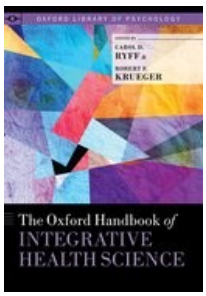

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CHAPTER

27 Culture, Emotion, and Health

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Abstract

Emotion plays central roles in health via numerous pathways; how these linkages vary by cultural contexts is beginning to be understood. Studies have demonstrated that culturally shared ideas, values, practices, and norms influence health implications of emotions. This chapter summarizes differences in beliefs, values, and norms about emotion between Western and East Asian cultures. Self-construal theory and dialecticism provide theoretical frameworks for the investigations that follow. Studies are reviewed demonstrating cultural differences in the associations between emotions and health, highlighting the idea of cultural fit along the way. The health outcomes include mental health, self-rated physical health and physical symptoms, and physiological systems. Considered are possible psychosocial and behavioral processes through which culturally appropriate emotions affect health. Future directions are suggested. The overarching message is that culture needs to be considered in building a full understanding of how emotion and health are linked.

Keywords: culture, emotion, health, self-construal theory, dialecticism, mental health, physical health, inflammation, neuroendocrine function, metabolism

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Introduction

Extensive research has documented associations between emotional states and health at multiple levels, including physiological responses (e.g., hormone secretion, cardiovascular reactivity); health practices (e.g., smoking, diet); and global assessments (e.g., self-rated health, chronic conditions). Despite the growing body of research on the link between emotions and health, a critical limitation is that most prior work has been conducted without consideration of cultural context and instead has drawn on samples largely from Western cultures (i.e., northwestern Europe countries and Anglosphere countries). This means that the importance of culture in the association between health and emotion has been largely ignored.

However, decades of research now document that emotional experiences are cultural products. Because the patterns by which emotions function in a social world are constructed, shared, and maintained over generations due to culture-specific ecological and historical factors, there is considerable variance in emotional experiences across cultures (Barkow, Cosmides, & Tooby, 1995; Shweder, 1984). Such cultural differences raise important questions about whether previous findings on links between emotions and health evident in Western cultural contexts are relevant in other cultural contexts.

In recent years, a growing number of studies have examined this question by comparing the associations between emotional patterns and health in different cultural samples. Most of these studies have been guided by the accumulated evidence on the differences of emotion between East Asian and Western cultures, though emergent findings also show cultural differences within Eastern (e.g., northern vs. southern China; Talhelm et al., 2014) or Western cultures (e.g., United States vs. Western Europe; Koopmann-Holm & Tsai, 2014) and other regions of the world (e.g., Latin America; Holloway, Waldrip, & Ickes, 2009). In this chapter,
p. 368 we first ↳ introduce theoretical frameworks on cultural dimensions relevant to the meaning of emotional experience and provide an overview of related empirical studies on the cultural differences in emotion in East Asian and Western cultures. We review the recent emergence of work on culture, emotion, and health by including our formulation of the idea of cultural fit: the extent to which emotional patterns align with culturally endorsed values, ideas, and beliefs. Finally, we discuss potential psychosocial and behavioral pathways underlying the cultural moderation of the emotion–health linkages.

Self-Construal, Dialecticism, and Cultural Differences in Emotion

Cultural psychologists have theorized that there are core dimensions underlying cultural variations in psychological processes between Western and East Asian cultures. What distinctively differentiates Western and East Asian cultures is understanding of the relationship between self and others (Markus & Kitayama, 1991; Triandis, 1989). In Western cultures, a person is considered to be an *independent* self whose existence is construed as a unique and disjoint entity from others. The independent self-view is fostered by individualistic values, such as cultural emphasis on personal goals, inner attributes, and autonomy. In such cultural contexts, it is imperative for individuals to achieve individualistic cultural values through engaging in cultural tasks, such as expressing one's thoughts and feelings, making an influence on others, and promoting one's uniqueness and positivity. On the other hand, in East Asia, a person is viewed as an *interdependent* self whose existence is inseparable from relationships with others. In this context, the cultural imperative is to maintain social harmony and fulfill one's role. Thus, individuals are encouraged to engage in tasks such as adjusting oneself to social expectations. Such cultural values as well as the representations of self strongly affect how individuals interact with their social world, which shapes emotion in facilitating or undermining those interactions.

Another dimension particularly pertinent to the cultural differences in emotion between Western and East Asian cultures is dialecticism (Peng & Nisbett, 1999). Western intellectual traditions going back to Aristotle

have typically considered contradiction between opposing proponents as a problem that needs to be resolved by deciding to choose one over the other or by synthesizing them at a higher level. Such an emphasis on noncontradiction is reflected in strong tendencies in the West to avoid ambivalence and inconsistency (e.g., Erikson, 1968; Jourard, 1963). In contrast, East Asian philosophical roots, including Taoism, Buddhism, and Confucian, hold a dialectic view in which the world is by nature dynamic and consists of constant flux between contradictory things. With this dialecticism, both negativity and positivity coexist in reality in an ever-changing manner.

Building on these frameworks, studies have shown contrasts in how the valence of emotions is perceived and experienced across cultures. Given the emphasis on noncontradiction, Westerners are likely to perceive negative emotion and positive emotion as incompatible, while East Asians may be less likely to do so. Consistent with the cultural views, strong inverse correlations between negative and positive emotions are found among Americans, but such inverse correlations tend to be weaker among Asians (Bagozzi, Wong, & Yi, 1999; Schimmack, Oishi, & Diener, 2002). Because the dialectical belief is of a world of constantly changing oppositions, current positive emotions implicate relatively negative emotions to follow in the future, and current negative emotions implicate that they will change to relatively positive emotions in the future (Ji, Nisbett, & Su, 2001; Spencer-Rodgers, Peng, & Wang, 2010). Thus, neither positive nor negative emotions are construed as inherently good or bad, and it is not desirable to maximize positive emotions and minimize negative emotions in East Asian cultures. In contrast, Western cultures value positive emotions and disfavor negative emotions to a greater extent compared to East Asians cultures. This difference in cultural values placed on positive and negative emotions predict the differences in experiences of mixed emotions (Sims et al., 2015): In predominantly positive situations, Japanese tend to foresee both negative and positive consequences and report feeling more mixed emotions than Americans (Miyamoto, Uchida, & Ellsworth, 2010).

The independent versus interdependent self-views also assign different cultural meanings to negative and positive emotions. With the independent self-view, positive emotions signal successful agency of self-defined internal attributes (Markus & Kitayama, 1991). Therefore, Western cultures prescribe feeling positive (about self) to be a primary goal that guides thoughts and behaviors (Heine & Lehman, 1999). For instance, regarding achievement behaviors, Americans tend to choose tasks that they have succeeded at, which likely promotes positive self-regard (Heine et al., 2001). On the other hand, in East Asian cultures,
p. 369 positive emotions may ↳ jeopardize social relationships that are central to the interdependent self. Japanese thus worry that positive emotion may create jealousy of others who are in less positive moods (Uchida & Kitayama, 2009). The relative focus on the self versus other's feelings affects how people react to their own as well as others' emotions. Japanese adults reported that they felt responsible for others' negative feelings in self-success, which may lead to downregulation of positive feelings. In contrast, European Americans reported that others are responsible for their own negative feelings in self-failure, which can help upregulate positive feelings (Imada & Ellsworth, 2011; Miyamoto et al., 2010). When experiencing personal positive emotions, Americans want to savor and capitalize on them more than East Asians (Choi, Shin, & Oishi, 2016; Miyamoto & Ma, 2011).

Cultural influences are not limited to the valence dimension of emotions. Specific types of emotion differ in their social functions, in that some are particularly effective for promoting sociality of the independent self, while others are advantageous for sociality of the interdependent self. Tsai, Knutson, and Fung (2006) showed that European Americans valued high-arousal positive emotions (e.g., excitement and enthusiasm) more and low-arousal positive emotions (e.g. peacefulness, calm) less than did Chinese adults. The difference was explained by culturally prominent social goals: While high-arousal positive emotions facilitate influencing others according to one's needs, interpersonal goals emphasized in Western cultures, low-arousal positive emotions are advantageous for adjusting to social circumstances, interpersonal goals encouraged in East Asian cultures (Tsai, Miao, Seppala, Fung, & Yeung, 2007). The ideal emotions in each

culture are thus reflected in prevalent social practices. For instance, Taiwanese storybooks for children contain emotion expressions and activities representing calm more often than excitement, while American storybooks often contain content representing more excitement (Tsai, Louie, Chen, & Uchida, 2007). Also, Americans prefer to experience high-arousal positive emotions more than low-arousal positive emotions from their leisure activities, whereas East Asians show a reversed preference (Tsai, Knutson, & Rothman, 2007, cited in Tsai, 2007; Yoshioka, Nilson, & Simpson, 2002).

In addition, cultural differences can be found in norms and practices regarding emotion expressions and suppression. In the Western cultural model, subjective feelings are highly valued as unique individual states. Thus, expressing one's emotions is an act of being autonomous and independent (Markus & Kitayama, 1991; Wierzbicka, 1999). It helps individuals to communicate their personal needs and influence social surroundings accordingly. In East Asian cultures, revealing inner feelings is less relevant for realizing an interdependent self (Kim & Sherman, 2007; Kitayama & Park, 2007). Rather, it risks social disruption, given that displays of personal emotions may disturb others or trigger social conflict (Oyserman, Coon, & Kemmelmeier, 2002).

In fact, studies have shown that different social norms govern expression of emotion across the cultures. In general, Western cultures favor greater emotional expressivity than East Asian cultures (Klineberg, 1938; Matsumoto et al., 2008; Mauss & Butler, 2010; Rychlowska et al., 2015). The consistency between felt emotion and expressed emotion is highly encouraged, and people who showed the inconsistency can be criticized as being inauthentic (Suh, 2002). In contrast, East Asians value controlling emotional expression and engage in suppressing emotion more frequently and effectively than Westerners (Mauss & Butler, 2010; Su, Lee, & Oishi, 2013). While emotion suppression tends to backfire and intensifies emotions among Westerners, East Asians tend to be successful at dampening emotions via suppression (Butler, Lee, & Gross, 2007).

In sum, studies have documented cultural differences in emotion. Particularly, East Asian and Western cultures systematically differ in how they view the self, others, and the world, and these differences have consequences for emotion. Compared to East Asian cultures, Western cultures instill motivation to feel positive emotions and to avoid negative emotions, value high-arousal positive emotions more and low-arousal negative emotions less, and encourage emotion expression and discourage emotion suppression. In contrast, East Asian cultures appreciate the balance between positive emotions and negative emotions, value low-arousal emotions more and high-arousal emotions less, and emphasize emotion regulation than emotion expressivity.

Cultural Fit of Emotion and Its Implication for Health

Earlier work on emotion and health conducted in Western cultures has shown that the valence, arousal
p. 370 level, and expression of emotions predict health outcomes (DeSteno, Gross, & Kubzansky, ↳ 2013; Dienstbier, 1989; Gross & Levenson, 1993; Richman et al., 2005; Roberts, Levenson, & Gross, 2008; Salovey, Rothman, Detweiler, & Steward, 2000; Tugade, Fredrickson, & Feldman Barrett, 2004). Given that cultural variations have been observed in these aspects of emotion, such previous Western findings on the emotion and health linkage may not be applicable in East Asian cultures. In fact, the studies that examined health implications of psychological processes across different sociocultural contexts have pointed to the importance of the match between individual psychological processes and cultural norms in guiding optimal functioning (Fulmer et al., 2010; Miyamoto, Yoo, & Wilken, 2018; Oyserman, Brickman, Bybee, & Celious, 2006; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012).

The general idea of cultural fit begins with the notion that culture prescribes the means to achieve and be in line with cultural values and norms (i.e., cultural tasks; Kitayama & Uskul, 2011). For example, expressing

one's thoughts and feelings is a cultural task prescribed in Western cultures that helps one achieve independent cultural values, whereas adjusting oneself to social demands is a cultural task prescribed in Eastern cultures that helps one achieve interdependent cultural values. Successful engagement in and performance of cultural tasks help individuals to be in line with cultural values, thereby contributing to an internal sense of being "right," "proper," and "desirable." These alignments are viewed to facilitate social reputations (Kitayama & Park, 2007; Shweder, 1984); social support (e.g., De Leersnyder, Mesquita, Kim, Eom, & Choi, 2014); and material assets, which constitute key psychological, social, and material resources (Hobfoll, 2002; Marmot, 2005; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). Such resources are fundamental to adaptive functioning, including health and physiology (DeLongis, Folkman, & Lazarus, 1988; Hobfoll, 2002; Kiecolt-Glaser, Gouin, & Hantsoo, 2010; Taylor & Stanton, 2007). At the same time, some individuals may be less willing or able to fully engage in cultural tasks. These individuals may find it difficult to feel a sense of social belonging and to perceive themselves living up to culturally endorsed conceptions of goodness and virtue (Steele & Spencer, 1992), which can hinder social relationships and achievement in life (G. L. Cohen & Garcia, 2008). Importantly, these processes of cultural fit, including cultural values and norms, are not necessarily conscious processes internalized by each individual. These are part of culturally shared meaning systems, which are embodied in cultural practices and environments (Markus & Hamedani, 2010). Thus, individuals who engage in cultural tasks may gain access to resources through cultural environments, even if they may not necessarily be aware of the fact that they are in alignment with cultural norms.

The adaptive advantage of engaging effectively in cultural tasks offers an account for how culture influences the association between *emotion* and health. That is, emotional patterns that help individuals engage in cultural tasks in ways that are aligned with their own cultural norms (i.e., *the cultural fit idea*) should lead to more psychological, social, and material resources, which in turn can lead to better health. For example, modulating positive emotions can be considered a cultural strategy of fitting in East Asian cultural contexts because it promotes engagement in cultural tasks, such as adjusting to one's social surroundings and having a balanced perspective on positivity, which promote interdependent and dialectical cultural norms. Thus, in East Asian cultures, individuals who tend to moderate positive emotions may be more likely to gain more resources, which in turn can contribute to better health over time. In contrast, amplifying positive emotions may be culturally fitting in Western cultural contexts because it tends to facilitate a successful presentation of an independent self. Positive emotions have been linked to more psychological and material resources, such as social support, positive social relationships, and successful work life in Western cultures (Lyubomirsky, King, & Diener, 2005), which may lead to better health. Although the studies have only recently begun to examine potential cultural influences on the association between emotion and health, emerging evidence is consistent with the idea of the cultural fit of emotion. Next, we review these recent studies by focusing on the valence, the arousal levels, and the expression of emotions.

First, the literature in Western cultures has generally converged to suggest that positive emotions are associated with good health, while negative emotions are associated with poor health. However, given that it is especially characteristic of Western cultures that positive emotions are highly desirable and foremost emotional goals while negative emotions are devalued and to be avoided (Sims et al., 2015), these associations may differ in other cultural contexts, such as East Asian cultures, where the values placed on the valence of emotions are notably distinct.

p. 371 One way to test this idea is to examine whether the association between negative emotions and health may differ in East Asian cultures compared to Western cultures. Curhan et al. (2014) sought to answer the question using a national representative study of US adults (Midlife in the United States [MIDUS]) and its parallel study of Japanese adults residing in Tokyo (Midlife in Japan [MIDJA]). Their analysis found significant interactions between culture and negative emotions on various health measures, indicating that the link between negative emotions and health was affected by culture (i.e., American vs. Japanese).

Specifically, the strength of the associations between negative emotions and chronic conditions and physical functioning were significantly greater among American than Japanese individuals.

The association between negative affect and health across the cultures was also examined with a biological measure. Using the subset of MIDUS and MIDJA whose biological data were collected, Miyamoto et al. (2013) tested the association between negative emotions and interleukin 6, a pro-inflammatory marker implicated in numerous health outcomes (e.g., cardiovascular diseases, osteoporosis, Alzheimer disease; Ershler & Keller, 2000). Consistent with the previous work that indicated negative emotions may activate inflammatory physiology, negative emotions positively predicted interleukin 6 among Americans. However, there was no association between interleukin 6 and negative emotions among Japanese. The results remained even after controlling for multiple variables that have been linked to inflammation, such as other personality (i.e., neuroticism, extraversion); health behaviors (i.e., smoking, alcohol consumption); chronic conditions; and body mass index (BMI). The findings suggest that dialectical beliefs about negative emotions in Japanese culture may influence the physiology underlying the link between negative emotions and inflammation.

Another recent investigation extended the question to positive emotions to examine whether links to health might also show distinct cultural patterns. Again, using MIDUS and MIDJA samples, Yoo, Miyamoto, Rigotti and Ryff (2017) examined associations between positive emotions and cardiovascular health risk, one of the primary causes of mortality worldwide, including in the United States and Japan. Specifically, the authors focused on lipids, which are major risk factors for cardiovascular diseases. The results showed significant interactions between positive emotions and culture to predict lipid profiles. While positive emotions were associated with healthy lipid profiles (indicated by high levels of high-density lipoprotein cholesterol (HDL-C) and low levels of the ratio of total cholesterol to HDL-C among Americans, such associations were absent among Japanese. Thus, the associations between both positive and negative emotions and health may be attenuated in the cultures where negative emotions are valued more and positive emotions are valued less than Western cultures.

The cultural construction of health via emotion has been also supported by research on how the arousal levels of positive affect are associated with health across the cultures. Using the MIDUS and MIDJA sample, Clobert, Sims, and Markus (2016) tested whether high-arousal and low-arousal positive affect may predict health to different extents. They found that the associations between positive affect and better physical and mental well-being, fewer health symptoms, and better biological function among Americans were mostly driven by high-arousal positive emotions (i.e., enthusiastic, active, proud, attentive). For Japanese, the association between positive affect and health was weaker than for Americans, regardless of the arousal levels. Clobert et al. (2016) further tested whether engagement in positive activities predicted health differently across the two cultures. Engaging in low-arousal positive activities (e.g., taking a bath) predicted better self-reported health in 5 years among Japanese but not among Americans. The results indicated that the cultural values of high-arousal versus low-arousal positive emotions may be relevant to their health concomitants.

Tsai et al. (2006) examined the culture-specific correlates of high-arousal and low-arousal positive affect by distinguishing feelings people want to feel (i.e., ideal affect) and feelings people actually feel (i.e., actual affect). In their study, Chinese college students' depression was predicted by the discrepancy between the ideal and actual frequency of low-arousal positive emotions, while European American students' depression was predicted by the discrepancy in high-arousal positive emotions. The results support that the cultural values of high-arousal and low-arousal positive emotions are reflected in ideal affect more than in actual affect, and the discrepancy between an individual's actual emotional experiences and culturally ideal emotional profiles predicts mental health outcomes.

p. 372 Last, studies have found that associations between emotion expression and health are affected ↳ by cultural norms regarding emotion expression. In Western cultures, openly expressing emotion has been associated with reduced physiological reactivity, such as low blood pressure, whereas suppressing emotional expression predicts adverse biological and mental health outcomes, such as threat responses of cardiovascular systems, depression, and memory impairment (Butler et al., 2003, 2007; Gross, 1998; Gross & Levenson, 1993; Mauss & Butler, 2010). However, as reviewed in the previous section, cultural differences in emotion display rules have been documented, whereby Western cultural norms encourage expression of true feelings, while East Asian cultural norms emphasize careful adjustment of emotional expression to social situations (Matsumoto et al., 2008). Reflecting these differences, the associations between emotion expression and health were absent or reversed in Asian cultural contexts. For example, Butler et al.'s (2009) study comparing Asian American and European American women in emotion expression during a dyadic conversation over a war film showed that emotion expressive behavior (scored by using custom software [CodeBlue, R. Levenson]) was negatively related to blood pressure for European Americans, while the association was positive for Asian Americans. The cultural moderation was also documented for the association between emotion suppression and mental health. The frequency of engaging in anger suppression predicted depressive symptoms among European American college students, but the association was attenuated among those with Asian cultural background and interdependent self-construal (Cheung & Park, 2010). Although previous findings on negative health consequences of emotion suppression in Western cultures did not directly examine culture as a factor, cultural norms to express rather than control emotions may have been implicated in the findings.

Putting these studies together, findings from MIDUS and MIDJA and other investigations highlight the role of the cultural fit of emotions in understanding how emotions are linked to health. In Western cultural contexts, where maximizing positive emotions, experiencing high-arousal positive emotions, and expressing emotions are in line with cultural values and norms of independence and noncontradiction, such emotional patterns are associated with better health. In contrast, in East Asian cultural contexts, where lessening positive emotions, engaging in low-arousal positive activities, and not expressing emotions are aligned with interdependent and dialectical cultural norms, such emotional patterns are associated with better (or less worse) health.

Psychosocial and Behavioral Pathways Underlying Culturally Distinct Links Between Emotion and Health

So far, the research on culture, emotion, and health has focused mostly on associations between particular emotions (positive, negative affect) and various indicators of health (mental, physical, physiological). However, there is limited evidence on the processes and pathways through which these effects occur across cultures. While some of the health measures are direct physiological responses of emotions such as heart rate and cortisol, it is less clear for other health indicators (e.g., physical functioning) which processes connect emotions to health. In such cases, emotion–health linkages may go through or interact with multiple behavioral as well as psychosocial processes, many of which have been linked to these health outcomes (Figure 27.1). Particularly, social support and social integration have been robustly associated with various health outcomes, including chronic symptoms, physical functioning, and mortality (see reviews; Berkman, Glass, Brissette, & Seeman, 2000; S. Cohen & Wills, 1985; Uchino, 2006). Therefore, health correlates of emotion cannot be fully understood without consideration of the interplay between emotions and these psychosocial factors. Importantly, such interplay also may be important for understanding how the cultural fit of emotions predicts health. The association between emotions and health may be affected by whether emotions are experienced in conjunction with psychosocial states that facilitate one's alignment with cultural norms and values.

Drawing on this possibility, Yoo et al. (2016) examined the role of positive emotions in health with an accompanying focus on levels of social connectedness in interdependent cultural contexts. East Asians are concerned that their positive emotions may disrupt social relationships (Kitayama, Mesquita, & Karasawa, 2006; Miyamoto et al., 2010; Uchida & Kitayama, 2009). The possible social costs associated with positive emotions may be particularly critical for those who are socially not well connected because feeling high levels of positive emotions despite their low social connectedness may reflect a kind of misfit with interdependent cultural tasks. Thus, among Japanese who are not socially well connected, higher positive
p. 373 emotions may be linked with more compromised health. ↳ On the other hand, Japanese who are socially well connected may be less likely to invite social sanction for their high levels of positive emotions and thus not show negative associations between positive emotions and health.

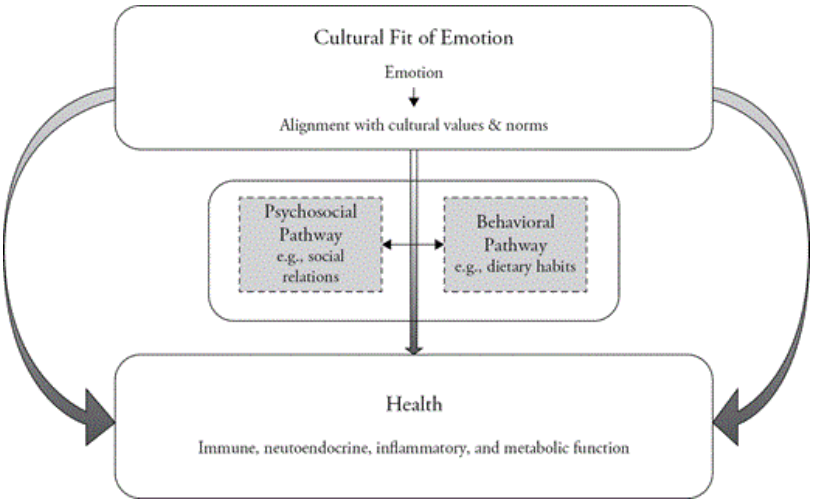

Figure 27.1 A model of cultural fit of emotion and health.

Supporting the hypotheses, the authors found that positive emotions were negatively associated with positive biomarkers of neuroendocrine function and metabolic function (i.e., dehydroepiandrosterone sulfate [DHEA-S], HDL-C) among Japanese with low social connectedness, indicated by low levels of agreeableness, interdependence, and perceived support from friends. Alternatively, DHEA-S and HDL-C were not associated with positive emotions among Japanese with high social connectedness. The findings highlight that the health implications of emotions can be sharpened by contextualizing emotional experiences in relation to other psychosocial processes that are also relevant to performing cultural tasks.

Furthermore, the cultural fit of emotions may go through behavioral pathways to affect health. Prior studies suggest that the fit between one's psychological process and culturally prescribed values and beliefs have motivational and relational benefits that may propel people to engage in healthy behaviors (Fulmer et al., 2010; Oyserman, Fryberg, & Yoder, 2007). Levine et al.'s (2016) compared the MIDJA and MIDUS samples and found that healthy eating in the United States and Japan was predicted, respectively, by independent and interdependent self-construal (whether a person holds self-views that are aligned with independent or interdependent cultural norms). In the United States, where the cultural mandate is considered to be realization of one's independent self, being an independent-self predicted a healthy diet, and the association was mediated by autonomy. However, in Japan, where the cultural expectation for individuals is an interdependent-self, healthy eating was associated with being interdependent through positive relations with others. Although the study did not examine the cultural fit of emotion, the finding suggests that holding a self-concept aligned with cultural mandates leads to engagement in a healthy behavioral pattern.

The importance of the cultural fit in predicting health behaviors underscores that cultural variations in emotion–health linkages may be explained via behavioral routes. Emotions have been shown to influence a

wide range of behaviors that are critical for health outcomes, such as food consumption, physical activities, and substance uses (Krueger & Chang, 2008; Neumark-Sztainer, Story, French, & Resnick, 1997; Pressman & Cohen, 2005). For example, positive emotions have been thought to facilitate healthy behaviors when they function as personal resources that are necessary for self-regulatory efforts required for healthy behaviors (Tugade & Fredrickson, 2004). However, given that emotions function through sociocultural environment, how resourceful a certain emotional experience is for individuals in a given culture may be guided by how valued the emotion is by cultural norms. Thus, whether positive emotions are construed as valuable states according to cultural norms may be important for positive emotions to propel healthy behaviors.

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Applying the idea, Yoo et al. (2017) examined behavioral pathways underlying the cultural moderation found in associations between positive emotions and lipids. Given that lipid levels are substantially affected by health behaviors (e.g., nutritional intake, exercise), the authors examined a number of potential behavioral pathways that were implicated by prior literature. The results showed that BMI, which indexes many things, including genetics as well as health behaviors such as calorie intake and physical activities, plays a role in mediational pathways: Positive emotions were positively associated with healthy lipid profiles (i.e., high levels of HDL-C and low levels of total cholesterol/HDL-C) *through* lower BMI for Americans, whereas there was no association between positive emotions and BMI among Japanese. Such divergent association between positive emotions and BMI explained the cultural difference in the association between positive emotions and lipids between the United States and Japan.

This analysis suggests that the same emotions are associated with different behavioral processes across cultures. When emotions fit one's cultural values and norms, such emotional experiences may have motivational benefits that encourage healthy practices. The association between BMI and positive emotions in the US data is consistent with previous findings on the associations between positive emotion and various health practices in Western samples. Positive emotions predict better sleep quality, more exercise, and lower smoking among healthy groups and patients with diabetes (Bardwell, Berry, Ancoli-Israel, & Dimsdale, 1999; Neumark-Sztainer et al., 1997; Ryff, Singer, & Love, 2004). On the other hand, the lack of the association between BMI and positive emotions in the Japanese data is consistent with the idea that behavioral tendencies associated with emotions vary with the cultural fit of emotions. Although health behaviors such as diet, BMI, and exercise likely affect health across cultures, which emotional experiences are linked to health behaviors may differ across cultures.

Limitation and Future Directions

In this chapter, we reviewed recent findings that underscore the importance of the cultural fit of emotions for good health. According to the cultural fit formulation, how emotions matter for health requires awareness of systematic differences in cultural values and norms about what it means to be "good," "right," and "proper." The cultural fit hypothesis suggests that culture moderates associations between emotions and health via one's alignment with values and norms in the surrounding cultural context. Empirical findings that provide support for this formulation are growing, such that a wide range of health indicators, including physiology (i.e., neuroendocrine, cardiovascular, and metabolic functions); behaviors; and self-rated health, have been linked with emotional experience and expression differently across cultural contexts.

The overarching message of the studies is that cultural meanings may shape how emotions are experienced in everyday life and associated with other psychological as well as behavioral functioning and thus may lead to different health outcomes. The emotion–health links found in the Western samples were largely lacking in East Asian cultures, where cultural contexts offer more balanced meanings between the positivity and the

negativity. While the findings highlight culture as a significant factor of health, it is also noteworthy that much of the evidence shows the absence of the association between emotions and health in East Asian cultures. Thus, it raises an issue whether current approaches to the emotion–health link may not be adequate to identify experiences of emotions especially meaningful in East Asian cultures. Also, although the cultural fit has been suggested as a key determinant of how emotions matter for health, the empirical formulation of cultural fit has been abstract, making it difficult to examine its elements and pathways to health. Next, we outline potential directions for future research that may help resolve the limitations and improve better understandings of culture-specific links between emotions and health.

First, studies should test health correlates of the cultural fit of emotions that go beyond the distinctions between positive and negative emotions and between high- and low-arousal emotions. Although the valence and arousal levels of emotions are the most fundamental dimensions, the cultural influences on emotions and health need not be limited to them. Within the range of positive and negative emotions and
p. 375 high- and low-arousal emotions, the cultural fit of emotions can vary with ↳ more specific distinctions (e.g., excitement, anger, shame) or components (e.g., self-reported experience, appraisal, expression, actual vs. ideal). The relative paucity of significant associations in East Asian cultures may be due to prior characterization of emotions mainly based on the valence and the arousal dimensions. Future studies may explore emotions that previous studies have already shown to be differentially associated with cultural tasks. For example, although studies have shown the cultural differences regarding socially engaging (e.g., sympathy) vs disengaging emotions (e.g., pride) and the implications for subjective well-being (Kitayama et al., 2006), their health implications have not yet been tested. Given the cultural fit of socially engaging emotions in interdependent cultures and the cultural fit of socially disengaging emotions in independent cultures, it can be hypothesized that experiencing socially engaging emotions would be stronger predictors of health in interdependent cultures, while socially disengaging emotions would have more profound influence on health in independent cultures.

The cultural fit of emotions can also be better understood by considering different contexts and aspects of emotions. How emotions function in relation to cultural tasks varies with social situations. For instance, feeling proud for personal achievement is strongly associated with realization of autonomy and independence. However, if pride is experienced in the context of collective achievement, it may facilitate interdependent cultural mandates, such as being receptive to social demands and promoting a sense of being connected to others. Research relying exclusively on emotion labels without considering such contexts may not accurately capture the cultural fit of emotions and their connections to health outcomes. Another important nuance is the angle from which emotions are assessed, such as experience/expression and actual/ideal. For example, because the internal experience of emotions can be discrepant from the external expression of emotions, such distinctions may refine the emotion–health link. Kitayama and his colleagues (2015) (see Chapter 28, this volume) focused on expression of anger and showed that anger expression predominantly functions as a signal of social power in East Asian cultures. Although anger expression is against the cultural value of social harmony and thus generally discouraged, anger can be expressed more by people whose higher social power allows them to be free from worries about negative consequences of anger expression. Thus, expressing anger may not be a cultural misfit in East Asia, where a predominant function of anger expressions involves signaling power. Researchers need to be aware of variances within the same emotion label when they think about cultural fit of emotions.

Second, more empirical studies are needed to test associations between emotional patterns and cultural task performances. Although researchers have consistently proposed that emotions that fit cultural norms and values should lead to obtaining more psychosocial and even material resources within each culture, few studies have empirically tested these ideas. For example, no research has linked associations between dialectical ways of experiencing emotion (e.g., accepting negative emotions, moderating extreme emotions) and social resources (e.g., social support or status) across cultures, although robust evidence has shown that

dialectical emotion is valued and experienced differently between East Asian and Western culture (Miyamoto & Ma, 2011; Schimmack et al., 2002; Spencer-Rodgers et al., 2010). The investigation of direct associations between the cultural fit of emotions and psychosocial resilience factors may illuminate pathways through which emotions lead to better health.

Third, more research is needed to clarify causal directionality between reported associations between emotion and health. Despite accumulated findings from MIDJA and MIDUS, most of them are cross-sectional findings, thus making it impossible to test the influence of emotions on health. The longitudinal extensions of the studies will be extremely beneficial to make causal inferences. Also, use of experimental paradigms can test the effect of the cultural fit of emotions by manipulating emotional patterns and assessing its effect on physiological and behavioral processes.

Experimental designs will also be useful to achieve the empirical precision of the cultural fit of emotions. Researchers may create a controlled laboratory procedure to evoke a specific emotion and assess how it affects cultural task performance, such as adjusting self to social environment and expressing one's opinions with concrete behavioral measures. In addition, although it is often assumed that the trait emotion–health link is shaped by repeated experiences of state emotions, some health measures have been associated with state emotions differently from trait emotions (Pressman & Cohen, 2005). Experimental studies could test whether the cultural fit of state emotions, experienced in reaction to experimentally manipulated events, is also associated with health.

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Conclusion

Despite decades of research on emotion and health, cultural differences in these linkages have been considered only recently. Based on emerging studies showing cultural differences in the associations between emotions and health, we have emphasized the role the cultural fit (misfit) of emotion with the surrounding cultural context in promoting or compromising health. Emotions predict better health especially when they promote engagement in cultural tasks. This suggests the importance of taking cultural values and norms into consideration when understanding how certain emotions are linked to health. Put another way, emotion likely matters for health everywhere, but how this occurs appears to vary in important ways depending on the surrounding cultural context.

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