Shame closely tracks the threat of devaluation by others, even across cultures

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We test the theory that shame evolved as a defense against being devalued by others. By hypothesis, shame is a neurocomputational program tailored by selection to orchestrate cognition, motivation, physiology, and behavior in the service of: (*i*) deterring the individual from making choices where the prospective costs of devaluation exceed the benefits, (*ii*) preventing negative information about the self from reaching others, and (*iii*) minimizing the adverse effects of devaluation when it occurs. Because the unnecessary activation of a defense is costly, the shame system should estimate the magnitude of the devaluative threat and use those estimates to cost-effectively calibrate its activation: Traits or actions that elicit more negative evaluations from others should elicit more shame. As predicted, shame closely tracks the threat of devaluation in the United States ($r = .69$), India ($r = .79$), and Israel ($r = .67$). Moreover, shame in each country strongly tracks devaluation in the others, suggesting that shame and devaluation are informed by a common species-wide logic of social valuation. The shame–devaluation link is also specific: Sadness and anxiety—emotions that coactivate with shame—fail to track devaluation. To our knowledge, this constitutes the first empirical demonstration of a close, specific match between shame and devaluation within and across cultures.

shame | emotion | valuation | culture | evolutionary psychology

In all known foraging societies past and present, humans have lived embedded in dense networks of cooperative and competitive interactions, a condition that is believed to have prevailed during the evolution of our species (1–3). Individuals in such social ecologies suffered or prospered depending on the summed effects of the choices of others—such as when and how often to share food, to provide care for another's child, to defer in conflicts, and so on. Ancestrally, the difference between an individual reproducing successfully, struggling, or dying early would have depended (in part) on the degree to which others traded off their own welfare for the welfare of that individual.

Over the last fifty years, evolutionary researchers have identified a number of selection pressures that favored the evolution of decision systems that regulate welfare trade-offs between individuals, including kin selection (4), reciprocity/exchange (5, 6), risk-pooling (2), parenting (7), mating (8), externality management (9), and the asymmetric war of attrition (10). These theories, in turn, led to the empirical discovery of various choice architectures that evolved to produce best-bet welfare trade-off decisions given the information available to the actor about a potential recipient [e.g., how to respond to cues of genetic relatedness; how to respond to cues predicting the recipient's ability to effectively assert and defend her or his interests; how to respond to cues indicating a potential partner tends to cheat or free-ride (11–16)].

In short, favorable valuation by others was a critical resource for our ancestors. The more weight others place on the individual's welfare relative to their own, the better off that individual will be; they will sacrifice more for that individual's benefit, and forgo more actions that would benefit themselves but harm that individual. In contrast, when new cues are detected that reveal the individual to be less valuable or less able to defend her interests, less weight will be placed on her welfare by the people with whom she interacts. She will have been devalued. As a result, such an individual will be helped less and harmed more. Indeed, ancestrally, social devaluation and exclusion would have entailed severe fitness costs (17, 18). This makes information that would cause others to lower their valuations of the individual a threat to fitness, and hence a selection pressure likely to have left its signature on the human neural architecture.

Indeed, an evolutionary theory of the function and architecture of the emotion of shame logically emerges from considering the functional demands placed on our ancestors by their social ecology (19–24). According to what we will call the "information threat theory of shame," shame is an emotion program that evolved to manage the evolutionarily recurrent threat of devaluation due to adverse information reaching others (19–24). This theory incorporates and integrates elements from several evolutionary researchers (19–23, 25), and stands in contrast to the prominent view that shame is inherently maladaptive or pathological (26, 27). By "emotion" we are not referring simply to subjective feeling states. Instead, we apply the evolutionary view that emotions consist of neurally based programs whose control logic was tailored by natural selection to coordinate cognitive, motivational, behavioral, and physiological mechanisms to respond to particular evolutionarily recurrent adaptive problems (28–30): in the case of shame, to defend against devaluation (19–24).

Significance

Prominent theories of shame hold that shame is inherently maladaptive. However, direct tests of the fit between shame and its probable target domain have not previously been conducted. Here we test the alternative hypothesis that shame, although unpleasant (like pain), serves the adaptive function of defending against the social devaluation that results when negative information reaches others—by deterring actions that would lead to more devaluation than benefits, for example. If so, the intensity of shame people feel regarding a given item of negative information should track the devaluation that would happen if that item became known. Indeed, the data indicate a close match between shame intensities and audience devaluation, which suggests that shame is an adaptation.

According to the information threat theory, shame is elicited by the prospect or actuality of negative information about the individual reaching others. Its neurocognitive architecture is designed to: (*i*) deter the individual from taking courses of action that would cost more in terms of social devaluation than the payoffs the action would otherwise yield; (*ii*) limit the extent to which others learn about and spread potentially damaging information; (*iii*) limit the degree and the costs of any ensuing social devaluation; and, if devaluation occurs, (*iv*) mobilize the individual to respond adaptively to the new social landscape.

Existing findings on shame are consistent with this theory. Shame motivates one to avoid behaviors that could cause devaluation and to conceal damaging information (31). When damaging information is discovered, the shamed individual withdraws (32), accepts subordination (33, 34), shows appeasement behavior (35), increases cooperativeness (36, 37), and upregulates cortisol (38) as well as proinflammatory cytokines to defend against infection (39). This is accompanied by a stereotyped nonverbal display (22, 40, 41). It may also be accompanied by aggression (42, 43), which would be expected if social benefits are no longer as abundantly provided because of being valued, but must instead be bargained for by threatening harm (44).

Although the hypothesis that shame evolved because it served an adaptive function might seem self-evident, a prominent theory of shame—attributional theory—holds that this emotion is maladaptive (26, 27). Shame is, after all, associated not only with aggression but also with debilitating conditions, such as anxiety, depression, and paranoid ideation (26, 33). (We note, however, that these correlates might equally be caused by the prospect or actuality of devaluation, rather than by the emotion of shame per se.) According to one version of the attributional theory, shame is about how the "self" views itself; that is, shame is not caused by concerns about others' evaluations of the individual. If concerns about others' evaluations sometimes emerge, they are thought to be a consequence of shame, not a cause of it: "people focus on others' evaluations because they are feeling shame, not vice versa" (45, p. 349).

Here we report tests of a core prediction of the information threat theory: If shame evolved as a defense against devaluation due to negative information, then when one anticipates the release of items of negative information, those items that elicit more devaluation among members of the audience should elicit proportionately more shame. Indeed, because one of the key functions of the shame system is to evaluate alternative future courses of action, the close tracking of devaluation by shame should occur even in the complete absence of communication between the audience (whose devaluation is the problem) and the individual guiding her choices based on anticipated shame. Decisions about actions must be made in advance of observing feedback about one's actions. Thus, asking subjects to imagine how much shame they would feel in various situations is not a convenient but ecologically invalid assay of shame—the anticipated or imagined shame is precisely the ecologically valid magnitude predicted by the theory to track degree of devaluation.

A well-engineered shame system should track devaluation incrementally and closely. The underactivation of shame would lead to maladaptive choices where (for example) the costs of the resulting devaluation exceed the benefits of the action that provoked the devaluation. Similarly, as with any defensive system, an overactivation of shame would entail diminishing or even negative returns. Given these competing demands, shame is expected to deploy in lockstep with the degree of devaluation estimated by the individual to be prevalent in the audience—the local social ecology relevant to the individual.

We tested this key design feature in the United States, India, and Israel.

Study 1

Study 1 tests the prediction that the intensity of shame reflects the degree of devaluation in the social world of the individual. To test this prediction, we created 29 scenarios in which someone's acts, traits, or circumstances might lead them to be viewed negatively. The scenarios were designed to elicit reactions in a wide range of evolutionarily relevant domains, such as mating, parenting, social exchange, aggressive contests, status, skills, and the violation of coordinative norms.

In Study 1, participants were divided into two between-subjects conditions: an "audience" condition and a "shame" condition. Participants in the audience condition were asked to provide their reactions to 29 scenarios involving a third-party: an individual other than themselves who is the same sex and age as the participant (e.g., "He does a bad job taking care of his children," "He is not generous with others," "He has no idea how to load or fire a gun," "He has poor table manners.") Participants in the audience condition were asked to "indicate how you would view [someone of your same sex and age] if they were in those situations." They indicated their reactions using scales ranging from 1 (I wouldn't view them negatively at all) to 7 (I'd view them very negatively). These ratings provide a measure of the degree to which members of a given population would devalue the individual described in the scenarios.

In the shame condition, a different set of participants was asked to "indicate how much shame you would feel if you were in those situations" (i.e., in each of the 29 scenarios; e.g., "You do a bad job taking care of your children," "You are not generous with others," "You have no idea how to load or fire a gun," "You have poor table manners"), with scales ranging from 1 (no shame at all) to 7 (a lot of shame). The stimuli in the audience and shame conditions were identical on a scenario-by-scenario basis, the only difference being the perspective from which the events are described.

Study 1 tests participants from three populations: the United States, India, and Israel. We first ask whether, as the information threat theory predicts, the intensity of shame tracks the degree of devaluation among members of one's own culture. Study 1 also tests whether the intensity of shame tracks the degree of devaluation among members of a foreign culture, as well as whether devaluation in one culture predicts devaluation in another, and whether shame in one culture predicts shame in another.

From an evolutionary perspective, adaptations for valuation are expected to be distributed in a species-universal fashion (46, 47). If a species-wide architecture of social valuation exists, then this raises the expectation—in contrast to traditional anthropological expectation—that many things that are viewed as devaluing, and hence shameful, will be shared across cultures rather than unique to each culture. Whether something appears shared across cultures depends on the level of abstraction at which it is described, however. Engaging in an act that others find, for example, polluting or cowardly might elicit devaluation in every culture. However, what counts as polluting or cowardly may differ across cultures and time (e.g., mixing meat and milk for Orthodox Jews; for 18th century European aristocrats, being publicly insulted without challenging the insulter to a duel). Because we are interested in the functional design of shame, we created scenarios that should lead to devaluation across cultures: ones evoking evolutionarily relevant domains, phrased at the level of abstraction implied by the relevant adaptive problem. If some values are universally held, and shame is a defense against devaluation, then the intensity of shame these scenarios elicit in India (for example) should track the degree of devaluation they elicit in the United States and Israel. We note that, if shame is an evolved defense against devaluation, shame should track devaluation specifically in one's local social world. Shame will track the devaluation of foreign audiences, but only

to the extent that the valuations of foreign and local audiences are in agreement with each other. If these valuations are uncorrelated, however, the relationship between shame and foreign devaluation should dissolve.

Within-Country Results. We first present the devaluation and shame results for each country. The scenarios as well as the shame and devaluation means and standard deviations for each scenario and each country are provided in *SI Appendix,* Table S1. Mean devaluation ratings ranged from 1.51 to 6.36 in the United States, 2.21–5.87 in India, and 1.47–6.59 in Israel.

1. Social devaluation: Do participants within a given country agree on how negatively they would view the target individual in each of these scenarios?

Yes. To measure agreement among raters on how discrediting these situations are relative to one another, we computed the intraclass correlations (ICC) for each sample. These correlations were high: ICC (2,59) = .99 in the United States, ICC (2,85) = .97 in India, and ICC (2,83) = .99 in Israel. In other words, there was widespread agreement among participants about the extent to which the individuals described in these scenarios would be viewed negatively.

2. Shame: Do participants within a given country agree on how much shame they would feel if they found themselves in these scenarios?

Yes. The intraclass correlations for shame were also high: ICC (2,59) = .97 in the United States, ICC (2,70) = .97 in India, and ICC (2,82) = .99 in Israel. (Mean shame ratings ranged from 2.17 to 6.49 in the United States, 2.43–6.00 in India, and 1.90–6.76 in Israel.) Thus, participants agreed about the extent to which they would feel shame in these situations.

3. Does audience devaluation predict feelings of shame? In other words, do the negative evaluations of others predict how much shame you would feel if you found yourself in these situations?

Yes (see Table 1, diagonal values). For each scenario we calculated the mean shame ratings provided by participants in the shame condition, and the mean devaluation ratings provided by participants in the audience condition. Shame and devaluation means were highly correlated with one another in each country, with a mean r of .72 and a range of rs of .67–.79. Scatter plots and regression lines for each country are shown in Fig. 1.

Recall that the shame and devaluation ratings originated from different participants. Consequently, these high correlations cannot be attributed to participants matching their devaluation and shame ratings (*SI Appendix, Study S1,* and Tables S4–S6 and S9). Furthermore, the calibration of shame to devaluation is finely graded—it cannot be explained by a categorical distinction between situations eliciting high versus low devaluation (Fig. 1).

Between-Country Results. Some actions, traits, and situations elicit devaluation (and shame) in some cultures but not others (48). However, if species-typical valuation mechanisms exist, then there will be situations that provoke social devaluation (and elicit

Fig. 1. Studies 1a–1c. Scatter plots and regression lines: Shame as a function of devaluation. Each point represents the mean devaluation rating and mean shame rating of one scenario. Bars represent SEs. Shame and devaluation ratings were given by different sets of subjects. (*A*) United States sample, (*B*) India sample, (*C*) Israel sample. *n* (*A*) = *n* (*B*) = 29; *n* (*C*) = 24.

shame) across cultures (49; see also refs. 50 and 51). The between-country analyses test this hypothesis.

4. Social devaluation: Do participants across countries agree on how negatively they would view the individuals in these scenarios?

Yes. To test for between-country agreement in devaluation, we computed the extent to which the mean devaluation ratings were correlated across countries. There was a high degree of agreement on the extent to which a given situation would provoke devaluation among: (*i*) Americans and Indians, $r(27) = .87$, $P = 10^{-9}$; (*ii*) Americans and Israelis, $r(22) = .95$, $P = 10^{-11}$; and (*iii*) Indians and Israelis, $r(22) = .86$, $P = 10^{-7}$.

5. Shame: Do participants across countries agree on how much shame they would feel if they found themselves in these situations?

Yes. To test for between-country agreement in shame, we computed the extent to which the mean shame ratings were correlated across countries. There was a high degree of agreement on the extent to which a given situation would elicit shame among: (*i*) Americans and Indians, $r(27) = .77$, $P = 10^{-6}$; (*ii*) Americans and Israelis, $r(22) = .92$, $P = 10^{-9}$; and (*iii*) Indians and Israelis, $r(22) = .80$, $P = 10^{-5}$.

6. Does shame in a given country track devaluation in the other countries?

The shame elicited in each country was strongly correlated with the devaluation from the other two countries, with a range of rs of .55–.74 (see Table 1, off-diagonal values). The average of these six between-country correlations was $r = .64$, very close to the correlations between devaluation and shame found within each country (mean $r = .72$). Indeed, in no case did shame correlate significantly more highly with within-country devaluation than with between-country devaluation (*P*s for the difference tests: .23–.90). In other words, the shame elicited by these scenarios tracked the devaluation of foreign audiences as strongly as it tracked the devaluation of domestic audiences.

Shame will track devaluation by foreign audiences, but only when foreign and local audiences agree in their valuations. When they disagree, the relationship between shame and foreign devaluation should weaken or dissolve. To test this prediction, we conducted a follow-up study using scenarios constructed to elicit: (*i*) similar levels of shame in India and the United States, (*ii*) more shame in India, or (*iii*) more shame in the United States [the latter two types of scenarios were based on anthropological (50) and historical (52) reports, as well as a website with advice to visitors to India (53) and advice from bicultural informants]. As

Table 1. Studies 1a–1c

Shame	Devaluation		
	United States	India	Israel
United States	.69***	.63***	.74***
India	.63***	.79***	.72***
Israel	.59**	.55**	.67***

Correlations between shame and devaluation within- and between-countries. Coefficients are Pearson's *r*s. ** *P* < .01, *** *P* < .001. The correlations involving Israel are based on the subset of 24 scenarios run in Israel; the other correlations are based on the full set of 29 scenarios.
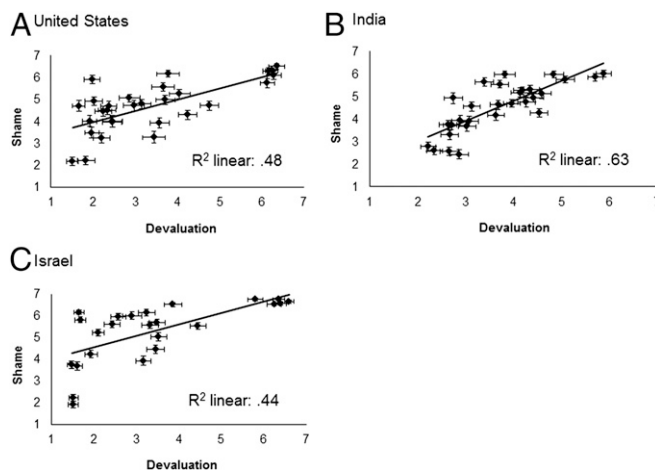
predicted, shame tracked the devaluation of foreign audiences when the valuations of foreign and local audiences were correlated, but it failed to track foreign audiences when the valuations of foreign and local audiences were uncorrelated (*SI Appendix, Study S2,* and Tables S7, S8, and S10).

Study 2

Study 1 showed that shame closely tracks audience devaluation. But are the effects of social devaluation specific to shame? Study 2 was designed to answer this question by also assaying two other emotions: sadness and anxiety. These emotions were selected because they often co-occur with shame (26, 33), but are unlikely to be construed as synonyms for it, unlike "embarrassment" and "guilt" (32, 54) (*SI Appendix, Study S1*). However, neither sadness nor anxiety appears to be (uniquely) designed for minimizing audience devaluation (55, 56). The prediction here is that shame tracks devaluation more closely than sadness and anxiety do. Study 2 was conducted in the United States and India.

The scenarios as well as the devaluation and emotion means and SDs for each scenario and each country are provided in *SI Appendix,* Tables S2 and S3.

1. Do participants agree on the extent to which a situation would elicit devaluation, shame, sadness and anxiety?

Yes. As before, participants agreed on how negatively they would evaluate the target individual across the scenarios: ICC $(2,48) = .98$ (United States), ICC $(2,38) = .92$ (India). They also agreed on how much they would feel each emotion if they found themselves in these situations. In the United States and India, respectively: ICC $(2,51) = .96$ and ICC $(2,35) = .87$ for shame, ICC $(2,51) = .97$ and ICC $(2,39) = .92$ for sadness, and ICC $(2,50) = .97$ and ICC $(2,39) = .86$ for anxiety.

2. Does shame track audience devaluation, and does it do so better than sadness and anxiety?

Yes, and yes. The extent to which a scenario would elicit devaluation in an audience positively predicted the intensity of shame participants would feel when imagining themselves in that scenario, $r(27) = .79$, $P = 10^{-6}$ (United States); $r(27) = .82$, $P = 10^{-7}$ (India). Devaluation and anxiety correlated somewhat in the United States, $r(27) = .37$ ($P = 0.05$) and in India, $r(27) = .57$, $P = .0014$. These correlations are descriptively lower than the correlations between devaluation and shame, and the differences are significant in the United States, $z = 2.46$, $P = .014$, and marginally significant in India, $z = 1.84$, $P = .066$. The correlation between sadness and devaluation was not significantly different from zero in the United States, $r(27) = .23$, $P = .22$, and was marginally significant in India, $r(27) = .36$, $P = .056$. These correlations are significantly lower than the correlations between devaluation and shame: $z = 3.02$, $P = .003$ (United States); $z = 2.81$, $P = .005$ (India).

Recall that the devaluation, shame, sadness, and anxiety ratings originated from different participants. Nevertheless, there were high correlations between the three emotions: for shame and anxiety, $r(27) = .77$, $P = 10^{-5}$ (United States); $r(27) = .82$, $P = 10^{-7}$ (India); for shame and sadness $r(27) = .65$, $P = .0002$ (United States); $r(27) = .64$, $P = .0002$ (India); and for sadness and anxiety, $r(27) = .87$, $P = 10^{-9}$ (United States); $r(27) = .84$, $P = 10^{-7}$ (India). The fact that audience devaluation predicted shame more strongly than it predicted the other emotions is particularly telling given that the three emotions were highly correlated with one another.

To more clearly assess the associations between the emotions and devaluation, we regressed devaluation simultaneously on shame, anxiety, and sadness. Shame continued to predict devaluation even after controlling for the other two emotions [$\beta = 1.22$, $P = 10^{-7}$ (United States); $\beta = 1.03$, $P = 10^{-4}$ (India)]. Meanwhile, neither anxiety [$\beta = -0.36$, $P = .13$ (United States); $\beta = -0.07$, $P = .79$ (India)] nor sadness [$\beta = -0.24$, $P = .24$ (United States); $\beta = -0.24$, $P = .23$ (India)] displayed unique

associations with devaluation. This implies that the significant and marginal zero-order correlations between devaluation and anxiety and between devaluation and sadness were artifacts of their association with shame.

In sum, the match between audience devaluation and shame is specific; it does not generalize to these other emotions, even when they coactivate with shame.

Discussion

These findings support the hypothesis that shame is an adaptation designed to counter the threat of being socially devalued. In particular, we showed that shame in the individual closely tracks devaluation in the individual's social ecology—what one expects of a defensive system engineered to balance the competing demands of effectiveness and economy by steering between oversensitivity to devaluation on the one hand and reckless disregard of it on the other. Moreover, the deployment of shame is specific: Emotions that coactivate with shame, such as sadness and anxiety, fail to track devaluation. These data are problematic for theories in which shame is a pathology to which others' views are irrelevant.

It is worth noting how closely shame ratings tracked devaluation ratings, despite the fact that these ratings were given by different sets of participants. For shame to track devaluation, the shame system must possess accurate information about how strongly the local audience will devalue individuals as a function of their actions or traits. Considerations of parsimony suggest that both are informed by a common underlying logic of social valuation.

The agreement across cultures, and not just within them, on shame, devaluation, and their interrelationship is also noteworthy. Nonevolutionary views conceptualize cultures as being richly and arbitrarily different from each other (57). If this were true, then what cultures devalue and what makes members of different cultures ashamed should be substantially different. Indeed, shame in particular has been argued to heavily rely on culture-specific schemas (58, 59). A stark version of this is the distinction some anthropologists make between shame cultures and guilt cultures (58). However, if (*i*) shame is a human-universal adaptation designed to defend against devaluation by members of one's local social ecology, and (*ii*) there is a species-wide architecture of social valuation, drawing on a species-typical array of evaluative adaptations for mating, reciprocity, kinship, coalitions, disease avoidance, and so on, then there ought to be robust similarities from culture to culture in shame, devaluation, and their relationship. This view gracefully explains not only the high degree of within-culture consistency or consensus (60) but also the between-culture consistency that we predicted and found. We cannot, of course, rule out the possibility that elements of shared cultural phylogeny (e.g., the use of English in the United States and India) or convergent evolution in transmitted culture led to these cross-cultural consistencies (see, e.g., ref. 61). Studies with a larger array of more distantly related cultures could address these issues. Either way, under the information threat theory, shame should track foreign audiences only to the extent that the latter's valuations correlate with the valuations of local audiences; we have found support for this hypothesis (*SI Appendix, Study S2*).

The data reported are correlations; so does devaluation cause shame (as hypothesized here) or does shame cause devaluation? The shame-causes-devaluation link seems unlikely. The experimental manipulation of criticism and publicity reliably boosts shame (23, 38, 62, 63). In contrast, displays of shame or embarrassment attenuate an audience's devaluing response when the audience and the offender share common knowledge about the discrediting act (35, 64, 65). The averted gaze and slumped posture of the shame display may lead to audience devaluation when the audience has not witnessed a discrediting act (20, 22).

However, a straightforward explanation is that the shame display leads the audience to infer discrediting behavior or reduced status on the part of the individual exhibiting shame (65). In sum, the observed association between shame and devaluation more plausibly reflects the causal link from devaluation to shame hypothesized by the information threat theory.

The theoretical proposals of various evolutionarily oriented shame researchers substantially overlap; these researchers agree, for example, that shame is a product of natural selection, that shame is sensitive to other people's evaluations of the self, that shame both deals with and anticipates threats, and that shame motivates remedial behavior (19–23). There do, however, remain differences. According to one view (21, 22), for example, shame is activated by violating a cultural norm, and "functions to enhance conformity to cultural standards for behavior that form the basis for much cooperation" (22, p. 174). The scope of the information threat theory, however, is broader than norm-governed cooperation and coordination: Shame should also be triggered by any trait, action, situation, or circumstance that would lead you to be devalued by any individual or set of individuals who can affect your welfare. Moreover, under the information threat theory, shame functions to limit information-triggered devaluation rather than to enhance conformity. The current studies are not well suited to test among different evolutionary theories of shame. Future work should test between these theories.

If the threat of devaluation is the adaptive problem the shame system evolved to solve, what other design features should shame have? First, individuals with characteristics that render them less vulnerable to devaluation by others (like strength, attractiveness, entrenched status) should, other things being equal, be less prone to shame (24). Second, the variation in the nature of the other party or parties that form an audience should lead to systematic variation in shame intensity. For example, more aggressively formidable audiences should be more shame-provoking than weaker ones, other things being equal (22). Third, shame-proneness should be a function of the ease with which new relationships can be established to compensate for degraded relationships when devaluation occurs (24).

Indeed, many of the phenomena established in the shame literature have functional interpretations in this framework. Shame is known to mobilize withdrawal (32, 34), which protects the shamed individual against acts immediately motivated by devaluation, and may weaken the formation of common knowledge of the shameful act (66). Submission (33), appeasement (35), and cooperation (37), each would function to increase the value of the shamed individual after devaluation. Aggression sometimes occurs (42, 43), which is expected when threatening or inflicting harm is a cost-effective way of preventing the spread of negative information or when it is the best way to bargain for better treatment.

More broadly, the current results help to locate shame within a functionally interlinked architecture of social emotions that also includes anger, gratitude, pride, and guilt. Although each of these emotions has different hypothesized evolved functions, they all depend on an underlying evolved welfare trade-off psychology (67, 68). Briefly, the function of anger, for example, is to orchestrate bargaining tactics when others put too low a weight on the individual's welfare; the function of gratitude is to consolidate a higher level of cooperation when the system detects that an unexpectedly high weight has been put on one's welfare; the function of pride is to motivate the individual to publicize (and achieve) traits or acts that enhance valuation by others; the function of shame is to limit reductions in the weight placed on one's welfare by an audience; the function of guilt is to prevent or remedy events where one put too low a weight on the welfare of another (often unintentionally), independent of whether the other will know it. Within this framework, one can distinguish guilt and shame while seeing why they are related. In guilt, the

outcome to be avoided is imposing harm on valued others, something that remains even if they never discover it. In shame, the outcome to be avoided is being devalued by others. One can feel both shame and guilt about the same act, but the functions, internal recalibrations, and outputs are distinct. For example, someone who felt guilt and shame about infidelity might refrain from it, whereas someone who felt shame but not guilt about infidelity might practice it but conceal it. Future work may profitably assess similarities and differences between shame and other emotions, such as guilt and embarrassment (32, 43, 62, 69).

Because shame (like pain) causes personal suffering and sometimes leads to hostile behavior, this emotion has been called "maladaptive" and "ugly" (32, 70). However, an evolutionary–psychological analysis of the existing evidence (35, 62, 71) suggests a different view: this ugly emotion may be the expression of a system that is elegantly designed to deter injurious choices and to make the best of a bad situation.

Methods

The study procedures were approved by the Institutional Review Boards at the University of California, Santa Barbara and the Ben Gurion University of the Negev. Electronic informed consents were provided at both universities. The data for all the studies are included in Dataset S1.

Study 1.
Sample for Study 1a. Amazon Mechanical Turk (AMT) was used to recruit 122 participants in the United States. Four of them were removed from analyses because of failure to correctly respond to an attention check, leaving an effective sample size of 118 (62 females), with a mean age of 36 y (SD: 14).
Sample for Study 1b. AMT was used to recruit 212 participants in India. Fifty-seven of them were removed from analyses because of failure to correctly respond to an attention check, leaving an effective sample size of 155 (59 females), with a mean age of 31 y (SD: 10).
Sample for Study 1c. One hundred sixty-five participants (133 females) were recruited in Israel from a university. Their mean age was 23 y (SD: 2).
Measures. The 29 scenarios are shown in SI Appendix, Table S1. Participants were randomly assigned to either the audience condition or the shame condition. Participants indicated their sex at the outset and the scenarios were sexed appropriately. The materials included the full set of 29 scenarios in the United States and India, and 24 of the 29 scenarios in Israel. In Israel the materials were presented with other questionnaires to be reported in future work. The order in which the scenarios were presented was random across participants. The stimuli were presented in English in the United States and India, and in Hebrew in Israel (in Israel we used the unambiguous and specific shame term: "בושה" – "busha"). The Israel stimuli were first translated from English into Hebrew and then independently back-translated into English to solve inconsistencies between the original and the Hebrew translation.

Study 2.
Sample for Study 2a. AMT was used to recruit 201 participants in the United States. One of them was removed from analyses because of failure to correctly respond to an attention check, leaving an effective sample size of 200 (82 females), with a mean age of 32 y (SD: 10).
Sample for Study 2b. AMT was used to recruit 179 participants in India. Twenty-eight of them were removed from analyses because of failure to correctly respond to an attention check, leaving an effective sample size of 151 (52 females), with a mean age of 32 y (SD: 9).
Measures. Study 2 had four between-subjects conditions: one audience condition assessing devaluation, and three emotion conditions: shame, sadness, and anxiety. The scenarios were the same as in Studies 1a and 1b. The stimuli were presented in English in the United States and India.

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Shame closely tracks the threat of devaluation by others, even across cultures

1. Note to Study 2

In a pilot study, some participants in the sadness condition gave post-study feedback that some of the scenarios elicited emotions other than sadness. To clarify the task, participants in the shame, sadness, and anxiety conditions were instructed: "We're asking specifically about how much [shame / sadness / anxiety] you would feel. If you think you would feel something but not [shame / sadness / anxiety], your answer should be that you would not feel [shame / sadness / anxiety]". In all cases, the scales ranged from 1 (no [shame / sadness / anxiety] at all / I wouldn't view them negatively at all) to 7 (a lot of [shame / sadness / anxiety] / I'd view them very negatively).

2. STUDY S1. The meaning of "shame"

When using an emotion term, the possibility exists that it is polysemous—that it has more than one meaning. Our interest is in shame as a subjective emotional state. One reviewer wondered if participants instead interpreted "shame" as meaning a reduction in one's social standing (for different meanings of "shame" in different cultures, see (1-3)) If the participants in the shame conditions of Studies 1 and 2 construed "shame" to refer to the latter meaning, the shame ratings and the devaluation ratings would be assays of devaluation as applied to oneself by others (how much standing would I lose?) versus how the participant would devalue someone else.

If participants interpreted the term "shame" as meaning "how much would others devalue me?", then the shame–devaluation correlations could indicate a consensus regarding the devaluation elicited by various disgraceful events rather than the tracking of one cognitive system (social devaluation) by a different cognitive system (shame, as defined under the information threat theory). Recall that in Studies 1 and 2 our shame prompt simply asked participants how much shame they would feel if they were in various situations, without further specifying the meaning of shame.

We note that the equation of the term "shame" to a reduction in social standing presupposes the functional hypothesis that shame tracks the magnitude of reductions in social standing (devaluation). Nevertheless, we conducted the following study to find out if shame, in the strict, explicit sense of a subjective emotional state, tracks devaluation.

Methods

Sample for Study S1a

Amazon Mechanical Turk was used to recruit 147 participants in the United States. Twenty of them were removed from analyses due to failure to correctly respond to an attention check and/or a language comprehension question, leaving an effective sample size of 127 (65 females), with a mean age of 36 (SD: 12). Of the effective sample of 127 participants, 96.9% reported English as their first language, and 3.1% reported English as their second language.

Sample for Study S1b

Amazon Mechanical Turk was used to recruit 119 participants in India. Fifty-one of them were removed from analyses due to failure to correctly respond to an attention check and/or a

language comprehension question, leaving an effective sample size of 68 (16 females), with a mean age of 31 (SD: 9). Of the effective sample of 68 participants, 33.8% reported English as their first language, 61.8% reported English as their second language, and 4.4% reported English as neither their first nor second language. Of the 42 participants who reported English as their second language, the languages reported as first language were: Tamil (15 participants), Malayalam (10 participants), Hindi (9 participants), and other languages (8 participants).

The American and Indian distributions of subjective socio-economic status and urban/rural status are displayed in Table S9.

Measures. The stimuli of Study S1 consisted of the 29 scenarios used in Study 1. There were three between-subjects conditions: (1) shame-1 (prompt from Study 1: "indicate how much shame you would feel if you were in those situations"); (2) shame-2 (additional prompt: "Please focus strictly on the feelings of shame you may (or may not) have; that is, focus on nothing but your own feelings"); (3) devaluation (same as in Study 1). The two shame conditions featured scales ranging from 1 (no shame at all) to 7 (a lot of shame). The devaluation condition featured scales ranging from 1 (I wouldn't view them negatively at all) to 7 (I'd view them very negatively). Participants were randomly assigned to one of the three conditions. The stimuli were presented in English in both the United States and India. The 29 scenarios are shown in Tables S4 (United States) and S5 (India).

The language comprehension question read: "The Midwest is experiencing its worst drought in fifteen years. Corn and soybean prices are expected to be very high this year. What does the second sentence do?" Possible answers: (a) It restates the idea found in the first; (b) It states an effect; (c) It gives an example; (d) It analyzes the statement made in the first. Data from participants answering other than "(b)" were excluded from analyses.

Results and discussion

Tables S4 (United States) and S5 (India) display the scenarios, and the shame and devaluation means and standard deviations for each scenario. Table S6 displays the shame and devaluation correlations within and between countries.

We refer to the shame ratings in the different shame conditions as follows: shame$_{ORIGINAL}$ (shame-1 condition); shame$_{SUBJECTIVITY}$ (shame-2 condition).

1. Does "shame," in the strict, explicit sense of a subjective emotional state, correlate with "shame" as expressed in the original, Study 1? Yes. In the United States, shame$_{SUBJECTIVITY}$ correlated with shame$_{ORIGINAL}$ ($r(27) = .98$, $P = 10^{-19}$). We note that shame$_{SUBJECTIVITY}$ (grand mean = 4.29, SD = 0.55) did not significantly differ from shame$_{ORIGINAL}$ (grand mean = 4.19, SD = 1.00; $t(64) = .55$, $P = .58$)—mean shame$_{SUBJECTIVITY}$ and mean shame$_{ORIGINAL}$ were similar for all 29 items ($.17 \leq P$s $\leq .99$).

In India, shame$_{SUBJECTIVITY}$ correlated with shame$_{ORIGINAL}$ ($r(27) = .93$, $P = 10^{-12}$). We note that shame$_{SUBJECTIVITY}$ (grand mean = 4.58, SD = 0.70) did not significantly differ from shame$_{ORIGINAL}$ (grand mean = 4.76, SD = 1.13; $t(36) = -.61$, $P = .55$)—mean shame$_{SUBJECTIVITY}$ and mean shame$_{ORIGINAL}$ were similar for all 29 items ($.12 \leq P$s $\leq .96$).

2. Is devaluation tracked by "shame" in the strict, explicit sense of a subjective emotional state? Yes. In the United States, devaluation was tracked by shame$_{SUBJECTIVITY}$ ($r(27) = .77$, $P = 10^{-6}$).

2

Devaluation was also tracked by shame$_{ORIGINAL}$ (r(27) = .78, $P = 10^{-6}$). These correlations did not significantly differ from each other (Z= 0.09, Ps = .93).

In India, devaluation was tracked by shame$_{SUBJECTIVITY}$ (r(27) = .72, $P = 1.1$ x 10^{-5}). Devaluation was also tracked by shame$_{ORIGINAL}$ (r(27) = .71, $P = 1.5$ x 10^{-5}). These correlations did not significantly differ from each other (Z= −0.07, Ps = .94).

In sum, shame, in the strict, explicit sense of a subjective emotional state, closely tracked the magnitude of devaluation in an audience. This suggests that the shame–devaluation correlations observed in Study 1 were generated by one cognitive system (social devaluation) being tracked by a different cognitive system (shame, as defined under the information threat theory), rather than by a mere consensus regarding various disgraceful situations.

3. STUDY S2. Shame and culture-specific valuation

According to the information threat theory of shame, the mobilization of shame is calibrated by how a given event (act, state, relationship, situation) is (estimated to be) evaluated *by those in one's local social world*—those whose valuation-informed reactions will modify your welfare, your status, and, ultimately, your fitness. Events engaging meta-cultural valuations will generate cross-culturally similar levels of devaluation and cross-culturally similar levels of shame. For events of this kind, shame will track foreign audiences, *but only because the latter's valuations are shared with the valuations of the local audiences shame is defending against*. By contrast, events engaging culturally *particular* valuations—valuations evoked by the particular features of a given social ecology, or socially transmitted—will fail to yield a cross-cultural consensus in devaluation and shame. Here, shame will not track foreign audiences because the latter's values and the values of the local audiences are different.

In Study S2 we tested three sets of scenarios. The first set is hypothesized to engage meta-cultural valuations (*Common* scenarios; e.g., cheating in a social exchange, low intelligence). The second set of scenarios is hypothesized to elicit more devaluation in India than in the United States (*India* scenarios; e.g., marrying someone without consulting your parents, addressing your father by his first name). The third set of scenarios is hypothesized to elicit more devaluation in the United States than in India (*United States* scenarios; e.g. yelling at your maid, telling your sibling that their daughter should whiten her skin). The *India* and *United States* scenarios were constructed based on anthropological (4) and historical (5) reports, as well as a website with advice to visitors to India (6) and advice from bicultural informants.

If the *India* scenarios and/or the *United States* scenarios elicit different valuations (in particular, different orderings of valuations) among American participants and Indian participants, then shame should track the devaluation of domestic audiences but not of foreign audiences. If they fail to elicit different valuations (i.e. if those sets of scenarios elicit cross-culturally similar valuations), then shame should track the devaluation of domestic *and* foreign audiences.

Methods
Sample for Study S2a
Amazon Mechanical Turk was used to recruit 141 participants in the United States. Eighteen of them were removed from analyses due to failure to correctly respond to an attention check and/or a language comprehension question, leaving an effective sample size of 123 (62 females), with a mean age of 37 (SD: 12). Of the effective sample of 123 participants, 97.6% reported English as their first language, and 2.4% reported English as their second language.

Sample for Study S2b

Amazon Mechanical Turk was used to recruit 137 participants in India. Fifty-six of them were removed from analyses due to failure to correctly respond to an attention check and/or a language comprehension question, leaving an effective sample size of 81 (25 females), with a mean age of 34 (SD: 9). Of the effective sample of 81 participants, 38.3% reported English as their first language, 58.0% reported English as their second language, and 3.7% reported English as neither their first nor second language. Of the 47 participants who reported English as their second language, the languages reported as first language were: Tamil (19 participants), Hindi (12 participants), Malayalam (7 participants), and other languages (9 participants).

The American and Indian distributions of subjective socio-economic status and urban/rural status are displayed in Table S10.

Measures. The stimuli of Study S2 consisted of 24 scenarios: eight *Common* scenarios (a subset of the scenarios used in Study 1), eight *India* scenarios, and eight *United States* scenarios. The scenarios were presented in randomized order (without blocking by type). The participants rated all 24 scenarios. There were two between-subjects conditions: one audience condition assessing devaluation (scale: 1: I wouldn't view them negatively at all; 7: I'd view them very negatively), and one shame condition assessing shame (scale: 1: no shame at all; 7: a lot of shame). Participants were randomly assigned to one of the two conditions. The stimuli were presented in English in both the United States and India. The 24 scenarios are shown in Table S7.

The language comprehension question read: "The Midwest is experiencing its worst drought in fifteen years. Corn and soybean prices are expected to be very high this year. What does the second sentence do?" Possible answers: (a) It restates the idea found in the first; (b) It states an effect; (c) It gives an example; (d) It analyzes the statement made in the first. Data from participants answering other than "(b)" were excluded from analyses.

Results and discussion

Table S7 displays the scenarios, the shame and devaluation means and standard deviations for each scenario and country, and scenario- and condition-specific tests of country-level differences. Table S8 displays the shame and devaluation correlations within and between countries by scenario type.

1. When the scenarios engage valuations presumed to be meta-cultural, does shame in a given country track the devaluation in the other country? Yes. Here we consider the set of eight *Common* scenarios. For each participant we computed the mean shame or devaluation ratings across the eight *Common* scenarios. The mean of the mean devaluation ratings was higher among Indians (M = 3.87, SD = 0.85) than among Americans (M = 3.20, SD = 0.89; $t(110) = 3.87$, $P = .0002$, $r = .35$)—four of the eight *Common* scenarios elicited more devaluation among Indians than among Americans ($Ps \leq .05$). On the other hand, the mean of the mean shame ratings was similar among Indians (M = 4.44, SD = 0.87) and Americans (M = 4.53, SD = 0.79; $t(90) = -0.53$, $P = .60$)—none of the eight *Common* scenarios significantly differed across samples.

Devaluation among Americans correlated highly with devaluation among Indians ($r(6) = .85$, $P = .007$), indicating that the *Common* scenarios elicited similar (orderings of) valuations across countries. As expected when that is the case, American shame tracked Indian devaluation

4

(r(6) = .92, *P* = .001), and did so just as well as it tracked American devaluation (r(6) = .90, *P* = .002) (difference between correlations: *Z* = 0.18, *P* = .86). Similarly, Indian shame tracked American devaluation (r(6) = .74, *P* = .036) and Indian devaluation(r(6) = .87, *P* = .006), with similar effect sizes (difference between correlations: *Z* = −0.60, *P* = .55). This was as in Studies 1 and 2 (main text).

2. When the scenarios engage valuations presumed to be culture-specific, does shame in a given country fail *to track the devaluation in the other country?* Yes, but only when the devaluation of the foreign audience *fails* to track the devaluation of the domestic audience.

When devaluation differs for local and foreign audiences.
    First we consider the set of eight *United States* scenarios. They elicited more devaluation and more shame in American than Indian participants. The mean of the mean devaluation ratings was higher among Americans (M = 5.27, SD = 1.03) than among Indians (M = 4.38, SD = 1.01; *t*(110) = 4.42, *P* = .00002, *r* = .39)—six of eight *United States* scenarios elicited more devaluation among Americans than among Indians (*P*s ≤ .05). The mean of the mean shame ratings was also higher among Americans (M = 5.23, SD = 0.98) than among Indians (M = 4.11, SD = 0.83; *t*(90) = 5.83, *P* = 10^{-7}, *r* = .52)—five of eight *United States* scenarios elicited more shame among Americans than among Indians (*P*s ≤ .05).
    The correlation between devaluation among Americans and devaluation among Indians was not significant (r(6) = .44, *P* = .27). That is, the devaluation ratings of Americans and Indians were more dis-coordinated for these scenarios than they were for the *Common* scenarios (which was: *r* = .85). The more valuations are dis-coordinated across countries, the less shame should track the devaluation of foreign audiences; shame should correlate more highly with the devaluation of domestic audiences than with the devaluation of foreign audiences.
    That is what was observed. American shame tracked American devaluation very highly (r(6) = .96, *P* = .0002); the correlation between American shame and Indian devaluation was much lower, and not significant, even marginally: (r(6) = .40, *P* = .32). American shame tracked American devaluation more highly than it tracked Indian devaluation (difference between correlations: *Z* = 2.41, *P* = .016), as it should when local and foreign devaluation ratings do not align. Indian shame did not track American devaluation at all (r(6) = −.14, *P* = .75)—again, as expected. Whereas that correlation with the foreign audience's devaluation was negative (though not significantly so), Indian shame positively tracked Indian devaluation (r(6) = .63); this effect was marginally significant (*P* = .092) (That significance was marginal for a correlation of *r* = .63 is not surprising given the small sample of scenarios; difference between correlations: *Z* = −1.40, *P* = .16).

When devaluation ratings for local and foreign audiences are more highly correlated.
    Next, we turn to the set of eight *India* scenarios. The mean of the mean devaluation ratings was higher among Indians (M = 3.72, SD = 1.04) than among Americans (M = 1.81, SD = 1.01; *t*(110) = 9.54, *P* = 10^{-15}, *r* = .67)—all eight *India* scenarios elicited more devaluation among Indians than among Americans (*P*s ≤ .05). Also the mean of the mean shame ratings was higher among Indians (M = 4.01, SD = 1.03) than among Americans (M = 2.14, SD = 0.94; *t*(90) = 9.06, *P* = 10^{-15}, *r* = .69)—all eight *India* scenarios elicited more shame among Indians than among Americans (*P*s ≤ .01).

The *India* scenarios elicited more devaluation and shame among Indians than among Americans (as expected). But the two populations agreed about which scenarios would elicit more devaluation: Devaluation among Indians correlated highly with devaluation among Americans ($r(6) = .86$, $P = .006$). Thus, the *India* scenarios appear to elicit similar (orderings of) valuations across countries. When valuations are coordinated across countries, shame should track the devaluation of domestic *and* foreign audiences.

That is what was observed. The shame elicited by these scenarios tracked the devaluation of both domestic and foreign audiences. Indian shame tracked Indian devaluation ($r(6) = .91$, $P = .002$), as it should. It also tracked American devaluation ($r(6) = .69$, $P = .061$); the difference between these correlations was not significant ($Z = −1.07$, $P = .28$). Similarly, American shame tracked American devaluation ($r(6) = .90$, $P = .002$) and Indian devaluation ($r(6) = .89$, $P = .003$); again, the difference between these correlations was not significant ($Z = −0.08$, $P = .94$).

One possibility for why American valuation (and shame) tracked Indian valuation for the *India* scenarios so closely ($r = .86$) is that the issues of authority, loyalty, and purity featured in these scenarios, while weighted less heavily by Americans than by Indians, can nevertheless be made sense of (by Americans) thanks to species-wide adaptations for dealing with hierarchies, coalitions, and contaminants (7). Moreover, a number of these scenarios were devaluing for Americans a generation or two older than the participants.

Summary of Study S2: Shame and culture-specific valuation.
In sum, shame tracks the devaluation of foreign audiences when the latter's valuations are correlated with the valuations of local audiences. However, the correlation between shame and devaluation by foreign audiences erodes when the latter's valuations are uncorrelated with the valuations of local audiences.

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Table S1

Ratings of devaluation and shame by scenario and country (Studies 1a–1c)

#	Scenario	United States		India		Israel	
		Devaluation	Shame	Devaluation	Shame	Devaluation	Shame
3	At the wedding of an acquaintance, you are discovered cheating on your wife with a food server. / At the wedding of an acquaintance, he is discovered cheating on his wife with a food server.	6.36 (1.46)	6.49 (0.99)	5.07 (1.74)	5.74 (1.29)	6.59 (1.01)	6.67 (0.72)
21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	6.29 (1.31)	6.08 (1.45)	5.87 (1.42)	6.00 (1.24)	6.35 (1.26)	6.76 (0.53)
10	Everyone discovers that you are sexually unfaithful to your wife. / Everyone discovers that he is sexually unfaithful to his wife.	6.24 (1.15)	6.31 (1.12)	4.84 (1.91)	5.96 (1.26)	6.24 (1.48)	6.54 (0.77)
7	You do a bad job taking care of your children. / He does a bad job taking care of his children.	6.17 (1.07)	6.29 (1.23)	4.41 (1.92)	4.94 (1.80)	5.80 (1.55)	6.76 (0.62)
20	You stole goods from a shop owned by a foreign merchant. / He stole goods from a shop owned by a foreign merchant.	6.14 (1.22)	5.73 (1.53)	5.69 (1.45)	5.84 (1.44)	6.39 (1.21)	6.57 (0.75)
28	You are not generous with others. / He is not generous with others.	4.76 (1.67)	4.71 (1.61)	4.53 (1.69)	4.27 (1.64)	-	-
19	You have poor table manners. / He has poor table manners.	4.24 (1.69)	4.29 (1.69)	4.26 (1.68)	4.76 (1.81)	3.16 (1.63)	3.93 (1.85)
23	An acquaintance is inappropriately flirting with your wife in front of everybody. Because you're too scared to pick a fight with your rival you remain silent without doing or saying anything. / Somebody is inappropriately flirting with his wife in front of everybody. Because he's too scared to pick a fight with his rival he remains silent without doing or saying anything.	4.05 (1.92)	5.24 (1.70)	4.34 (1.71)	5.30 (1.51)	4.45 (1.68)	5.54 (1.51)
8	You cannot support your children economically. / He cannot support his children economically.	3.78 (2.11)	6.15 (1.16)	4.13 (1.74)	5.17 (1.63)	3.86 (1.88)	6.52 (0.76)
18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	3.71 (1.73)	4.97 (1.70)	3.67 (1.61)	4.63 (1.75)	3.52 (1.75)	5.04 (1.60)

#	Scenario	United States		India		Israel	
		Devaluation	Shame	Devaluation	Shame	Devaluation	Shame
24	You get into a fight in front of everybody and your opponent completely dominates you with punch after punch until you're knocked out. / He gets into a fight in front of everybody and his opponent completely dominates him with punch after punch until he's knocked out.	3.66 (2.09)	5.56 (1.39)	4.18 (1.74)	5.26 (1.35)	2.42 (1.67)	5.61 (1.45)
29	You are not very ambitious. / He is not very ambitious.	3.58 (1.72)	3.92 (1.77)	3.62 (1.58)	4.17 (1.99)	-	-
1	You are single. You have a promiscuous sexual life with women. / He is single. He has a promiscuous sexual life with women.	3.44 (2.11)	3.25 (2.03)	4.58 (1.82)	5.13 (1.89)	3.45 (1.90)	4.46 (1.81)
16	You are not very smart. / He is not very smart.	3.15 (1.74)	4.78 (1.70)	2.69 (1.59)	3.73 (1.73)	3.48 (1.74)	5.70 (1.21)
9	You receive welfare money from the government because you cannot financially support your family. / He receives welfare money from the government because he cannot financially support his family.	2.97 (1.88)	4.71 (1.89)	2.88 (1.59)	3.91 (1.85)	2.10 (1.29)	5.22 (1.47)
17	Your father defrauded a foreign company. / His father defrauded a foreign company.	2.86 (1.91)	5.05 (1.36)	3.71 (1.67)	5.53 (1.37)	3.23 (1.80)	6.16 (1.39)
4	You look ten years older than you are. / He looks ten years older than he is.	2.46 (1.77)	4.00 (1.97)	3.07 (1.79)	3.89 (1.79)	1.93 (1.27)	4.23 (1.61)
15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the police. How much shame would you feel about your reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?	2.46 (1.75)	3.97 (1.92)	2.73 (1.77)	4.91 (1.94)	3.31 (1.77)	5.59 (1.36)
25	You are performing a ceremony in front of your community. In the middle of it, your mind goes blank and you forget what to do next. / He is performing a ceremony in front of his community. In the middle of it, his mind goes blank and he forgets what to do next.	2.37 (1.48)	4.68 (1.63)	3.12 (1.55)	4.54 (1.59)	1.67 (1.13)	5.82 (1.21)
5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	2.34 (1.59)	4.51 (1.49)	3.95 (1.62)	4.69 (1.46)	-	-

#	Scenario	United States		India		Israel	
		Devaluation	Shame	Devaluation	Shame	Devaluation	Shame
26	You are not physically attractive. / He is not physically attractive.	2.24 (1.54)	4.46 (1.85)	2.66 (1.75)	3.29 (1.76)	-	-
12	You are playing a throwing game with your friends. All your throws miss the target by a wide margin. / He is playing a throwing game with his friends. All his throws miss the target by a wide margin.	2.20 (1.52)	3.22 (1.81)	3.02 (1.67)	3.66 (1.68)	1.60 (1.01)	3.68 (1.77)
14	Your brother stole money from a stranger. How much shame would you feel about your brother stealing money from the stranger? / His brother stole money from a stranger. How negatively would you view him due to his brother stealing money from the stranger?	2.02 (1.62)	4.92 (1.50)	3.81 (2.03)	5.97 (1.30)	2.57 (1.60)	5.95 (1.38)
11	Everyone discovers that your wife is sexually unfaithful to you. / Everyone discovers that his wife is sexually unfaithful to him.	1.98 (1.44)	5.90 (1.57)	3.39 (1.76)	5.64 (1.59)	2.89 (1.99)	6.01 (1.49)
13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	1.97 (1.30)	3.47 (1.80)	2.34 (1.56)	2.59 (1.56)	1.47 (0.95)	3.74 (1.62)
27	You are poor. / He is poor.	1.92 (1.29)	4.00 (1.94)	2.21 (1.43)	2.77 (1.69)	-	-
22	You have no idea how to load or fire a gun. / He has no idea how to load or fire a gun.	1.83 (1.59)	2.20 (1.58)	2.65 (1.76)	2.56 (1.60)	1.51 (1.10)	1.90 (1.45)
2	You were in an accident and your face was permanently disfigured. / He was in an accident and his face was permanently disfigured.	1.66 (1.14)	4.69 (1.84)	2.62 (1.63)	3.74 (1.68)	1.64 (1.05)	6.17 (0.97)
6	Your wife makes more money than you do. / His wife makes more money than he does.	1.51 (1.10)	2.17 (1.42)	2.86 (1.73)	2.43 (1.64)	1.51 (0.98)	2.21 (1.36)

Note. Displayed are means, with standard deviations in parentheses. *N*s: United States: shame: 59, devaluation: 59; India: shame: 70, devaluation: 85; Israel: shame: 82, devaluation: 83. The male versions of the shame and devaluation scenarios are presented before and after the slash, respectively. The female versions of the scenarios read "men" (scenario # 1) and "husband" (scenarios #3, 6, 10, 11, 23) instead of "women" and "wife". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. Scenarios are displayed from highest to lowest mean devaluation scores in the United States.

Table S2

Ratings of devaluation, shame, sadness, and anxiety by scenario (Study 2a–United States)

#	Scenario	Devaluation	Shame	Sadness	Anxiety
21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	5.96 (1.41)	5.92 (1.11)	4.47 (1.96)	5.40 (1.71)
7	You do a bad job taking care of your children. / He does a bad job taking care of his children.	5.79 (1.62)	5.86 (1.56)	5.78 (1.32)	5.76 (1.49)
20	You stole goods from a shop owned by a foreign merchant. / He stole goods from a shop owned by a foreign merchant.	5.77 (1.53)	5.39 (1.60)	4.43 (2.00)	4.82 (1.88)
3	At the wedding of an acquaintance, you are discovered cheating on your wife with a food server. / At the wedding of an acquaintance, he is discovered cheating on his wife with a food server.	5.46 (1.87)	5.90 (1.57)	4.84 (2.07)	6.18 (1.38)
10	Everyone discovers that you are sexually unfaithful to your wife. / Everyone discovers that he is sexually unfaithful to his wife.	5.40 (1.71)	5.86 (1.46)	4.63 (2.21)	6.34 (1.12)
28	You are not generous with others. / He is not generous with others.	4.56 (1.71)	4.41 (1.56)	3.43 (1.92)	3.30 (1.72)
19	You have poor table manners. / He has poor table manners.	3.67 (1.84)	3.98 (1.70)	2.55 (1.67)	3.14 (1.76)
8	You cannot support your children economically. / He cannot support his children economically.	3.65 (2.09)	5.73 (1.59)	6.24 (1.26)	6.34 (0.98)
29	You are not very ambitious. / He is not very ambitious.	3.33 (1.88)	3.96 (1.64)	3.45 (1.90)	2.96 (1.91)
24	You get into a fight in front of everybody and your opponent completely dominates you with punch after punch until you're knocked out. / He gets into a fight in front of everybody and his opponent completely dominates him with punch after punch until he's knocked out	3.29 (2.08)	5.10 (1.64)	4.57 (2.06)	5.46 (1.59)
23	An acquaintance is inappropriately flirting with your wife in front of everybody. Because you're too scared to pick a fight with your rival you remain silent without doing or saying anything. / Somebody is inappropriately flirting with his wife in front of everybody. Because he's too scared to pick a fight with his rival he remains silent without doing or saying anything.	3.23 (1.90)	5.00 (1.80)	4.76 (1.86)	5.14 (1.90)
18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	2.98 (1.93)	4.41 (1.93)	4.43 (2.10)	4.30 (1.95)
1	You are single. You have a promiscuous sexual life with women. / He is single. He has a promiscuous sexual life with women.	2.81 (2.01)	2.75 (1.89)	2.75 (2.13)	2.94 (1.87)
16	You are not very smart. / He is not very smart.	2.58 (1.69)	4.51 (1.88)	4.18 (2.01)	4.16 (1.88)
17	Your father defrauded a foreign company. / His father defrauded a foreign company.	2.50 (1.99)	4.51 (1.98)	4.00 (2.03)	4.40 (2.03)
9	You receive welfare money from the government because you cannot financially support your family. / He receives welfare money from the government because he cannot financially support his family.	2.29 (1.79)	3.65 (2.01)	4.49 (1.98)	4.72 (2.06)
4	You look ten years older than you are. / He looks ten years older than he is.	2.00 (1.47)	2.98 (1.93)	4.24 (1.98)	3.94 (1.78)
15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the	2.00 (1.76)	4.04 (1.89)	4.78 (1.95)	5.20 (1.93)

#	Scenario	Devaluation	Shame	Sadness	Anxiety
	police. How much [shame/sadness/anxiety] would you feel about your reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?				
25	You are performing a ceremony in front of your community. In the middle of it, your mind goes blank and you forget what to do next. / He is performing a ceremony in front of his community. In the middle of it, his mind goes blank and he forgets what to do next.	1.92 (1.41)	4.04 (1.77)	3.65 (1.94)	5.48 (1.68)
14	Your brother stole money from a stranger. How much [shame/sadness/anxiety] would you feel about your brother stealing money from the stranger? / His brother stole money from a stranger. How negatively would you view him due to his brother stealing money from the stranger?	1.88 (1.59)	4.29 (1.93)	4.27 (1.80)	4.40 (1.94)
5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	1.88 (1.44)	3.86 (1.47)	4.16 (1.82)	4.96 (1.56)
11	Everyone discovers that your wife is sexually unfaithful to you. / Everyone discovers that his wife is sexually unfaithful to him.	1.83 (1.51)	4.80 (1.97)	6.02 (1.35)	5.98 (1.27)
22	You have no idea how to load or fire a gun. / He has no idea how to load or fire a gun.	1.83 (1.67)	2.24 (1.76)	1.84 (1.39)	2.64 (1.83)
26	You are not physically attractive. / He is not physically attractive.	1.81 (1.16)	3.33 (1.72)	4.55 (1.62)	4.22 (1.66)
6	Your wife makes more money than you do. / His wife makes more money than he does.	1.77 (1.48)	2.12 (1.52)	1.84 (1.30)	1.96 (1.32)
2	You were in an accident and your face was permanently disfigured. / He was in an accident and his face was permanently disfigured.	1.73 (1.44)	3.57 (1.90)	6.14 (1.11)	5.78 (1.59)
12	You are playing a throwing game with your friends. All your throws miss the target by a wide margin. / He is playing a throwing game with his friends. All his throws miss the target by a wide margin.	1.67 (1.21)	2.90 (1.59)	2.24 (1.38)	2.96 (1.51)
27	You are poor. / He is poor.	1.46 (0.94)	3.29 (1.79)	4.49 (1.93)	4.78 (2.03)
13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	1.40 (0.87)	2.96 (1.75)	3.82 (1.95)	3.48 (2.06)

Note. Displayed are means, with standard deviations in parentheses. *N*s: devaluation: 48, shame: 51, sadness: 51, anxiety: 50. The male versions of the shame/sadness/anxiety and devaluation scenarios are presented before and after the slash, respectively. The female versions of the scenarios read "men" (scenario # 1) and "husband" (scenarios # 3, 6, 10, 11, 23) instead of "women" and "wife". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. Scenarios are displayed from highest to lowest mean devaluation scores.

Table S3

Ratings of devaluation, shame, sadness, and anxiety by scenario (Study 2b–India)

#	Scenario	Devaluation	Shame	Sadness	Anxiety
20	You stole goods from a shop owned by a foreign merchant. / He stole goods from a shop owned by a foreign merchant.	5.47 (1.64)	5.20 (2.06)	5.08 (1.42)	4.97 (2.01)
21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	5.16 (1.64)	5.26 (1.96)	5.18 (1.59)	5.18 (1.70)
10	Everyone discovers that you are sexually unfaithful to your wife. / Everyone discovers that he is sexually unfaithful to his wife.	5.03 (1.65)	5.63 (1.86)	5.90 (1.19)	5.05 (1.86)
3	At the wedding of an acquaintance, you are discovered cheating on your wife with a food server. / At the wedding of an acquaintance, he is discovered cheating on his wife with a food server.	4.89 (1.54)	5.60 (1.46)	5.38 (1.41)	5.13 (1.73)
1	You are single. You have a promiscuous sexual life with women. / He is single. He has a promiscuous sexual life with women.	4.84 (1.62)	5.26 (2.09)	4.03 (1.90)	4.28 (1.88)
7	You do a bad job taking care of your children. / He does a bad job taking care of his children.	4.71 (1.71)	4.74 (1.92)	5.49 (1.57)	4.92 (1.81)
23	An acquaintance is inappropriately flirting with your wife in front of everybody. Because you're too scared to pick a fight with your rival you remain silent without doing or saying anything. / Somebody is inappropriately flirting with his wife in front of everybody. Because he's too scared to pick a fight with his rival he remains silent without doing or saying anything.	4.61 (1.73)	5.03 (1.72)	5.62 (1.39)	5.00 (1.54)
19	You have poor table manners. / He has poor table manners.	4.32 (1.63)	5.11 (1.64)	4.62 (1.58)	4.23 (1.78)
5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	4.26 (1.57)	4.60 (1.93)	5.15 (1.46)	4.85 (1.57)
28	You are not generous with others. / He is not generous with others.	4.24 (1.63)	4.34 (1.75)	4.31 (1.72)	3.82 (1.86)
8	You cannot support your children economically. / He cannot support his children economically.	4.08 (2.01)	5.17 (1.81)	5.90 (1.47)	5.18 (1.73)
14	Your brother stole money from a stranger. How much [shame/sadness/anxiety] would you feel about your brother stealing money from the stranger? / His brother stole money from a stranger. How negatively would you view him due to his brother stealing money from the stranger?	4.08 (2.02)	5.37 (1.77)	5.62 (1.41)	5.00 (1.59)
17	Your father defrauded a foreign company. / His father defrauded a foreign company.	3.97 (1.79)	5.09 (1.87)	5.54 (1.37)	5.15 (1.71)
24	You get into a fight in front of everybody and your opponent completely dominates you with punch after punch until you're knocked out. / He gets into a fight in front of everybody and his opponent completely dominates him with punch after punch until he's knocked out	3.79 (1.79)	4.51 (1.93)	5.38 (1.57)	4.69 (1.49)
11	Everyone discovers that your wife is sexually unfaithful to you. / Everyone discovers that his wife is sexually unfaithful to him.	3.74 (1.94)	5.29 (1.84)	5.97 (1.46)	5.33 (1.81)
29	You are not very ambitious. / He is not very	3.55 (1.64)	3.86 (1.85)	4.41 (1.74)	3.72 (1.86)

12

#	Scenario	Devaluation	Shame	Sadness	Anxiety
	ambitious.				
9	You receive welfare money from the government because you cannot financially support your family. / He receives welfare money from the government because he cannot financially support his family.	3.37 (1.95)	4.09 (1.99)	4.74 (1.53)	4.28 (1.70)
18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	3.24 (1.76)	4.29 (2.07)	4.82 (1.64)	4.69 (1.92)
15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the police. How much [shame/sadness/anxiety] would you feel about your reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?	3.16 (1.95)	4.43 (2.23)	5.44 (1.67)	5.08 (1.51)
12	You are playing a throwing game with your friends. All your throws miss the target by a wide margin. / He is playing a throwing game with his friends. All his throws miss the target by a wide margin.	2.95 (1.51)	3.94 (2.00)	4.13 (1.69)	3.85 (1.69)
13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	2.92 (1.85)	3.34 (1.81)	4.44 (1.57)	3.92 (1.80)
4	You look ten years older than you are. / He looks ten years older than he is.	2.92 (1.99)	3.31 (1.97)	5.21 (1.82)	4.21 (1.82)
25	You are performing a ceremony in front of your community. In the middle of it, your mind goes blank and you forget what to do next. / He is performing a ceremony in front of his community. In the middle of it, his mind goes blank and he forgets what to do next.	2.87 (1.60)	4.80 (1.80)	4.85 (1.57)	4.87 (1.49)
26	You are not physically attractive. / He is not physically attractive.	2.79 (1.83)	3.51 (2.05)	4.87 (1.58)	3.44 (1.93)
22	You have no idea how to load or fire a gun. / He has no idea how to load or fire a gun.	2.76 (1.94)	3.11 (1.88)	3.00 (1.93)	3.31 (1.94)
16	You are not very smart. / He is not very smart.	2.74 (1.62)	3.91 (2.03)	4.62 (1.46)	3.51 (1.88)
6	Your wife makes more money than you do. / His wife makes more money than he does.	2.68 (1.79)	2.77 (1.97)	2.97 (1.87)	3.23 (1.90)
2	You were in an accident and your face was permanently disfigured. / He was in an accident and his face was permanently disfigured.	2.55 (1.62)	4.20 (2.14)	5.97 (1.42)	5.08 (1.86)
27	You are poor. / He is poor.	2.32 (1.42)	3.26 (2.25)	4.77 (1.69)	3.87 (1.81)

Note. Displayed are means, with standard deviations in parentheses. *N*s: devaluation: 38, shame: 35, sadness: 39, anxiety: 39. The male versions of the shame/sadness/anxiety and devaluation scenarios are presented before and after the slash, respectively. The female versions of the scenarios read "men" (scenario # 1) and "husband" (scenarios # 3, 6, 10, 11, 23) instead of "women" and "wife". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. Scenarios are displayed from highest to lowest mean devaluation scores.

Table S4

Ratings of devaluation and shame by scenario (Study S1a; United States)

#	Scenario	Devaluation	Shame$_{ORIGINAL}$	Shame$_{SUBJECTIVITY}$
21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	6.11 (1.35)	5.88 (1.25)	5.90 (1.39)
20	You stole goods from a shop owned by a foreign merchant. / He stole goods from a shop owned by a foreign merchant.	6.00 (1.12)	5.60 (1.36)	5.66 (1.30)
3	At the wedding of an acquaintance, you are discovered cheating on your wife with a food server. / At the wedding of an acquaintance, he is discovered cheating on his wife with a food server.	5.80 (1.42)	6.38 (1.27)	6.37 (1.22)
7	You do a bad job taking care of your children. / He does a bad job taking care of his children.	5.66 (1.45)	5.86 (1.47)	6.05 (1.36)
10	Everyone discovers that you are sexually unfaithful to your wife. / Everyone discovers that he is sexually unfaithful to his wife.	5.41 (1.47)	5.86 (1.54)	6.22 (1.17)
28	You are not generous with others. / He is not generous with others.	4.48 (1.78)	4.24 (1.95)	4.32 (1.69)
19	You have poor table manners. / He has poor table manners.	3.82 (1.76)	3.90 (1.83)	3.90 (1.61)
23	An acquaintance is inappropriately flirting with your wife in front of everybody. Because you're too scared to pick a fight with your rival you remain silent without doing or saying anything. / Somebody is inappropriately flirting with his wife in front of everybody. Because he's too scared to pick a fight with his rival he remains silent without doing or saying anything.	3.52 (1.75)	5.12 (1.98)	4.78 (1.67)
24	You get into a fight in front of everybody and your opponent completely dominates you with punch after punch until you're knocked out. / He gets into a fight in front of everybody and his opponent completely dominates him with punch after punch until he's knocked out	3.52 (1.99)	4.90 (1.90)	4.78 (1.86)
1	You are single. You have a promiscuous sexual life with women. / He is single. He has a promiscuous sexual life with women.	3.34 (2.07)	2.90 (2.14)	3.02 (2.12)
8	You cannot support your children economically. / He cannot support his children economically.	3.25 (1.86)	5.50 (1.76)	5.68 (1.52)
18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	3.20 (1.59)	4.45 (1.99)	4.73 (1.83)
16	You are not very smart. / He is not very smart.	3.14 (1.66)	4.10 (2.00)	4.29 (1.75)
29	You are not very ambitious. / He is not very ambitious.	2.95 (1.66)	3.79 (1.96)	3.93 (1.62)
9	You receive welfare money from the government because you cannot financially support your family. / He receives welfare money from the government because he cannot financially support his family.	2.66 (1.75)	4.00 (2.12)	4.27 (1.79)
17	Your father defrauded a foreign company. / His father defrauded a foreign company.	2.41 (1.62)	4.38 (1.90)	4.34 (1.77)

14

#	Scenario	Devaluation	Shame_ORIGINAL	Shame_SUBJECTIVITY
26	You are not physically attractive. / He is not physically attractive.	2.14 (1.36)	3.38 (1.65)	3.76 (1.64)
4	You look ten years older than you are. / He looks ten years older than he is.	2.14 (1.50)	3.45 (2.09)	3.37 (1.76)
15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the police. How much [shame/sadness/anxiety] would you feel about your reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?	2.07 (1.48)	3.43 (1.82)	3.39 (1.73)
5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	2.00 (1.14)	3.83 (1.86)	3.93 (1.66)
27	You are poor. / He is poor.	2.00 (1.26)	3.81 (1.93)	3.66 (1.57)
14	Your brother stole money from a stranger. How much [shame/sadness/anxiety] would you feel about your brother stealing money from the stranger? / His brother stole money from a stranger. How negatively would you view him due to his brother stealing money from the stranger?	1.98 (1.62)	3.71 (1.84)	4.15 (1.81)
11	Everyone discovers that your wife is sexually unfaithful to you. / Everyone discovers that his wife is sexually unfaithful to him.	1.93 (1.39)	4.67 (2.30)	5.29 (1.83)
12	You are playing a throwing game with your friends. All your throws miss the target by a wide margin. / He is playing a throwing game with his friends. All his throws miss the target by a wide margin.	1.93 (1.26)	2.69 (1.80)	3.07 (1.60)
25	You are performing a ceremony in front of your community. In the middle of it, your mind goes blank and you forget what to do next. / He is performing a ceremony in front of his community. In the middle of it, his mind goes blank and he forgets what to do next.	1.93 (0.95)	4.62 (1.64)	4.20 (1.52)
13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	1.84 (1.26)	2.81 (1.67)	3.10 (1.56)
2	You were in an accident and your face was permanently disfigured. / He was in an accident and his face was permanently disfigured.	1.73 (1.15)	4.29 (2.18)	4.17 (1.91)
22	You have no idea how to load or fire a gun. / He has no idea how to load or fire a gun.	1.66 (1.10)	2.21 (1.85)	2.00 (1.43)
6	Your wife makes more money than you do. / His wife makes more money than he does.	1.50 (1.02)	1.76 (1.23)	2.02 (1.41)

Note. Displayed are means, with standard deviations in parentheses. *N*s: devaluation: 44, shame_ORIGINAL: 42, shame_SUBJECTIVITY: 41. The male versions of the shame and devaluation scenarios are presented before and after the slash, respectively. The female versions of the

scenarios read "men" (scenario # 1) and "husband" (scenarios #3, 6, 10, 11, 23) instead of "women" and "wife". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. Scenarios are displayed from highest to lowest mean devaluation scores.

Table S5

Ratings of devaluation and shame by scenario (Study S1b; India)

#	Scenario	Devaluation	Shame_ORIGINAL	Shame_SUBJECTIVITY
21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	5.63 (1.67)	6.23 (1.45)	6.00 (1.37)
20	You stole goods from a shop owned by a foreign merchant. / He stole goods from a shop owned by a foreign merchant.	5.59 (1.60)	6.36 (1.50)	6.00 (1.49)
3	At the wedding of an acquaintance, you are discovered cheating on your wife with a food server. / At the wedding of an acquaintance, he is discovered cheating on his wife with a food server.	5.30 (1.64)	6.05 (1.21)	5.79 (1.40)
10	Everyone discovers that you are sexually unfaithful to your wife. / Everyone discovers that he is sexually unfaithful to his wife.	5.22 (1.65)	5.77 (1.63)	5.68 (1.38)
28	You are not generous with others. / He is not generous with others.	4.67 (1.78)	4.50 (1.79)	4.05 (2.12)
23	An acquaintance is inappropriately flirting with your wife in front of everybody. Because you're too scared to pick a fight with your rival you remain silent without doing or saying anything. / Somebody is inappropriately flirting with his wife in front of everybody. Because he's too scared to pick a fight with his rival he remains silent without doing or saying anything.	4.37 (1.94)	5.55 (1.71)	6.21 (1.36)
1	You are single. You have a promiscuous sexual life with women. / He is single. He has a promiscuous sexual life with women.	4.33 (1.86)	4.55 (2.22)	4.58 (2.14)
24	You get into a fight in front of everybody and your opponent completely dominates you with punch after punch until you're knocked out. / He gets into a fight in front of everybody and his opponent completely dominates him with punch after punch until he's knocked out	4.22 (1.95)	5.27 (2.21)	5.68 (1.29)
5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	4.22 (1.87)	4.86 (1.96)	4.47 (1.68)
7	You do a bad job taking care of your children. / He does a bad job taking care of his children.	4.11 (1.99)	5.18 (1.89)	4.74 (2.00)
8	You cannot support your children economically. / He cannot support his children economically.	3.96 (1.56)	5.36 (1.99)	5.79 (1.18)
17	Your father defrauded a foreign company. / His father defrauded a foreign company.	3.96 (1.81)	6.09 (1.38)	5.32 (1.70)
19	You have poor table manners. / He has poor table manners.	3.96 (1.51)	5.00 (1.69)	5.47 (1.47)
11	Everyone discovers that your wife is sexually unfaithful to you. / Everyone discovers that his wife is sexually unfaithful to him.	3.48 (2.08)	5.77 (1.97)	6.26 (1.28)
14	Your brother stole money from a stranger. How much [shame/sadness/anxiety] would you feel about your brother stealing money from the stranger? / His brother stole money from a	3.41 (1.65)	6.23 (1.27)	5.79 (1.36)

#	Scenario	Devaluation	Shame$_{ORIGINAL}$	Shame$_{SUBJECTIVITY}$
	stranger. How negatively would you view him due to his brother stealing money from the stranger?			
29	You are not very ambitious. / He is not very ambitious.	3.37 (1.82)	3.64 (1.79)	3.74 (1.94)
18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	3.30 (1.64)	4.45 (2.15)	5.00 (1.53)
16	You are not very smart. / He is not very smart.	3.15 (1.96)	4.23 (2.18)	3.47 (2.09)
12	You are playing a throwing game with your friends. All your throws miss the target by a wide margin. / He is playing a throwing game with his friends. All his throws miss the target by a wide margin.	3.00 (1.73)	3.77 (2.00)	3.47 (1.95)
22	You have no idea how to load or fire a gun. / He has no idea how to load or fire a gun.	2.96 (2.23)	2.73 (2.14)	2.26 (1.56)
9	You receive welfare money from the government because you cannot financially support your family. / He receives welfare money from the government because he cannot financially support his family.	2.63 (1.80)	4.64 (2.32)	4.32 (2.11)
25	You are performing a ceremony in front of your community. In the middle of it, your mind goes blank and you forget what to do next. / He is performing a ceremony in front of his community. In the middle of it, his mind goes blank and he forgets what to do next.	2.52 (1.40)	5.05 (1.70)	4.95 (1.54)
6	Your wife makes more money than you do. / His wife makes more money than he does.	2.33 (1.64)	3.09 (2.20)	2.95 (2.09)
4	You look ten years older than you are. / He looks ten years older than he is.	2.26 (1.38)	4.09 (2.29)	3.47 (1.90)
2	You were in an accident and your face was permanently disfigured. / He was in an accident and his face was permanently disfigured.	2.15 (1.38)	4.32 (2.25)	3.89 (2.13)
13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	2.07 (1.47)	3.18 (2.08)	3.26 (1.94)
15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the police. How much [shame/sadness/anxiety] would you feel about your reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?	2.07 (1.36)	4.95 (2.15)	4.00 (2.19)
26	You are not physically attractive. / He is not physically attractive.	1.96 (1.22)	3.91 (2.20)	3.21 (1.75)
27	You are poor. / He is poor.	1.59 (0.93)	3.18 (2.04)	3.05 (2.01)

Note. Displayed are means, with standard deviations in parentheses. *N*s: devaluation: 27, shame$_{ORIGINAL}$: 22, shame$_{SUBJECTIVITY}$: 19. The male versions of the shame and devaluation scenarios are presented before and after the slash, respectively. The female versions of the

scenarios read "men" (scenario # 1) and "husband" (scenarios #3, 6, 10, 11, 23) instead of "women" and "wife". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. Scenarios are displayed from highest to lowest mean devaluation scores.

Table S6

Correlations between shame and devaluation within- and between-countries (Studies S1a & S1b; United States and India)

	S_O_US	S_S_US	D_US	S_O_IN	S_S_IN	D_IN
Shame$_{ORIGINAL}$_US		.98***	.78***	.78***	.77***	.68***
Shame$_{SUBJECTIVITY}$_US			.77***	.78***	.78***	.68***
Devaluation_US				.59***	.56**	.84***
Shame$_{ORIGINAL}$_IN					.93***	.71***
Shame$_{SUBJECTIVITY}$_IN						.72***
Devaluation_IN						

Note. Coefficients are Pearson's *r*s. ** $p < .01$, *** $p < .001$. The correlations are based on 29 scenarios.

Table S7

Ratings of shame and devaluation by scenario and country (Studies S2a & S2b; United States and India)

Type	#	Scenario	Shame				Devaluation			
			US	IN	t	r	US	IN	t	r
C	5	You host your extended family for a holiday meal, but you burn the food. / He hosts his extended family for a holiday meal, but he burns the food.	4.40 (1.65)	4.88 (1.49)	−1.42	.15	1.80 (1.25)	4.20 (1.93)	−7.13***	.68
C	13	You come from a very poor family with low status and no connections. / He comes from a very poor family with low status and no connections.	2.77 (1.58)	2.73 (1.66)	0.13	.01	1.59 (1.04)	2.29 (1.54)	−2.60*	.32
C	15	Your brother stole money from a stranger. As soon as you found out about that, you reported him to the police. How much shame would you feel about reporting your brother to the police? / His brother stole money from a stranger. As soon as he found out about that, he reported him to the police. How negatively would you view him due to his reporting his brother to the police?	4.12 (2.05)	4.53 (2.03)	−0.96	.10	2.58 (1.92)	2.83 (1.97)	−0.66	.06
C	16	You are not very smart. / He is not very smart.	4.37 (2.02)	3.93 (1.65)	1.12	.12	2.52 (1.65)	2.85 (1.62)	−1.03	.10
C	18	You dropped out of school much earlier than others. / He dropped out of school much earlier than others.	4.94 (1.64)	4.93 (1.58)	0.05	.01	3.56 (2.09)	4.29 (1.72)	−1.99*	.20
C	21	You stole goods from a shop owned by your neighbor. / He stole goods from a shop owned by his neighbor.	6.35 (1.05)	5.90 (1.45)	1.65	.20	6.18 (1.17)	5.95 (1.53)	0.84	.10
C	28	You are not generous with others. / He is not generous with others.	5.10 (1.54)	4.55 (1.69)	1.62	.17	4.52 (1.71)	4.63 (1.85)	−0.33	.03
C	29	You are not very ambitious. / He is not very ambitious.	4.19 (1.65)	4.08 (1.97)	0.31	.03	2.87 (1.74)	3.93 (1.84)	−3.03**	.28
I	30	You eat beef regularly. / He eats beef regularly.	2.17 (1.81)	4.23 (2.26)	−4.70***	.48	1.65 (1.42)	3.39 (2.30)	−4.39***	.50
I	31	You have a child without being married. / He has a child without being married.	3.08 (2.10)	4.78 (2.09)	−3.85***	.38	2.21 (1.66)	4.85 (2.02)	−7.50***	.58
I	32	You address your father by his first name. / He addresses his father by his first name.	2.85 (1.90)	4.53 (2.00)	−4.10***	.40	2.42 (1.92)	4.66 (2.31)	−5.24***	.53
I	33	The person you married is of another religion. / The person	1.54 (1.02)	2.48 (1.85)	−2.88**	.36	1.52 (1.17)	2.12 (1.58)	−2.12*	.25

Type	#	Scenario	Shame				Devaluation			
			US	IN	t	r	US	IN	t	r
		he married is of another religion.								
I	34	You are at a restaurant, eating with your left hand. / He is at a restaurant, eating with his left hand.	1.37 (1.09)	3.53 (2.01)	−6.14***	.63	1.30 (1.05)	2.63 (1.77)	−4.41***	.51
I	35	You are walking with your wife by a site of worship. You feel like kissing her. You do it. / He is walking with his wife by a site of worship. He feels like kissing her. He does it.	1.96 (1.47)	4.48 (1.87)	−7.01***	.64	1.85 (1.36)	3.98 (1.94)	−6.20***	.62
I	36	You married someone without consulting your parents. / He married someone without consulting his parents.	2.33 (1.42)	4.30 (1.77)	−5.92***	.53	1.76 (1.39)	4.27 (1.91)	−7.36***	.67
I	37	You walk into your parents' home without taking your shoes off. / He walks into his parents' home without taking his shoes off.	1.87 (1.24)	3.78 (1.85)	−5.64***	.57	1.80 (1.37)	3.88 (1.89)	−6.17***	.61
U	38	You found out that your son's fiancée had been raped; you told him that he should not marry her. / He found out that his son's fiancée had been raped; he told him that he should not marry her.	5.98 (1.36)	4.80 (1.51)	3.93***	.38	5.82 (1.54)	4.90 (1.83)	2.82**	.26
U	39	You tell your brother: "Your daughter's skin is too dark. She should get a treatment to whiten her skin and look more attractive." / He tells his brother: "Your daughter's skin is too dark. She should get a treatment to whiten her skin and look more attractive."	6.27 (0.93)	3.15 (1.63)	10.84***	.82	6.37 (1.10)	4.20 (1.91)	6.66***	.67
U	40	You decide that, when you die, your son will inherit the majority of your property—your daughter will get a smaller part. / He decides that, when he dies, his son will inherit the majority of his property—his daughter will get a smaller part.	4.67 (1.82)	4.60 (1.75)	0.19	.02	4.51 (1.84)	4.85 (1.82)	−0.96	.09
U	41	You are at a restaurant. As you're sitting at a table you realize that the next table is occupied by a man of a lower class. You leave that table and sit farther away. / He is at a restaurant. As he is sitting at a	5.58 (1.70)	4.40 (1.74)	3.27**	.33	5.89 (1.44)	5.24 (1.77)	2.09*	.20

Type	#	Scenario	Shame				Devaluation			
			US	IN	t	r	US	IN	t	r
		table he realizes that the next table is occupied by a man of a lower class. He leaves that table and sits farther away.								
U	42	Your maid did not clean your house the way you told her to—you yell at her. / His maid did not clean his house the way he told her to—he yells at her.	5.12 (1.73)	3.65 (1.64)	4.11***	.40	4.94 (1.70)	3.71 (1.54)	3.84***	.34
U	43	You and your child were walking down the street. You reached an intersection where the traffic light was out. There was heavy traffic, but you grasped your child's hand firmly and crossed the street anyway. / He and his child were walking down the street. He reached an intersection where the traffic light was out. There was heavy traffic, but he grasped his child's hand firmly and crossed the street anyway.	3.92 (2.31)	3.78 (1.62)	0.36	.04	4.06 (2.21)	3.78 (2.01)	0.66	.06
U	44	You told your son that you do not want him to marry a woman of a lower class. / He told his son that he does not want him to marry a woman of a lower class.	5.27 (1.75)	4.10 (1.75)	3.18**	.32	5.65 (1.52)	4.44 (1.73)	3.85***	.34
U	45	You have been at a government office for a long time, trying to get a permit. You are tired of waiting, so you offer the official a bribe to speed things up. / He has been at a government office for a long time, trying to get a permit. He is tired of waiting, so he offers the official a bribe to speed things up.	5.02 (1.71)	4.38 (1.66)	1.82	.19	4.92 (1.88)	3.90 (1.92)	2.73**	.25

Note. Displayed are means, with standard deviations in parentheses. *N*s: United States: shame: 52, devaluation: 71; India: shame: 40, devaluation: 41. The male versions of the shame and devaluation scenarios are presented before and after the slash, respectively. The female versions of the scenarios read "husband" (scenario #35), "sister" (scenario # 39), and "woman" (scenario # 41), instead of "wife", "brother", and "man". Further, the female versions of the devaluation scenarios featured female pronouns. Otherwise, the male and female scenarios were identical. US: United States; IN: India. C: *Common* scenarios: scenarios hypothesized to elicit similar levels of shame across countries; I: *India* scenarios: scenarios hypothesized to elicit more shame in India than in the United States; U: *United States* scenarios: scenarios hypothesized to elicit

more shame in the United States than in India. Asterisks indicate the significance of the t statistic ($*p < .05$, $**p < .01$, $***p < .001$).

Table S8

Correlations between shame and devaluation within- and between-countries, by scenario type *(Studies S2a & S2b; United States and India)*

(A) *Common scenarios*

	Shame IN	Devaluation US	Devaluation IN
Shame US	.93***	.90**	.92**
Shame IN		.74*	.87**
Devaluation US			.85**

(B) *India scenarios*

	Shame IN	Devaluation US	Devaluation IN
Shame US	.78*	.90**	.89**
Shame IN		.69	.91**
Devaluation US			.86**

(C) *United States scenarios*

	Shame IN	Devaluation US	Devaluation IN
Shame US	−.08	.96***	.40
Shame IN		−.14	.63
Devaluation US			.44

Note. Coefficients are Pearson's rs.*p < .05, **p < .01, ***p < .001. US: United States sample; IN: India sample. N *common* scenarios = N *India* scenarios = N *United States* scenarios = 8.

Table S9

Demographic information (Studies S1a & S1b; United States and India)

Socio-economic status

"What is your socioeconomic status, compared to the average in the country you live in?"

		1 (low)	2	3	4 (medium)	5	6	7 (high)
United States (N = 127)	Percent	3.9	15.7	18.9	37.8	20.5	3.1	0.0
India (N = 68)	Percent	0.0	1.5	7.4	57.4	22.1	11.8	0.0

Urban/rural

"How would you describe the place you live in?"

		rural area or village	small or middle sized town	big town
United States (N = 127)	Percent	18.1	41.7	40.2
India (N = 68)	Percent	11.8	42.6	45.6

Table S10

Demographic information (Studies S2a & S2b; United States and India)

Socio-economic status

"What is your socioeconomic status, compared to the average in the country you live in?"

		1 (low)	2	3	4 (medium)	5	6	7 (high)
United States (N = 123)	Percent	5.7	17.9	22.0	39.0	11.4	4.1	0.0
India (N = 81)	Percent	0.0	1.2	11.1	48.1	27.2	11.1	1.2

Urban/rural

"How would you describe the place you live in?"

		rural area or village	small or middle sized town	big town
United States (N = 123)	Percent	11.4	54.5	34.1
India (N = 81)	Percent	11.1	39.5	49.4