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Culture and emotion regulation

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While anthropological research has long emphasized cultural differences in whether emotions are viewed as beneficial versus harmful, psychological science has only recently begun to systematically examine those differences and their implications for emotion regulation and well-being. Underscoring the pervasive role of culture in people's emotions, we summarize research that has examined links between culture, emotion regulation, and well-being. Specifically, we focus on two questions. First, how does culture lead individuals to regulate their emotions? And second, how does culture modulate the link between emotion regulation and well-being? We finish by suggesting directions for future research to advance the study of culture and emotion regulation.

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Introduction

Anthropological research has long emphasized cultural differences in how emotions are viewed, often focusing on the fundamental distinction of seeing emotions as beneficial versus harmful [1–3]. Psychological science has only more recently begun to systematically examine those differences and their implications for emotion regulation (i.e., how individuals modify their own emotional experiences and expressions [4]). In our review, we integrate these two approaches, suggesting that how cultures view emotions critically shapes whether individuals engage in emotion regulation and whether that emotion regulation is adaptive [5•].

How does culture influence individuals?

Culture — patterns of historically derived and selected ideas and their embodiment in institutions, practices, and artifacts [6] — pervasively influences how individuals think, feel, and behave. One framework often employed to characterize this influence focuses on the extent to

which a culture promotes *interdependence* (where individuals define themselves more based on relationships and prioritize harmony with others) versus *independence* (where individuals define themselves more based on unique attributes and prioritize distinguishing themselves from others) [7]. While these value dimensions represent just one example of the many values that vary among cultural groups, we focus on them in the present review because they are fundamental to how individuals conceive of themselves and their emotions and thus, have clear links to emotion regulation. We focus on East Asian heritage (e.g., Japan or China; Asian Americans) as an example of a relatively interdependent context, and European heritage (e.g., northern or western Europe; European-Americans) as an example of a relatively independent context. We focus on these groups because interdependence and independence have been particularly clearly instantiated within them and because these groups have dominated the literature on culture and emotion regulation. We build our review on the hypothesis that the extent to which a cultural group promotes independence versus interdependence entails a particular understanding of the harmfulness of emotions and, in turn, whether they should be regulated.

Culture shapes whether individuals are motivated to regulate their emotions

Most fundamentally, culture should influence whether people are motivated to regulate their emotions. Theoretically, because emotions are powerful internal experiences that can both assert someone's individuality and potentially disrupt social harmony [8] (e.g., anger can be used to assert one's opinion, but it may also make others uncomfortable), members of interdependent cultures should be motivated to regulate their emotions more readily than members of independent cultures [9]. Supporting this basic idea, Asian Americans reported using emotion regulation more frequently [10] and reported a stronger preference for emotion regulation (e.g., '*people in general should control their emotions more*') compared to European Americans [11]. Suggesting that these preferences may translate to actual emotion regulation, Asian Americans experienced and facially expressed less anger than European Americans in a standardized laboratory anger provocation, and this effect of cultural group was mediated by Asian-Americans' stronger preferences for emotion regulation [11]. Thus, initial evidence suggests that culture shapes the extent to which individuals are motivated to initiate emotion regulation, and perhaps whether emotion regulation is likely to take place.

While some research has assessed cultural differences in the motivation to regulate emotion in general, much of

the research on cultural differences in emotion regulation — by a wide margin — has focused on cultural differences in using the emotion regulation strategy of *expressive suppression*. This strategy involves inhibiting the outward expression of an ongoing emotion and is often assessed with items like ‘*I control my emotions by not expressing them*’. Numerous studies have demonstrated that individuals from Asian backgrounds (e.g., Hong Kong Chinese, Japanese, and Asian Americans) are more likely to report using suppression than individuals from European backgrounds [12–15,16*]. When using countries as the unit of analysis, samples from countries higher (versus lower) on interdependence (Hong Kong versus Canada) also reported higher levels of suppression [14*].

Importantly, it is not simply membership in a cultural group that should shape whether someone is motivated to regulate their emotions. Rather, it is the extent to which an individual is oriented toward a particular culture’s values that should predict their emotion regulation. Consequently, even within a cultural group, engagement in and sensitivity to one’s cultural context — and the values embedded in it — should be associated with emotion regulation. Supporting this idea, the extent to which Asian American or European American participants endorsed Asian versus European American cultural values predicted their use of suppression more strongly than their cultural group membership [9]. Similarly, Koreans who were more (versus less) genetically sensitive to their social environments (GG carriers of the oxytocin receptor polymorphism) were more likely to use suppression, whereas Americans who were genetically more (versus less) sensitive to their social environments were less likely to use suppression [17*]. Overall, it appears that individuals oriented toward interdependent cultural values — and not necessarily individuals of a particular racial or genetic background — are more motivated to regulate their emotions using suppression, whereas the reverse is true for individuals oriented toward independent cultural values.

Culture shapes whether emotion regulation is adaptive

The above review suggests that culture shapes whether individuals are motivated to regulate their emotions. Once underway, culture may also shape the adaptiveness of that emotion regulation (i.e., whether emotion regulation is good or bad for a person’s well-being) [18]. Because culture reinforces behaviors that promote culturally supported values [5**], behaviors that are consistent with a culture’s values may become more practiced (and thus easier to implement) and more socially rewarded, both of which may lead to greater well-being. Thus, emotion regulation may be adaptive when it is consistent with its cultural context, and maladaptive when it is inconsistent. Supporting the notion that culturally consistent emotion regulation is more positively valued, Chinese

individuals (but not European Americans) associate suppression with interpersonal harmony [19]. On the other hand, European Americans (but not Chinese individuals) associate suppression with experiential avoidance [20].

This analysis casts doubt on the all-but-axiomatic view that suppressing one’s emotions is maladaptive. Suppression has been associated with worse psychological health [12,21,22], physical health [23], and social functioning [16,24]. However, this research either focused on American samples or did not take into consideration participants’ culture. Our culturally grounded analysis suggests that in interdependent contexts, suppression is not necessarily maladaptive, and may even be adaptive.

Recent research provides some support for this idea. Several studies have shown that while suppression is linked with worse well-being for individuals from independent cultural backgrounds, this negative effect is significantly weaker for individuals from interdependent cultural backgrounds [9,25,26]. For example, in an experiment where participants were instructed to suppress their emotions while discussing an upsetting film with a stranger, suppressors who were relatively higher in Asian cultural values (versus European values) were viewed as less hostile by their interaction partners and were subsequently treated with less hostility from that partner [9].

In even stronger support of the notion that suppression is less harmful in interdependent cultural contexts, research has shown that suppression is linked to worse functioning for individuals from independent cultural backgrounds but is unrelated to psychological and social functioning for individuals from interdependent backgrounds [15,27,28]. For example, when instructed to *suppress* their emotions in response to negative images, European Americans exhibited a pronounced parietal late positive potential event-related potential signal — an index of heightened emotional processing — but an Asian sample exhibited a significant reduction in this signal and the signal was completely attenuated within a matter of seconds [29].

Some evidence suggests that suppression can even be beneficial for interdependent individuals. During a negative emotion induction, a stronger preference to regulate emotions led to a more adaptive pattern of physiological responding in Asian-American cultural contexts, while a stronger preference to regulate emotions led to a maladaptive pattern of physiological responding in European-American cultural contexts [30*]. Moreover, individuals who identified as highly interdependent had higher well-being and relationship satisfaction when they suppressed negative emotions during a sacrifice for their romantic partner, while those who were lower on interdependence reported lower

well-being and relationship satisfaction when they suppressed negative emotions [31^{*}]. Furthermore, Chinese-American children who used suppression in response to peer-induced stressors had better mood, but only when they were more oriented toward Chinese (versus American) culture [32].

Of note, some studies found that suppression is equally harmful for individuals from both interdependent and independent cultures [16,33]. Overall, then, empirical research largely supports the hypothesis that suppression has fewer well-being costs for individuals from interdependent (versus independent) cultures. However, the precise nature of this effect varies across studies, with some studies showing less or no costs in interdependent contexts, some showing benefits of suppression in interdependent contexts, and some showing no moderating effect of culture on the well-being effects of suppression.

It is unclear exactly what factors account for this pattern because relatively few studies exist to draw inferences from. However, most published studies demonstrating an adaptive (or less maladaptive) side of suppression either employed an Asian sample or assessed cultural values directly. Conversely, published studies demonstrating no moderation by culture compared Asian Americans with European Americans. This pattern highlights the nuanced nature of the links between culture, emotion regulation, and well-being and underscores the importance of recruiting participants from different countries to capture subtle effects, or — perhaps more importantly — directly measuring cultural orientation and values. When culture is operationalized with precision, there is a robust pattern such that suppression carries fewer costs for more interdependent compared to independent individuals.

Conclusions and directions for future research

The present review summarized recent research suggesting that culture shapes (1) whether individuals are motivated to regulate their emotions and (2) the adaptiveness of emotion regulation. We believe several directions for future research are especially promising.

First, given robust cultural differences in preferences for specific emotions, it is striking that very little research on cultural differences in emotion regulation has considered the emotion being targeted. For example, independent (versus interdependent) cultures more strongly value positive emotions (especially high-arousal positive emotions like *excitement* [34]) [35–37] and more highly devalue negative emotions [37,38,39^{*}]. Critically, valuing an emotion should lead to attempts to increase that emotion through emotion regulation and devaluing an emotion should lead to attempts to decrease that emotion [40]. Thus, the general conclusion that interdependent individuals value emotion regulation more

than independent individuals may need to be qualified depending on the emotion being targeted.

Second, cross-cultural research has largely focused on an emotion-regulation strategy that targets emotional behavior (i.e., suppression). This focus may be due to emotional behavior directly and visibly promoting versus conflicting with cultural values. But what about other emotion-regulation strategies? A few studies have examined reappraisal (cognitively re-evaluating an emotional situation to change its emotional impact). Unlike suppression, the frequency of using reappraisal largely does not differ across cultures [12,14^{*},15,16^{*},17^{*},26]. This could be because reappraisal targets the less visible internal experience of emotion, and thus reappraisal may be equally important across cultures as individuals discreetly up-regulate or down-regulate any culturally valued emotion. At the same time, some evidence suggests that individuals from interdependent cultures may benefit more from using reappraisal [26], perhaps because adjusting one's emotions to the social environment is more important in this cultural context. The research on reappraisal suggests that different emotion-regulation strategies likely operate quite differently in different cultures. More research is required to understand these differences in a wider range of emotion-regulation strategies (e.g., social support [41], attentional focus [42], automatic emotion regulation [43]).

Third, much of the available research has focused on two dimensions of cultural values (independence and interdependence) and their instantiation in two cultural groups (Asians and Asian-Americans compared to European Americans). Although there is a strong foundation for this focus, it will be important to expand this research to other cultural value systems (e.g., hierarchy [14^{*}], tradition [44]) and forms of culture [45] (e.g., socioeconomic status [46], region [47]).

Finally, it will be useful to move beyond documenting that cultural differences exist, and focus on locating mechanisms behind these cultural differences. How does culture transmit values that shape emotion regulation and its outcomes? What are these values? Similarly, what are the origins of these cultural differences? One recent study suggests, for example, that China's regional differences in agriculture (the requirements of rice versus wheat farming, specifically) have promoted different cultural values (interdependence versus independence, respectively), within different regions of the country [48]. Answering these questions becomes increasingly important as rising rates of globalization and multiculturalism shape emotion regulation and its outcomes across the world.

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