

***CULTURAL SIMILARITIES AND DIFFERENCES IN THE
CONCEPTUALIZATION OF EMOTION***

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Abstract:

Research on emotional experiences across cultures is reviewed from a cultural psychological perspective. Psychometric approaches to evaluating the structure of emotions has consistently replicated two broad dimensions (positive and negative affect) in several countries. Nevertheless, there are cultural differences in other aspects of emotional experience such as the relation between positive and negative affect, the nature of specific emotions (e.g., pride and affection), and the types of emotions that are valued. Recent research on the cognitive organization of emotional experiences may provide additional insights and these methods await broader application in cross-cultural research.

Keywords: Culture, emotion, affect, measurement

1. Introduction

In this paper we examine three important facets of cultural conceptualizations of emotion. First, we review the vast literature on cross-cultural equivalence in the structure of emotion. Historically, issues of equivalence have been addressed through psychometric approaches, making this section the longest. We also address concerns about language, translation, and whether indigenous emotions add to the study of culture and emotions. Second, we discuss other important considerations beyond psychometric structure such as cultural differences in the desire for particular emotion states. Lastly, we consider new and cutting edge research on the cognitive associative networks of emotion as a means of understanding cultural conceptualizations of emotion.

Although emotions exist on many levels—the physiological, appraisal, expression, behavioural—often researchers are interested in the subjective experience of emotions as well. In other words, how people feel. The most common way to assess subjective feelings is directly by asking people to report on their own subjective states. While there are debates about the veracity of self-report measures of emotion (e.g., Can people really know how they are feeling?), by and large, how people believe they feel is meaningful irrespective of the accuracy of such reports. To put it simply, if a person *says* he feels happy or sad or angry, that is worth something.

Self-reported emotion can be measured either as a state or a trait. State measures ask people to rate the extent to which they are *currently* experiencing various emotions. These measures emphasize the momentary,

fleeting experience of emotion and can fluctuate over the course of a day. In contrast, trait measures ask people to rate the extent to which they *generally* experience various emotions. These measures emphasize stability in emotional experience. Although emotions fluctuate, some individuals tend to experience positive (or negative) emotions more than others. Thus, trait measures capture individual differences in the overall *tendency* to experience certain emotions. Both measures provide distinct types of information. A person who is generally happy (trait measure), may or may not be happy at any given moment (state measure). Moreover, many self-reported emotions fall *in between* state measures of momentary feelings and trait measures of general feelings. As people are asked to report their feelings over broader and broader periods of time (from the current moment to the past day, week, month or year), emotion measures become more trait-like. That is, people rely more on their beliefs about how they *typically* feel rather than literally recalling every momentary emotional experience they have had (Robinson & Clore, 2002). In our discussion, we will consider both types of self-reported emotion measures.

A related idea concerns how cultures construct and define overall judgments of life satisfaction or happiness. Although global life satisfaction and emotions are related, they are conceptually and empirically separable (Lucas, Diener, & Suh 1996). Life satisfaction involves a cognitive judgment of one's life as a whole, which may or may not be informed by a person's emotional experiences. The present paper focuses only on emotion ratings and not on global evaluations of life satisfaction. Readers who are interested

in cultural constructions of life satisfaction are referred to Kwan, Bond, and Singelis (1997) and Suh, Diener, Oishi, and Triandis (1998).

2. How do we know if people in different cultures mean the same thing when they answer questions about their emotions?: The psychometric approach

Given that researchers commonly ask people to report on their own subjective states, how can we compare two respondents, Miki and Katy, on the question of "How much *joy* have you experienced in the past week?" Suppose Miki is a Japanese college student, and Katy is an American college student. How can we be sure that Miki's and Katy's interpretations of the word *joy* are the same? Such concerns are at the forefront of culture and emotion research regardless of whether measures are translated into native languages. In other words, simply translating the word *joy* to *ureshii* does not ensure that the meaning of the emotion concept is the same. Before we can say that Miki reports greater or less joy than Katy, we first need to know if they conceptualize joy in the same way.

The typical way of verifying conceptual equivalence is by establishing that the structure of emotion is the same for different cultural groups. This can be achieved through statistical methods such as factor analysis, structural equation modelling, and cluster analysis. Although the various psychometric techniques differ in many details beyond the scope of this chapter, the basic purpose is the same. Responses to several emotion items are used to create a covariance matrix of all items. Structural analyses reveal patterns in the covariance matrix such as which emotions occur together (are positively

correlated), which are opposites (negatively correlated), and which are independent of one another (uncorrelated). In other words, analysis of the covariance matrix reveals which emotions are conceptually similar or dissimilar. If *pride* and *joy* are conceptually similar, they ought to be more strongly correlated than, say, *pride* and *shame*.

If two groups conceptualize emotion terms in the same way, then they ought to share similar covariance structures of emotion. Structural similarity can take a few forms. First, the cultural groups may share the same higher order dimensions or factors such as the emergence of two dimensions in which all the pleasant emotions group together and all the unpleasant emotions group together. Second, the relation *between* these higher order dimensions may or may not be similar across cultural groups. For example, the pleasant and unpleasant dimensions may be positively correlated in some samples, but negatively correlated or uncorrelated in others (Bagozzi, Wong, & Yi 1999; Scollon, Diener, Oishi, & Biswas-Diener, 2005; Perunovic, Heller, & Rafaeli, 2007). Third, although the overall nature of the higher order dimensions may be similar across cultures, *specific* emotions may group with or load on to different factors in different samples. For example, even if the structure of emotions in two samples is represented by two factors, positive and negative, for one sample the emotion *pride* might group with emotions such as *joy*, *happiness*, *excitement*, whereas for another sample, the emotion *pride* might group with emotions such as *sadness*, *guilt*, and *anger*. We address each of these structural possibilities in greater detail in the following sections.

Besides covariance structure analyses such as those described above, another method for examining conceptual equivalence is item response theory (IRT). IRT methods can determine whether people from different cultural groups use emotion scales in the same way (see Oishi, 2007). For example, both Miki and Katy may experience similar levels of positive emotions overall, however Miki might be less likely than Katy to report experiencing pride. This would suggest that pride is somewhat less diagnostic of positive emotional experience in Miki's culture than Katy's.

It is important to note that studies that rely on structural analyses of self-reports or IRT methods target the experience or phenomenological aspects of emotion. By contrast, other methods directly examine the cognitive representations of emotion words. For example, researchers may ask participants to rate how similar various emotion words are to one another (Russell, Lewicka, & Niit, 1989) or categorize emotion words on the basis of their prototypicality (Shaver, Wu, & Schwartz, 1992). Although the present paper focuses largely on self-reports of emotions, the various types of studies have yielded converging evidence on the structure of emotion.

Conceptual equivalence of emotion terms might also be evaluated by examining how people from different cultures recognize or categorize facial expressions of various emotions. For example, people may be shown a picture of a smiling woman and asked to select which emotion she is feeling: *angry*, *sad*, *surprised*, *guilty*, or *happy* (e.g., Ekman, Sorenson, & Friesen, 1969). Cross-cultural studies of emotional expression have shown that around the world, people tend to interpret facial expressions similarly, though

not exactly the same way. However, such research does not address the structure of emotion concepts in the same way as experiential research (i.e., self-reports) or cognitive representation studies. The latter are more concerned with the co-occurrence or perceived similarity of emotional states than with the perception of individual emotional expression.

3. Universal evidence for Positive-Negative as the two major dimensions of affect.

Kuppens, Ceulemans, Timmerman, Diener, and Kim-Prieto (2006) analyzed self-reported emotions from over 9,000 respondents spanning 48 nations (see also Lucas & Diener, 2008, who used SEM). Respondents reported on their emotional experiences in general, in other words trait-levels of emotion. Kuppens et al. (2006) replicated the two-component structure of positive and negative affect in all of the countries. These two components accounted for 40% of the total variation in emotional experience. This suggests that at the level of traits, emotions of similar valence tend to covary considerably—though not perfectly. People who frequently experience one type of negative (or positive) emotion also frequently experience other types of negative (or positive) emotions. A similar two-dimensional structure of emotion that accounted for over half the variance in emotion self-reports was found among Spanish (Joiner, Sandin, Chorot, Lostao, & Marquina, 1997) and Chinese respondents (Weidong, Jing, & Schick, 2004).

While the Kuppens et al. (2006) study examined large samples of individuals in many countries using trait measures of emotion, Scollon, Diener, Oishi, and Biswas-Diener (2004; 2005) compared fewer cultural

groups using more in-depth measures. Specifically, college students who were European Americans, Asian Americans, Hispanic Americans, Japanese in Japan, and Indians in India completed a one-week experience sampling of emotions. In experience sampling, respondents report on how they are feeling *at the moment* several times a day for several days—in other words, several state measures of emotion are taken at regular intervals. The advantage of experience sampling measures is that they reduce memory biases in emotion reports. To capture an individual's overall emotional experience, or a trait-like score, the repeated momentary reports were aggregated. The study was one of the few, if only, large-scale experience sampling studies of emotions across multiple cultures.

Given that the data included both state and trait information, questions about structure could be addressed at both levels. In both state and trait analyses, the data showed considerable similarity in the structure of emotion across cultural groups. The higher order factors of pleasant and unpleasant emotions emerged in all five groups, accounting for 50-65% of the variance in emotion reports. The two-factor structure indicated there was a tendency for individuals who experienced one pleasant emotion to experience other pleasant emotions as well, both at the state level and over time (trait level). Likewise, individuals who frequently felt one unpleasant emotion also felt other unpleasant emotions at both the momentary and aggregate levels. Our findings converged with those of Watson, Clark, and Tellegen (1984) who compared Japanese and American participants using experience sampling methods. Moreover, neuroimaging studies provide further evidence for two

separate systems in the brain, one for positive activation and the other for negative activation (Feldman Barrett & Wager, 2006).

Readers familiar with the literature on the structure of emotion, however, will note alternative models to the one described thus far in which pleasant (or positive) and unpleasant (or negative) emotions form separate and often independent dimensions. One prominent alternative proposed by Russell and colleagues indicates the existence of a valence dimension in which positive and negative emotions are opposite ends, and the existence of a second dimension that captures arousal level. Although there has been debate in the literature over which model is best, there is great similarity in the two models. The main difference appears to be in the rotation of the dimensions or factors, and a rotation of 45 degrees to the dimensions of one model yields dimensions similar to that of the other model (Feldman Barrett & Russell, 1999). Another alternative that is derived from appraisal theories of emotion posits four dimensions: arousal, valence, potency, and predictability (Fontaine, Scherer, Roesch, & Ellsworth, 2007). Fontaine et al. (2007) found evidence for the existence of these four dimensions in three different languages. However, they relied on participants' ratings of emotion features, whereas much of the research reviewed in this paper concerns experiential ratings of emotions.

4. Cultural differences in the interpersonal nature of emotion

In addition to the dimensions of positive and negative emotion, some researchers have found the existence of a factor which they have interpreted as an interpersonal dimension (e.g., Kitayama, Markus, & Kurokawa, 2000).

Emotions such as *guilt*, *indebtedness* to another, *respect*, and *friendly feelings*, form one end of the interpersonal dimension, whereas emotions such as *pride* and *on top of the world* characterize the other end of the interpersonal dimension. Kuppens et al. (2006) also provided tentative support for an interpersonal component of emotions in a cross-national dataset of college students. This component consists of the negative emotions *guilt* and *shame*. However, *gratitude* was also found to be associated (albeit weakly) with this dimension. The existence of additional factors such as the interpersonal one do not necessarily pose a problem for cross-cultural comparisons if researchers compare groups on emotions from factors which have been replicated across cultures such as positive-negative.

The extent to which emotions are perceived and experienced as interpersonal events may vary according to cultural dimensions such as individualism-collectivism (Hofstede, 2001). Using a qualitative approach, Mesquita (2001) compared emotions among Dutch, Surinamese, and Turkish respondents. She found that emotions were more individual events for the Dutch respondents who were more individualistic. By contrast, emotions were more social events for the Surinamese and Turkish participants who were more collectivistic. In an approach that directly tested lay theories of emotion, Uchida, Townsend, Markus, and Bergsieker (2009) found that for the Japanese respondents emotions often implicated others, whereas for the Americans participants emotions primarily implicated only the self, consistent with Mesquita's findings.

In a series of studies examining cultural perceptions of emotion, Masuda, Ellsworth, Mesquita, Leu, Tanida, & van de Veerdonk (2008) found that interpretations of another person's emotional expression were dependent on the context of the situation for Japanese participants, whereas for Americans, interpretations of a target's emotions were based almost exclusively on the target's face alone. More specifically, when Japanese participants evaluated a happy face in a crowd of happy faces, they interpreted it to be happier than if the happy face were in a crowd of neutral or sad faces. By contrast, Americans tend to interpret a happy face in the same way regardless of the surrounding faces. Similarly, when Indian and American participants were asked to identify which of three emotions (*anger*, *happiness*, and *shame*) was distinct from the other two (Menon & Shweder, 1994; Rozin, 2003), Americans tended to select *happiness* because it was the only positive emotion. In contrast, Indians were more likely than Americans to select *anger* because it was less socially constructive than the other two. In short, emotions are more contextually and socially situated among Easterners than among Westerners.

5. Are positive and negative affect uncorrelated, negatively correlated, or positively correlated?

Although it is well-accepted that positive and negative affect are the two major dimensions that capture emotional experience across cultures, there may still be differences in the extent to which these two broad factors are related to one another. For many years, emotion theorists have debated whether positive and negative emotions are independent (unrelated) or

bipolar (negatively related or opposites). The question is of theoretical importance because if feeling good is the opposite of feeling bad (as the bipolarity hypothesis claims), then knowing information about one provides information about the other. However, if feeling good and feeling bad are independent, then simply measuring a person's positive emotions would give no indication of his/her negative states. More recently scholars approached the question of whether feeling good and feeling bad could go *together* (i.e., correlate positively), an idea that became known as the dialectical hypothesis. At first glance, the notion of good and bad feelings going together may seem illogical, even absurd. But the view that good and bad must be contradictions comes from a history of Aristotelian logic. An alternative philosophical tradition based on Confucian and Taoist philosophy would not see good and bad as opposites or illogical, but in fact positively correlated.

In the first study to test the dialectical hypothesis, Bagozzi et al. (1999) found that pleasant emotions were positively correlated with unpleasant emotions in Asian samples, consistent with Asian dialectical philosophy. By contrast, in American samples, pleasantness and unpleasantness were uncorrelated or negatively correlated. Whereas Bagozzi et al.'s measures focused largely on trait-levels of emotions, subsequent studies investigated both state and trait levels. The distinction between states and traits is an important one for understanding the relation between pleasant and unpleasant emotions. If pleasant and unpleasant emotional *states* are positively correlated in a culture, this would imply that people in that culture tend to experience pleasant and unpleasant emotions

simultaneously (such situations are rare but not impossible; Larsen, McGraw, & Cacioppo, 2001). By contrast, if pleasant and unpleasant emotional *traits* are positively correlated in a culture, this would imply that people who frequently experience positive emotions tend also to experience negative emotions. At the trait level, a positive correlation does not necessarily imply that happiness and sadness are experienced at the same time, only that some people are generally more or less emotional than others. To date, cultural psychologists have not explicitly clarified *in what sense* emotional experience is dialectic—simultaneously in a single moment, or frequently across many moments? Recent research is beginning to shed light on this issue.

For example, Scollon et al. (2005) compared Asians and non-Asians and assessed momentary emotions several times daily using experience sampling methodology. At the momentary or within-person level, positive and negative emotions were negatively correlated for all samples. However, at the between-person level, when emotion ratings for each person were aggregated across moments, positive and negative feelings were positively correlated in Asian samples and independent in non-Asian samples. Whereas Scollon et al. examined fewer cultural groups but at a more in-depth level, Schimmack, Oishi, and Diener (2002) examined individuals from 40 different countries using a broad, one-time assessment of emotional experience over the past month (trait measure). Results indicated that positive and negative emotions were more strongly negatively correlated in non-Asian societies, but positively or less negatively correlated in Asian societies. Furthermore, dialectical emotions appeared to be a function of Asian dialecticism, rather

than individualism-collectivism per se. That is, the positive correlation between positive and negative affect was observed only among Asian samples, and not in collectivist non-Asian societies such as those in South America. In a more direct test, Spencer-Rodgers, Peng, and Wang (2010) assessed emotional experience over the preceding few weeks and confirmed that the relation between positive and negative affect was due to dialecticism. Thus, current findings are converging toward the interpretation that the emotional experience of Asians is dialectical across several moments (pleasant and unpleasant emotions tend to co-occur in a staggered manner over an extended period of time) rather than within a single moment.

Nevertheless, a recent study suggests that cultural influences on emotional states can be quite dynamic. Perunovic et al. (2007) examined state fluctuations in the correlation between pleasant and unpleasant emotions in bicultural individuals (Asian-Canadians). After Asian-Canadians spoke English, the correlation between positive and negative emotions was negative. However, after speaking an Asian language, the correlation was nonsignificant. These findings seem at odds with those of Scollon et al.'s (2005). A key difference may be that Perunovic et al. specifically examined the emotional states of bicultural individuals *within* two different cultural contexts (Asian vs Western), whereas Scollon et al. studied monoculturals. Moreover, the effects of speaking an Asian language in a Canadian context may differ in subtle ways from speaking the same language in the home culture, although these differences are currently not well understood.

6. A closer look at specific emotions.

The higher order factors of positive and negative emotion only reveal part of the picture of cultural conceptions of emotions. More generally, some theorists (Solomon & Stone, 2002) have argued that in order to understand and predict relevant behaviors, it is necessary to look to specific emotions, rather than simply the broad strokes of good and bad feelings (e.g., Zeelenberg & Pieters, 2004).

Scollon et al. (2004) examined the loadings of specific emotions on the higher order factors and discovered some subtle differences in the conceptualization of pride and affection. Although the same two higher order factors of pleasant and unpleasant emotion emerged in self-reports of emotion, the specific emotion *pride* grouped with the unpleasant emotions in Asian samples (Japanese, Indian, Asian-American), whereas *pride* clearly loaded with the pleasant emotions in the European American and Hispanic samples. Similarly, using global self-report measures of emotion (e.g., "How much *pride* have you experienced in the past week?"), Kim-Prieto, Fujita, and Diener (2004) conducted a cluster analysis of emotion in 46 nations and found that at higher level clusters, *pride* clustered with the negative emotions in India and other non-Western societies. Using IRT methods, Oishi (2007) found that the Chinese were less likely than Americans to report feeling proud even when their overall levels of positive emotions were similar. Oishi suggested that *pride* may be more relevant to positive emotions in an American cultural context that tends to emphasize self-enhancement than in a Chinese cultural context that tends to emphasize self-criticism.

The cultural differences that emerged for pride clearly reflect different cultural norms. Pride (at least when referring to individual pride that typically arises from accomplishing one's goals or affirming some internal attribute) typically reinforces the separateness of the individual from others (e.g., "I am special."). In societies such as India that emphasize social relations, people may be sensitive to the socially destructive nature of emotions (Menon & Shweder, 1994). In that regard, *pride* may be viewed as undesirable. By contrast, in individualist societies such as North America where people may strive to stand out, pride is seen as desirable. Importantly, in the Scollon et al. (2004) study the unpleasantness of *pride* was observed only at the trait, not state, level of analysis. When examining the structure of emotion at the state level, *pride* still grouped with the traditionally pleasant emotions, a necessary condition for establishing measurement equivalence and thus cross-cultural comparisons of pride. In other words, it would not be meaningful to say that Katy experiences more pride than Miki if pride is experienced as pleasant for one culture but unpleasant for another. In addition to structural differences, frequency of self-report pride was notably lower in Asian samples compared to non-Asians in the Scollon et al. (2004) study. Similarly, Kitayama, Mesquita, and Karasawa (2006) found that Americans reported experiencing more pride than Japanese individuals. Moreover, Kitayama et al. (2000) found that the Japanese experienced a higher frequency of socially engaging emotions such as feelings of indebtedness whereas Americans reported more experiences of socially

disengaging emotions such as pride, which is consistent with the cultural tasks of interdependence and independence respectively.

Cultural differences have also been found in the conceptualization of *affection*. Although most Westerners would probably not question the desirability of states such as affectionate, in Asian samples self-reports of affection at times grouped with unpleasant states (Scollon et al., 2004). This may seem puzzling given that affection, unlike pride, would seem to emphasize social engagement. However, other investigators (e.g., Shaver et al., 1992) have found that love-related concepts appear more closely related to sadness and loss in the Chinese lexicon. Ethnographic studies of other cultures have made similar observations. For instance, the Ifaluk have a word called *fago* which represents a combination of love, sadness, pity, and compassion (Lutz, 1982).

7. Do indigenous emotions add to the study of emotions across cultures?

One criticism of the research on the structure of emotion is that investigators often begin with English emotion words and translate them into other languages prior to examining structural equivalence. This practice may inflate the degree of cross-cultural similarity in structure, particularly if some languages have words for emotions that do not have English equivalents. The inclusion or exclusion of such indigenous emotions could severely alter the structure of emotions. To address this problem, Scollon et al. (2004) conducted structural analyses that also included indigenous emotions. For

instance, the Japanese emotion lexicon includes the term *fureai* which describes a sense of connectedness to someone else. If the English emotion lexicon does not adequately represent the structure of emotion in other non-English societies, then the inclusion of indigenous emotions in structural analyses should reveal that indigenous emotions form a separate factor apart from the commonly observed dimensions of positive and negative affect. Indigenous emotions were examined for Japanese and Indian samples, and in neither case did additional factors emerge to account for the structure of emotions with indigenous terms. Instead, indigenous emotions loaded on the expected factors of pleasant and unpleasant emotion. Moreover, Indian and Japanese participants did not report experiencing the indigenous emotions any more frequently than the translated English emotions on a daily basis. In summary, while the inclusion of indigenous emotions in culture and emotion research certainly adds information, the traditional factors of pleasant and unpleasant emotions adequately capture emotional experience in non-Western cultures. Indigenous emotions may provide added richness to the data, but they also preclude any meaningful comparisons.

A related study by Kim-Prieto et al. (2004) investigated the effects of language on the structure of emotion by cluster analyzing emotion self-reports from respondents of different nationalities who completed the emotion measures in different languages. For example, some samples of Indian participants answered emotion items in Bengali while others answered in English. Likewise, Chinese respondents answered emotion questions in either Mandarin or English. If language strongly determines the structure of

emotion, then we would expect responses to cluster by language (e.g., English responses, from both India and China, together) rather than by culture (e.g., Indians, both Bengali and English, together). However, the clustering of responses was almost entirely based on cultural group. That is, Chinese respondents who answered in English were more similar to other Chinese respondents who answered in Mandarin than Indian respondents who answered in English. These results may seem to contradict those of Perunovic et al.'s (2007) finding that language affected the dialectical relations between pleasant and unpleasant emotions. However, it is important to note that Kim-Prieto et al. evaluated structure in terms of the interrelationships among specific emotions, whereas Perunovic et al. focused more on the correlation between higher-order emotion constructs.

8. Beyond psychometric structure: Direct assessments of the desirability of emotions

Although the structural evidence for cross-cultural similarity is quite strong, other important aspects to consider in cultural conceptions of emotions are norms and cultural beliefs about emotions. In other words, how desirable do members of a particular culture think it is to feel *happy* or *guilty* or *proud*? In a sense, the structural analyses get at this indirectly, but research which directly examines the desirability of various emotions is also valuable. Norms regarding emotions can impact the experience of emotions (Eid & Diener, 2001), in particular people's memories of their emotions (Scollon, Howard, Caldwell, & Ito, 2009). And the way people remember their emotions, in turn, is important because of the role these memories play

in guiding decision making (Riis & Kahneman, 2005). For example, memory for emotions is a stronger predictor of behavioral choices than momentary experience even though momentary measures have greater reliability due to repeated assessments (Wirtz, Kruger, Scollon & Diener, 2003).

To understand how culture shapes emotions, Tsai and her colleagues have extensively studied ideal affect, or the “affective states that people strive for and ideally want to feel” (Tsai, 2007, p. 243). Ideal affect is conceptually and empirically distinct from a person’s self-reported or “actual” emotion. For instance, a depressed person may wish to experience guilt infrequently and joy frequently (ideal affect), but the desire does not necessarily translate into the person’s actual experience. Not surprisingly, in general most people desire to feel more positive and fewer negative emotions than they actually feel.

However, intriguing cultural differences emerge when one looks at more specific classes of emotions. Compared to Asians and Asian-Americans, European Americans gave higher ideal ratings to high arousal positive states such as excitement, elation, and enthusiasm (Tsai, Knutson, & Fung, 2006). Asians gave higher ideal ratings to low arousal positive states such as feeling calm, peaceful, and serene. In other words, European Americans want to feel excitement frequently, whereas Asians want to feel calm frequently. These differences may be related to the goals that are prevalent in each culture. In Asian cultures where social harmony is emphasized, low arousal positive emotions may facilitate attention and adjustment to the social context. In contrast, the Western cultural context places greater emphasis on individual

agency and influencing the environment to suit one's needs. As such, high arousal positive affect is energizing and facilitates the valued goal of exercising one's agency.

These cultural differences in ideal affect can be further traced to differences in important cultural products. For example, the Bible and contemporary Christian self-help books (mainly Western products) have more references to high arousal positive states (e.g., rejoice, proud), whereas classic Buddhist texts and modern Buddhist self-help books (mainly Eastern cultural products) have more references to low arousal positive states (e.g., serene, calm, peace; Tsai, Miao, & Seppala, 2007). A look at popular children's books in Taiwan versus the United States revealed a similar pattern (Tsai, Louie, Chen, & Uchida, 2007). Characters in Taiwanese children's books often display calm positive expressions such as a closed-mouth smile with the eyes closed. By contrast, characters in American children's books display more excited expressions such as wider, open-mouthed smiles with the eyes open. These findings suggest that Asians and European Americans emphasize different emotions in positive affect. A straight comparison of positive and negative affect across groups, however, could obscure these fine cultural differences.

Another way to capture cultural beliefs, particularly the socialization of such beliefs, is to examine what adults want for their children. Diener and Lucas (2004) asked over 10,000 adults in 48 countries about their desires for their children's emotions and found significant cultural differences in desires for happiness, fearlessness, and anger suppression. Individualist countries

had stronger desires for their children to be happy compared to collectivist nations. People in countries with high levels of worry (perhaps due to political instability) reported wanting their children to be more fearless. Similarly, in societies where negative emotions were considered less appropriate, there was a greater desire for fearlessness.

9. Cognitive associative networks as a means for understanding how cultures conceptualize emotions

So far we have addressed cross-cultural conceptual equivalence of emotions from a measurement perspective and by directly assessing cultural norms regarding emotions. A third, and perhaps the most innovative, means of understanding how cultures conceptualize emotions is to directly examine the cognitive organization of emotion information. Of course, cognitive organization does not lend itself to direct observation. Therefore, researchers must rely on indirect methods such as reaction time measures for inferring cognitive organization.

Robinson and colleagues have written extensively on the use of reaction time measures to assess individual differences (see Robinson & Neighbors, 2006, for an excellent review). Specifically, Robinson developed a method for assessing the semantic organization of positive and negative emotions. The procedure involves having participants answer several (up to over 200) questions about their general emotional experience (e.g., "In general, how frequently do you experience happiness?", "In general, how frequently do you experience guilt?"). Whereas traditional approaches to studying conceptualization of emotions have focused on the actual responses

to these questions, Robinson examined reaction times to the self-reported items.

Participants are presented with several emotion items in rapid succession and randomized order. Sometimes the question asks about a positive emotion (e.g., joy), and sometimes the question asks about a negative emotion (e.g., blue). If emotion knowledge is organized coherently and by valence, then people ought to be faster to respond to questions that have the same valence as the preceding question. In other words, answering a question about happiness activates knowledge and memories of other positive experiences, reducing the time it takes to answer subsequent questions about positive emotions. For example, responses to "How much happiness do you generally experience?" should be speedier when following the question "How much pride do you experience in general?" as opposed to the question "How much guilt do you experience in general?" Likewise, people should be faster to answer a question about sadness when it follows another negative-valenced question (e.g., anger) rather than a positive-valenced question (e.g., calm). Responding to a question about guilt and then happiness (or calm and then sadness) requires a shift in information set that increases response time.

Robinson and Kirkeby (2004) showed that indeed people are faster to respond to like-valenced questions in general, although there are individual differences in this phenomenon which reflect individual differences in the organization of emotion-related semantic knowledge. Specifically, people with high life satisfaction tend to have a more tightly organized semantic

knowledge structure of their positive emotions such that positive emotion items facilitate their responses to subsequent positive emotion items (more so than for less satisfied individuals). People who are high in neuroticism, by contrast, tend to have a more tightly organized network of negative emotion knowledge (Robinson, Ode, Moeller, & Goetz, 2007).

Corroborating evidence comes from a study by Koo and Oishi (2009) who used the Deese-Roediger-McDermott false memory paradigm. When people with high life satisfaction were presented with positive emotion words, they tended to falsely remember the presence of the word *happiness*. Importantly, the false memory effect was specific only to the organization of positive emotion words. That is, happy people did not just have more false memories in general, but they tended to have false memories within a specific associative network—that having to do with positive emotions. As with the Robinson and Kirkeby (2004) study, Koo and Oishi's false memory finding suggests that people with high life satisfaction have a more organized interconnected network of positive emotion information.

If there are individual differences in the cognitive organization of emotion information, might there be cultural differences as well? Preliminary evidence from our laboratory suggests there may be cultural differences in cognitive organization as well (Scollon & Koh, 2010). Although Singaporeans displayed a facilitating effect of positive emotions similar to that reported among American college students in general (cf. Ready, Robinson, & Weinberger, 2006), the facilitating effect of negative emotions, however, was greater than the facilitating effect of positive emotions. Thus, negative

emotion appears to be organized differently (perhaps more tightly and coherently) for Singaporeans than for Americans. One possible interpretation is that a cultural ethos of self-criticism (Heine, Lehman, Markus, & Kitayama, 1999) tends to be more prevalent in East Asian societies. Children may be socialized to focus on their weaknesses to foster self-improvement. The emphasis on self-criticism may engender several consequences such as a greater attention to avoiding failure relative to attaining success (Elliot, Chirkov, Kim, & Sheldon, 2001), fear of negative evaluation, and perhaps, tighter associative links among negative emotion concepts. Clearly more research is needed.

10. Conclusions

Across cultures, emotional experience can be broadly summarized by the two dimensions of positive and negative affect. The recognition of pleasant and unpleasant emotional states by people from all cultures may reflect a shared human heritage. Nevertheless, there is more to emotional experience than valence, and these additional aspects may be susceptible to cultural influences. First, emotions may co-occur along other dimensions such as the extent to which they are interpersonal. In Asian cultures, emotions are more likely to reference the social context than in Western cultures. Second, specific emotions (e.g., pride) may be more or less relevant to positive (or negative) affect, depending on how compatible they are with culturally valued goals—such as maintaining social harmony or establishing one’s unique identity. Third, a distinction can be made between experienced emotions and ideal emotions. Given that different cultural goals prescribe certain behaviors

and attitudes, some emotions (e.g., calm) are valued more than others (e.g. excitement) across cultures. Finally, cultural differences in the cognitive association of positive and negative emotional experiences represent an exciting future direction. This work may shed light on why certain emotions are more likely to be experienced together in one culture versus another.

Culture and emotion research has contributed to a more nuanced understanding of how people across societies experience and react to their feelings. A remarkable implication of this research is that despite the diversity that characterizes humanity, there are broad similarities in emotional experience that unite us. Moreover, the differences that do exist can be comprehended within the cultural logic of each society.

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