

Just How Bad Negative Affect Is for Your Health Depends on Culture

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In a recent issue of *Psychological Science*, Pressman, Gallagher, and Lopez (2013) reported that in both industrialized and developing nations around the globe, negative emotions are associated with poor subjective health. This generalization is consistent with a growing body of research in diverse samples highlighting the physiological and psychological perils of negative affect (for reviews, see Consedine & Moskowitz, 2007; Kubzansky & Kawachi, 2000; Mayne, 1999). One inference from these findings is that, universally, negative emotions are equally bad for people's health.

This strong inference, however, is at odds with two decades of ethnographic and experimental research on culture and emotion revealing considerable global variation in how people interpret and respond to negative feelings (e.g., Boiger, Mesquita, Uchida, & Barrett, 2013; Diener & Suh, 2000; Matsumoto, 1993; Mesquita & Leu, 2007). Such culture-specific understandings of the nature and source of emotion can have powerful implications for mental and physical well-being. Indeed, multiple studies have shown considerable divergence across cultures in the degree to which negative affect influences physiological and psychological functioning (e.g., Consedine, Magai, Cohen, & Gillespie, 2002; Diener & Suh, 2000; Mauss & Butler, 2010; Miyamoto et al., 2013; Soto, Perez, Kim, Lee, & Minnick, 2011).

The theoretical case for expecting cultural variation in the health consequences of negative emotions is particularly strong for the comparison between European American and East Asian cultural contexts. The concept of negative feelings in the United States is grounded in

Western philosophical assumptions as well as in a set of historically derived and selected ideas and practices, such as the Protestant ethic and the American dream. In the United States, negative feelings are construed as internal entities that are the individual's responsibility (Chentsova-Dutton & Tsai, 2010; Kitayama, Mesquita, & Karasawa, 2006; Uchida, Townsend, Markus, & Bergsieker, 2009). It is believed that people should assume responsibility for their negative affective experiences, so when they feel bad, they may also fear or experience social sanctions (Bastian et al., 2012). As a result, negative feelings can signal a moral failing and are construed as harmful (e.g., Wierzbicka, 1994).

In sharp contrast, in East Asian contexts, the concept of negative feelings is rooted in Buddhist, Taoist, and Confucian traditions. Negative feelings in these contexts are construed as situationally afforded and grounded in specific relationships (Chentsova-Dutton & Tsai, 2010; Kitayama et al., 2006; Uchida et al., 2009). Consequently, individuals do not bear the weight of negative affective experiences alone; rather, experiencing negative affect may even foster social ties. In this context, negative emotions are seen as arising from external sources and thus as inevitable and transient elements of a natural cycle (e.g., Peng & Nisbett, 1999). We would predict, then, that among people who experience frequent negative affect,

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Americans are more likely than Japanese to suffer adverse health consequences.

At this point, the limited amount of empirical evidence is mixed; some evidence supports cross-cultural continuity (e.g., Pressman et al., 2013), whereas other evidence is consistent with cross-cultural variation in the association between negative affect and health (e.g., Miyamoto et al., 2013; Miyamoto & Ryff, 2011). One reason for these conflicting findings may be the lack of consensus in how emotion and health are measured. Some studies have measured state affect (i.e., how people feel in a given moment or on a given day), and others have measured trait affect (i.e., how people typically feel). Additionally, the measures of health outcomes used in these studies varied widely in terms of relative subjectivity/objectivity as well as in their clinical relevance. Finally, conclusions based on significance testing increase the possibility of inferring cross-cultural similarity when examining large samples. Thus, we focus here on comparing effect sizes.

Addressing this issue, we compared the magnitude of the effect of negative affect on health in the United States and Japan using a stable index of negative affectivity and six clinically relevant, well-known self-report health metrics. The United States/Japan comparison is a relatively ideal one because both nations are modernized, democratized, industrialized societies with well-developed systems of health care. Yet these two societies are markedly different in their historically derived ideas about negative affect and in the everyday social practices that lend form and organization to affective experience (Markus & Kitayama, 1994; Mesquita & Leu, 2007).

To examine this possibility, we compared survey data from two large samples of Japanese ($n = 988$) and American adults ($n = 1,741$) participating in the Midlife in the United States (MIDUS) and Survey of Midlife Development in Japan (MIDJA) survey studies. To measure negative affect, participants reported how often (1 = *none of the time*, 5 = *all of the time*) they had experienced negative emotions (i.e., how often they had felt nervous, hopeless, lonely, afraid, jittery, irritable, ashamed, upset, angry, and frustrated) over the previous 30 days. We indexed physical health using two relatively objective measures—number of chronic conditions and degree of functional limitations—and we administered a single-item measure of subjective global health. We indexed mental health using two multi-item measures of psychological well-being and self-esteem, and we administered a single-item measure of life satisfaction. We included positive affect¹ and demographic variables as covariates in our analyses (for details, see Methodological Details in the Supplemental Material available online). Japanese participants reported higher mean levels of and variance in negative affect ($M = 1.80$, $SD = 0.62$) than did Americans ($M = 1.57$, $SD = 0.53$), $t(1806.31) = 9.52$, $p < .001$, Levene's $F(1, 2727) = 65.53$, $p < .001$.

Overall, we found that for each measure, negative affect significantly predicted poor health in both the United States and Japan. However, a comparison of the magnitude of the effect revealed that negative affect was indeed worse for one's health in the United States than in Japan (see Fig. 1). Differences in negative affect–health associations (calculated as critical ratios of the differences) indicated that in the United States, compared with Japan, negative affect more strongly predicted more chronic conditions, $z = 6.47$; worse physical function, $z = 2.45$; worse psychological well-being, $z = 6.59$; and lower self-esteem, $z = 5.65$. Across cultures, negative affect similarly predicted poor global health, $z = 0.62$, and lower life satisfaction, $z = -0.62$. Multigroup structural equation modeling confirmed these findings even when we controlled for cultural differences in variances (see Additional Analyses in the Supplemental Material).

Our findings are consistent with the generalization made by Pressman et al. (2013) that negative emotions matter for health around the globe. However, the magnitudes of the effects vary considerably between cultures, particularly for objective and multi-item assessments. The link between negative affect and health may be stronger in U.S. contexts because negative affect is commonly conceptualized as harmful and as the individual's responsibility, in contrast to East Asian contexts, in which negative affect is construed as natural and rooted in relationships. Further research is needed to explicitly test cultural construals of negative affect as an explanatory mechanism. Unfortunately, at this point, no large-scale representative surveys have assessed this type of information.

We found no cultural variation for single-item ratings of life satisfaction and global health, possibly because they are more holistic indices of well-being that reflect more than individuals' physical and mental health status. For instance, people may base global-health ratings not only on existing health problems but also on their health behaviors (Krause & Jay, 1994), and people may judge life satisfaction according to how well close others are doing in addition to themselves (e.g., Diener & Suh, 2000). Further, the fact that we found no variation in the single-item global measures suggests that negative feelings are not more predictive of negative self-assessments overall in the United States than in Japan.

This study had the advantage of assessing six physical and mental health outcomes. While all measures were self-reports, two were relatively objective reports of diagnosed or observable chronic health conditions (e.g., diabetes) and functional limitations (e.g., ability to carry groceries). Further, self-reports of physical and mental health have been reliably established as useful predictors of long-term health and mortality outcomes (e.g., Lee, 2000). Consistent with our findings, results from prior research have shown that negative emotions also predict physiological outcomes

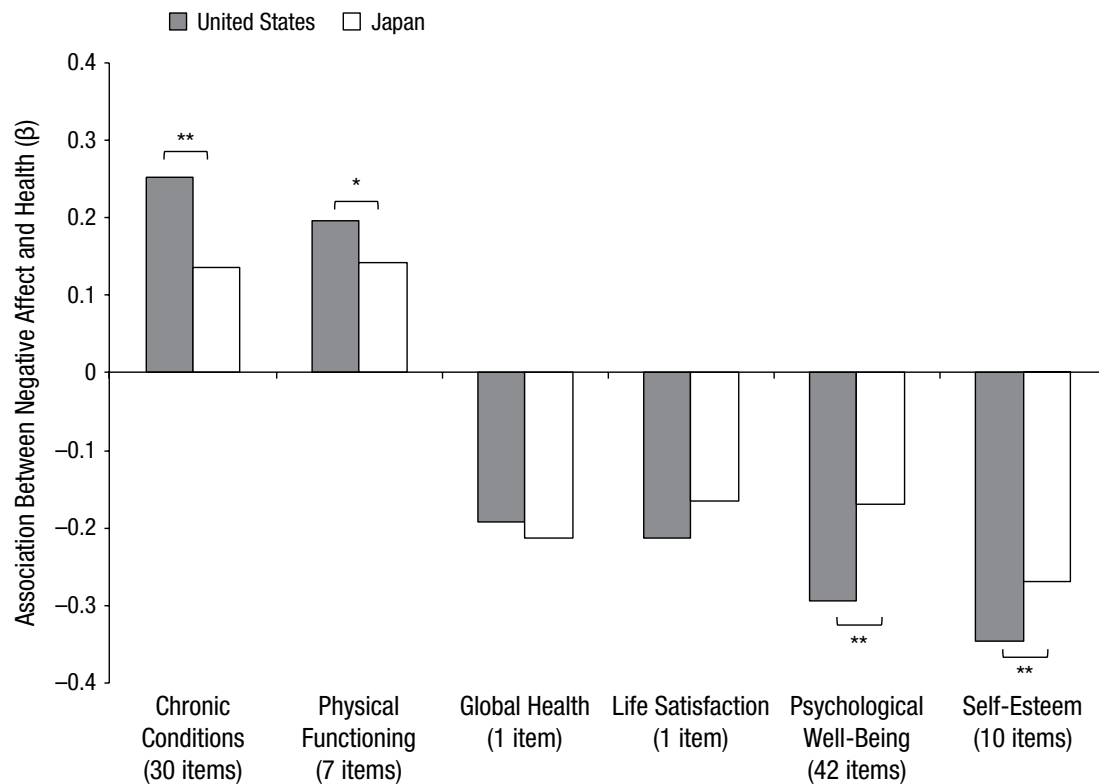


Fig. 1. Degree of association between negative affect and health as a function of measure for participants from the United States and Japan. Asterisks indicate significant differences between groups (* $p < .01$; ** $p < .001$).

(i.e., elevated proinflammatory markers) in the United States but not in Japan (Miyamoto et al., 2013). Moreover, studies in which negative affect has been induced in participants in the laboratory have revealed that East Asians show less intense reactivity than European Americans across self-reported experience, expressive behavior, and physiological function (e.g., Mauss & Butler, 2010). Nevertheless, it is possible that these effects are bidirectional, such that poorer health may lead people to feel worse in cultures that have come to expect good health.

Our study was also limited in that we were unable to compare our findings with those from so-called less-developed societies. Future studies may also reveal, as Pressman et al. (2013) originally speculated, that the link between negative emotions and compromised health may be of particular salience in first-world countries. We suggest this is because emotions tend to be construed as relatively internal, individualized entities in these contexts (e.g., Uchida et al., 2009). Further, the use of more specific, multi-item measures of physical and mental health as opposed to single-item measures may be more likely to reveal this difference.

Findings that reveal the significance of how negative affect is construed have important implications for health care among diverse populations. Interventions—chemical

or behavioral—aimed at reducing or relieving negative affect, although essential in some contexts, may not be universally desired or helpful. The words of a Japanese psychiatrist underscore the cultural distinction observed here: “Melancholia, sensitivity, fragility—these are not negative things in a Japanese context. It never occurred to us that we should try to remove them, because it never occurred to us that they were bad” (Tooru Takahashi, as quoted in Schulz, 2004, p. 39).

Author Contributions

K. B. Curhan and H. R. Markus developed the study concept. All authors contributed to the study design. Testing and data collection were performed by H. R. Markus, S. Kitayama, M. Karasawa, N. Kawakami, G. D. Love, C. L. Coe, Y. Miyamoto, and C. D. Ryff. K. B. Curhan and T. Sims performed the data analysis and interpretation under the supervision of all coauthors. K. B. Curhan, T. Sims, and H. R. Markus drafted the manuscript, and the remaining authors provided critical revisions. All authors approved the final version of the manuscript for submission.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Supplemental Material

Additional supporting information can be found at <http://pss.sagepub.com/content/by/supplemental-data>

Notes

1. We had similar theoretical predictions for positive affect but did not examine this construct as a primary predictor because our measure of positive affect oversampled high-arousal positive emotions, which may be less indicative of well-being in Japan (see Methodological Details in the Supplemental Material).

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