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Journal of Cross-Cultural Psychology 2012 43: 527
DOI: 10.1177/0022022112438396

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>> Version of Record - Apr 17, 2012
What is This?
Culture, Interpersonal Stress, and Psychological Distress

Takeshi Hashimoto¹, Taraneh Mojaverian², and Heejung S. Kim²

Abstract
The present study examined cultural differences in interpersonal stress experiences in Japan and the United States. Japanese and U.S. students completed a questionnaire that included measures of interpersonal stressors, the behavior inhibition system (BIS), and psychological distress. As hypothesized, frequency of interpersonal friction was higher in Japan than in the United States, whereas frequency of interpersonal conflict did not differ across cultures. BIS partially mediated relationships between culture and frequency of interpersonal friction.

Keywords
cultural psychology, interpersonal relationships, personality

In recent years, the influence of culture on the association between interpersonal relationships and well-being has received considerable empirical attention. For instance, a large number of studies investigated cultural differences in the use of social support as a coping strategy for stress (see Kim, Sherman, & Taylor, 2008, for a review). However, while much research focuses on social support transactions in which social relationships are a resource, few studies have considered social interactions themselves as a potential source of stress.

The purpose of this study is to examine cultural differences in how people experience interpersonal stress between the United States and Japan. We aimed to examine how culture impacts the degree that different types of interpersonal stress are experienced, and the psychological factors that underlie such differences.

Social relationships are one of the most common and influential stressors. Interpersonal stress experiences can lead to serious and significant problems. Interpersonal stress is associated with many mental health issues, such as depression and anxiety. Moreover, the negative impact of interpersonal stressors seems to be stronger than the impact of other types of stressors (e.g., Bolger, DeLongis, Kessler, & Schilling, 1989). Several studies have categorized various interpersonal stressors (e.g., Leary & Springer, 2001). These findings suggest that negative interactions

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may be categorized into two types, both of which could be considered the experience of negative behavior of others toward the self, through aggressive acts or social ostracism.

One can easily imagine that negative treatment from others can be seen as stressful in most cultures. However, this may not be the sole or most important stressor that can arise from social interactions. The meaning and influence of social interactions might differ across cultures, although most of these findings were based on the studies conducted in the United States. For example, maintenance of relationship harmony is relatively more important in East Asian cultures than American cultures, and thus, Japanese engage in frequent self-criticism to prevent disruption of relationship harmony (Heine, Takata, & Lehman, 2000). Also, previous research on culture and social support (Kim et al., 2008) shows that Asians are less willing to seek support because they are more cautious about their social relationship. That implies that Asians are more aware of the risk of damaging relationships and are more concerned about relationship maintenance. Consequently, in these cultures, social interactions in which one’s own failure might disturb others may be seen as stressful and may be recognized as such more frequently. These findings suggest that types and the importance of negative social interaction may differ cross-culturally.

Hashimoto (2005) found that negative social interactions in Japan could be divided into three types: interpersonal conflict (explicit conflict, quarreling, or discord), interpersonal blunders (situations that caused someone trouble because of one’s own mistake), and interpersonal friction (situations in which assertiveness is inhibited to avoid explicit interpersonal trouble with other people). Previous findings regarding relational differences among Asians and Americans suggest that recognition of interpersonal stressors may be influenced by cultural context. Interpersonal blunders and interpersonal friction are qualitatively different types of stressors from interpersonal conflict in that they are motivated by self-criticism and concerns regarding one’s own treatment toward others. Thus, these stressors might be thought of as culture-specific stressors in East Asian cultures. Based on the findings regarding the differences between the two cultures, we hypothesized that stress instigated by interpersonal blunders and interpersonal friction will be experienced more frequently in Japan than in the United States. In contrast, interpersonal conflict will be experienced similarly in both Japan and the United States, because this type of interaction could be seen as negative pan-culturally.

In addition to the cultural difference in the frequency of experiencing different types of stressors, we investigated a potential mediator that might explain the cultural difference. We considered the motivation to inhibit one’s action in order to preserve social harmony, especially in relation to interpersonal blunders and friction. Lee, Aaker, and Gardner (2000) found that self-regulatory processes differ for individuals with distinct self-construals. Individuals with an interdependent self-construal place more emphasis on prevention-focused information (orientation toward the avoidance of losses and the fulfillment of obligations), compared with those with independent self-construals. This thinking style could facilitate recognition of interpersonal blunders and interpersonal friction.

Thus, we examined the mediating effects of the Behavioral Inhibition System (BIS; Carver & White, 1994). The Behavioral Inhibition System (BIS) reflects tendencies to be sensitive to potential risks and punishment, and has been used as an index of prevention-focused information processing. We hypothesize that BIS will mediate cultural differences in the frequency of interpersonal blunders and friction, because Japanese culture encourages individuals to develop tendencies to be sensitive to potential risk and punishment (as assessed by the BIS measure).

Finally, we also examined cultural differences in the impact of interpersonal stressors on psychological distress. Interpersonal stressors should have a negative effect on well-being in both cultures; however, there might be a relative difference in the degree of its impact. Because the importance of relationship harmony differs across cultures, the impact of interpersonal stressors may be stronger in Japan than in the United States. This difference should be even more...
pronounced with interpersonal conflict, an explicit deviation from the cultural norm in Japan, and could be a stronger predictor of psychological distress among Japanese than Americans. Thus, we hypothesized that cultural differences in the impact of interpersonal stressors, and interpersonal conflict in particular, on distress would be greater among Japanese than Americans.

Method

Participants

The Japanese sample consisted of 284 (118 male and 166 female) undergraduates at two universities in Shizuoka Prefecture. Mean age was 19.73 years ($SD = 0.95$, min = 18, max = 26). In the United States, 134 European American undergraduates (51 male and 83 female) at a large university in California participated. The mean age was 19.14 years ($SD = 1.28$, min = 18, max = 26).

Materials and Procedure

Scale of Interpersonal Stressors (SIS). The SIS was originally developed and validated by Hashimoto (2005). This scale is a measure of the frequency of interpersonal stressor experiences and consists of three subscales, each with six items: Interpersonal Conflict (e.g., “I was insulted or ridiculed by others”), Interpersonal Blunders (e.g., “I was not able to perform my responsibilities toward another/other”), and Interpersonal Friction (e.g., “I tolerated problems I had with another/other, even though I wanted to point them out”), with responses made on a 4-point scale with 1 indicating not at all and 4 indicating often. Participants were instructed to respond with respect to their experiences in everyday relationships within the last month. All items were initially developed in Japanese. An English version of the SIS was developed after translation and back-translation procedures by two bilingual psychologists. Hashimoto et al. (2012) used the SIS to examine interpersonal stress in relationships among undergraduates in Japan and the United States and confirmed the reliability and validity of three subscales in both cultures.

We conducted factor analyses (maximum likelihood method, promax rotation) of interpersonal stressor items on both Japan and U.S. samples, respectively, to construct a culturally equivalent measure of interpersonal stressors. Items were dropped if the factor loading was less than .40 on expected factors or more than .40 on unexpected factors, for either Japan or U.S. samples. Originally we assumed a three-factor model, however the reliability of the Interpersonal Blunder subscale in the U.S. sample was too low ($\alpha < .60$). So we tested a two-factor model, which includes interpersonal conflict and interpersonal friction separately for both samples. As a result, eight items (three conflict items and five friction items) were adopted as culturally equivalent subscale items of Interpersonal Stressors. The scale reliabilities were moderate (Interpersonal Conflict: $\alpha = .65$ in Japan and .67 in the United States; Interpersonal Friction: $\alpha = .75$ in Japan and .64 in the United States).

BIS/BAS Scale. This scale, originally developed by Carver and White (1994) and translated into Japanese by Takahashi et al. (2007), is a measure of the Behavioral Inhibition System and the Behavioral Activation System. The scale includes 7 BIS items (e.g., “I worry about making mistakes”) and 13 BAS items (e.g., “When I see an opportunity for something I like, I get excited right away”). Participants indicated their agreement with each statement on a 1 (strongly disagree) to 5 (strongly agree) scale. All items were initially developed in English, and reliability and validity was confirmed by Carver and White (1994). A Japanese version was developed after translation and back-translation procedures, and its reliability and validity were confirmed by Takahashi et al. (2007). In line with our research interests, we focus only on the BIS subscale. The reliability of the BIS scale was sufficient ($\alpha = .82$ in Japan and .73 in the United States).
Stress Response Scale (SRS). The SRS (Suzuki et al., 1998) is a measure of psychological stress responses, such as depression-anxiety (e.g., “I feel depressed”), irritability-anger (e.g., “I feel irritated”), and helplessness (e.g., “I have trouble thinking and behaving consistently”). An English version was developed after translation and back-translation procedures. We used the total score for this scale as a psychological distress index. Participants were asked to rate their agreement over the past few days with each statement on a 0 (not at all) to 3 (very true) scale (α = .92 in Japan and .90 in the United States).

Results

Cultural Differences in Frequency of Interpersonal Stressors

Cultural differences in stressor frequency were analyzed with a 2 × 2 × 2 (Type of Stressor × Gender × Culture) mixed ANOVA, with type of stressor as the repeated measure. Significant main effects were found for stressor, \( F(1, 407) = 492.20, p < .001, \eta^2_p = .55 \) (conflict \( M = 1.84 < \) friction \( M = 2.71 \)) and culture, \( F(1, 407) = 6.47, p < .05, \eta^2_p = .02 \) (U.S. \( M = 2.20 < \) Japan \( M = 2.35 \)). In addition, Type × Culture two-way interaction, \( F(1, 407) = 5.86, p < .05, \eta^2_p = .01 \), was also significant. This interaction indicated that, as predicted, interpersonal friction (U.S. \( M = 2.59 < \) Japan \( M = 2.83 \)) was significantly more frequent in Japan than in the United States; however, no cultural differences were found for interpersonal conflict (U.S. \( M = 1.81, \) Japan \( M = 1.86 \)). These results supported our hypothesis. Gender had no significant effect.

Mediational Analysis

An ANOVA of BIS by culture indicated a significant effect of culture, \( F(1, 412) = 9.55, p = .01, \eta^2_p = .02 \) (Japan \( M = 27.48 > \) U.S. \( M = 25.98 \)). To examine the mediational effect of BIS on the relationships between culture and stressor frequency, a series of mediational analyses were conducted. With interpersonal friction as a criterion variable, we entered culture (coded as Japan = 0, United States = 1) as an independent variable and BIS as a mediator. We did not conduct this analysis on interpersonal conflict, because frequency of this stressor did not show cultural differences. The direct effect of culture was consistently significant before (\( \beta = -.19, t(411) = -3.82, p < .001 \), and after (\( \beta = -.14, t(406) = -3.01, p < .01 \), entering BIS as a mediator. The mediating effect of BIS (\( \beta = .30, t(406) = 6.47, p < .001 \) (Sobel test: \( z = -2.82, p < .01 \)), was also significant. These results suggest that BIS partially mediates the relationship between culture and frequency of interpersonal friction.

Cultural Differences in the Impact of Interpersonal Stressors on Psychological Distress

To examine cultural differences in the comparative relationship between interpersonal stressors and psychological distress, multiple regression analyses on distress were conducted by entering standardized scores of interpersonal stressors, culture, gender, and their two-way and three-way interaction terms. Overall interpersonal stress (summing the Stressor subscale scores) and individual subscales (i.e., Interpersonal Conflict and Friction) were used.

When entering overall interpersonal stress (\( R^2 = .13, p < .001 \)), only the main effect of the stressor (\( \beta = .33, t(399) = 6.76, p < .001 \), and the Culture × Stressor two-way interaction were (marginally) significant (\( \beta = -.10, t(399) = -1.96, p = .051 \). The Stressor × Culture interaction indicated that the negative impact of interpersonal stress on distress was stronger in Japan (\( \beta = .39 \),
Our hypothesis regarding cultural differences in stressor-distress relationship was supported by the results. In Japan, interpersonal conflict had a significant impact on distress ($t(280) = 7.17, p < .001$), whereas in the United States ($t(123) = 2.30, p < .05$). This indicates that cultural differences in stressor-stress relationship exist.

When we examined the relationship between each specific stressor separately, interpersonal conflict ($R^2 = .09, p < .001$) showed the main effect of stressor ($t(404) = 5.69, p < .001$), Stressor × Culture interaction ($t(404) = 5.80, p < .001$), and Stressor × Gender interaction ($t(164) = 5.42, p < .001$). The Stressor × Culture interaction indicated that negative impact of interpersonal conflict on distress was significant only in Japan ($t(281) = 5.80, p < .001$), but not in the United States ($t(127) = 1.55, ns$). The Stressor × Gender interaction indicated that the negative effect of conflict on distress is stronger in males ($t(244) = 3.27, p < .01$) than in females ($t(244) = 3.27, p < .01$). This interaction was unexpected as we did not have a specific prediction regarding gender. However, the relationship between interpersonal conflict and distress is positive and gender did not interact with culture.

When entering interpersonal friction ($R^2 = .09, p < .001$), only the main effect of stressor was significant ($t(401) = 5.97, p < .001$). These results indicate that, particularly regarding interpersonal friction, interpersonal stressors affect distress similarly in both cultures. However, for interpersonal conflict, its negative impact was stronger in Japan than in the United States.

### Discussion

The purpose of this study was to examine cultural differences in the interpersonal stress process. Specifically, we examined differences between university students in Japan and the United States in terms of (a) the frequency of interpersonal stress, (b) the mediating effect of BIS on culture-stressor relationships, and (c) the impact of interpersonal stress on distress.

The results for interpersonal stress experiences supported our hypothesis that interpersonal friction is more frequent in Japan than in the United States, whereas interpersonal conflict did not differ. Additionally, the relationship between culture and frequency of interpersonal stress was partially mediated by BIS; that is, Japanese showed higher BIS than Americans, and higher BIS increased the frequency of interpersonal friction.

The association between different types of interpersonal stressors and psychological distress was also moderated by culture. More specifically, the impact of interpersonal conflict was less pronounced in the United States than in Japan. This result is consistent with the idea that Japanese might be affected by interpersonal stressors more strongly than Americans, because of the importance of social harmony. However, results regarding the impact of interpersonal friction did not support our hypothesis, despite cultural differences in its frequency. In fact, this stressor predicted psychological distress among participants from both cultures. It is possible to account for these results in terms of cultural differences in encouragement of autonomy and its repercussions. That is, interpersonal stressors overall may be similarly impactful in both cultures, once they are experienced. However, interpersonal conflict might have a relatively weak impact in the United States because expressing disagreement in close relationships might be culturally more sanctioned in the United States than in Japan.

This study explored cultural differences in interpersonal stress experiences, and the results are consistent with prior research findings concerning cultural differences in social relationships. However, some issues remain to be unanswered. It might be necessary to further consider other kinds of interpersonal stressors. The categorization used in this study may not have been adequate to capture stressor experiences for Americans, because this categorization was developed based on a Japanese sample. For Americans, understanding the concept and nuance of interpersonal blunders might be more difficult to grasp than for Japanese. In this study, the Interpersonal Blunder subscale could not be adopted because of its low reliability in the American sample.
However, the reliability of this subscale is high enough among Japanese samples in this study and previous studies (e.g., Hashimoto, 2005). Given this, it is possible that because the concept of an interpersonal blunder is less salient among Americans, and Americans may have more difficulty in assessing their general tendency of experiencing it without the context of a specific relationship.

To conclude, the present research shows the importance of considering different types of stressors even in the United States, as they are often ignored in existing research conducted in Western cultures. The present findings show how relationships (especially less visible ones such as interpersonal friction in the United States) themselves can be stressors that have an impact on psychological well-being in both cultures. It is relatively easy to address interpersonal conflict as a source of psychological distress in counseling and therapy, but other types of interpersonal stressors may be easy to overlook, especially in the United States. Consideration of these less visible interpersonal issues would lead to better recognition of potentially influential stressors.

Declaration of Conflicting Interests
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by The Ministry of Education, Culture, Sports, Science and Technology, Grant-in-Aid for Young Scientists (B) No. 19730386.

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