

Anger in a Just World? The Impact of Cultural Concepts on Cognition and Emotion

Andrea Bender (bender@psychologie.uni-freiburg.de)

Hans Spada (spada@psychologie.uni-freiburg.de)

Hannah Swoboda (swoboda@psychologie.uni-freiburg.de)

Simone Traber (traber@psychologie.uni-freiburg.de)

Karsten Rauss (karsten.rauss@medecine.unige.ch)

Department of Psychology, University of Freiburg

D-79085 Freiburg, Germany

Abstract

The cognitive appraisal of an event is crucial for the elicitation and differentiation of emotions. Similar appraisals will result in similar emotions, but the appraisal of one and the same event may depend on culturally defined concepts. Appraising an event as unjust, for instance, and its agent as responsible are cognitive determinants for anger. Justice, however, is defined through cultural values, and responsibility ascription may follow culture-specific tendencies. Our interdisciplinary study scrutinizes the impact of cultural concepts on the cognitive determinants for anger in Germany and Tonga. The experimental data support our hypothesis that culturally defined self-concepts and beliefs in a just world affect the way in which unjust situations are appraised. Consequently, emotional responses differ between cultures.

Key words: Cognition, Emotion, Culture, Appraisal Theory, Attribution, Self-Concept, Belief in a Just World.

Introduction

Imagine that your supervisor has promised to promote you to the next available higher position as you are doing a good job. But then a colleague with less qualifications is given priority. Most likely you will consider this decision an unfair act, for at least two reasons: because you are neglected despite your higher qualifications, and because your supervisor has broken his promise.

Appraising an event as negative—here due to the unfair decision—is one of the basic cognitive determinants for the elicitation of anger. The other determinant is that another person has caused this event to happen and that this person is held responsible for what he or she did (e.g., Ellsworth & Smith, 1988; Lazarus, 1991; Roseman, Antoniou & Jose, 1996). Whereas these determinants should invariably lead to anger, people may differ with regard to the degree to which they appraise a certain situation as negative or the agent as responsible. For instance, the *belief in a just world* (Lerner, 1980) could affect the assessment of a given situation as unjust, and both this belief and the *self-concept* (e.g., Markus & Kitayama, 1991) could affect attribution tendencies that influence the ascription of responsibility.

Such differences appear not only on the individual but also on the cultural level. Systematic cultural variation in self-concepts and their impact on attribution tendencies has been widely documented (e.g., Markus & Kitayama, 1991; Oyserman, Coon, & Kimmelmeier, 2002); research on cultural variation in the just world belief is less extensive, but still convincing (Dalbert & Yamauchi, 1994; Loo, 2002). As

attribution styles and the assessment of valence are directly relevant for the elicitation of specific emotions, cultures should also differ in their emotional responses if they differ in these appraisal components.

Finding such a correspondence would not only provide support for appraisal theoretical assumptions, but also corroborate a cognitive explanation for cultural differences in a more differentiated manner than usual. Our studies try to find evidence for such an explanation. They are based on the assumption that the cognitive processes preceding emotions are universal, but the conceptual content on which these processes operate is culture-specific. In order to scrutinize how culturally defined concepts affect the cognitive determinants and thereby eventually alter emotional responses to given situations, we compared Germany with the Polynesian culture of Tonga. Previous studies, based on anthropological research and psychological experiments (Beller, Bender & Song, *subm.*; Bender et al., 2006, 2007), suggested that people in Tonga hold a more interdependent self-concept than people in Germany and suggest that they also hold a stronger just world belief.

In this study, the assumed cultural influence on the cognitive determinants for certain emotions were experimentally tested, with the focus on anger, on its cognitive determinants valence and causation/responsibility, and on the culture-specific self-concept and just world belief. Before presenting this experiment and its results, we will outline the relevant theoretical assumptions and highlight essential aspects of Tongan culture.

Cognitive Determinants for Emotions

Emotions are elicited and differentiated by the cognitive appraisal of an event (e.g., Lazarus, 1991; Ortony, Clore & Collins, 1988; Roseman et al., 1996; Scherer, Schorr & Johnstone, 2001). Although each event is appraised in a specific—and often complex and unique—way, a limited set of abstract cognitive determinants suffices to define the emotional response: For instance, an event classified as positive and as caused by oneself should, at least to a certain degree, elicit pride. In turn, each of the major emotions is characterized by a combination of such determinants.

Cognitive Determinants for Anger

Current appraisal theories agree that the determinants eliciting anger encompass a negative valence, causation by

another person, and high responsibility of this person (e.g., Ellsworth & Smith, 1988; Lazarus, 1991; Nerb & Spada, 2001; Roseman et al., 1996; Weiner, 1995). Most theorists assume that these determinants are both necessary and sufficient for the elicitation of the respective emotions. Yet, there is some empirical evidence for the weaker interpretation that the relation between appraisal components and emotions is only a contingent association (Kuppens et al., 2003). For the purpose of our study, we focused on the degree to which people attribute causation and ascribe responsibility to various sources, which are crucial factors in differentiating anger from its conceptual “neighbors” shame/guilt and sadness (e.g., Lazarus, 1991).

In principle, events can be caused by oneself, another person, or circumstances, and responsibility can be considered as rather high or low. Although such a strict distinction is pervasive in theory, the two dimensions are often conflated in practice, as low personal responsibility typically goes together with circumstantial causation (for a more detailed discussion on this point see Bender et al., 2006). For our scenarios, we therefore decided to keep causation constant (by another person) and to ask for the relative responsibility ascribed to self, other, and circumstances. Each of these corresponds to a specific emotional response, namely to *shame/guilt*, *anger*, and *sadness* in negative events, and to *pride*, *gratitude*, and *joy* in positive events (see Figure 1).

Cultural Modulators:

Self-Concept and Just World Belief

One basic assumption of appraisal theories is that appraising situations in similar ways should lead to similar emotions, whereas appraising them differently should lead to different emotions—irrespective of culture. What *should* be prone to cultural influences is the way in which a certain event or situation will be appraised. If, for instance, a person regards another person as highly responsible for the negative outcome of an event, a likely response will be anger. But *whether* he or she regards this person as highly responsible will depend on a whole range of factors, among them culture-specific concepts, values, and norms. If such factors affect the ascription of responsibility, they should also lead to different emotional responses, at least in terms of intensity (e.g., Mesquita & Frijda, 1992; Scherer, 1997).

Self-Concept. One of the most extensively investigated and documented modulators of responsibility ascription is the self-concept. The self-concept is defined by two dimensions: independence and interdependence. Although not entirely mutually exclusive, they focus on diverging aspects: A more *independent* self-concept is typically emphasized in “individualistic” cultures in which self-esteem and personal accomplishments are focused on, and in which rights are valued over duties. In more “collectivistic” cultures, on the other hand, the *interdependent* aspects of the self are emphasized. People are seen as parts of larger social groups that bind and mutually obligate them; duties are valued over rights, and social harmony is of prime concern (Markus & Kitayama, 1991; Oyserman et al., 2002).

These differences in self-concept also imply a divergence in attribution styles: Members of individualistic Western cul-

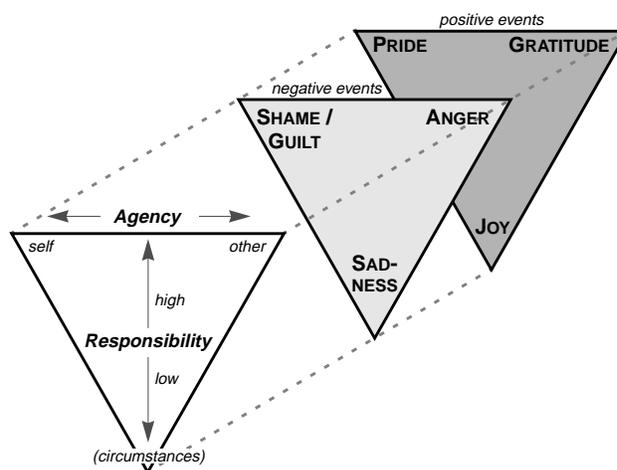


Figure 1: Emotional responses to negative and positive events varying in the source of agency and responsibility.

tures are, for instance, more prone to the *fundamental attribution error* than members of collectivistic cultures such as the Chinese: The former typically tend to overestimate dispositional factors and therefore ascribe higher personal responsibility to the actor (i.e., “other”) than collectivistically oriented people, who more readily take situational influences (“circumstances”) into account (e.g., Choi & Nisbett, 1998; Morris, Menon & Ames, 2001). Consequently, similar situations should elicit less anger but more sadness in cultures with a prevalence of interdependent self-concepts (Beller et al., *subm.*; Bender et al., 2006, 2007).

Just World Belief. Since appraising an event as unjust is an important determinant in eliciting anger (e.g., Scherer, 1997), the *just world belief* (Lerner, 1980) should also have an influence on anger elicitation. This belief is seen as an indicator for a basic cognitive schema according to which the world is a just place where people generally get what they deserve and deserve what they get. Experiencing injustice creates discomfort, which people try to reduce. They have three options to do so: giving up one’s just world belief, alleviating the injustice by helping the victim, or modifying one’s cognitions by re-appraising the situation as less unjust. Compared to the first two, the third option is the easiest and consequently the one chosen most likely. It can be achieved by (at least partly) blaming the victim for what happened to him or her (e.g., Dalbert, 2002; Hafer & Correy, 1999).

Considering the appraisal pattern leading to anger, a strong just world belief has two implications: It should reduce the degree to which the event is negatively appraised (e.g., as unjust), thus also decreasing the intensity of the resulting emotion; and it should increase the tendency to blame the victim (the “self”), whereas external factors like other people or circumstances should be discounted. When rating the emotion of the affected person, such a tendency to blame the victim should correspond to the assumption that this person will feel guilt. If, on the other hand, people are less willing to believe in a just world, their appraisal should encompass a higher assessment of negative valence and a stronger focus on the agent (“other”) as responsible. This should result in a prevalence and higher intensity of anger.

So far, cultural differences in the extent of the just world belief have been documented, revealing a comparably low value of $M = 2.40$ (on a scale from 1 to 6) for German participants as compared to Hawaiian ($M = 3.63$) or Canadian ones ($M = 3.83$) (Dalbert & Yamauchi, 1994; Loo, 2002). In addition, empirical tests have established an impact of the just world belief on anger, mediated by attribution styles (Dalbert, 2002; Hafer & Correy, 1999). However, its integration into a larger cultural and appraisal-theoretic framework is still in its beginning.

Self-Concept, Just World Belief, and Emotions in Tongan Culture

The core value in Tongan culture is *'ofa*, glossed as “love, concern, or generosity”. It characterizes the ideal emotional relationship between people and requires cooperation and sharing with others (e.g. Bender et al., 2007; Morton, 1996). Despite this emphasis on social harmony, Tongan society is hierarchically structured, with higher rank ascribed to older people, female siblings, and noble families. Linked with these differences in rank are social rules of respect and obedience. As a consequence, people are to a large degree determined in their options and activities by other members of their social net, notably their extended families. Whereas such an experience may be regarded as negative by Western (i.e., individualistic) standards, the strong social support that comes with it is highly valued by most Tongans.

Accordingly, a strong interdependent self-concept can be assumed to prevail in Tonga. Previous studies (Beller et al., subm.; Bender et al., 2006) supported this assumption, revealing a significantly stronger *interdependent* self-concept for Tongans than Germans (and even Chinese), whereas the *independent* aspects of the self were rated rather similarly. These studies also suggest that situational factors are taken into account more readily in Tonga than in Germany when ascribing responsibility, and that these culturally affected appraisals alter emotional responses.

With regard to the just world belief, no quantitative data was available so far. However, anthropological research on the role of religious concepts supports the assumption that it may be higher in Tonga than in Germany, nurtured by both traditional Polynesian (Bender & Beller, 2003; Shore, 1989) and modern Christian concepts (Bender, 2001). According to the Polynesian world view, the supernatural power *mana* is brought about by and induces prestige, influence, and good luck. In other words: People who are successful possess *mana*, and people possessing *mana* will be successful. This is at least as compatible with the theory of a world that is good to good people as are introduced Christian notions of justice.

As Germany and Tonga differ on all relevant dimensions, we regard them as appropriate instances for an analysis of how culture and cognition interact in shaping emotions.

Experiment

The experiment is motivated by three hypotheses: (1) The assumed cultural differences in the just world belief should have an impact on the appraisal of negative valence and of

responsibility (with a prime impact on blaming the victim); (2) differences in self-concept should have an impact on the appraisal of responsibility (with a prime impact on considering circumstances); and (3) emotional responses should vary in correspondence to these appraisal differences.

More precisely, we expected that, in general, Tongans hold a stronger just world belief and a more interdependent self-concept than Germans. Consequently, our Tongan participants should ascribe more responsibility to self and circumstances and less to others than the German participants. Therefore, they should indicate more guilt and sadness, but less anger than the German participants.

Method

In order to ensure a valid choice of terminology and scenarios, the construction of the experimental material was assisted by anthropological fieldwork in Tonga, which consisted of participant observation, informal talks, interviews, pile sorting tasks, and linguistic analyses (not reported here; for more details see Bender et al., 2007).

Materials. The materials consisted of two parts. The first part included several context stories (vignettes), each followed by a set of questions, and the second part included different scales. All materials were presented in the participants' native language and used customary names for the persons involved. Only those parts of the material and results relevant to our current question are reported here.

Part 1: Two context stories explicitly dealt with cases of injustice, one with a situation in which an unfair decision is made [uD] and one in which a person breaks a promise [bP]:

[uD] During a ball game, John is very committed. When attempting to score a decisive point, John is fouled by a player of the opposing team. The referee lets them continue their game. John's team loses the match.

[bP] Tina has an agreement with her mom that she is allowed to go to a performance at the weekend if she gets a good mark on her math exam. Tina gets a good mark, but her mother doesn't allow her to go.

In a previous study (Bender et al., 2007), typicality of these scenarios was checked. Both were rated equally typical in Germany and Tonga: the [uD] scenario with 2.68 in Germany and 2.74 in Tonga, the [bP] scenario with 2.13 in Germany, and 2.20 in Tonga (on a scale ranging from 0 to 4). With regard to the cognitive determinants (i.e., valence and causation/responsibility), the two scenarios were supposed to be similar. After testing differences between the two scenarios (and due to only marginal effects), we aggregated the ratings of all participants over the two scenarios.

Each story was followed by several questions. The first asked for ratings of emotional responses in the situation. A multiple-choice format was used with 11 emotions, among them anger (German: *Ärger*, Tongan: *'ita*), guilt (*Schuld*, *loto-tautea*), and sadness (*Traurigkeit*, *loto-mamahi*). Although not all terms are entirely congruent across languages, congruence is high for the relevant notions (for more details, see Bender et al., 2007). For each emotion, participants had to indicate its intensity on a five-point scale ranging from 0 (“not at all”) to 4 (“very strong”).

Subsequent questions asked for an assessment of how severe the incident is (i.e., degree of negative valence) and how responsible other, self, or circumstances are. Again, participants had to indicate their ratings on a five-point scale ranging from 0 (“not at all”) to 4 (“completely”).

Part 2: In addition to the questionnaire, we asked for aspects of the self-concept and the just world belief. We used the *Self-Concept Scale* of Singelis (1994) in a slightly shortened version (inconsistent items were eliminated in order to enhance reliability) and the *Personal Belief in a Just World Scale* of Dalbert (2002). People were instructed to rate the degree to which each statement applied to them on a five-point scale ranging from 0 (“not at all”) to 4 (“completely”).

Design. The context stories were presented within-subjects and in randomized order. Each story started on a new page; the questions were presented in the same order as described above.

Participants. Samples consisted of students from higher classes of secondary schools, one in Siegen, Germany, the other in Pangai, Tonga. The German sample consisted of 134 students, 61 of whom were male and 72 female (1 did not indicate gender), with mean age $M = 15.0$ years (*range*: 13-19 years). The Tongan sample consisted of 67 students, 30 of whom were male and 36 female (1 did not indicate gender), with mean age $M = 15.8$ years (*range*: 13-18 years). Due to missing values, some participants had to be excluded, but in order to retain as many participants as possible, we did this separately for each calculation.

Procedure. The data collection took place in the classrooms. Each participant received a booklet with general instructions, the questionnaire, and the scales. Participants were instructed to answer all questions in the given order, and were granted as much time as they needed.

Results and Discussion

Data was analyzed with ANOVAs, with the between-subjects factor *country*.

Self-Concept and Just World Belief: In line with previous studies, we expected the Tongan students to be more interdependent than the German students (whereas independence never produced significant differences). We found no differences between the two samples on the independence scale, but did find differences on the interdependence scale. The

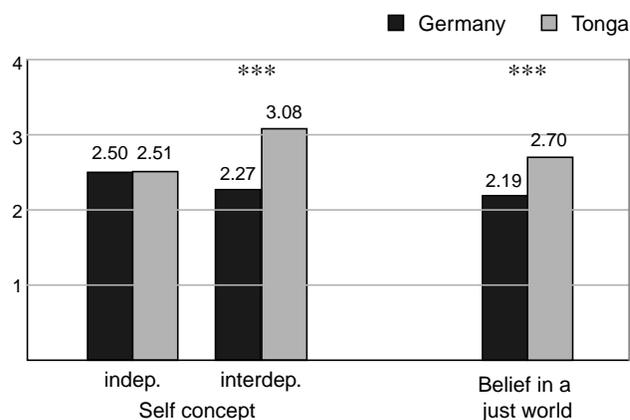


Figure 2: Cultural differences in ratings of self-concept and just world belief.

mean *interdependence* value was 2.27 in Germany ($SD = .56$) and 3.08 in Tonga ($SD = .62$); $F(1, 163) = 73.54$, $p < .001$, partial $\eta^2 = .310$. As expected, the answers of the Tongan students revealed a more interdependent self-concept than those of the German students. In addition, they also showed a stronger just world belief: Here, the mean value was 2.19 in Germany ($SD = .77$) and 2.70 in Tonga ($SD = .69$); $F(1, 177) = 18.79$, $p < .001$, partial $\eta^2 = .118$ (Figure 2).

Appraisal of Valence and Responsibility: The scenarios explicitly described cases of injustice caused by another person. We therefore expected relatively high ratings of negative valence (degree of damage) and a *general* tendency to ascribe more responsibility to others than to self or circumstances in both cultures. However, we also expected cultural differences in the *relative* intensities of responsibility ascription to the three sources. The results supported our hypotheses (see Table 1).

The degree of negative valence and other-responsibility is indeed rated significantly higher in Germany than in Tonga, whereas Tongans also ascribed responsibility to self and circumstances (in correspondence with just world belief and self-concept, respectively), and did so significantly more than Germans (Figure 3).

Table 1: Mean ratings M of valence, of responsibility to other, self, or circumstances, and of emotional responses, aggregated over the two scenarios, compared across cultures (G = Germany, T = Tonga).

Appraisal dimensions and emotions	M_G	M_T	SD_G	SD_T	df	F	p	partial η^2	
Valence (degree of damage)	3.45	2.90	.90	1.28	1, 144	8.67	.004	.06	
Ascription of responsibility to	• other	3.43	2.40	.94	1.23	1, 144	30.96	< .001	.18
	• self	.59	1.37	.75	1.02	1, 144	26.92	< .001	.16
	• circumstances	1.21	2.12	1.00	1.11	1, 144	24.27	< .001	.14
Emotional responses	• anger	3.56	3.20	.75	1.07	1, 173	6.31	.013	.04
	• guilt	.55	1.96	.87	1.46	1, 173	63.80	< .001	.27
	• sadness	2.60	3.19	.85	1.03	1, 173	16.30	< .001	.09

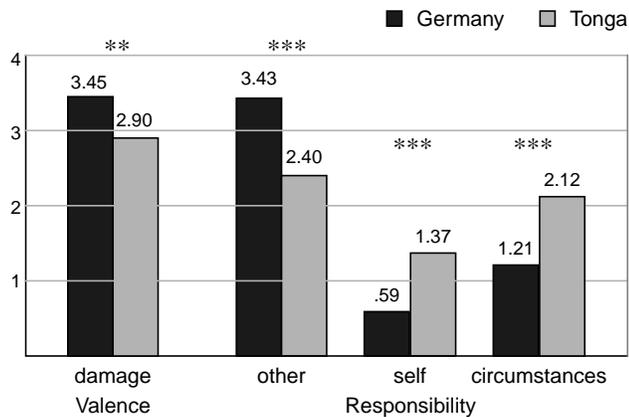


Figure 3: Cultural differences in ratings of damage and ascription of responsibility to other, self, or circumstances.

Figure 4 illustrates the relative portions of responsibility ascribed to other, self, and circumstances, that is, the pattern of diverging attribution tendencies: Whereas Germans ascribe most responsibility to the other, Tongans put much more emphasis on circumstances and on the self.

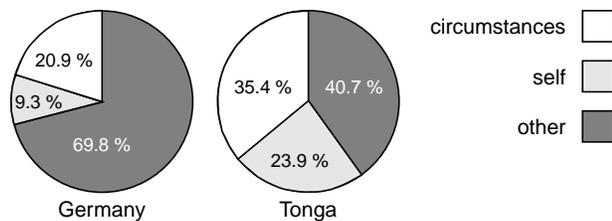


Figure 4: Cultural differences in responsibility ascription (given in relative proportions of the three sources).

Emotional Responses: From the emotions asked for in the scenarios, only those three theoretically relevant for our question are reported here: anger, guilt, and sadness (Table 1). As expected from appraisal theories, anger should prevail as the emotional response to negative events for which another person is accountable, and particularly so in cases of injustice. The other two emotions should also be elicited by unjust events, but in addition, guilt should depend on the ascription of responsibility to self, whereas sadness is typically assumed to result from causation by circumstances. When sadness co-occurs with anger, the two responses differ in focus: anger on the elicitor, sadness on the outcome (Ortony et al., 1988). As expected, the pattern of emotional responses generally followed the pattern of responsibility ascription: German ratings were significantly higher than Tongan for anger, but lower for guilt and sadness (Figure 5).

In conclusion, we found corresponding cultural differences for the cognitive determinants of emotions, their cultural modulators self-concept and just world belief, and the emotional responses themselves. Both the differences and their correspondence support our hypotheses about the cultural impact on the way in which emotional responses are cognitively elicited.

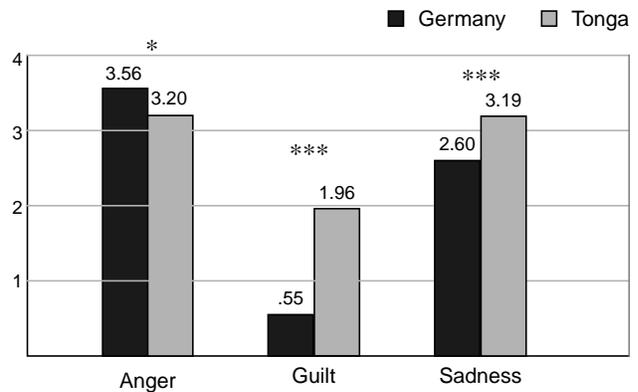


Figure 5: Cultural differences in ratings of emotions.

General Discussion

Our results indicate that Tongans have a more interdependent self-concept and a stronger belief in a just world than Germans. As predicted, they also appraise less damage and ascribe less responsibility to others, and accordingly respond with anger less intensely than Germans. Instead, Tongans ascribe more responsibility to self and circumstances, which also results in higher ratings for sadness and guilt.

The results on *self-concept* and its impact on cognitive determinants of emotions are consistent with findings from research on attribution styles (e.g., Choi & Nisbett, 1998; Morris et al., 2001), whereas the obtained correspondence between cognitive determinants and emotional responses reflects general appraisal theoretic findings (e.g., Ellsworth & Smith, 1988; Roseman et al., 1996; Scherer, 1997). In addition, the results of our study replicate previous findings from Tonga using the same design (Bender et al., 2006, 2007), and they resonate with studies on similar topics (Beller et al., *subm.*) as well as with anthropological research on cultural values and social structure (e.g., Bender et al., 2007; Morton, 1996).

With regard to the *just world belief*, the correspondence between a stronger belief, lower ratings of damage, and higher ratings of self-responsibility are, again, consistent with research in this field (e.g., Dalbert & Yamauchi, 1994; Hafer & Correy, 1999; Loo, 2002), except that just world belief ratings are higher for our German sample of high school students than for Dalbert and Yamauchi's (1994) sample of university students; but given the differences in age and education this may not be surprising.

Our results go beyond previous findings for Tonga and supplement our interpretation of attribution tendencies. In particular, by considering the just world belief we provide an explanation for the lower assessment of damage (based on the coping strategy of re-appraising the situation as less unjust) and for the high ascription of responsibility to the self (i.e., to the victim of the event).

This tendency to ascribe responsibility to the self, however, might also result from an interdependent self-concept. If people are regarded as interconnected parts of their group,

all group members should have their share of responsibility for the behavior of single members. Although strong interdependent self-concepts and just world beliefs do not necessarily co-occur in general, they seem to do so in Tonga. Therefore, the cultures in our comparison do not allow to separate the relative impact of these two cultural factors on the ascription of self-responsibility.

Our analysis is based on co-variations that cannot prove causal links. However, it converges with findings from anthropological research on the same cultures and with psychological studies on the same theoretical concepts. This supports us in our conclusion that cultural differences in ascribing responsibility and corresponding emotions are, to an important degree, due to cultural differences in self-concept and just world belief. In other words, culture shapes the way in which cognition triggers emotions. A thorough understanding of cultural differences in emotions therefore requires knowledge about their cognitive constituents as well as the underlying cultural concepts that may modulate their effects.

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