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Jim Logan

For Shame

Shame is a painful emotion, one we do our best to avoid. And yet it is universal among cultures. Why would we evolve something that makes us lie, evade and worse? One prominent theory holds it's a malfunction, an ugly pathology we'd be better off without.

Calling shame "ugly," however, may be a case of blaming the messenger for bad news, according to researchers at UC Santa Barbara's Center for Evolutionary Psychology (CEP). Based on studies in the U.S., India and Israel, they argue that shame — like pain — evolved as a defense. "The function of pain is to prevent us from damaging our own tissue," said Daniel Sznycer, lead author of the paper published this week in the journal Proceedings of the National Academy of Sciences. "The function of shame is to prevent us from damaging our social relationships, or to motivate us to repair them."

"Our ancestors lived in small, cooperative social groups that lived by hunting and gathering," said John Tooby, a professor of anthropology, co-director of CEP and a co-author of the paper. "In this world, your life depended on others valuing you enough to give you and your children food, protection and care. The more you are valued by the individuals with whom you live — as a cooperative partner, potential mate, skilled hunter, formidable ally, trustworthy friend, helpful relative, dangerous enemy — the more weight they will put on your welfare in making decisions. You will be helped more and harmed less."

The flip side of this dynamic is being devalued by others. “When people devalue you, they put less weight on your welfare. They help you less and harm you more,” said Leda Cosmides, a professor of psychology, co-director of CEP and also an author of the paper. “This makes any information that would lead others to devalue you a threat to your welfare.” The authors call this theory, which brings together the views of a number of evolutionary researchers, “the information threat theory of shame.”

“What is key,” Sznycer said, “is that life in our ancestors’ world selected for a neural program — shame — that today makes you care about how much others value you, and motivates you to avoid or conceal things that would trigger negative reevaluations of you by others.”

The authors argue that shame is necessary to successfully navigate the landscape of human social life. As Tooby put it, “the shame system is designed to give others some vote in what behavior you end up choosing. To be effective at this, the shame system must be designed to build an internal map of what acts would trigger your devaluation by others, and signal how intense the negative reaction to each choice would be.” Depending on the aversive magnitude of the anticipated shame, individuals will often be deterred from behaviors that hurt or destroy their relationships with the people around them — or they will be motivated to hide them. The authors consider it a social pricing signal, through which the chooser can feel how steep the price of a course of action might be (like robbing a bank) to balance against the attraction of the direct payoff (having the money).

If shame is a defense against devaluation, then the intensity of shame associated with an act should move up or down in lockstep with the degree to which others in your community would devalue you (if they knew your behavior). “Calibration of a defense to the magnitude of a threat is a basic engineering principle found in many contexts: in medicine, in management, in pest-control and in warfare, for instance. Here we asked if this principle also guides the design and operation of the shame system,” Sznycer noted.

To answer this question, the researchers created two dozen brief fictional scenarios depicting behaviors or traits that were expected, on evolutionary grounds, to lead to devaluation: stinginess, infidelity and physical weakness, among others. They ran these on populations in the U.S, India and Israel. One group of participants was asked to report, for each scenario, how negatively they would view another person if those things were true of that person. A different group of participants was asked

how much shame they would feel if those things were true of themselves. “We observed a surprisingly close match between the negative reactions to people who commit each of these acts — that is, the magnitudes of devaluation — and the intensities of shame felt by individuals imagining that they would commit those acts,” Cosmides said.

“This is just what you would expect of a defensive system engineered to balance the competing demands of effectiveness and economy,” Sznycer pointed out. Moreover, this close match appears to be a feature specifically of shame. “Follow-up studies showed that other emotions that co-activate with shame, such as sadness and anxiety, do not track audience devaluation like shame does. So it appears that it’s shame in particular, and not ‘negative’ emotions in general, that is tasked with dealing with the threat of devaluation,” Cosmides explained.

The studies, involving about 900 participants, revealed that shame closely matches not only the devaluation of local audiences but also the devaluation of audiences from other cultures. The authors noted that the shame system would have evolved to track the values of local audiences, because their valuation is the one that counts in determining whether you prosper socially. However, if many values are universally human rather than culturally specific, then it is no surprise that the devaluative propensities of distant populations also predict local shame intensities in parallel.

“For things such as stinginess, lack of ambition and infidelity, shame tracks the devaluation of local *and* foreign audiences. Indeed, shame tracks culturally foreign audiences about as closely as it tracks local audiences,” stated Roni Porat, a doctoral student at the Interdisciplinary Center Herzliya and the Hebrew University of Jerusalem, and an author of the paper.

“The sheer magnitude of the shame match to foreign audiences is stunning,” Cosmides added. However, we think that shame is tuned specifically to *local* audiences: those whose support you need. When the values of local audiences and foreign audiences happen to be in sync — and for stinginess, infidelity and many other items we found massive cross-cultural agreement in what people devalue in others — shame will track foreign audiences as a mere side-effect of its sensitivity to local audiences and the cross-cultural consistency in what others devalue.” When the values of local and foreign audiences are *un*correlated, however, shame ceases to track foreign audiences, but continues to track local audiences. As Sznycer said,

“We observed precisely what you predict if the function of shame is to guide your choices to factor in the values of those you interact with.”

Other co-authors of the paper include Shaul Shalvi of the University of Amsterdam and Ben Gurion University of the Negev, and Eran Halperin of the Interdisciplinary Center Herzliya in Israel.

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