Singapore Management University

Institutional Knowledge at Singapore Management University

Research Collection School of Social Sciences

School of Social Sciences

11-2011

Cultural differences in the subjective experience of emotion: When and why they occur

Christie N. SCOLLON

Singapore Management University, cscollon@smu.edu.sg

Sharon KOH
Singapore Management University, sharon.koh.2010@phdps.smu.edu.sg

Evelyn Wing Mun AU Singapore Management University, evelynau@smu.edu.sg

Follow this and additional works at: https://ink.library.smu.edu.sg/soss_research

Part of the Developmental Psychology Commons, Multicultural Psychology Commons, and the Sociology of Culture Commons

Citation

SCOLLON, Christie N., KOH, Sharon, & AU, Evelyn Wing Mun.(2011). Cultural differences in the subjective experience of emotion: When and why they occur. *Social and Personality Psychology Compass*, *5*(11), 853-864.

Available at: https://ink.library.smu.edu.sg/soss_research/2099

This Journal Article is brought to you for free and open access by the School of Social Sciences at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection School of Social Sciences by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email cherylds@smu.edu.sg.

Cultural Differences in the Subjective Experience of Emotion: When and Why They Occur

Christie Napa Scollon*, Sharon Koh, and Evelyn W. M. Au Singapore Management University

Abstract

Cross-cultural comparisons of subjective emotional experience are common, and virtually any comparison of nations or different ethnic groups is bound to yield some differences and some similarities. While nobody doubts the considerable intercultural variability in subjective or self-reports of emotion, more attention needs to be given to when and why and these differences occur. In this article, we explore factors that accentuate or attenuate cultural differences in the subjective experience of emotion. We propose that cultural norms shape emotional experiences to different degrees depending on the time frame of the emotional experience, the valence of the emotion, and even the specific emotion being compared. We review the research that supports this view and we highlight new avenues of research that are likely to shed light on cultural differences in the subjective experience of emotions.

Introduction

New Zealand is the country with the highest reported positive emotions in the world. India is only 63rd out of 89 countries in terms of positive feelings (Diener, Ng, Harter, & Arora, 2010). Hispanic Americans report experiencing pride about 80% of their waking day, compared to Asian Americans who experience pride less than 50% of their day (Scollon, Diener, Oishi, & Biswas-Diener, 2004). Cross-cultural comparisons of emotion such as these are common, and virtually any comparison of nations or different ethnic groups is bound to yield some differences and some similarities. While nobody doubts the considerable intercultural variability in the subjective experience and self-reports of emotion, more attention should be given to when and why and these differences occur. In this article, we identify three important factors that moderate the size of cultural differences in the subjective experience of emotion: (1) The time frame of the experience; (2) The valence of the emotion; and (3) The centrality of the self in the emotion that is under scrutiny. A common theme that ties together the moderators is the varying role played by cultural knowledge and norms in shaping subjective emotional experiences.

Understanding the factors that accentuate or attenuate cultural differences in the subjective experience of emotion is important for both theoretical and practical reasons. First, cultural variation in emotion provides insight into cultural norms, and more importantly, reveals information about the way people form emotion judgments more generally. Second, policy makers and researchers need to understand how to interpret cultural differences in self-reports of emotion. For example, a government wishing to understand the impact of a new policy on different ethnic groups might need to assess the subjective experience of its residents. Do cultural differences necessarily mean that a policy had unequal impact on citizens? Does the absence of cultural differences necessarily mean that cultural groups are equivalent?

What is subjective experience and what is culture?

Importantly, this paper focuses on a singular aspect of emotional experience – the subjective experience or how people say they feel – which is captured by self-report measures. Self-reports have informational value irrespective of their veracity because how a person says he or she feels is worth something. Moreover, there is growing evidence that self-reports capture meaningful states and not just language representations (Feldman Barrett, 2004). In this paper, we think about culture broadly as outlined by Kitayama and Park (2007) with different cultures composed of different expectations and practices with respect to the self which is embedded in behavioral environments that reinforce and shape meanings, motivations, and behaviors according to norms. Also, most of the research reviewed here focuses on East–West comparisons for the simple reason that Asians show a markedly different pattern of emotion norms compared to Westerners or Latinos (Eid & Diener, 2001; Schimmack, Oishi, & Diener, 2002).

Naturally, cross-cultural research of any sort is a sticky area, and culture and emotion research is no exception. Measurement equivalence must be established, a task that is further complicated by language barriers. This is an old controversy in the culture and emotion literature, and we do not wish to belabor its familiar points. We simply note that there is now a good deal of evidence to demonstrate the psychometric validity of cross-cultural comparisons of emotion. For example, the two dimensions of positive and negative affect have been replicated in most cultures, suggesting that the structure of emotions is comparable despite language differences (see Kuppens, Ceulemans, Timmerman, Diener, & Kim-Prieto, 2006). In addition, Scollon et al., (2004) showed that indigenous emotions load onto the positive and negative factors and are not experienced any more frequently or differently than common translated emotions. While noting the inherent challenges in culture and emotion research, in the following sections, we propose and discuss three factors that moderate the magnitude of cultural differences in the subjective experience of emotion: (1) The time frame of the experience; (2) The valence of the emotion; and (3) The centrality of the self in the emotion that is under scrutiny.

Proposition #1: Cultural Norms Play a Larger Role in Retrospective Reports of Emotions, as Compared to Online Reports of Emotions

When time frame matters: Real time versus over time

Self-reports can reference a variety of time frames from the most narrow evaluations of the here and now to the broadest evaluations of one's life as a whole. Greater cultural differences have been observed for longer time frames (e.g., reports referencing the last month or life in general) as opposed to shorter time frames (e.g., reports referencing the past hour or two).

Oishi (2002) provided the first evidence for this effect when he compared Asian Americans and European Americans in their self-report of emotion. Although the two groups did not differ in their momentary (i.e., 'how happy I am right now') or daily self-reports of emotion (i.e., 'how happy I am today'), there were cultural differences in how the groups *remembered* their experiences. European Americans remembered the week more positively than Asian Americans. Wirtz, Chiu, Diener, and Oishi (2009) replicated Oishi's (2002) findings when they had European and Asian American participants record their emotions for 7 days while on spring break and then compared this to their recalled experiences 4 weeks later – again, cultural differences were only found in the recalled

experiences and not the online reports. Similarly, Scollon et al. (2004) used the experience sampling method (ESM) and retrospective assessments of the same one-week period and found that although there were cultural differences in ESM reports, there were generally greater cultural differences in retrospective accounts of emotion.

Why time frame matters: Memories versus experiences

Why are cultural differences larger for retrospective reports as compared to online reports of emotion? The answer lies in the fact that retrospective reports of emotion are not exact duplicates or summations of momentary experience. Instead, memory for emotions, like memory in general, is a highly reconstructive process. When assessing their feelings, people may rely on two types of information stored in their memory; episodic and semantic (Robinson & Clore, 2002a). Episodic information refers to the specific events people experience during a given time frame, including their emotional reactions to these episodes. Semantic information refers to beliefs about how one typically feels; it is abstract in that such beliefs may not be tied to any specific episode in one's memory. As Robinson and Clore (2002a) have argued, individuals switch back and forth between episodic and semantic strategies in evaluating their experiences depending on the time frame. When the time frame is small (e.g., past day), it is reasonable for people to apply episodic strategies. However, as the time frame increases, it becomes more difficult to search one's memory for all the episodes of happiness, integrate them, and come up with one summary judgment to answer the question 'How happy was I last month?' or 'How happy was I last year?' Instead, people use semantic information to 'fill in the gaps' of memory. Using an ingenious reaction time paradigm, Robinson and Clore (2002b) observed that judgments about one's past emotions took increasingly longer to make as the reference time frame increased, but after the time frame reached one month, people made their judgments more quickly - presumably because they shifted from an episodic strategy to a more semantic one that increased their efficiency of responding.

If cultural knowledge is a form of semantic information, then people's memories of their emotions should be more consistent with their cultural values than the momentary experience of emotion (see also Oishi et al., 2007). Applying this to the findings of Oishi (2002), Scollon et al. (2004) and Wirtz et al. (2009), if people from different cultures held different views about the desirability of particular emotions such as happiness, this may have led to group differences in their retrospective reports.

Interestingly, however, neither Oishi (2002) nor Wirtz et al. (2009) directly assessed the relative impact of cultural norms on online versus global measures. The influence of cultural norms on global measures was inferred because cultural differences are apparent only in retrospective reports. Scollon, Howard, Caldwell, and Ito (2009) more directly examined the impact of cultural norms on daily experience sampling measures versus global measures. Participants completed daily and retrospective measures targeting the same week. Prior to the experience sampling portion, participants answered questions about ideal affect. Ideal affect refers to the extent to which participants would ideally like to feel certain emotions and tends to be more susceptible to cultural influence than online emotions (Tsai, Knutson, & Fung, 2006). Scollon et al. (2009) found that ideal affect was more strongly correlated with retrospective reports of emotion than with experience sampling reports of emotion, lending support to the idea that broader time frames of experience are more strongly influenced by cultural knowledge than the short time frames captured by experience sampling.

Proposition #2: Cultural Norms Play a Larger Role in Reports of Positive Affect, as Compared to Negative Affect

When valence matters: Positive versus negative

Greater cultural differences have generally been observed for assessments of positive affect compared to negative affect. For example, Scollon et al. (2004) compared momentary reports of positive and negative affect provided by European Americans, Asian Americans, Hispanic Americans, Japanese, and Indian students and found greater cross-cultural differences in positive compared to negative emotions. Similarly, analyses of data from college students from 48 societies revealed that the average effect size for culture on emotion reports was 0.11 for positive emotions and only 0.07 for negative (International College Survey, 2001). Furthermore, the discrepancy in effect sizes could not be accounted for by self-conscious emotions, such as pride, guilt, or shame. Likewise, in their meta-analysis of 190 emotion studies conducted between 1967 and 2000, Van Hemert, Poortinga, and van de Vijver (2007) concluded that after accounting for variance due to statistical artifacts and methodological, psychological, and ecological variables, greater unexplained variance was found in positive affect compared to negative affect cross culturally.

A study of young and old Americans and Chinese by Pethtel and Chen (2010) also provides additional supporting evidence for Proposition #2. In their study, participants reported on their emotional experiences in general. A cultural difference in self-reports of positive emotions emerged, but no differences were found for negative emotions. Lastly, recent data from our lab (Scollon, Morin, & Koh, 2011) comparing Singaporean and American students provides further substantiating evidence for Proposition #1 and Proposition #2. In our study, participants rated 240 emotion items (both positive and negative) on how much they experienced the emotion 'today' and 'in general'. For reports of emotions experienced today (narrow time frame), no cultural differences emerged for either positive or negative affect. For reports of emotions in general (broad time frame), no cultural differences were observed for negative affect, but cultural differences emerged for positive affect. Taken together, the findings provide support for Proposition #1 and Proposition #2.

While there are several studies to support Proposition #2, Wirtz et al. (2009) provides some inconsistent findings. Although Wirtz et al. (2009) found no differences in the momentary experiences of both positive and negative affect, cultural differences were observed for both positive and negative remembered affect. Four weeks after the experience, European Americans remembered significantly more positive affect and Asian Americans recalled significantly more negative affect. Taking Proposition #1 and Proposition #2 together though, our proposed framework would suggest that if we were to rank order the expected cultural differences in situations where both valence and time frame were simultaneously considered that the largest differences would be expected in remembered positive affect and smallest differences would be expected for online negative affect. Negative remembered affect (and positive online affect) would thus fall somewhere in between these two ends of the spectrum in terms of the relative size of their expected cultural differences.

Why valence matters: Motivation & regulation

There are three possible reasons why cultures differ more in the subjective experience of positive, as opposed to negative, emotions. First, cultural norms that govern the

desirability of emotions are stronger and less varied for positive than negative affect. The strongest evidence for this claim comes from Eid and Diener's (2001) latent class analysis of the United States, Australia, China, and Taiwan. They found the majority of respondents in the United States and Australia (83% in both samples) rated all of the positive emotions as desirable and appropriate. By contrast, the proportion of individuals with similar beliefs in China and Taiwan was 9% and 32%, respectively. Furthermore, respondents from the United States and Australia displayed little variance in their endorsement of the value of positive feelings, suggesting that the norms regarding positive emotions are clear and deviation from the norm may be considered inappropriate. With regards to negative emotions, the corresponding class of respondents who rated all of the negative emotions as being undesirable was relatively large in the United States, Australia, and in this case also Taiwan (roughly 40%) but relatively small in China (14%). Interestingly, the subpopulation that rated negative emotions as desirable and appropriate was the same size in all four nations (approximately 22%). In short, cultural differences in the desirability of displaying positive emotions are more pronounced and there is a greater consensus within certain cultures regarding the appropriateness of positive emotions. For negative emotions, however, there is greater consensus across cultures on its appropriateness.

Second, the pronounced cultural difference should not only lie with the perception of appropriateness of positive and negative emotions but carryover to the level of experience. Indeed, Eid and Diener (2001) found that the higher the desirability of the emotion, the more experience of the emotion was reported as well (see also Scollon et al., 2009; Diener, Scollon, Oishi, Dzokoto, & Suh, 2000; for similar evidence regarding life satisfaction). Furthermore, the cultural differences in appropriateness of experiences can magnify cultural differences in subjective experience when they influence emotion regulation. For example, people who find positive emotions desirable may seek out the emotion and tend to up-regulate their mood compared to those who view positive states as less desirable (Ng & Diener, 2009). It is also possible that the desire to up-regulate negative emotions or repair moods might be universal, whereas the desire to down-regulate positive emotions might be more prevalent in certain cultures. Given that people from Western cultures, such as the United States, tend to view high arousal positive affect as more desirable to feel and express as compared to people from Eastern cultures, such as China or Korea (Diener et al., 1995), we might expect Westerners to be less motivated to dampen positive moods. In a similar vein, Tsai et al. (2006) have shown cultural differences in the levels of emotions people say they ideally would like to feel. Specifically, people from individualistic cultures placed greater value on the promotion of high arousal positive states, such as excitement, while people from Eastern cultures reported preferences for more balanced and lower arousal calm states instead (Tsai, Louie, Chen & Uchida, 2007; Tsai, Miao, Seppala, 2007).

Third, to better understand why positive emotions may be more susceptible to cultural influence than negative emotions, we turn to evidence that suggests that positive emotions are subject to greater social learning influences than negative emotions. Whereas negative emotionality displays strong genetic effects, only positive emotionality is impacted by shared environmental effects (Tellegen et al., 1988). In other words, the similarity of co-twins' negative emotionality can largely be accounted for by shared genes. However, the similarity of twins' positive emotionality can be attributed, in part, to their common environmental experiences such as parenting and household environment. It is one of the rare behavioral differences that can be explained by shared environmental effects. In their original paper, Tellegen et al. (1988) offered some speculative (and we believe highly plausible) reasons for this intriguing finding including the possibility that

the development of positive emotionality requires more direct interaction and engagement with others than the development of negative emotions. To phrase it another way, people might easily learn negative emotions in the absence of direct social learning from others – for example, by learning to fear threatening stimuli, such as snakes or cliffs. However, the development of positive emotions might require greater mimicry and social reinforcement of positive expressions, such as smiling and laughing as well as regulation strategies for enhancing or savoring positive experiences. As positive emotions are valued to different degrees amongst people of different cultures, it is likely that the reinforcement of positive expressions differs greatly across cultures as well.

Proposition #3: Involvement/Embeddedness of the Self in Specific Emotions Matters Because Self-involved Positive and Negative Emotions Serve Unique Self-regulatory and Social Control Functions Within Particular Cultures

When specific emotions matter: Self-conscious emotions

Thus far, we have discussed cultural differences in emotions mainly in terms of the broad strokes of positive and negative affect. A closer inspection of specific emotions, however, reveals intriguing patterns of cultural differences in the particular class of self-conscious emotions that include feelings of pride, guilt, and shame. While research looking at such specific emotions has been relatively scarcer in comparison to the work reviewed earlier, the findings in this area have revealed exciting cultural differences that show that when it comes to these self-conscious emotions, the divide between cultures appears to be particularly wide.

Using experience sampling methodology, Scollon et al. (2004) found that Asian Americans, Indians in India, and Japanese in Japan all reported less pride and more guilt than European Americans and Hispanic Americans. Moreover, compared to the cross-cultural variability in sadness, which was virtually zero, the cross-cultural variability in guilt was three times as large and for pride it was more than 10 times greater (Scollon et al., 2004; Table 2)! Similarly, in Kitayama, Mesquita, and Karasawa's (2006) study, Japanese participants reported fewer disengaging positive emotions such as pride and more engaging negative emotions such as guilt than their Western counterparts in a daily diary study (Study 1), in a scenario-based study (Study 2), and in global reports of affect (Kitayama, Markus, & Kurokawa, 2000).

Why specific emotions matter: Function and importance

To understand why cultural differences are larger specifically for self-conscious emotions as compared to other emotions, it is important to understand the function of self-conscious emotions in general. These self-conscious emotions have important social functions such as helping individuals form and maintain relationships within a dyadic or group setting by providing feedback to them about their self-identities within the context of dynamic social hierarchy changes (Goetz & Keltner, 2007; Keltner & Haidt, 1999). The cultural differences in the self-conscious emotions are likely to be large because of both differences in the social hierarchical structures of societies as well as differences in the function of the emotions themselves. For instance, the feeling of pride emphasizes personal achievement and one's uniqueness apart from others. Thus, pride is more congruent with the *selfways* of people in interdependent societies such as North America (Kitayama et al., 2000, 2006). By contrast, feelings of guilt and shame help to maintain

social harmony. They motivate people to repair social bonds after transgressions. The feeling of guilt, therefore, is more congruent with the *selfways* of people in collectivist societies such as Asia (Kitayama et al., 2000, 2006).

Bagozzi, Verbeke, and Belschak (2009) explored the different functions of the self-conscious emotions among Filipino and Dutch salespeople. While excessive expressions of pride had to be actively self-regulated in front of customers for Dutch salespeople, it was not self-regulated in interactions with their colleagues. For Filipino salespeople, pride was naturally moderated by their perceived deferential role in their hierarchical relationship with their customers and was also dispositionally moderated in front of their colleagues. As Mesquita and Karasawa (2004) noted this 'Western-style pride' (that is, feelings of exuberance and celebration of the individual's accomplishments) is less common in East Asia because it disrupts social relationships. Instead, accomplishments are typically appraised in terms of collective efforts, as in the example of a gold-medal winner who credits his or her coach and family for the success. Moreover, when success is achieved, it brings with it future expectations (or even pressure) to succeed in order to bring the most honor to the group. Such expectations may even make the pleasant experience somewhat bittersweet.

A study by Bagozzi, Verbeke, and Gavino (2003) examining shame provided a different picture. Shame served as a form of feedback that social harmony had been disrupted and as a threat to the social self of Filipinos. Therefore, the experience of shame motivated Filipino salespeople to increase their efforts with their customers to restore social harmony, leading to better job performance. On the other hand, for Dutch salespeople, feelings of shame were aversive and did not provide the same sense of social feedback. Shame led the Dutch to disengage from or avoid social interaction. The withdrawal from their customers subsequently hurt their job performance. As Mesquita and Karasawa (2004) have noted, shame in a collectivist culture creates social cohesion. In feeling shame, the transgressor implicitly acknowledges his or her inferiority and humiliation. Shame signals to others that one knows the important social rules and expectations and commits to doing better in the future. The social dance follows with the rest of the community willingly reintegrating the transgressor. As Mesquita and Karasawa (2004) aptly put it, 'Shame in East Asian cultures is an emotion of hope, rather than one of ultimate failure' (p. 163).

More generally, we expect that self-conscious emotions that provide feedback on violations of social norms and failure to fulfill social obligations should be emphasized in collectivist cultures, while emotions that signal individual achievements and advancements by one's own efforts should be prized in individualist cultures. Indeed, Eid and Diener (2001) found that the self-conscious emotions of guilt and pride showed the largest and clearest differences between nations, with individualist cultures viewing pride as an individually rewarding signal for personal achievement and collectivistic cultures viewing guilt as a signal of social disruption.

Structural analyses also suggest that some self-conscious emotions differ across cultures both in quantity and in kind. For example, Scollon et al. (2004) found that pride loaded with unpleasant emotions among Indians, and cluster analyses of 46 nations by Kim-Prieto, Fujita, and Diener (2004) also found that pride clustered with negative emotions in India and other non-Western societies. Interestingly, the mean-level differences in the Scollon et al. (2004) study could not be entirely explained by collectivism-individualism because Hispanic respondents in that study reported the highest levels of pride and lowest levels of guilt. Rather, norms provide a better explanation for the cultural differences. Schimmack et al. (2002) have shown that Latino cultures hold norms regarding emotions that are more similar to European Americans than Asians in that positive emotions are regarded as overwhelmingly desirable and negative emotions strongly undesirable.

Conclusions

In this article, we have proposed a framework that organizes existing findings on cultural differences in the subjective experience of emotion. The foundation of this framework is grounded on the contention that the influence of cultural norms on experienced emotions is accentuated or attenuated depending on three factors: (1) The time frame of the experience; (2) The valence of the emotion, and (3) The centrality of the self in the emotion that is under scrutiny. To substantiate our case, we have reviewed relevant literature that explores when and why cultural differences are more pronounced under certain circumstances compared to others.

It is important to keep in mind that emotions consist of many components, and we focused exclusively on only one – the subjective experience of emotion as captured by self-reports. A vast literature is devoted to the topic of emotional expression that is beyond the coverage of this article (Ekman, Sorenson, & Friesen, 1969; Matsumoto, 2009; Wyer, Chiu, & Hong, 2009). In general, studies on emotional expression explore whether individuals from different cultures can *display* or *recognize* the same emotions (e.g., 'does the concept of anger exist among the Ifaluk?'), and provide us with information on whether the same emotions exist in different cultures. However, the ability to recognize or display an emotion is different from the subjective experience of the emotion. For example, virtually all cultures recognize and display happiness (Matsumoto & Hwang, 2010), while at the same time there are vast differences in the frequency with which people report actually experiencing happiness (Scollon et al., 2004).

Cultural differences in emotional expression can be accounted for by the varying cultural display rules which govern when, where, and with how much intensity a particular expression is deemed appropriate (Matsumoto & Hwang, 2010). Naturally, subjective experience and expression are intertwined (e.g., when people feel happy, they smile). However, subjective experience and expression can also be dissociated (e.g., not all people who feel happy smile), and the modulation of expression can also influence subjective experience (e.g., when suppressing a smile dampens one's experience of happiness). In other words, emotional expression and subjective experience are both interrelated and independent. Notably, however, our framework on subjective experience is unique because of the added dimension of time frame. Emotional expressions, by nature, are limited to the immediate emotional response, whereas our conceptualization of subjective experience captures broader periods of time, including retrospective judgments.

Whereas emotional expressions are observable and objective indicators of emotion, subjective experience is not. Subjective experience concerns the inner state of the individual, in other words, how the person labels his or her own feelings. It is our contention that culture shapes which of these inner states is experienced and to what degree. To close, we would like to discuss our visions for future research in this area, focusing on research that would illuminate the mechanisms behind the cultural differences.

New and Future Directions: When, Why, and How

Experience sampling methodology

If we are to gain a better understanding of the cultural differences in the subjective experience of emotion, more multi-method cross-cultural studies are needed, including studies that use experience sampling methodology (ESM). ESM studies can provide several

important pieces of information. (1) ESM gives us much needed information about the frequency of emotional experience across cultures. Although ethnographic accounts have documented cultural differences in the frequency of emotions (e.g., Briggs, 1970), there exist too few systematic accounts of cultural differences in frequency. If cultures differ in the frequency of various emotions, this may suggest different focal emotions for different cultures (see Frijda & Mesquita, 1994). Frequency information is also important because it may highlight differences in reactivity, the idea that the same event (e.g., interpersonal conflict) can elicit different responses from different people. Moreover, ESM may reveal differences in time usage or the social environment (e.g., differences in time spent commuting or working might account for differences in emotional experience). (2) ESM can be used to test complex cultural differences in processes. For example, Nezlek et al. (2008) found that the state self-esteem of Japanese respondents was more reactive to daily events than North Americans. The finding confirms cultural differences in sensitivity toward social situations and points to one mechanism that may serve to maintain cultural differences in emotion.

Cognitive associative networks

We have reviewed research on cultural differences in emotion norms, but an untapped area for culture and emotion research lies in the application of cognitive tools to measure the cognitive representation of emotion concepts which presumably underlie belief systems about emotion (see Robinson & Kirkeby, 2005). For example, Koo and Oishi (2009) measured the associative network of positive emotions among Koreans and Americans using a false memory paradigm. Individuals with a tight organization of positive emotion concepts were more likely to falsely recall a critical lure that was related to a list of positive emotion words. The false memory occurs because positive emotion concepts activate an entire network of positive emotion-related concepts, including concepts that might not have been presented. Interestingly, happy Americans displayed a tighter organization of positive emotion concepts than unhappy Americans, but happy Koreans did not appear to have a different cognitive associative network of positive emotions than their unhappy counterparts. In our laboratory, we have partially replicated Koo and Oishi's (2009) findings using a different cognitive associative methodology that focused on examining response time latencies in making judgments as a function of the information that was just used (Robinson & Kirkeby, 2005). By looking at the differences in reaction times on successive trials where the valence and time period of emotional judgments were varied (e.g., how much happiness did you experience in general? How much anger did you experience today?), we found that Singaporeans have a relatively less well-organized general emotional self-concept than Americans. For Singaporeans, abstract emotion ratings referencing the 'in general' timeframe were less coherent and well-organized than for Americans (Scollon et al., 2011).

Consequences of positive emotion

In recent years, psychologists have been interested in the consequences of positive emotion (e.g., Fredrickson, 2001; Lyubomirsky, King, & Diener, 2005). We now know that happiness is associated with greater creativity (Isen, Johnson, Mertz, & Robinson, 1985), better health (Pressman & Cohen, 2005), longevity (Danner, Snowdon, & Friesen, 2001), and leadership (Staw & Barsade, 1993). Interestingly, however, these studies have been conducted entirely on European American samples. Given that cultures vary widely in

how much they value different emotions, particularly positive emotions, it is important to ask whether the benefits of positive emotion hold in other parts of the world that do not value positive emotions to the same extent. We know of only a few studies that have examined the cognitive consequences of positive emotion. Yang, Yang, and Isen (2010), for example, replicated the finding that positive affect increases creativity and cognitive flexibility in a sample of Singaporean students. The other consequences of positive emotion such as health benefits and longevity have not been studied in Asia to date.

Emotion regulation

The intersection of culture and emotion regulation is an important and understudied area. Most studies of culture and emotion have ignored emotion regulation, and most theories of emotion regulation have been formulated with assumptions based on Anglo-American ideals and norms and tested on Anglo-American samples. One recent exception by Butler, Lee, and Gross (2007) examined whether the consequences of emotion suppression are moderated by culture. Indeed, Asians in their study, who presumably have greater experience with emotional suppression, were less negatively affected by emotion suppression than European Americans. The study demonstrated that a one-size-fits all approach does not apply to emotion regulation. Still, we believe there are further advances to be made in this area. In particular, we would like to see more studies exploring how some cultures up-regulate positive emotions while others down-regulate positive emotions.

In summary, cultural differences in the subjective experience of emotion are intriguing and a worthy field of study in their own right. We now know some of the moderating influences on cultural differences in emotion. These have to do with the time frame of emotion reports, the valence of emotion reports, and the specific emotions involved. However, future research is still needed to uncover the specific mechanisms that serve to maintain cultural differences.

Short Biographies

Christie Napa Scollon is an associate professor of psychology at Singapore Management University where she studies cultural differences in subjective well-being and how culture shapes the perceived ingredients of the good life. Her other main areas of research include emotion measurement and personality development. Before coming to Singapore Management University, she taught at Texas Christian University. She earned her PhD in social-personality psychology from the University of Illinois at Urbana-Champaign.

Sharon Koh is a doctoral student at Singapore Management University. She has a MS and BA in psychology from Yale University. Her research interests include life satisfaction and gratitude.

Evelyn Au is an assistant professor of psychology at Singapore Management University where she studies how cultural differences in beliefs influence people's judgments, decision-making, and romantic relationships. She earned her PhD in psychology from the University of Illinois at Urbana-Champaign.

Endnote

* Correspondence address: Singapore Management University, 90 Stamford Rd, Level 4, Singapore 178903, Singapore. Email: cscollon@smu.edu.sg

References

- Bagozzi, R., Verbeke, W., & Belschak, F. (2009). Self-conscious emotions as emotional systems: The role of culture in shame and pride systems. In R. S. Wyer, C.-Y. Chiu & Y.-Y. Hong (Eds.), *Understanding Culture: Theory, Research, and Application* (pp. 393–409). New York, NY, USA: Psychology Press.
- Bagozzi, R., Verbeke, W., & Gavino, J. C. (2003). Culture moderates the self-regulation of shame and its effects on performance: The case of salespersons in the Netherlands and the Philippines. *Journal of Applied Psychology*, 88, 219–233.
- Briggs, J. L. (1970). Never in Anger: Portrait of an Eskimo Family. Cambridge, MA: Harvard University Press.
- Butler, E., Lee, T., & Gross, J. (2007). Emotion regulation and culture: Are the social consequences of emotion suppression culture-specific? *Emotion*, 7, 30–48.
- Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology*, **80**, 804–813.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, **69**, 851–864.
- Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychological prosperity predicts positive feeling. *Journal of Personality and Social Psychology*, **99**, 52–61.
- Diener, E., Scollon, C. K., Oishi, S., Dzokoto, V., & Suh, E. M. (2000). Positivity and the construction of life satisfaction judgments: Global happiness is not the sum of its parts. *Journal of Happiness Studies*, 1, 159–176.
- Eid, M., & Diener, E. (2001). Norms for experiencing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*, **81**, 869–885.
- Ekman, P., Sorenson, R., & Friesen, W. V. (1969). Pan-cultural elements in facial displays of emotion. *Science*, **164**, 86–88.
- Feldman Barrett, L. (2004). Feelings or words? Understanding the content in self-report ratings of experienced emotion. *Journal of Personality and Social Psychology*, **87**, 266–281.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden and build theory of positive emotions. *American Psychologist*, **56**, 218–226.
- Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In H. R. Markus & S. Kitayama (Eds.), *Emotion and Culture* (pp. 51–87). New York: American Psychological Association.
- Goetz, J., & Keltner, D. (2007). Shifting meanings of self-conscious emotions across cultures: A social-functional approach. In J. L. Tracy, R. W. Robbins & J. P. Tangney (Eds.), *The Self-conscious Emotions: Theory and Research* (pp. 153–173). New York, NY, USA: Guilford Press.
- Isen, A. M., Johnson, M. M. S., Mertz, E., & Robinson, G. F. (1985). The influence of positive affect on the unusualness of word association. *Journal of Personality & Social Psychology*, 48, 1–14.
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion*, 13, 505–521.
- Kim-Prieto, C., Fujita, F., & Diener, E. (2004). Culture and structure of emotional experience. Unpublished manuscript.
- Kitayama, S., Markus, H. R., & Kurokawa, M. (2000). Culture, emotion, and well-being: Good feelings in Japan and the United States. *Cognition and Emotion*, **14**, 93–124.
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, **91**, 890–903.
- Kitayama, S., & Park, H. (2007). Cultural shaping of self, emotion, and well-being: How does it work? *Social and Personality Psychology Compass*, 1, 202–222.
- Koo, M., & Oishi, S. (2009). False memory and the associative network of happiness. Personality and Social Psychology Bulletin, 35, 212–220.
- Kuppens, P., Ceulemans, E., Timmerman, M. E., Diener, E., & Kim-Prieto, C. (2006). Universal intracultural and intercultural dimensions of the recalled frequency of emotional experience. *Journal of Cross-Cultural Psychology*, 37, 491–515.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological Bulletin*, **131**, 803–855.
- Matsumoto, D. (2009). Culture and emotional expression. In R. S. Wyer, C.-Y. Chiu & Y.-Y. Hong (Eds.), Understanding Culture: Theory, Research, and Application (pp. 271–287). New York, NY, USA: Psychology Press.
- Matsumoto, D., & Hwang, H. S. (2010). Culture, emotion, and expression. In M. J. Gelfand, C.-Y. Chiu & Y.-Y. Hong (Eds.), *Advances in Culture and Psychology: Volume 1* (pp. 53–98). New York: Oxford Scholarship Online.
- Mesquita, B., & Karasawa, M. (2004). Self-conscious emotions as dynamic cultural processes. *Psychological Inquiry*, **15**, 161–166.
- Nezlek, J., Sorrentino, R., Yasunaga, S., Otsubo, Y., Allen, M., Kouhara, S. & Shuper, P. A. (2008). Cross-cultural differences in reactions to daily events as indicators of cross-cultural differences in self-construction and affect. *Journal of Cross-Cultural Psychology*, **39**, 685–702.

- Ng, W., & Diener, E. (2009). Personality differences in emotion: Does emotion regulation play a role? *Journal of Individual Differences*, 30, 100–106.
- Oishi, S. (2002). Experiencing and remembering of well-being: A cross-cultural analysis. *Personality and Social Psychology Bulletin*, **28**, 1398–1406.
- Oishi, S., Schimmack, U., Diener, E., Kim-Prieto, C., Scollon, C., & Choi, D. (2007). The value-congruence model of memory for emotional experiences: An explanation for cultural differences in emotional self-reports. *Journal of Personality and Social Psychology*, **93**, 897–905.
- Pethtel, O., & Chen, Y. (2010). Cross-cultural aging in cognitive and affective components of subjective well-being. *Psychology and Aging*, **25**, 725–729.
- Pressman, S. D., & Cohen, S. (2005). Does positive affect influence health? Psychological Bulletin, 131, 925-971.
- Robinson, M. D., & Clore, G. L. (2002a). Belief and feeling: Evidence for an accessibility model of emotional self-report. Psychological Bulletin, 128, 934–960.
- Robinson, M. D., & Clore, G. L. (2002b). Episodic and semantic knowledge in emotional self-report: Evidence for two judgment processes. *Journal of Personality and Social Psychology*, **83**, 198–215.
- Robinson, M. D., & Kirkeby, B. S. (2005). Happiness as a belief system: Individual differences and priming in emotion judgments. *Personality and Social Psychology Bulletin*, **31**, 1134–1144.
- Schimmack, U., Oishi, S., & Diener, E. (2002). Cultural influences on the relation between pleasant and unpleasant emotions: Asian dialectical philosophies or individualism-collectivism? *Cognition and Emotion*, **16**, 705–719.
- Scollon, C. N., Diener, E., Oishi, S., & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-Cultural Psychology*, **35**, 304–326.
- Scollon, C. N., Howard, A. H., Caldwell, A. E., & Ito, S. (2009). The role of ideal affect in the experience and memory of emotions. *Journal of Happiness Studies*, **10**, 257–269.
- Scollon, C. N., Morin, A., & Koh, S. (2011). Cultural differences in the cognitive organization of emotion knowledge. Unpublished manuscript.
- Staw, B. M., & Barsade, S. G. (1993). Affect and managerial performance: A test of the sadder-but-wiser vs. happier-and-smarter hypothesis. *Administrative Science Quarterly*, **38**, 304–331.
- Tellegen, A., Lykken, D. T., Bouchard, T. J., Wilcox, K. J., Segal, N. L., & Rich, S. (1988). Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology*, **54**, 1031–1039.
- Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, **90**, 288–307.
- Tsai, J. L., Miao, F. F., & Seppala, E. (2007a). Good feelings in Christianity and Buddhism: Religious differences in ideal affect. *Personality and Social Psychology Bulletin*, **33**, 409–421.
- Tsai, J., Louie, J., Chen, E., & Uchida, Y. (2007b). Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin*, **33**, 17–30.
- Van Hemert, D. A., Poortinga, Y. H., & van de Vijver, F. J. R. (2007). Emotion and culture: A meta-analysis. *Cognition and Emotion*, **21**, 913–943.
- Wirtz, D., Chiu, C., Diener, E., & Oishi, S. (2009). What constitutes a good life? Cultural differences in the role of positive and negative affect in subjective well-being. *Journal of Personality*, 77, 1167–1196.
- Wyer, R. S. Jr, Chiu, C.-Y., & Hong, Y.-Y. (2009). *Understanding Culture: Theory, Research and Application*. New York: Psychology Press.
- Yang, H., Yang, S., & Isen, A. M. (2010). Positive affect facilitates the shifting aspect of executive function. Unpublished manuscript.