysis. We report the results for the second set of analyses in this article because this approach is the less contentious of the two approaches, and it provides the strongest and most valid test of our hypothesis.

Our sample consisted of 117 participants (42 men and 75 women) who had a mean age of 24.57 years ($SD = 6.22$). We sampled 63 individualists and 54 collectivists. The individualists included 61 Australians, 1 Briton, and 1 New Zealander. The collectivists included 13 Chinese, 9 Filipinos, 6 Singaporeans, 5 Malaysians, 2 Bangladeshis, 2 Indonesians, 2 Iranians, 2 Israelis, 2 Kenyans, 2 Zimbabweans, 1 Hong Kong Chinese, 1 Indian, 1 Korean, 1 Laotian, 1 Papua New Guinean, 1 Persian, 1 Sri Lankan, 1 Tanzanian, and 1 Vietnamese.

Procedure. The study was titled “Group Identification,” and it was conducted using an online questionnaire that was presented on a computer in a quiet room at the university campus. At the start of the questionnaire, we asked participants to consider their family and friends as part of their in-group. Participants wrote down their own name and the names of four family members and/or friends on a piece of paper.² Note that prior research has confirmed that people perceive their family and friends to be part of their intimacy groups (Lickel et al., 2000), and that social identification with “family and friends” is an important predictor of self-esteem and life satisfaction (Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005). Participants then responded to items that assessed their in-group ties and self-stereotyping as well as a series of other items that were related to their group membership. Participants responded to each item using a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). At the end of the questionnaire, participants indicated their gender, age, and nationality.

Measures. Our measure of in-group ties was based on Cameron's (2004) measure. It consisted of four statements that assessed the extent to which respondents felt a sense of interpersonal attachment and connection to the other people in their group: “I have many close friends in my group,” “I empathize with the other people in my group,” “I identify with the other people in my group,” and “I have fairly superficial relationships with the other people in my group” (reverse scored).

Previous research has tended to measure self-stereotyping in one of two ways; either as ratings of global similarity between the self and other in-group members (e.g., Bennett & Sani, 2008; De Cremer, 2001; Hogg, Cooper-Shaw, & Holzworth, 1993; E. Kashima, Y. Kashima, & Hardie, 2000; Prentice et al., 1994; Spears et al., 1997) or as ratings of the extent to which in-group stereotypical traits apply to the self (e.g., Eidelman & Silvia, 2010; Latrofa et al. 2010; Pickett, Bonner, & Coleman, 2002; Simon & Hamilton, 1994; Spears et al., 1997; van Veelen, Otten, & Hansen, 2011). In the present research, we used a global measure of self-stereotyping rather than a specific measure because we were interested in comparing our results across several different groups in Study 2, and global measures are more suitable for this purpose because of their applicability to different groups. Our measure consisted of four items that were similar to items used in previous research: “I am quite similar to the other people in my group,” “there is very little difference between myself and other members of my group,” “the people in my group are quite different from me” (reverse scored), and “I am not the same as the other people in my group” (reverse scored).

Results

Cross-cultural comparability. The individualist sample contained 54.0% women, and the collectivist sample contained 75.9% women. A Pearson Chi-Square test confirmed that these proportions were significantly different from one another, $\chi^2(1, N = 117) = 6.09, p = .014$. Individualist participants were also significantly younger ($M = 22.73, SD = 5.71$) than collectivist participants ($M = 26.72, SD = 6.17$), $t(115) = 3.63, p < .001$. Consequently, we included gender and age as control variables in our

cross-cultural analysis.

Reliability of measures. The four in-group ties items were approaching acceptable internal consistency ($\alpha = .57$; Clark & Watson, 1995). Their internal consistency became slightly more acceptable if we excluded the item that referred to “superficial relationships” ($\alpha = .61$). Consequently, we deleted this item from the scale. The final three-item scale had an acceptable mean interitem correlation ($r = .35$). The four self-stereotyping items had good internal consistency ($\alpha = .77$) and a good mean interitem correlation ($r = .46$). We computed mean values from the items in each scale for inclusion in our subsequent analyses.

Cross-cultural differences in in-group ties and self-stereotyping. We conducted ANCOVAs on the measures of in-group ties and self-stereotyping, with culture (individualist/collectivist) as the independent variable and age and gender as covariates. Culture had a significant effect on in-group ties, $F(1, 113) = 11.32, p = .001, \eta^2 = .09$: Consistent with previous research (Oyserman et al., 2002), individualists reported significantly stronger in-group ties ($M = 4.25, SD = .49$) than collectivists ($M = 3.91, SD = .80$). Culture did not have a significant effect on self-stereotyping, $F(1, 113) = .44, p = .507, \eta^2 < .01$

Cross-cultural differences in the relation between in-group ties and self-stereotyping. We tested our main hypothesis using a hierarchical multiple regression analysis. We dummy coded the culture variable, with 0 representing collectivists and 1 representing individualists. We centered the in-group ties scores by converting them to z scores. We computed the product of the culture variable and the in-group ties z scores in order to obtain an interaction term. We then regressed self-stereotyping onto gender and age in Step 1, culture and in-group ties in Step 2, and the interaction term in Step 3.

The only significant effect was for the interaction term, $\beta = .26, p = .027$, which remained significant after the exclusion of the age and gender covariates, $\beta = .24, p = .035$. All other effects were nonsignificant ($ps \geq .236$). To investigate the interaction effect, we regressed self-stereotyping onto in-group ties separately for the individualists and collectivists in our sample. Consistent with predictions, the relation between in-group ties and self-stereotyping was stronger among individualists, $\beta = .28, p = .024$, than among collectivists, $\beta = -.07, p = .604$. Indeed, the relation was nonsignificant among collectivists. Note that the significant interaction between culture and in-group ties indicates that, as predicted, the relation between in-group ties and self-stereotyping was *significantly* stronger among individualists than among collectivists.

Study 2

Study 1 provided initial support for our hypothesis that in-group ties are a stronger predictor of self-stereotyping among individualists than among collectivists. In Study 2, we aimed to address four limitations of this first study.

First, Study 1’s sample of individualists mainly consisted of Australian students. In order to confirm that our results were not limited to this particular individualist country, we recruited individualist participants from other English-speaking countries in Study 2.

Second, Study 1’s sample of collectivists mainly consisted of international students who were studying in Australia. These students may be more independent and individualistic than peers in their home country. In addition, the separation of these students from their home countries may have affected the relation between their interpersonal ties with their family and friends and their self-stereotyping. In order to eliminate this confound between migrant status and culture in Study 2, we recruited more participants from their native countries, and we controlled for migrant status in our cross-cultural analysis.

Third, although Study 1 demonstrated that in-group ties were *stronger* for individualists than for collectivists, it did not demonstrate that in-group ties were more *relevant* and *important* for individualists than for collectivists. To address this issue, we included E. Kashima and Hardie’s (2000) Relational, Individual, and Collective self-aspects scale (RIC) in Study 2. The RIC is ideal for testing the importance of in-group ties assumption because (a) it distinguishes between relational, individual, and collective self-aspects and (b) it is specifically designed “to measure the relative prominence of the three self-aspects within individuals” (E. Kashima & Hardie, 2000, p. 22). Consistent with our assumption that in-group ties are more important for individualists, we predicted that relational self-aspects would be endorsed

more strongly by individualists than by collectivists. We also predicted that people who place greater importance on relational self-aspects should show a stronger relation between in-group ties and self-stereotyping.

Finally, Study 1 only tested our hypothesis in relation to a small and intimate social group. In addition to intimacy groups, Lickel et al. (2000) found that people distinguish between task groups (e.g., juries, study groups, work groups) and social categories (e.g., gender, nationality, religion). In Study 2, we investigated whether our original results generalized to these two other group types. Theoretically, in-group ties should form a stronger basis for depersonalization among individualists even when considering task groups and social categories. Hence, in Study 2, we asked some participants to consider their membership in an intimacy group (friends), some to consider their membership in a task group (work group), and some to consider their membership in a social category (gender).

Method

Participants. We advertised our study on internet sites that were associated with both individualist and collectivist cultures. Participants had the opportunity to enter themselves into a prize draw in which they had a 1 in 20 chance of winning a US\$100 gift certificate from an online store.

We recruited 191 participants. For ethical reasons, we excluded seven participants who indicated that they were under the required age limit of 18 years. We also excluded 37 participants who provided inappropriate responses to the nationality question. These responses mainly indicated participants' ethnicity (e.g., "white," "Caucasian") rather than their nationality. We excluded these participants for two reasons. First, it was not possible to categorize them as either individualist or collectivist on the basis of their responses. Second, their responses demonstrated a lack of understanding of the nationality question that indicated poor English capacity. Finally, and following the approach taken in Study 1, we excluded 43 participants who were from non-English-speaking European countries. As in Study 1, we obtained the same pattern of significant and nonsignificant results when these 43 participants were included as collectivists in our analysis. These exclusions left 104 participants (37 men and 67 women) who had a mean age of 25.90 years ($SD = 9.16$). There were 35 participants in the intimacy group condition, 35 in the task group condition, and 34 in the social category condition.

Culture categorization. We categorized participants as either individualist or collectivist based on their nationality and using the same approach as in Study 1. There were 62 individualists and 42 collectivists in our sample. The individualists included 45 Americans, 7 Britons, 5 Australians, 4 Canadians, and 1 Irish. The collectivists included 6 Chinese, 6 Filipinos, 4 Indians, 4 Japanese, 3 Asians, 3 Turks, 2 Africans, 2 Malaysians, 2 Pakistanis, 2 Thai, 1 Brazilian, 1 Chilean, 1 Guyanese, 1 Latino, 1 Middle Eastern, 1 Emirian, 1 Uruguayan, and 1 Vietnamese.³

Procedure. The study was titled "Self-Perception in Social Groups," and it was presented online via the internet. Participants completed the study anonymously.

At the start of the questionnaire, participants completed the RIC self-aspect scale. Participants then responded to items that assessed their in-group ties and self-stereotyping as well as a series of other items that were related to their group membership. Participants responded to items with respect to either their friends (intimacy group condition), their work group ("people you work with"; task group condition), or their gender (social category condition). Participants made their responses using a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*).

At the end of the questionnaire, participants indicated their gender, age, nationality, and migrant status. They also indicated the highest education level of their mother and their father using a 4-point Likert-type scale with the following scale anchors: *no formal education*, *primary education (primary school - years 1 to 7)*, *secondary education (high school)*, *tertiary education (college or university)*.

Measures. E. Kashima and Hardie's (2000) RIC self-aspect scale consists of 30 items that tap the relative importance of relational, independent, and collective self-aspects in people's lives. Participants are presented with a particular context and asked to rate how much they agree or disagree with three attitudes that represent relational, independent, and collective self-aspects within that context. For example, one item asks participants to indicate how much they agree or disagree that "it is most important in life to (a) have good personal relationships with people who are important to me [relational self-aspect], (b) have personal integrity/be true to myself [independent self-aspect], and (c) work for causes to

improve the well-being of my group [collective self-aspect].”

The measure of in-group ties was similar to that used in Study 1 except that we replaced the item “I identify with the other people in my group” with the more specific and face valid item “I do not have very strong ties with the other people in my group” (reverse scored). The measure of self-stereotyping was the same as that used in Study 1.

Results and Discussion

Cross-cultural comparability. There were approximately the same proportions of women in the individualist sample (62.9%) and the collectivist sample (66.7%), $\chi^2(1, N = 104) = .16, p = .694$. In addition, individualist participants were approximately the same age ($M = 27.05, SD = 10.70$) as collectivist participants ($M = 24.21, SD = 5.97$), $t(102) = -1.56, p = .122$. Based on the mean of their mother and father’s highest education level, individualists had a significantly higher social class ($M = 3.53, SD = .49$) than collectivists ($M = 3.21, SD = .70$), $t(102) = -2.74, p = .007$. In addition, based on responses to an item that asked “are you currently living in your home country?,” the individualist sample contained a significantly smaller proportion of migrants (11.3%) than the collectivist sample (35.0%), $\chi^2(1, N = 102) = 8.36, p = .004$.

In summary, our individualist and collectivist samples were similar in terms of their gender and age but significantly different in terms of their social class and migrant status. Consequently, we controlled for social class and migrant status in our cross-cultural analyses.

Reliability and validity of measures. All of the scales had good internal consistency (RIC relational $\alpha = .94$; RIC individual $\alpha = .90$; RIC collective $\alpha = .91$; in-group ties $\alpha = .70$; self-stereotyping $\alpha = .75$) and good mean interitem correlations (RIC relational $r = .61$; RIC individual $r = .50$; RIC collective $r = .53$; in-group ties $r = .36$; self-stereotyping $r = .42$). Notably, the in-group ties measure had a significant positive relation with the RIC relational subscale ($r = .32, p = .001$). Hence, this measure had acceptable convergent validity.

Cross-cultural differences in in-group ties, self-stereotyping, and the importance of relational self-aspects. We conducted ANCOVAs on the measures of in-group ties and self-stereotyping, with culture and group type as the independent variables and social class and migrant status as the covariates. There was no significant effect of culture or group type on in-group ties ($ps \geq .594$) or self-stereotyping ($ps \geq .468$). The null finding for in-group ties was inconsistent with Study 1, where individualists reported significantly stronger in-group ties than collectivists. This lack of a reliable effect between studies may be because the key cross-cultural effect relates to the perceived *importance* of relational ties rather than their perceived *strength* (Triandis et al., 1990). In this respect, the RIC relational subscale provided a more powerful test of our prediction.

We conducted ANCOVAs on the three RIC scales, with culture as the independent variable and social class and migrant status as covariates. Culture had a significant effect on the importance of relational self-aspects, $F(1, 98) = 4.46, p = .037, \eta^2 = .04$. Consistent with previous research (Triandis et al., 1990), relational self-aspects were more important for individualists ($M = 6.14, SD = .61$) than for collectivists ($M = 5.76, SD = 1.18$). Culture also had a marginally significant effect on the importance of individual self-aspects, $F(1, 98) = 3.69, p = .058, \eta^2 = .04$. As expected, individual self-aspects were more important for individualists ($M = 6.07, SD = .47$) than for collectivists ($M = 5.74, SD = 1.17$). Contrary to expectations, culture did not have a significant effect on the importance of collective self-aspects ($p = .759$). The reason for this unexpected null finding is unclear. It may represent a problem with the sensitivity of the RIC collective subscale or a Type II statistical error.

Cross-cultural differences in the relation between in-group ties and self-stereotyping.

Following a similar procedure to that used in Study 1, we regressed self-stereotyping onto social class and migrant status in Step 1, group type,⁴ culture, and in-group ties in Step 2, the two-way interaction terms between group type, culture, and in-group ties in Step 3, and the corresponding three-way interaction terms in Step 4.

There was a significant positive relation between in-group ties and self-stereotyping in Step 2, $\beta = .37, p < .001$. This effect was qualified by the predicted two-way interaction between culture and in-group ties in Step 3, $\beta = .41, p = .014$, which remained significant after the exclusion of the social class and migrant status covariates, $\beta = .40, p = .014$. There were no further significant effects ($ps \geq .273$).

Note that the two-way interaction between culture and in-group ties remained significant, $\beta = .49, p = .004$, when the interaction between migrant status and in-group ties was included in Step 3 of the regression. Hence, the difference in the proportion of migrants in the individualist and collectivist categories was not responsible for the interaction between in-group ties and culture. Also note that the R^2 change value for the three-way interaction in Step 4 was not significant, $F(2, 88) = .56, p = .571$. Hence, the two-way interaction between culture and in-group ties did not vary significantly as a function of group type.

To investigate the two-way interaction between culture and in-group ties, we regressed self-stereotyping onto in-group ties at each level of culture (individualist/collectivist). Consistent with Study 1, the relation between in-group ties and self-stereotyping was significantly stronger among individualists, $\beta = .49, p < .001$, than among collectivists, $\beta = .16, p = .328$. Again, as in Study 1, the relation was nonsignificant among collectivists.

Individual differences in relational self-aspects as a moderator of the relation between in-group ties and self-stereotyping. If cross-cultural differences in the relation between in-group ties and self-stereotyping are based on cross-cultural differences in the importance of relational self-aspects, then people who place greater importance on relational self-aspects should show a stronger relation between in-group ties and self-stereotyping. To test this prediction, we regressed self-stereotyping onto social class and migrant status in Step 1, relational self-aspects and in-group ties in Step 2, and the two-way interaction between relational self-aspects and in-group ties in Step 3. Note that, because this analysis did not include culture as a variable, we included the 43 participants who were from non-English-speaking European countries.

There was a significant positive relation between in-group ties and self-stereotyping in Step 2, $\beta = .37, p < .001$. This effect was qualified by the predicted two-way interaction between relational self-aspects and in-group ties in Step 3, $\beta = .20, p = .046$. There were no further significant effects ($ps \geq .275$). To investigate the two-way interaction between relational self-aspects and in-group ties, we regressed self-stereotyping onto in-group ties at half a standard deviation above and below the mean for relational self-aspects. (Splitting at a full standard deviation above and below the mean yielded very small cell sizes; $ns = 10$ and 14 .) As predicted, the relation between in-group ties and self-stereotyping was positive and significantly stronger among people who placed greater importance on relational self-aspects, $\beta = .46, p < .001$, than among those who placed less importance on this type of self-aspect, $\beta = -.26, p = .192$. Indeed, paralleling our previous findings, the relation was nonsignificant among those for whom relational self-aspects were not particularly important.

To confirm that the above moderating effect was specific to relational self-aspects, we performed the above analysis again substituting relational self-aspects for (a) individual self-aspects and (b) collective self-aspects. The interaction effects with in-group ties were nonsignificant in both cases ($ps = .671$ & $.130$ respectively).

Summary. Consistent with predictions, relational self-aspects were significantly more important among individualist participants than among collectivist participants. Furthermore, consistent with Study 1, in-group ties interacted with culture to predict self-stereotyping. The relation between in-group ties and self-stereotyping was significantly stronger among individualists than among collectivists, where it was nonsignificant. Finally, in-group ties also interacted with individual differences in the importance of relational self-aspects to predict self-stereotyping. Paralleling the cross-cultural effect, the relation between in-group ties and self-stereotyping was significantly stronger among people who placed greater importance on the relational aspect of their self.

General Discussion

In two studies, we found that self-stereotyping was predicted by a significant interaction between participants' culture and their in-group ties. Among individualists, having close, empathic, meaningful relationships with the other in-group members was positively related to perceptions of similarity with those in-group members. Among collectivists, this relation was significantly weaker and nonsignificant.

The present results provide the first evidence that in-group ties are a stronger predictor of self-stereotyping in individualist cultures than in collectivist cultures. As discussed earlier, this cross-cultural difference is likely to occur because (a) prospective category criteria are more likely to act as the basis for

self-stereotyping to the degree that they are important and accessible (Oakes, 1987, p. 128-129; Turner, 1987b, p. 55), and (b) in-group ties are more important in individualist cultures than in collectivist cultures (Oyserman et al., 2002; Triandis et al., 1990). Consistent with this second assumption, Study 2 found that relational self-aspects were significantly more important for individualist participants than for collectivist participants, and that people who valued relational self-aspects highly showed the strongest positive relation between in-group ties and self-anchoring.

Implications

Previous research has questioned the generality of self-categorization theory's depersonalization account of social identification and instead proposed dual-process models that assume that social identification can be based on either (a) depersonalization or (b) interpersonal relationships (for a review, see Postmes, Spears, Lee, & Novak, 2005). In particular, Prentice, Miller, and Lightdale (1994) proposed that some groups operate on the basis of a depersonalized common identity and others operate on the basis of interpersonal bonds. Similarly, Yuki (2003) demonstrated that in-group identification is based on depersonalization in North America and relational interdependence in East Asia (see also Nakashima, Isobe, & Ura, 2012). Contrary to these viewpoints, the present research did not find any evidence that self-stereotyping varied significantly as a function of either group type (cf. Prentice et al., 1994) or culture (cf. Yuki, 2003). Instead, we found a significant cross-cultural difference in the extent to which in-group ties predicted self-stereotyping. This cross-cultural difference is consistent with the principles of self-categorization theory, and it does not imply a separate, interpersonal model of group processes for collectivist cultures. Instead, this novel effect implies that people from different cultures tend to use different types of cognitive criteria as the basis for establishing a depersonalized social identity.

As we discussed in the Introduction, the process of depersonalization is thought to underlie a diverse range of group phenomena, including prejudice, stereotyping, conformity, group polarization, group cohesiveness, crowd behavior, and leadership. Consequently, understanding cross-cultural differences in the basis for depersonalization may help to improve the effectiveness of interventions that are intended to alter these various forms of group behavior. For example, Pettigrew's (1997, p. 174) deprovincialization hypothesis suggests that reduced contact with in-group members may help to reduce prejudice against out-groups, and some evidence supports this idea (e.g., Verkuyten, Thijs, & Bekhuis, 2010; Wilder & Thompson, 1980). However, the present research suggests that this approach may be more effective among individualists than among collectivists because individualists rely more on interpersonal contact and in-group ties as the basis for their sense of a shared social identity.

In its broadest form, the present research opens up a new line of enquiry in this area that considers the extent to which different variables operate as the basis for self-stereotyping. Self-categorization theory assumes that many different cognitive criteria can operate as the basis for self-stereotyping and that contextual factors may make some of these criteria more relevant than others. The present research suggests that culture is an important determinant of the extent to which in-group ties represent a cognitive criterion for common category membership. Future research should consider the influence of other contextual factors on other prospective cognitive criteria.

Limitations and Directions for Future Research

One important limitation of our cross-sectional, correlational research design is that it does not allow us to draw firm conclusions about the causal direction of the effects that we observed. Hence, our results can be interpreted as indicating that either (a) in-group ties caused individualists to perceive greater similarity between themselves and in-group members and/or (b) self-stereotyping caused individualists to feel stronger interpersonal ties with in-group members. Notably, the possibility of a bidirectional relation between in-group ties and self-stereotyping does not contradict self-categorization theory, which proposes that interpersonal friendship may form the basis for self-stereotyping (Hogg & Turner, 1985; Turner & Bourhis, 1996, p. 34) and that self-stereotyping may result in attraction and cohesiveness among in-group members (e.g., Hogg & Hains, 1996; Turner, 1987; for a related discussion, see Prentice et al., 1994, p. 492). Nonetheless, future research should experimentally manipulate in-group ties in order to confirm that its effect on self-stereotyping is moderated by participants' cultural background.

A second limitation of the present research is that language skills may have confounded our operationalization of culture. In particular, individualists may have been more able than collectivists to understand our English questionnaire. This possibility was less likely in Study 1 than in Study 2 because all of the collectivist participants in Study 1 needed to be proficient in English in order to enrol at the Australian university at which the study was conducted. In Study 2, many participants ($n = 37$) appeared to be unable to understand a question requesting their nationality. However, we excluded these participants as a further control. Again, however, to reach firmer conclusions on this issue, future research should consider making non-English translations of research questionnaires available to collectivist participants.

A third limitation of our research is that our samples of individualists were more likely to be drawn from the same country compared to our samples of collectivists. This approach could have resulted in greater variance within our collectivist samples, and this greater variance could have reduced the likelihood of finding significant relations within these samples. To test this idea, we conducted Levene's test for equality of variances on the in-group ties and self-stereotyping variables in both studies. In two of these four tests, the results were nonsignificant ($ps \geq .696$), indicating that there was no significant difference between cultures on these variables. The exceptions were for in-group ties in Study 1, $F(115) = 5.37, p = .022$, and self-stereotyping in Study 2, where the effect was marginally significant, $F(102) = 3.90, p = .051$. In Study 1, collectivists had a significantly larger variance ($SD = .80$) than individualists ($SD = .49$). Hence, it is possible that a larger variance in the collectivist sample explained the null relation between in-group ties and self-stereotyping in Study 1. However, in Study 2, individualists had a marginally significantly larger variance ($SD = 1.30$) than collectivists ($SD = 1.00$), implying that the null relation between in-group ties and self-stereotyping among collectivists in Study 2 represented a genuine effect rather than a statistical artifact. Nonetheless, future research in this area should attempt to recruit individualist and collectivist samples from the same number of countries in order to reduce this potential concern.

A fourth limitation relates to the cause of the perceived similarity between the self and ingroup members that we detected. This perceived similarity may be due to either participants perceiving themselves to be stereotypical of their group (i.e., self-stereotyping) and/or participants perceiving group members to be similar to themselves (self-anchoring; Cadinu & Rothbart, 1996). In the present research, we assumed that in-group ties forms a cognitive criterion for self-stereotyping. However, it is also possible that in-group ties forms a cognitive criterion for self-anchoring (e.g., "I have many close friends in my group. Therefore, other members of my group also have close friends in my group and, on that basis, we are similar to one another"). Van Veelen et al. (2011) have shown that self-anchoring is more likely among people who have more independent, stable self-concepts, as assessed using items from a measure of independent self-construal (Singelis, 1994). Hence, if self-anchoring accounted for perceived similarity in the present research, then it should be positively related to self-concept stability. To test this possibility, we created a measure of self-concept stability using five independence items from the RIC self-aspect scale (independence items 1, 3, 4, 6, and 7). As in van Veelen et al.'s research, these items referred to self-stability in different social situations and realizing internal attributes, but they did not refer to self-enhancement or uniqueness. Our self-concept stability measure had good internal reliability ($\alpha = .78$). However, it did not show a significant positive relationship with perceived similarity ($r = -.07, p = .416, n = 147$). Based on this null finding, we concluded that it was more likely that the perceived similarity that we measured in the current research was due to self-stereotyping rather than self-anchoring. Nonetheless, future research should endeavour to distinguish between self-anchoring and self-stereotyping in order to investigate which is more influenced by cross-cultural differences.

A fifth limitation is that our sample sizes (Study 1 $N = 117$; Study 2 $N = 104$) could have been larger in order to obtain more powerful statistical tests. Future research should consider sampling larger numbers of participants to address this problem.

A sixth limitation is that our research did not include any behavioural outcomes (Baumeister, Vohs, & Funder, 2007). Future research in this area should aim to extend on the current research by investigating how in-group ties predict not only self-stereotyping but also group behaviours that are based on self-stereotyping such as prejudice, conformity, and crowd behavior.

Finally, although in-group ties emerged as a relatively strong basis for self-stereotyping among

individualists, the basis for self-stereotyping among collectivists was unclear. This is an important issue, and future researchers should consider which cognitive criteria are more likely to predict self-stereotyping among collectivists than among individualists. On the basis of Oyserman et al.'s (2002) meta-analysis, we believe that group harmony and sense of duty to in-groups represent two potential answers to this question. In particular, it is possible that collectivists depersonalize in social groups on the basis of not how close they feel to other group members but rather how obligated they feel towards their group.

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Footnotes

1. In Study 1, participants from non-English-speaking European countries included 2 Macedonians, 1 Italian, 1 Norwegian, and 1 Russian ($n = 5$). In Study 2, these participants included 14 Bulgarians, 3 Germans, 3 Polish, 2 Greeks, 2 Italians, 2 Russians, 2 Swedish, 2 Swiss, 2 Ukrainians, 1 Austrian, 1 Albanian, 1 Belarusian, 1 French, 1 Hispanic, 1 Hungarian, 1 Latvian, 1 Moldavian, 1 Netherlander, 1 Portuguese, and 1 Serbian ($n = 43$).

2. Participants also indicated how many people in their in-group were male, had dark hair, wore glasses, and were religious. They later received bogus feedback about the extent to which the people in their in-group matched a “winning” profile of group members. This part of the procedure was intended to manipulate group status to test a separate hypothesis. However, the manipulation was not successful, and it did not yield theoretically informative results. Consequently, we do not discuss it any further.

3. Some responses to the nationality item were not official nationalities (e.g., “Asians,” “Africans,” “Latino,” “Middle Eastern”). Nonetheless, it was possible to categorize these responses as either individualist or collectivist based on Oyserman et al.’s (2002) research, and so we did so.

4. Following Aiken and West (1991), we created vectors for the group type variable by dummy coding the intimacy group condition (0, 1) and the task group condition (0, 1) and including this pair of vectors and their interaction terms with our other key variables in our multiple regression. Parallel analyses using the ANCOVA approach produced equivalent results.