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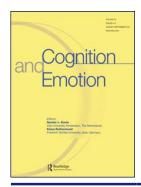
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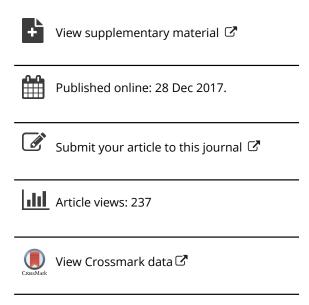
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Humiliated fury is not universal: the co-occurrence of anger and shame in the United States and Japan

Alexander Kirchner^a, Michael Boiger ^o^a, Yukiko Uchida^b, Vinai Norasakkunkit^c, Philippe Verduyn^{a,d} and Batja Mesquita^a

^aFaculty of Psychology and Educational Sciences, University of Leuven, Leuven, Belgium; ^bKokoro Research Center, Kyoto University, Kyoto, Japan; ^cDepartment of Psychology, Gonzaga University, Spokane, WA, USA; ^dFaculty of Psychology and Neuroscience, Maastricht University, Maastricht, The Netherlands

ABSTRACT

It has been widely believed that individuals transform high-intensity shame into anger because shame is unbearably painful. This phenomenon was first coined "humiliated fury," and it has since received empirical support. The current research tests the novel hypothesis that shame-related anger is not universal, yet hinges on the cultural meanings of anger and shame. Two studies compared the occurrence of shamerelated anger in North American cultural contexts (where shame is devalued and anger is valued) to its occurrence in Japanese contexts (where shame is valued and anger is devalued). In a daily-diary study, participants rated anger and shame feelings during shame situations that occurred over one week. In a vignette study, participants rated anger and shame in response to standardised shame vignettes that were generated in previous research by either U.S. or Japanese respondents. Across the two studies, and in line with previous research on humiliated fury, shame predicted anger for U.S. participants. Yet, neither in the daily diary study nor for the Japanese-origin vignettes, did we find shame-related anger in Japanese participants. Only when presented with U.S.-origin vignettes, did Japanese respondents in the vignette study report shame-related anger. The findings suggest that shame-related anger is a culture-specific phenomenon.

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KEYWORDS

Culture; emotion; humiliated fury; anger; shame

A widespread notion in psychology and self-help books alike is that, at times, shame can be so unbearable that people transform their shameful feelings into anger (Engel, 2010; Seltzer, 2008). Shame-related anger has been coined "humiliated fury" in the psychoanalytic literature (e.g. Lewis, 1971), which suggested that individuals experience humiliated fury when they project their inward-hostility outwards (see also Lindsay-Hartz, 1984). In humiliated anger, ashamed individuals draw on anger as a resource to overcome the painful and paralysing experience of shame (Graham, Lobel, Glass, & Lokshina, 2008; Stosny, 1995; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996), and to regain agency and control (Miller, 1985).

Psychological research has yielded several findings that are consistent with shame-related anger. One of

the first studies, by Tangney, Wagner, Fletcher, and Gramzow (1992), found that shame-prone individuals were higher on trait-anger and (indirect) hostility expression than individuals less prone to shame. Other studies, using different methods and including different age cohorts, also found associations between shame and anger (Ferguson, Eyre, & Ashbaker, 2000; Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011), and between shame and angerrelated behaviours, such as hostility, psychological abuse, and desire for punishment (Dutton, Van Ginkel, & Starzomski, 1995; Harper, Austin, Cercone, & Arias, 2005; Retzinger, 1991; Scheff & Retzinger, 1991; Tangney et al., 1996; Wicker, Payne, & Morgan, 1983). In an experimental study (Thomaes et al., 2011), participants in a shame-induction condition

reported significantly more anger than a control group.

Scholars analysing the motives of the perpetrators of violent acts, such as mass shootings, have also revealed the link between these hostile acts and shame. For instance, the perpetrators of the mass shootings at Columbine and Littleton are thought to have been victim to persistent humiliation and shame themselves (Scheff, 2009; Tracy, Robins, & Tangney, 2007).

Although the link between shame and anger has been established repeatedly, one limitation of the research to date is that it has focused on Western cultural contexts. The current research aims to test the universality of shame-related anger. Building on cross-cultural evidence for the different cultural meanings of shame and anger, we propose that shamerelated anger is specific to North American contexts: Shame-related anger is evident in the United States where shame is devalued and anger is valued (see also Boiger, Mesquita, Uchida, & Barrett, 2013). We do not expect shame-related anger in Japanese contexts, where shame is valued and anger devalued.

Anger and shame in the United States

The significance of particular emotions varies across cultures in non-random ways: Emotions that are consistent with dominant cultural ideas tend to be valued, whereas emotions that are inconsistent with such ideas tend to be devalued (Boiger, Mesquita, et al., 2013; Mesquita, 2003; see also De Leersnyder, Koval, Kuppens, & Mesquita, 2017; Tamir et al., 2016). In North American contexts, people see themselves as bounded and independent from others, aim to pursue their individual goals actively, and are motivated to feel good about themselves (Hochschild, 1995; Kim & Markus, 1999; Miller, Wang, Sandel, & Cho, 2002). In these cultural contexts, shame represents a painful experience (Lindsay-Hartz, 1984) because it highlights both the shortcomings of individuals and their dependence on other people's judgment (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). At the same time, the experience and expression of anger fit North American values: Anger supports goal pursuit and self-assertion, both valued in Western contexts (Averill, 1982; Ellsworth & Scherer, 2003; Kitayama, Mesquita, & Karasawa, 2006; Tsai, Miao, Seppala, Fung, & Yeung, 2007).

In the North American context, anger thus constitutes a valued alternative for overcoming the painful paralysis brought about by feelings of shame (Engel, 2010). It makes sense that anger levels in U.S. participants are associated with shame levels (see Ferguson et al., 2000; Tangney et al., 1992), as anger can be thought of as a protective response. In this research, we expected to replicate this positive relationship between shame and anger in the North American context.

Anger and shame in Japan

The meanings of shame and anger in Japan are opposite to those in the U.S. Shame is a valued emotion that is consistent with the Japanese pursuit of relational harmony, interdependence, and social embeddedness (Markus & Kitayama, 1991; Mesquita & Karasawa, 2004). Shame can help maintain harmonious social relationships by making people aware of their shortcomings, and thereby allowing them to adjust their behaviours. Japanese children learn to value shame from an early age on (Lewis, 1995), and shame is rated as relatively less unpleasant by Japanese than U.S. Americans (Romney, Moore, & Rusch, 1997). At the same time, experiencing and expressing anger is actively discouraged in Japan, as it may threaten harmonious social relations (Boiger, Mesquita, et al., 2013). Accordingly, Japanese are socialised to avoid anger from an early age on (Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Trommsdorff & Kornadt, 2003). In a cultural context where adjustment rather than influence is valued (Morling, Kitayama, & Miyamoto, 2002), anger as a means to regain control over situations may be less important, and anger experiences might rather be seen as a signal of high status and empowerment (Kitayama et al., 2015; Park et al., 2013).

Consequently, we expect shame-related anger to be less common in an interdependent context such as Japan (see also Mesquita & Karasawa, 2004; Sheikh, 2014). Shame may be less aversive to Japanese to begin with, and anger does not constitute a valued alternative as it threatens important relatedness goals. We therefore did not expect to find the previously observed positive relationship between shame and anger in the Japanese context.

The role of situational context

Emotional experience is also tied to the situations people commonly encounter in their culture (Boiger, De Deyne, & Mesquita, 2013; Boiger, Güngör,

Karasawa, & Mesquita, 2014). For instance, if people encounter conflict, they will experience more anger than if they do not. We propose that these encounters are not random, but rather that (interpersonal) situations are created with the purpose of eliciting valued and avoiding devalued emotions. For instance, politeness rules are created in cultures where anger has a negative press. This idea resonates with other cultural-psychological theorising that culturally common situations are structured in ways that conserve those "domains, actions, goals, [and] types of scripts" (Kitayama et al., 1997, p. 1261) that work well in promoting culturally central concerns. It is for similar reasons, that we suspect that the occurrence of shame-related anger may be better afforded by U.S. than Japanese situations.

It is difficult to specify what it may be about U.S. situations that is lacking in Japanese situations; or what aspect of U.S. shame situations might give rise to shame-related anger. One possibility is suggested by our previous research. In this research, we found that shame in U.S. was typically elicited by something that others did, while shame in Japan was more readily elicited by something that the individual themselves did (Boiger, Mesquita, et al., 2013, Study 2). It is possible that the typical shame situation in the U.S., being about someone else's behaviour, lends itself better to also eliciting external blame and anger than the typical situation in Japan. Consequently, we propose that there should be more pronounced shame-related anger when people are exposed to U.S. situations than when they are exposed to Japanese situations.

Overview of studies

Two studies investigated the culture-specific nature of shame-related anger. We tested this idea by comparing the strength of association between shame and anger during shame situations in the United States and Japan. This approach is analogous to previous research on shame-related anger and humiliated fury (Ferguson et al., 2000; Harper et al., 2005; Tangney et al., 1992). In Study 1, participants from both cultures reported daily situations in the category of shame over the course of a week and indicated how much shame and anger they felt during the most important daily shame situation. In Study 2, participants reported how angry and ashamed they would feel for a set of hypothetical standardised shame situations from the U.S. and Japan. Across both studies,

we expect that shame intensity during shame situations will be positively associated with anger intensity for U.S. participants, but not for Japanese participants (H1). In Study 2, we additionally predict that the positive associations between shame and anger will be stronger in the situations sampled from the U.S. than in those from Japan (H2).

Study 1

The first study consisted of a daily diary that assessed the intensity of anger and shame during daily shame situations as recalled by participants. A daily diary approach allowed us to examine whether shamerelated anger occurred across a wide range of shame situations sampled from daily life in the United States and Japan. We expected to find a positive relationship between shame and anger intensity for U.S., but not for Japanese participants (H1).

Method

Participants

The present data were collected as part of a larger daily diary study on emotional experience in daily life (Boiger, Uchida, Norasakkunkit, & Mesquita, 2016). 137 college students participated in a daily diary study. U.S. participants (N = 65) were recruited from Minnesota State University (Mankato), and Japanese participants (N = 72) from both Kyoto University and Tokyo Woman's Christian University. All Japanese participants and 32 (49.2%) U.S. participants received monetary compensation (¥2000 or \$22); the remaining participants took part in the study as partial fulfilment of a course requirement. We excluded those participants who either failed to meet the requirements of the study (having grown up in their country of residence, being a student; N = 1 in the U.S., N = 1 in Japan), or completed fewer than 4 of the 7 days (N = 12 in the U.S., N = 6 in Japan). Moreover, we only included participants who had reported at least one shame situation in which others were involved, because it is in these situations that shame can meaningfully be turned into anger at another person (59.6% of the U.S. sample after exclusion, 84.6% of the Japanese sample after exclusion); situations that were not interpersonal were excluded. Applying all the above criteria left us with a final sample of 31 (25 female) U.S. and 55 (28 female) Japanese participants.

The samples did not significantly differ in age (M_{US} = 20.84, $SD_{US} = 1.93$, $M_{IP} = 21.27$, $SD_{IP} = 2.48$), t (84) =

0.84, p = .40, but they did differ with respect to gender composition, $\chi^2(1)$ = 7.41, p < .01, with a lower proportion of male participants in the U.S. sample. To ascertain that our findings were not the result of the different gender distributions in the two cultures, we checked for gender differences in our analyses; including gender did not change the results reported below. Seventy one percent of the U.S. participants identified as Caucasian American, 22.6% as Asian American, and 3.2% as another ethnicity; one American participant (3.2%) did not provide information about ethnicity (excluding this participant did not change the pattern of results).² All Japanese participants were born in Japan.

Materials

Participants reported once a day during a 7-day period whether they had experienced a shame situation (as part of a larger daily diary study on emotional experience in daily life, see Boiger et al., 2016). The questionnaire asked participants to recall all situations that they experienced on a given day, in which they "felt shame". We indicated between brackets that shame situations might include situations in which the participants felt humbled, inadequate, or embarrassed. We choose to define the category of shame broadly, because (1) previous research suggests that the emotion of shame has become shameful itself, and therefore under-recognised in North American contexts (see e.g. Scheff, 2003), and (2) U.S. participants often refer to shame by using proxies such as feeling inadequate (Lewis, 1971; see also Scheff, 1988). Participants answered detailed questions about the most important shame situation of the day (see Supplementary Online Material, Appendix 1). To assess shamerelated anger, we asked participants to rate how intensely they felt both "ashamed" and "angry (with somebody other than myself)" during the situation on a 7-point-Likert-Scale, ranging from 0 (not at all) to 6 (very much). All questionnaires were created in English and translated into Japanese by a professional translator, and both versions were checked for accuracy by native English and Japanese speakers respectively.

Procedure

Participants were asked to complete an online-diary for seven consecutive nights. On each of the seven days, participants received a reminder to fill out the daily diary. We informed the participants that any skipped days would be added to the end of the study. Participants who skipped one or more days received up to three reminders to complete questionnaires for a total of seven days; however, not all U.S. participants completed questionnaires for a full seven days. Response rates of the final sample differed between cultures, with U.S. participants completing the diary for an average of 6.78 days and Japanese for an average of 7.00 days, F(1,84) = 4.37, p = .04. On the days that participants completed the diary, Japanese participants were more likely to report at least one shame situation (days with at least one shame situation: M = 3.09, SD = 1.84, total number of shame situations N = 170) compared to the U.S. participants (M = 1.87, SD = 1.09, total number of shame situations= 58), F(1,84) = 11.39, p = .001. Half of the participants in each country completed a demographic questionnaire the first day of the study; the other half completed it the last day. No order effects of demographic questionnaires were found.

Results

Analytic strategy

We used multilevel linear regression to test our analyses. We addressed inequality in the number of reported shame situations per participant by using a nested design (situations nested within participants). Unless otherwise mentioned, we used effect coding in our analyses (U.S. = -0.5, JP = 0.5). When probing interactions, we recoded the reference groups of our moderators to obtain the respective group estimates (Hayes, 2013). All analyses were conducted with SPSS 22 (IBM Corp, 2013). Degrees of freedom in multilevel regression analyses are rounded.

Descriptive analyses

Figure 1 displays the average intensity of shame and anger during shame situations for U.S. and Japanese participants. Regression analyses showed no cultural difference in shame intensity when entering culture as a predictor, b = -0.21, t(226) = -0.95, p = .34. However, consistent with our reasoning, U.S. participants experienced more intense anger during shame situations than did the Japanese, b = 0.65, t(226) = 2.57, p = .01.

Cultural differences in shame-related anger during daily situations (H1)

To observe whether levels of shame would predict levels of anger across cultures, we regressed anger intensity on the intensity of shame, culture of the respondent (U.S. = 0, Japan = 1), and their interaction

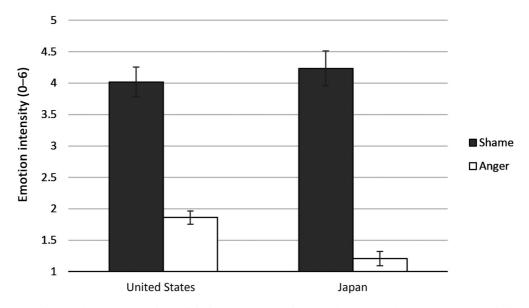


Figure 1. Average shame and anger intensity during daily shame situations in the U.S. and Japan (error bars represent one standard error).

(for a model overview, see Supplementary Online Material, Appendix 2).³ In line with our predictions, the relationship between shame and anger was qualified by a significant interaction between shame intensity and culture, b=-0.38, t(226)=-2.48, p=.01, indicating that the strength of the effect differed significantly between cultures. As expected, shame was a significant and positive predictor of anger in the U.S. reference group, b=0.26, t(226)=2.15, p=.03, indicating that U.S. participants who experienced more intense shame also reported more intense anger. However, and also in line with our hypothesis, recoding the reference groups showed that, for Japanese participants, shame intensity was not predictive of anger intensity, b=-0.12, t(226)=-1.27, p=.21.

Discussion

Results from a cross-cultural diary study on daily self-reported shame situations supported the idea that shame-related anger may not be universal. Whereas shame intensity positively predicted anger intensity in the U.S., no relationship between shame and anger was found in Japan. In line with our expectations, these results support our prediction of cultural differences in the prevalence of shame-related anger. We propose that these cultural differences should be understood from the different value that shame and anger have in the U.S. and Japan: While anger is a viable alternative to culturally devalued shame in the U.S., shame is not devalued in Japan.

There are limitations to the interpretation of these results. First, U.S. Americans and Japanese may have reported different types of shame situations, rendering the comparison of emotional responses difficult. Based on our prediction that shame-related anger would be more acceptable in the United States, it also is possible that the self-reported shame situations were the ones conducive to anger responses in the U.S., but not the Japanese sample. Moreover, it is conceivable that situations in which people experience shame-related anger intensely are remembered as anger situations. If this was the case, these situations would have not been reported as shame situations in Study 1, thereby reducing the likelihood of identifying shame-related anger. The obtained cultural differences could be due to the fact that this underreporting occurred more in the Japanese then in the U.S. context. In Study 2, we aimed to replicate the results of Study 1 while overcoming these limitations by using a sample of standardised shame situations. We presented participants from both cultures with the same set of situations that had been reported as elicitors of shame in previous research by U.S. and Japanese respondents.

Study 2

In Study 2, we tested if shame-related anger depends on the cultural context (*H1*) by asking U.S and Japanese participants to tell us how intensely they would feel anger and shame during standardised situations that had, in previous research, been reported as elicitors of shame in the U.S. and Japan (see Boiger et al., in press). This design allowed us to also investigate the role of situational context in promoting shame-related anger: Because half of the situations had been sampled in the United States and the other half in Japan, we could test our prediction that U.S. shame situations were more powerful in eliciting shame-related anger (*H2*). Compared to our first study, we also increased power by including a larger number of situations per respondent and a larger sample of participants.

Method

Participants

The present data were collected as part of a larger study on cultural variation in the emotional components of anger and shame (Boiger et al., in press). For the present study, we analysed the U.S. and Japanese data for anger and shame intensity as reported for U.S. and Japanese shame situations. After excluding participants who were not born in their respective countries, had not moved there before the age of 13 or had not spent at least 10 years living there, the sample of participants used in our analyses consisted of 110 U.S. American (75.5% female, $M_{age} = 20.84$, $SD_{\text{age}} = 2.19$) and 128 Japanese (56.3% female, M_{age} = 20.7, SD_{age} = 1.89) participants. The two samples did not differ significantly in age, F(2290) = -1.26, p = .21, but they did differ with respect to gender composition, $\chi^2(3) = 740.89$, p < .001; there was a significantly higher proportion of female participants in the U.S. sample (including gender did not change the results reported below).

U.S. participants were recruited from Minnesota State University, and participated either for partial fulfilment of a course requirement or for a monetary compensation of \$10 (27.6% of participants). Japanese participants were from Tokyo Woman's Christian University and Kyoto University; the former participated for partial fulfilment of a course requirement, whereas the latter received ¥500 book vouchers. The U.S. students identified as White/Caucasian-American (90%), Asian/Asian-American (2.7%), Hispanic/Latino-American (2.7%), Black/African-American (0.9%), and Native Pacific Islanders (.9%). Three U.S. Participants did not provide any information about their ethnicity (2.7%). The Japanese students were all born in Japan.

Materials

Each participant was asked to fill out the shameversion of the Situated Emotion Experience Questionnaire (SEEQ-S; Boiger et al., in press). Participants read a list of shame vignettes describing hypothetical situations, and then rated their imagined emotional experience in the described situation on a variety of emotions, among which were anger and shame (see Supplementary Online Material, Appendix 3). The SEEQ-S contained shame vignettes from both the U.S. and Japanese cultural context (five situations from each culture) that had been sampled through interviews and experience sampling in previous research and were selected to cover the range of situations eliciting shame in both cultures (for a detailed description, see Boiger et al., in press). Any culturespecific information was removed. An example for a shame situation vignette reported by a U.S. female is: "On graduation day, Elizabeth's mom told her that she was not proud of Elizabeth. The mother explained that Elizabeth had not lived up to her expectations."

The names of the protagonists in the vignettes were replaced with popular names from the participants' birth cohort in the respective country (Meijiyasuda, 2009; Social Security Administration, 2009), and were matched to the participant's gender to facilitate identification with the protagonists of the vignettes. The name of the protagonist was repeated in the instructions (e.g. "How would you feel if you were in *Elizabeth's* situation?" in the U.S. female version). To assess shame-related anger, participants were asked to indicate for each situation how intensely they would feel "ashamed" and "angry with somebody", on a 7-point Likert scale ranging from 0 (not at all) to 6 (very much).

Procedure

U.S. participants completed online questionnaires, whereas Japanese participants completed pen-and-paper questionnaires in the lab. All participants received a gender-matched version of the SEEQ-S. After completing the questionnaire, participants were debriefed about the background and goals of the study. Materials were created in English and then translated to Japanese by a professional translator, and all translations were extensively checked by one of the authors of the paper, who is a native Japanese speaker and fluent in English.

Table 1. Average shame and anger intensities during standardised shame situations in the U.S. and Japan, split by origin of the situation and culture of the participant.

	Anger		Shame	
	Mean	SD	Mean	SD
American participants				
All situations	1.64	2.08	2.6	2.14
U.S. Situations	2.57	2.28	3.31	2.15
Japanese Situations	0.72	1.33	1.88	1.86
Japanese participants				
All situations	1.27	1.86	3.14	2.19
U.S. Situations	1.83	2.14	2.76	2.28
Japanese Situations	0.69	1.29	3.53	2.03
Across participants and situations	1.44	1.97	2.89	2.18

Results

Analytic strategy

To account for the nested structure of our data, we again used multilevel linear regression models (nesting situations in participant). Unless otherwise mentioned, we used effect coding (U.S. = -0.5, JP = 0.5) and probed significant interactions by recording the reference groups of our moderators to obtain the respective group estimates (Hayes, 2013). All analyses were conducted with SPSS 22 (IBM CORP, 2013). Degrees of freedom in multilevel regression analyses are rounded.

Descriptive analyses

Intensities of anger and shame were separately regressed on a fully factorial model with culture of participants, sampling origin of the situation, and their interaction (for means and standard deviations, see Table 1). Analyses on the levels of shame found significant main effects for both participant culture, b = 0.55, t(2377) = 6.35, p < .001, and situation origin, b = -0.34, t(2377) = -3.94, p < .001, indicating that U.S. Americans generally reported lower levels of shame than Japanese, and that participants reported higher levels of shame for situations sampled from the United states than those sampled from Japan. These main effects were qualified by a significant participant culture \times situation origin interaction, b = 2.2, t(2377) =12.79, p < .001. Probing the interaction found that U.S. participants reported significantly higher levels of shame than Japanese participants in U.S. situations, b = -0.55, t(2377) = -4.56, p < .001, but significantly lower levels of shame in Japanese situations, b =1.65, t(2377) = 13.53, p < .001. Additionally, Japanese

situations elicited significantly higher levels of shame than U.S. situations for Japanese participants, b =-0.76, t(2377) = 6.51, p < .001, while U.S. situations elicited higher levels of shame compared to Japanese situations for U.S. participants, b = 1.44, t(2377) =11.41, *p* < .001.

For anger we also found significant main effects for both participant culture, b = -0.38, t(2374) = -5.08, p<.001, and situation origin, b = -1.5, t(2374) = -2.07, p < .001, indicating that higher levels of anger were reported by U.S. Americans compared to Japanese, and for U.S. compared to Japanese situations. These main effects were again qualified by a significant interaction between culture and situation origin, b = 0.71, t(2374) = 4.79, p < .001. Probing the interaction found that U.S. participants showed significantly higher levels of anger than Japanese in U.S. situations, b =-0.74, t(2374) = -6.99, p < .001, but not in Japanese situations, b = -0.02, t(2374) = -0.21, p = .84. Additionally, U.S. situations elicited significantly higher levels of anger than Japanese-sampled situations for both U.S., b = -1.85, t(2374) = 16.97, p < .001, and Japanese participants, b = -1.14, t(2374) = -11.22, p < .001.

Cultural differences in shame-related anger during standardised situations (H1)

To assess the relationship between shame and anger across cultures, we predicted anger intensity from shame intensity, adding an interaction term with participant culture (coded U.S. = 0, Japan = 1). Shame was respondent-mean centred in our analyses (for a model overview, see Supplementary Online Material, Appendix 4).4

In line with our predictions and our findings in Study 1, the relationship between shame and anger was qualified by a significant interaction between shame intensity and participant culture, b = -0.31, t (2137) = -7.85, p < .001, indicating that the strength of the effect differed between cultures. As in Study 1, shame intensity predicted anger intensity positively for the U.S. reference group, b = 0.35, t(2136) = 11.74, p < .001; recoding the reference group showed that for Japanese participants shame was not a significant predictor of anger, b = 0.04, t(2137) = 1.51, p = .13.

The role of situational context for the promotion of shame-related anger (H2)

To test if situational origin mattered for the promotion of shame-related anger, we repeated the above analyses with situation origin (U.S. = 0, Japan = 1) instead of participant origin (for a model overview, see Appendix 4) as a predictor.⁵ In line with our predictions, U.S. situations were significantly more powerful in eliciting shame-related anger than Japanese situations, as indicated by a significant shame intensity \times situation origin interaction, b = -0.13, t(2338) = -3.3, p = .001. Shame intensity positively predicted anger for U.S. situations, b = 0.20, t(479) = 8.12, p < .001; recoding the reference group showed that, in Japanese situations, shame was a weaker, but still significant predictor of anger, b = 0.08, t(805) = 2.54, p = .01.

In a series of post-hoc analyses we then explored the interplay of cultural origin of the participant and the origin of the situation for shame-related anger in a model including all predictors and all interactions (see Supplementary Online Material, Appendix 4).6 We found that the influence of situation origin on the relationship between shame and anger depended on the culture of the participant, as indicated by a significant three-way interaction, b = -0.17, t(2279) =-2.09, p = .04. Recoding the reference group to obtain estimates for all combinations of culture and situation origin (see Figure 2), we found that the origin of the situation did not influence the relationship between shame and anger for U.S. participants (b = -0.01, t(2297) = -0.15, p = .88), for which shame was a significant predictor of anger in U.S. situations, b = 0.19, t(545) = 4.83, p < .001, as well as in Japanese situations, b = 0.18, t(1044) = 3.55, p < .001. In contrast, the origin of the situation mattered for the strength of association between shame and anger for Japanese participants (b = -0.18, t (2243) = -3.56, p < .001): For Japanese participants, shame positively predicted anger in situations of U.S. origin, b = 0.17, t(476) =5.27, p < .001, but not in situations of Japanese origin, b = -0.00, t(731) = -0.1, p = .92.

Discussion Study 2

Findings from a cross-cultural vignette study on shame situations further supported the notion that shame-related anger is not universal. Replicating our results from Study 1, more intense shame was positively associated with more intense anger in the United States, but not in Japan. The findings speak against the idea of shame-related anger as a consequence of inherent qualities of shame and anger, and rather suggest that the cultural meanings of shame and anger are decisive as to whether or not shame co-occurs with anger. We also explored the influence of situation origin on shame-related anger by comparing the relationship between shame and

anger between shame and anger in sampled from U.S. American and Japanese contexts. We had predicted that U.S. shame situations are more powerful than Japanese situations in eliciting shame-related anger. Supporting our hypothesis, we found that participants reported a stronger (positive) relationship between shame and anger in U.S. than in Japanese shame situations. However, this finding was qualified by the cultural origin of the participant: For U.S. participants, the origin of the situation did not influence the strength of the relationship between shame and anger, whereas for Japanese participants a positive relationship between shame and anger was found for U.S., but not Japanese situations.

We can only guess what the reasons are for this differential impact of situation origin among U.S. and Japanese participants. First, emotions have generally been found to vary more across different contexts in Japanese than in U.S. Americans samples (e.g. Oishi, Diener, Scollon, & Biswas-Diener, 2004). Second, the vignettes reported by U.S. participants in previous studies may have differed from those typically reported by Japanese participants. For example, it is possible that the vignettes reported by the U.S. participants in previous studies focused on the responsibility of others (Boiger, Mesquita, et al., 2013, Study 2). The presence of this focus on other-responsibility may have elicited shame-related anger across both cultures, while its absence in the Japanese situations allowed participants to project their culturally typical responses onto the situation. In sum, the results of Study 2 suggest that the occurrence of shamerelated anger depends on both individual (the cultural origin of the participants) and situational characteristics (the origin of the emotional situation).

General discussion

The present paper set out to investigate the cultural universality of shame-related anger, adopting an approach used in earlier psychological research on the topic; in this research, humiliated fury is examined as a positive association between shame and anger in what are primarily shame situations. In two studies, one on self-reported and one on standardised shame situations, we examined the relationship between shame and anger in the United States and Japan. We expected to find shame-related anger in the U.S., but not in the Japanese sample. In the vignette study, we additionally predicted the positive association between shame and anger to be stronger

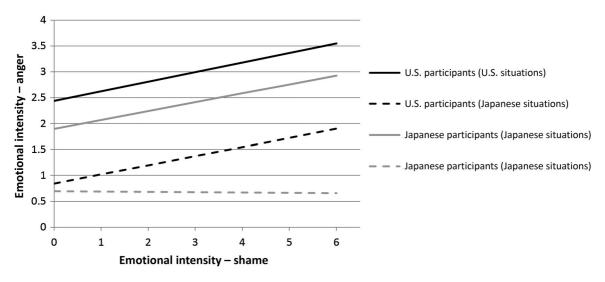


Figure 2. Anger intensity predicted by shame intensity separately for culture of the participant and origin of the situation.

in situations sampled from the U.S. than in those sampled from Japan. As expected, both studies yielded evidence against the cultural universality of shame-related anger.

In both studies, shame was a significant and positive predictor for levels of anger in U.S. participants, even when they were presented with supposedly unfamiliar types of situations sampled from Japan. Also in line with our expectations, the reported levels of shame were generally not found to predict anger in Japanese participants. In line with our second hypothesis, we found that U.S. situations showed a strong association between shame and anger intensity, whereas this relationship was less strong for Japanese situations. However, additional post-hoc analyses revealed that the influence of the situational context depended on the cultural origin of the participant. In the U.S. sample, the association between shame and anger was positive, regardless of the origin of the situation. In contrast, in the Japanese sample, the association between the two emotions was positive only for U.S. situation, but not for Japanese situations (for which we found no relationship between the two emotions).

In both studies, we examined shame-related anger in the context of situations in which individuals feel shame, or otherwise fall short of expectations. These situations were defined more broadly than just shame, because shame is an under-recognised emotion to which people often refer with proxies, especially in the United States. Because we asked

respondents to report situations that elicited shame or related states, it is possible that participants from different cultures reported different types of situations. This raises the question of whether our results might be a consequence of this difference in the reported antecedent situations. While Study 1 is inconclusive in this respect because participants only report on situations from their own culture, Study 2 gives some indication that this might not be the case. U.S. participants still respond with shamerelated anger to situations that were reported as elicitors of shame in Japanese, whereas Japanese themselves do not. This suggests that differences in shame-related anger in Study 1 cannot be entirely explained from differences in the types of situations reported. However, we do also find that Japanese report shame-related anger in response to American shame situations, which suggests that the method (and the difference in the type of shame that is most typical in the two cultures) has contributed to some, but certainly not all, of the cultural differences found in this study.

Overall, these results cast doubt on the cultural universality of the phenomenon of humiliated fury. However, they may suggest a different psychological tendency that could be equally universal: People try to avoid emotions that are detrimental to the central goals and values of the particular cultural context, and seek out emotions that promote these goals and values (Mesquita, 2003). Shame-related anger may be the specific manifestation of this universal

tendency in Western cultural contexts, where individuals try to transform their culturally devalued shame into culturally valued anger (e.g. Ferguson et al., 2000; Tangney et al., 1992). The same universal tendency may take on a different form in other cultural contexts. In Japan, shame is a valued emotion that communicates awareness of one's own shortcomings and helps maintain social harmony, and consequently, there is no need to avoid the experience of shame (or replace it with culturally devalued anger) for Japanese. Shame-related anger can thus be seen as a culturally specific, non-universal instantiation of a higher-level, universal cultural phenomenon.

Limitations and future directions

The present work is not without limitations. First, we operationalised shame-related anger as the association between levels of shame and anger across situations (e.g. Harper et al., 2005). Whereas this operationalisation allowed for comparison with previous psychological studies, it does not capture the emotion dynamics that are implicit in the theoretical model. Strictly speaking, we cannot rule out that the U.S. Americans initially felt anger, which they subsequently transformed into shame. However, given that the vignettes in Study 2 had been reported as shame antecedents in previous research, we think this alternative dynamic is unlikely.

Likewise, we cannot fully rule out that differences in emotion granularity or interrelatedness between cultures might have an influence on our findings (Lindquist & Barrett, 2008). We checked the plausibility that the stronger relationship between shame and anger in the U.S. was due to less granularity (i.e. less discrimination between emotions) by comparing the average correlation among all emotions within participants in Study 2 (e.g. see Barrett, Gross, Christensen, & Benvenuto, 2001), and across participants in Study 1 (due to limited numbers of situations). We found no cultural differences in the correlations between emotions for either study (Study 1: $r_{US} = 0.11$, $r_{JP} =$ 0.18, Z = -0.45, p = .65; Study 2: $r_{US} = 0.05$, $r_{JP} = 0.04$, Z = 0.09, p = .92), making it unlikely that cultural differences granularity accounts for shame-related anger. The results were no different when we looked at the interrelatedness of the negative emotions only (Study 1: $r_{US} = 0.32$, $r_{JP} = 0.28$, Z = 0.24, p = .81; Study 2: $r_{US} = 0.21$, $r_{JP} = 0.12$, Z = 0.09, p = .92). Therefore, it is very unlikely that the cultural differences in shame-related anger were due to cultural differences in granularity.

Another limitation of the study is that we solely relied on self-report data. However, shame-related anger need not be conscious to the individual and might operate on a level that does not allow participants to report on it, or might bias retrospective rating of emotions during a situation. A possible way to assess the reactions to shameful experiences might be to prime shameful experiences in participants, and compare their experience of anger across cultures in either self-reported measures (similar to Thomaes et al., 2011) or via subconscious measurements such as a the IAT (e.g. ER-IAT; Mauss, Evers, Wilhelm, & Gross, 2006). Future research may want to use experimental and/or implicit methods to examine shame-related anger across cultures.

Conclusion

To sum up, two studies suggest that the phenomenon of humiliated fury may not be culturally universal. We found a positive relationship between shame and anger in U.S. participants, but not Japanese participants, who reported no shame-related anger in situations they were likely to encounter in their own culture. Generally, shame-related anger was shown to the be the product of both situational characteristics and individual psychological tendencies, as we found stronger associations between shame and anger in U.S. than Japanese situations. We suggest that shame-related anger may be one instantiation of a more general tendency to transform culturally devalued to culturally valued emotions.

Notes

- Different from U.S. shame, which "cuts to the core" of the person by exposing flaws, Japanese shame (haji/hazukashii) commonly revolves around the exposure of inappropriate behaviours (Boiger, Mesquita, et al., 2013; see also Lebra, 1983). It is foremost this latter kind of shame that we consider functional for regulating social relationships. We would like to underline that our view on shame thus differs from the idea that Japan constitutes a "shame culture", where shame is a particularly painful experience (Benedict, 1967).
- 2. Asian-American participants did not differ significantly in their emotion ratings from the rest of the sample.
- 3. We report a model with all fixed parameters for our analyses, as neither a model with random intercepts (χ^2 difference = -1.1, p = .29) nor with both random intercepts and slopes (χ^2 = -1.92, p = .59) showed significant

- improvements in model fit compared to an all fixed model. We did not find significant within-person variation in either intercepts or slopes.
- 4. We report a model with random intercepts and fixed slopes, because it showed significantly better model fit compared to an all fixed model (χ^2 difference = -548.45, p < .001), but a model with random intercepts and random slopes did not converge (despite better model fit compared to the random intercept model, $\chi^2 = -8.82$, p = .012).
- 5. We report a model with random intercepts and random slopes, as it showed higher model fit compared to both an all fixed (χ^2 difference = -103.88, p < .001) and random intercept model ($\chi^2 = -16.56$, p = .001).
- 6. We report a model with random intercepts and random slopes, since showed better model fit compared to an all fixed (χ^2 difference = -109.44, p < .001) and random intercept model (χ^2 = -13.47, p = .001).

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ORCID

Michael Boiger http://orcid.org/0000-0003-4311-7236

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