Feeling close and doing well: The prevalence and motivational effects of interpersonally engaging emotions in Mexican and European American cultural contexts

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*T*wo studies investigate whether interpersonally engaging emotions—those that bring the self closer to others (e.g., affection, shame)—are central to the model of self and relationships prevalent in Mexican cultural contexts. Study 1 demonstrated that compared to people in European American contexts, people in Mexican contexts were more likely to report experiencing interpersonally engaging emotions and less likely to report experiencing interpersonally disengaging emotions. Study 2 found that interpersonally engaging emotions had a substantial influence on performance motivation in Mexican contexts—Mexican participants solved more word search puzzles after recalling instances in which they experienced positive interpersonally engaging emotions, and fewer after recalling negative interpersonally disengaging emotions; in contrast, there were no differences by condition for European Americans. These findings significantly extend previous research by documenting the implications of relational concerns (e.g., *simpatia*, *personalismo*) for emotion and motivation in Mexican contexts, and are the first to demonstrate the motivational effects of interpersonally engaging emotions.

Keywords: Culture; Emotion; Motivation; Mexico; Latin America.

*D*eux études visaient à examiner à quel point les émotions engageantes sur le plan interpersonnel – c'est-à-dire celles qui nous amènent à être plus proches des autres (p. ex., l'affection, la honte) – sont centrales pour les modèles de soi et des relations qui prévalent dans les contextes culturels mexicains. L'étude 1a indiqué que, comparativement aux gens des contextes américains européens, les gens des contextes mexicains ont davantage vécu des émotions engageantes sur le plan interpersonnel et ils ont moins vécu des émotions qui les désengageaient sur le plan interpersonnel. L'étude 2a trouvé que les émotions engageantes sur le plan interpersonnel constituaient une influence substantielle sur la motivation à la performance dans les contextes mexicains – les participants mexicains trouvaient plus de mots dans une tâche de recherche de mots cachés après s'être rappelé des circonstances dans lesquelles ils avaient vécu des émotions positives engageantes sur le plan interpersonnel, mais ils trouvaient moins de mots après s'être rappelé des émotions négatives qui les désengageaient sur le plan interpersonnel. En contrepartie, il n'y avait pas de différence dans ces conditions pour les Américains Européens. Ces résultats représentent un apport significatif aux recherches antérieures en nous informant sur les implications des enjeux relationnels (p. ex., *simpatia*, *personalismo*) pour les émotions et la

motivation dans les contextes mexicains. Aussi, ils sont les premiers à démontrer les effets motivationnels des émotions engageantes sur le plan interpersonnel.

$\mathcal{S}$ e investiga en dos estudios si las emociones de interacción interpersonal —aquellas que producen un acercamiento del sí mismo a los demás (por ej., el afecto, la vergüenza)— son centrales para el modelo del *self* y las relaciones que prevalecen en los contextos culturales mexicanos. El Estudio 1 demostró que, en comparación con las personas de contextos europeo-americanos, los individuos de contextos mexicanos eran más propensos a informar la experiencia de emociones de involucramiento interpersonal y tenían menores probabilidades de informar la experiencia de emociones de desligamiento interpersonal. En el Estudio 2 se encontró que las emociones de involucramiento interpersonal ejercían una influencia sustancial en la motivación del rendimiento en contextos mexicanos— los participantes mexicanos resolvieron más tareas de "sopa de letras" luego de recordar casos en los que experimentaron emociones positivas de interacción interpersonal y resolvieron menos después de recordar las emociones negativas de desligamiento interpersonal; en contraste, no hubieron diferencias según condición para los norteamericanos de origen europeo. Estos hallazgos amplían significativamente la investigación previa al documentar las implicaciones de los aspectos relacionales (por ej., la simpatía, el personalismo) para las emociones y la motivación en contextos mexicanos, y son los primeros en demostrar los efectos motivacionales de las emociones de involucramiento interpersonal.

The frequency and intensity of various emotions differ across cultural contexts (Barrett, 2006). One source of this variation is culturally pervasive models of self and of relationships, the common and desirable ways of being a person and having relationships with others (Kitayama & Markus, 1994; Mesquita, 2003; Mesquita & Leu, 2007; Oishi & Diener, 2003; Oishi, Koo, & Akimoto, 2008; Shweder & Haidt, 2000; Tsai, 2007). For instance, the prevalence of happiness in North American cultural contexts is linked to the cultural ideals of independence from others, success, and personal achievement—happiness is supposed to both help achieve and signal these ideals (D'Andrade, 1987; Hochschild, 1995). In certain Mediterranean contexts, the systematic avoidance of shame may be explained by the high value placed on honor, which can only be bestowed and denied in relationship with others (Abu-Lughod, 1986; Antoun, 1968; Ginat, 1979). In this manner, emotions tend to be more prevalent when they fit the cultural models of self and of relationships, and less prevalent when they are inconsistent with them (Mesquita, 2003).

Recent comparative research on the prevalence of emotions in Japan and the US has also found evidence for a match between commonly experienced emotions and cultural ideals (Kitayama, Markus, & Kurokawa, 2000; Kitayama, Mesquita, & Karasawa, 2006). In this research, performing multidimensional scaling on participants' ratings of a diverse set of emotion terms, Kitayama and colleagues found that emotions are defined not only by their valence and arousal but also by their relational outcomes. Interpersonally engaging emotions are those that create a positive link between the self and others (such as affection and shame), whereas interpersonally disengaging emotions are those that create a negative link between self and others (such as pride and anger). To elaborate, a negatively valenced emotion such as shame can be interpersonally engaging because it often arises from the experiencer's failure to meet normative social standards; an acknowledgment of one's failure attempts to repair one's relationship with the others who were disappointed. Similarly, a positively valenced emotion such as pride can be interpersonally disengaging because it indicates that one is superior to others, which increases the distance between the self and others. Kitayama et al. (2000, 2006) found that consistent with the cultural models of interdependence and independence, respectively, Japanese report experiencing interpersonally engaging emotions more frequently, whereas US Americans report experiencing interpersonally disengaging emotions more frequently.

In the present studies, we extend previous research on culture and emotion to Mexican cultural contexts. Drawing on previous research, we predict that interpersonally engaging emotions will be more desirable and thus more frequent in Mexican cultural contexts than in US American contexts. We test this hypothesis using a situational sampling paradigm that assesses the frequency of different emotions in actual interpersonal situations, rather than through self-report. We then test for the first time whether, given the significance of interpersonally disengaging emotions for independent selves and of interpersonally engaging emotions for interdependent selves, these emotions would differentially motivate individuals' performance on unrelated tasks in the two cultural contexts.

INTERPERSONALLY ENGAGING AND DISENGAGING EMOTIONS

Extensive previous research, including crosscultural comparative research, has mapped emotions in a space defined by the dimensions of valence and arousal (Russell, 1983; Yik & Russell, 2003). In this research, respondents are typically asked to rate the similarity of pairs of emotion terms (and their translations), considered in Western languages to be the most common and basic. By expanding the commonly used set of emotion terms to include indigenous Japanese emotion words "that presuppose the presence of others" (Markus & Kitayama, 1991, p. 238), Kitayama et al.'s (2000) multidimensional clustering analysis identified a novel dimension of emotional experience, the dimension of *interpersonal engagement*.

The dimension of interpersonal engagement distinguishes between emotions in ways that are not captured by either valence or arousal. For example, pride and affection are similar in that they are both positively valenced emotions. However, the interpersonal significance of these emotions differs considerably. Pride invokes a feeling of achievement, a sense of self-satisfaction and superiority to others, whereas affection invokes a feeling of interdependence, a sense of closeness and communion with others. Pride is thus an example of an *interpersonally disengaging* emotion (an emotions that distances the self from others), whereas affection is an example of an *interpersonally engaging* emotion (an emotion that brings the self closer to others). On the other hand, whereas anger and shame are both intensely negative emotions, anger distances people from others and disrupts interpersonal harmony, and is thus categorized as an *interpersonally disengaging* emotion. Shame, by acknowledging one's wrongdoing, attempts to bring the self closer to others, and thus is categorized as *interpersonally engaging*. Kitayama et al. (2000) found that a cluster analysis of participants' similarity ratings of 31 emotional terms yielded three dimensions, corresponding to valence, arousal, and interpersonal engagement, respectively.

The interpersonal dimension of emotions is intimately related to cultural models of self and relationships. In addition to finding that the frequency of interpersonally engaging and disengaging emotions differs across cultural contexts, Kitayama et al. (2000) found that general positive emotions indicative of wellbeing, such as *happy*, *calm*, and *elated*, were positively correlated with interpersonally disengaging emotions (e.g., pride) in US American contexts, but with interpersonally

engaging emotions (e.g., affection) in Japanese contexts. Kitayama et al. (2006) replicated these findings using a daily diary study tapping actual emotional experiences. They found that Japanese participants were more likely to experience general positive emotions in the situations where they also experienced positive *interpersonally engaging* emotions (e.g., affection), whereas American participants were more likely to experience general positive emotions in the situations where they also experienced positive *interpersonally disengaging* emotions (e.g., pride). These findings demonstrate that the interpersonal dimension of emotions has substantial implications for people's wellbeing.

EMOTION IN MEXICAN CULTURAL CONTEXTS

As in Japanese cultural contexts, in which individuals are conceptualized as interdependent and interrelated, Mexican cultural contexts foster the idea that ideal relationships are warm and emotionally close (Greenfield & Cocking, 1994; Triandis, Marin, Lisansky, & Betancourt, 1984). The idea of *simpatia* in Mexican contexts has been characterized as a "highly valued relational style [that] resembles the search for social harmony characteristic of many East Asian cultures but includes an emphasis on expressive displays of personal charm, graciousness, and hospitality more specific to Latin cultures ... A person who is *simpatico(a)* is one who proactively attempts to create a highly personable atmosphere as an end in itself" (Sanchez-Burks, Nisbett, & Ybarra, 2000, p. 175; see also Sanchez-Burks, Bartel, & Blount, 2009). Further, according to the concept of *personalismo* that is prevalent in Mexican contexts, people should strive to create "a highly personalized communication style that is characterized by interdependence and cooperation ... The values underlying *personalismo* are self-worth, the dignity of self and others, and *respeto* (respect shown to others)" (Holloway, Waldrip, & Ickes, 2009, p. 1012). An analysis of people's spontaneous self-descriptions found that *relationships* and *simpatia* were unique aspects of Mexicans' self-concepts, not shared by Americans' self-concepts (Ramirez-Esparza, Chung, Sierra-Otero, & Pennebaker, 2012). This research collectively suggests that Mexican cultural contexts emphasize the importance of positive and warm forms of relating to others more than European American cultural contexts.

If emotions that fit with cultural models of self and relationships are more prevalent, we would expect that people in Mexican cultural contexts would be more likely than European Americans to experience interpersonally engaging emotions, and less likely to experience interpersonally disengaging emotions; some crosscultural research suggests this might be the case. In one of the first crosscultural analyses of US American and Mexican contexts from a psychological perspective, Triandis et al. (1984) found that people from various Hispanic backgrounds were more likely than European Americans to expect positive interactions in various interpersonal situations and less likely to expect negative interpersonal behaviors; if these expectations are grounded in reality, then warm, agreeable interactions might be more prevalent in Hispanic American settings than in non-Hispanic European American settings. Further, Sanchez-Burks et al. (2000) found that Mexican participants preferred workgroups that had a socioemotional focus in addition to a task orientation, whereas European Americans preferred exclusively task-oriented workgroups. These socioemotionally oriented groups give importance to positive relational interactions between group members in addition to efficient task performance, and hence can be expected to induce positive engaging emotions.

Research by Holloway et al. (2009, Studies 1 and 2) also suggests that positive interpersonally engaging emotions may be more prevalent in Mexican contexts than in European American contexts. Using the 20 statement test, they found that when compared to European American students, Mexican American students were more likely to describe themselves using *simpatia*-related terms, such as likable, sympathetic, polite, pleasant, amiable, congenial, agreeable, easygoing, understanding, gracious, tolerant, respectful, considerate, friendly, and courteous, many of which refer to positive interpersonally engaging emotions. Further, Holloway et al. (2009, Studies 3a and 3b) found that in dyadic interactions, Mexican American participants were more likely to express positive interpersonally engaging behaviors (e.g., smiling, partner-directed gazing) than European American and African American participants, and partners of Mexican Americans reported having better quality interactions compared to partners of African Americans and European Americans. These findings suggest that overall, people engaging in Mexican cultural contexts might be more likely to experience and express interpersonally engaging emotions than non-Hispanic US Americans.

Ramirez-Esparza et al. (2012) provided additional support for the idea that warm relationships are central to self-concepts in Mexican cultural contexts. They collected spontaneous self-descriptions of Mexican and American participants and analyzed them according to the *meaning extraction method*, a text-analytic procedure designed for extracting self-concepts from open-ended self-descriptions (Chung & Pennebaker, 2008). The researchers performed factor analyses (within each culture) on the co-occurrence of the 40 most frequent self-descriptors to identify the key dimensions of the self-concept in each culture. Mostly strikingly, they found that the first and most prominent factor in Mexicans' self-concept was represented by the concept of *relationships* (e.g., parents, friends, family, love, hope, pain). Another factor referred to *simpatia* (e.g., affectionate, responsible, devoted). However, both these dimensions were absent in Americans' self-concepts, indicating that warm, positive relationships are particularly salient in Mexican cultural contexts.

Although Japanese and Mexican cultures appear similar in their emphasis on the interpersonal dimension of emotion, there is some suggestion that Japanese have avoidance goals whereas Mexicans have approach goals. Research suggests that Japanese are particularly motivated by avoiding negative engaging emotions, such as shame. For example, Japanese are more motivated after failure than after success feedback (Heine et al., 2001), and are more likely to learn from mistakes (Stevenson & Stigler, 1994). Further, whereas Asian Americans tend to experience a similar degree of positive and negative emotions, European Americans experience more positive than negative emotions, and Hispanic Americans experience even more positive emotion than European Americans (Oishi, Diener, Scollon, & Biswas-Diener, 2004). Together, the above findings suggest that whereas Japanese might have the goal of avoiding negative emotions, particularly negative interpersonally engaging emotions, Mexicans might have the goal of approaching positive emotions, particularly positive interpersonally engaging emotions.

While previous research has found that interpersonally engaging self-concepts and behaviors are more common in Mexican cultural contexts than in European American cultural contexts, in the present research, we tested for the first time whether Mexicans and European Americans differ in how often they experience interpersonally engaging and disengaging emotions. The research reviewed above suggests that Mexicans might be more likely than European Americans to

experience interpersonally engaging emotions and less likely to experience interpersonally disengaging emotions.

STUDY 1

Study 1 aimed to assess the relative prevalence of socially engaging vs. socially disengaging emotions in Mexican and European American contexts by sampling emotion-inducing situations from both cultural contexts. We hypothesized that Mexicans would report experiencing interpersonally engaging emotions more often than European Americans, but that European Americans would report experiencing interpersonally disengaging emotions more often than Mexicans.

Previous research assessed crosscultural variation in the frequency of interpersonally engaging and disengaging emotions by asking participants to rate the extent to which they experienced a number of engaging and disengaging emotions, which were selected to be representative of the emotion domain in Japanese and English languages (e.g., Kitayama et al., 2000, 2006). Instead, we asked respondents to report the emotions that they experienced in recent emotion-eliciting situations that occurred in their lives. We made this methodological choice for two reasons. First, when using rating scales, researchers need to preselect a list of emotions; however, we did not wish to make assumptions about the most frequent emotions in Mexican contexts. Second, crosscultural comparisons with rating scales suffer from a number of biases due to variable reference points, social comparisons, and contrast effects due to deprivation (Heine, Lehman, Peng, & Greenholtz, 2002; Peng, Nisbett, & Wong, 1997).

To alleviate these concerns, we asked participants to describe recent situations in which they experienced positive and/or negative emotions, and asked them to describe the emotion(s) that they experienced in each situation; we then coded the described emotions on the dimensions of valence and interpersonal engagement. The present methodology allows us to sample emotions that individuals experience in their everyday lives, thus avoiding possible experimenter biases associated with preselecting a list of emotions. Further, by assessing the relative frequency of different emotions based on their occurrence in a large sample of everyday situations, we avoid confounds associated with crosscultural comparisons using rating scales, such as the reference group effect (Heine et al., 2002) and social comparison and deprivation (Peng et al., 1997). However, because

culture shapes what information is salient in memory (Masuda & Nisbett, 2001; Oishi, 2002), participants might not recall a random or representative sample of affectively laden situations that they experienced in their daily lives, but a sample of situations that is more salient in memory. Therefore, the situations that participants recall might reflect the salience of specific emotional events in memory, as well as actual emotional experience.

Method

Participants

A total of 74 European American students at Stanford University (42 women, 32 men, mean age 21.3 years) and 80 Mexican students at Universidad de Guadalajara, Mexico participated in this study. Due to a clerical error, gender and age data are available for only 41 Mexican participants (16 women, 25 men; mean age 20.0 years).

Materials

Participants responded to a situation sampling prompt asking them to describe recent emotion-inducing situations that occurred in their lives. To obtain a diverse sample of situations, we asked participants to describe situations involving positive affect and situations involving negative affect. The complete prompt was:

> Please take a moment to reflect upon the last 7 days and describe all the situations in which you felt good or bad. Feel free to describe any type of situation that you encountered and describe your feeling in that situation. Please be specific when describing both the situation and the feeling. In the following pages you will find space to list many situations. While it is not necessary to fill all the spaces, we do request that you fill in as many as you can. Please continue to think about the situations for the next 15 minutes and write down as many situations as you can. The experimenter will inform you once 15 minutes have passed. If you have any questions at all, please ask the experimenter.

Participants were then provided with two pages in which they could describe up to 16 situations. For each situation, participants were asked to specify the emotions that they experienced in that situation. The questionnaire was prepared in English, translated into Spanish, and then

back-translated to ensure comparability with the original English version.

Results

Mexican participants generated 10.4 situations on average, for a total of 822 situations, while American participants generated 12.5 situations on average, for a total of 913 situations. It is possible that cultural differences in the practice of completing surveys, or perhaps cultural differences in the tendency to reflect on one's internal states, might have contributed to this difference. Of these situations, we took a random sample of 200 situations from each culture (as in Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). For each of these situations, we noted all the emotions that the participant mentioned, resulting in a total of 707 emotional terms, 315 generated by Mexican participants and 392 generated by American participants).

Below are some sample situations.

Sample Mexican situations
My newborn nephew opened his eyes after sleeping and he fixated a look on my face for 15 seconds. I felt affection and harmony between unequals.
This Sunday I was very hungover and began to think about what I had done the night before. I felt guilt and shame.
Sample American situations:
Monday was my birthday and my best friend at school didn't get me a gift or even say "happy birthday." I felt bad.
Baking cookies with a roommate at 10 pm to put off a problem set for a class we're both in, others wandered in and out of the kitchen happy that we were making cookies. I felt pride, accomplishment.

A Spanish-English bilingual research assistant, born in Mexico and raised in the US, translated all the emotion terms listed by Mexican participants from Spanish to English. The research assistant was asked to take particular care to ensure that any possible indigenous emotion terms were not mistranslated. The second author, who was also born in Mexico and raised in the US, back-translated the emotion terms from English to Spanish, and discrepancies were resolved by discussion.

Thereafter, using the classification guidelines employed by Kitayama et al. (2000, 2006), two trained research assistants, one Mexican American and one Native American, independently coded the English version of each of these emotions on the dimensions of valence (i.e., positive or negative) and interpersonal engagement (i.e., interpersonally engaging, interpersonally disengaging, or neutral). Emotions were independently coded on these two dimensions. An emotion was coded as interpersonally engaging if it created a positive link between the self and others (e.g., affection, gratitude, sympathy), or attempted to resolve a negative link between the self and others (e.g., shame, embarrassment, guilt). An emotion was coded as interpersonally disengaging if it highlighted the self as autonomous and separate from others (e.g., pride, superior, confident), or if it distanced the self from others (e.g., angry, frustrated, annoyed). Intercoder agreement was 99.7% for the valence of the emotion and 95.2% for the interpersonal engagement of the emotion. Disagreements were resolved by discussion.

A 2 (Culture) $\times$ 2 (Valence) chi-square test revealed that Mexicans and European Americans reported experiencing a similar proportion of positive and negative emotions in the situations that they described, χ^2 ($df = 1$, $N = 707$) = .63, $p > .22$; 49% of the emotions generated by Americans and 51% of the emotions generated by Mexicans were positive. It is possible that both groups described a very similar proportion of positive and negative emotions because they were instructed in the prompt to recall situations in which they felt "good or bad," that is, to generate about equal numbers of positive and negative situations. Notably, this finding ensures that cultural differences in valence of the emotions experienced do not account for any possible cultural differences in the interpersonal engagement of the emotions.

To assess cultural variation in the interpersonal dimension of emotion, we first conducted a 2 (Culture) $\times$ 3 (Interpersonally engaging vs. disengaging vs. neutral) chi-square test of independence, which yielded a significant effect, χ^2 ($df = 2$, $N = 257$) = 12.27, $p = .002$, Cramer's $V = .13$. To specifically compare the relative prevalence of interpersonally engaging and disengaging emotions, we excluded emotion terms that were coded as interpersonally neutral (e.g., good, bad; 68% of US-generated emotions, and 58% of Mexico-generated emotions). We next conducted a 2 (Culture) $\times$ 2 (Interpersonally engaging vs. disengaging) chi-square test of independence, which yielded a significant effect, χ^2 ($df = 1$, $N = 257$) = 5.48, $p < .02$, Cramer's $V = .15$. European American participants reported more interpersonally disengaging emotions than Mexican participants, $M = 75\%$ vs. 62%,

whereas Mexican participants reported more interpersonally engaging emotions than European Americans, $M = 38\%$ vs. 25% (see Figure 1).

Discussion

Study 1 found that overall, both groups reported experiencing more disengaging emotions than engaging emotions in the situations that they recalled, perhaps because all participants were in competitive college environments, probably away from home for the first time, which might foster disengaging emotions (e.g., pride in one's own success, jealousy of others' successes). However, consistent with the greater emphasis on warm, agreeable relationships in Mexican cultural contexts, Mexicans were more likely to experience interpersonally engaging emotions than European Americans, and consistent with the greater emphasis on independence in European American cultural contexts, European Americans were more likely to experience interpersonally disengaging emotions than Mexicans.

Whereas previous research assessed cultural variation in prevalence of interpersonally engaging and disengaging emotions using participants' ratings of emotion frequency as the dependent measure (Kitayama et al., 2000, 2006), we conceptually replicated these findings using a different paradigm that sampled emotions experienced in various everyday situations. These findings suggest that the greater cultural emphasis on close relationships in Mexican contexts compared to European American contexts (Holloway et al., 2009; Ramirez-Esparza et al., 2012; Sanchez-Burks et al., 2000, 2009) is also reflected in people's reports of their emotional experiences.

STUDY 2

Study 1 documented crosscultural variation in the prevalence of interpersonally engaging emotions, which we hypothesized derive from differences between the models of self and of relationships prevalent in American and Mexican contexts. These models prescribe how to feel and also how to act. In Study 2 we took a step further to test for the first time whether the emotions that are prevalent in particular context might also impact people's motivation in that context. The facilitation of adaptive behaviors is often considered to be an important function of affect (Frijda, 1999). That is, emotions are functional in that they induce people to engage in necessary and appropriate behaviors. For example, stimuli eliciting negative
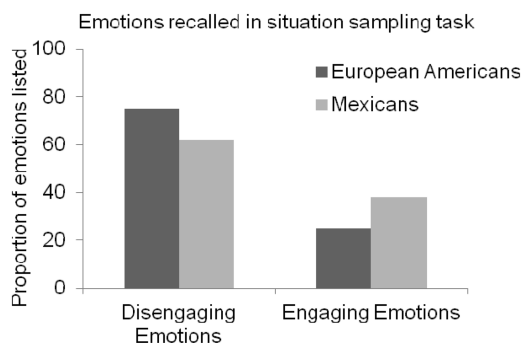

Figure 1. Proportion of interpersonally engaging and disengaging emotions recalled by participants in Study 1.

affect facilitate avoidance behaviors, whereas stimuli eliciting positive affect facilitate approach behaviors (Chen & Bargh, 1999), and negative emotional states amplify startle responses, whereas positive emotional states attenuate them (Lang, Bradley, & Cuthbert, 1990).

Previous research on the relationship between emotion and motivation has examined how affective valence influences appetitive motivation. Winkielman, Berridge, and Wilbarger (2005) manipulated affective valence by subliminally exposing participants to faces with either smiling expressions or frowning expressions, and then gave participants the opportunity to consume a pleasant beverage. They found that participants' appetitive motivation for the beverage was enhanced after subliminal priming with positive valence and dampened after subliminal priming with negative valence: Participants consumed more beverages, wanted the beverage to a greater extent, and were willing to pay more money for the beverage in the positive valence condition than in the negative valence condition.

We theorized that given the importance of warm, agreeable relationships for the self-concept in Mexican cultural contexts (Holloway et al., 2009; Ramirez-Esparza et al., 2012; Sanchez-Burks et al., 2000), positive interpersonally engaging emotional states will be functional, and therefore more motivating, in Mexican cultural contexts. Specifically, we hypothesized that positive interpersonally engaging emotions, such as affection and closeness, would signal that culturally normative goals of connectedness have been met, and thus make individuals feel more motivated. However, given that positive interpersonally engaging emotions are less relevant to the independent self-concept prevalent in European American contexts, these emotional states would be less

TABLE 1
Depiction of hypotheses for Study 2

Condition	European Americans	Mexicans
Positive engaging	0	+
Positive disengaging	+	0
Negative engaging	0	–
Negative disengaging	–	0

"+" indicates a hypothesized increase in motivation; "–" indicates a hypothesized decrease in motivation; "0" indicates a hypothesized null effect on motivation

functional and thus would not influence motivation.

Negative engaging emotions obstruct approach motivation in relational contexts; they signal that interpersonal relationships have been disrupted because of the individuals' actions, and that the individual can no longer approach others. For example, shame highlights that one has violated others' expectations and compels one to intro-spect. Therefore, we expected Mexicans to be particularly demotivated by negative engaging emotions because the culturally mandated inter-dependent self is threatened. In contrast, as disruptions of interpersonal relationships are less self-relevant for more independent European Americans, we hypothesized that negative enga-ging emotions would not influence European Americans' motivation.

Given the importance of independence for the self-concept in European American cultural con-texts, positive interpersonally disengaging emo-tional states are likely to be more functional and therefore, more motivating. Specifically, positive disengaging emotions, like pride, signal that the person has succeeded in the goal of distinguishing themselves from others and in creating a positive image of the self. Therefore, we hypothesized that positive disengaging emotions would motivate European Americans. However, given that posi-tive interpersonally disengaging emotions are not as relevant for interdependent selves, which are more prevalent in Mexican contexts, we hypothe-sized that they would not influence Mexicans' motivation.

Negative disengaging emotions are more rele-vant to the independent self; they arise when personal goals have been blocked. For example, frustration occurs when an individual is unable to do what they want to do. Therefore, we expected European Americans to be particularly demoti-vated by negative engaging emotions because the culturally pervasive independent self is threatened. In contrast, given that the blocking of personal

goals is not as threatening to interdependent selves, we hypothesized that negative disengaging emotions would not influence Mexicans' motiva-tion (see Table 1 for a depiction of the hypotheses).

We measured performance motivation as the outcome variable in our study, given its ecological validity in the educational context. Most tests administered in educational settings measure performance, e.g., how many questions students answer correctly in a fixed duration. Another option would have been to measure persistence, e.g., how long students work on a task without any time limit. We chose to measure performance over persistence given the greater ecological validity of performance in academic settings, and given that both performance and persistence are equally valid indicators of motivation (e.g., Eccles, Wigfeld, & Schiefele, 1998; Maehr, 1984).

Method

Participants

Participants were 198 Mexican students from La Universidad de Guadalajara in Jalisco, Mexico (99 women, 99 men; mean age 19.9 years, range 17–31; 95 with at least one college-educated parent), and 199 European American students from Stanford University in northern California and Wake Forest University in North Carolina (115 women, 84 men; mean age 19.1 years, range 17–24; 195 with at least one college-educated parent). There were no significant effects of participants' gender or parental education.

Procedure

Participants first completed an "Emotion Study" in which the types of emotion that they were asked to recall were manipulated between subjects in a 2 (*valence*: positive vs. negative) × 2 (*interpersonal engagement*: engaging vs. disenga-ging) design. We used the emotional recall task based on past research showing that the reliving of emotional situations is an effective way to elicit emotions (Levenson, Carstensen, Friesen, & Ekman, 1991). Participants were instructed (infor-mation in italics was varied between subjects according to the assigned conditions):

> Please take a moment to reflect upon your last few weeks and describe all situations in which you felt *good/bad towards another person/about yourself.*
> In the following pages you will find space to list many situations. While it is not necessary to fill all the spaces, we do request that you fill in as many

as you can. Please continue to think about the situations for the next 10 minutes and write down as many situations as you can. The experimenter will inform you once 10 minutes have passed. If you have any questions at all, please ask the experimenter.

Participants were provided with space to describe up to nine situations. In each condition, to give participants a concrete idea of the types of emotion that we wanted them to recall, we provided participants with examples of emotions from the target category drawn from Kitayama et al.'s (2000) classification.[1] The questionnaire was prepared in English and translated into Spanish using the standard back-translation procedure.

Ten minutes later, the experimenter interrupted participants and asked them to proceed to a "word search puzzle," which served as a measure of performance motivation. Participants were presented with a word search matrix of 15×15 letters and provided with a list of 20 target words (all nouns) that were presented in the matrix. They were given 5 min to identify the target words in the matrix. All words were easily translatable from English to Spanish and all but one had the same number of letters in both languages.

Results

We counted the number of the 20 target words that participants identified in the word search matrix, which served as the dependent measure. Overall, Mexicans identified 8.2 words and European Americans identified 11.4 words. Initial analyses indicated that age was positively correlated with performance for Mexicans, $r = .17$, $p = .02$, but not for Americans, $r = -.01$, $p > .91$. Therefore, we controlled for age in the following analyses.

We submitted this measure to a 2 (Culture) $\times$ 2 (Valence) $\times$ 2 (Engagement) ANCOVA, with a main effect of age and a Culture $\times$ Age interaction as covariates. We found a main effect of Culture, $F(1, 382) = 69.41$, $p < .001$, a Culture $\times$ Valence interaction, $F(1, 382) = 7.42$, $p < .01$, and a Culture $\times$ Valence $\times$ Engagement interaction, $F(1, 382) = 9.93$, $p < .005$, Cohen's $f = .15$.

To decompose the three-way interaction, we split the data by culture and conducted separate 2 (Valence) $\times$ 2 (Engagement) ANCOVAs (with age
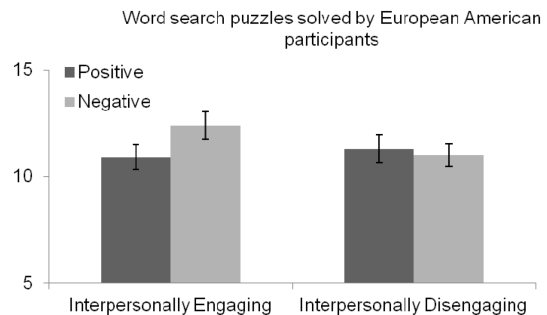

Figure 2. Number of word search puzzles solved by European American participants in Study 2. Error bars represent standard errors of the mean.

as a covariate) for each culture. None of the effects were significant for European American participants, F values < 2.41, p values $> .12$, indicating that this particular manipulation of valence and interpersonal engagement did not influence their performance (see Figure 2). A separate ANOVA including university (Stanford vs. Wake Forest) as a predictor found a main effect of university, $F(1, 191) = 13.49$, $p < .001$, $M = 10.08$ (Wake Forest) vs. 12.17 (Stanford), but university did not interact with valence, engagement, or the valence $\times$ engagement interaction, F values < 2.55, p values $> .11$. Follow-up t-tests found that the number of words American participants solved in the two disengaging conditions did not differ, $t(95) = .36$, $p > .70$, but Americans solved marginally more words in the negative engaging condition than in the negative disengaging condition, $t(93) = 1.70$, $p = .09$, $d = .35$.

In contrast, for Mexican participants, we found a main effect of age, $F(1, 197) = 3.79$, $p = .05$, a main effect of valence, $F(1, 197) = 9.59$, $p < .005$, and the predicted Valence $\times$ Engagement interaction, $F(1, 197) = 7.80$, $p = .006$, Cohen's $f = .20$. Supporting our hypothesis, Mexican participants found more words in the positive engaging condition than in the negative engaging condition, M values $= 9.47$ vs. 6.45, $t(98) = 4.97$, $p < .0001$, $d = 1.0$, while there was no significant difference between the positive and negative disengaging conditions, M values $= 8.34$ vs. 8.35, $t < 1$, $p > .75$ (see Figure 3).

We then conducted planned orthogonal contrasts to test our hypothesis more precisely with the data from Mexican participants. Contrast 1 tested whether participants solved more words in

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[1]The examples were friendly towards another person, happy for another person, close to another person, and respect for another person in the positive interpersonally engaging condition; sad for another person, indebted to another person, and embarrassed in the negative engaging condition; superior, proud, happy for yourself, and self-satisfied in the positive disengaging condition; and frustrated, mad at yourself, sad, and moody in the negative disengaging condition.
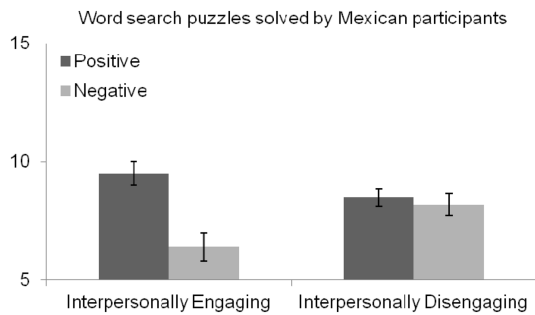
Figure 3. Number of word search puzzles solved by Mexican participants in Study 2. Error bars represent standard errors of the mean.

TABLE 2
Depiction of planned contrasts used in Study 2

Condition	Contrast 1	Contrast 2	Contrast 3
Positive engaging	1	1	0
Positive disengaging	1	−1	0
Negative engaging	−1	0	−1
Negative disengaging	−1	0	1

the two positive valence conditions compared to the two negative valence conditions; Contrast 2 tested whether participants solved more words in the positive engaging condition compared to the positive disengaging condition; finally, Contrast 3 tested whether participants solved fewer words in the negative engaging condition compared to the negative disengaging condition (see Table 2 for contrast coefficients). We also controlled for age in this analysis.

Contrast 1 was significant, $\beta = .76$, $t(192) = 3.10$, $p = .001$ (one-tailed), indicating that participants solved more words in the positive valence conditions than in the negative valence conditions. Contrast 2 was significant, $\beta = .57$, $t(192) = 1.66$, $p < .05$ (one-tailed), indicating that participants solved more words in the positive engaging condition than in the positive disengaging condition. Finally, Contrast 3, was also significant, $\beta = -.80$, $t(192) = 2.28$, $p < .02$ (one-tailed), indicating that participants solved fewer words in the negative engaging condition than in the negative disengaging condition.

Finally, we tested whether there were cultural differences in performance across the four conditions. Americans outperformed Mexicans in the positive disengaging condition, $t(94) = 8.14$, $p < .001$, the negative disengaging condition, $t(97) = 3.88$, $p < .001$, the negative engaging condition, $t(94) = 2.20$, $p < .001$, and marginally so in the positive engaging condition, $t(97) = 1.80$, $p < .08$.

Discussion

The results document that interpersonally relevant affective states have substantial effects on Mexican participants' performance motivation: Positive interpersonally engaging emotions motivated Mexican participants to perform on an unrelated task, whereas negative interpersonally engaging emotions undermined their motivation. Positive and negative interpersonally disengaging emotions did not influence participants' performance, indicating that emotions that have implications for the culturally sanctioned self are more likely to influence motivation. The rather large effect size observed for the difference between the two engaging conditions, Cohen's $d = 1.0$, suggests that interpersonally engaging emotions might be important antecedents of motivation in Mexican cultural contexts.

Contrary to predictions, European American participants' performance motivation did not vary by condition. The overall better performance by European Americans compared to Mexicans might be due to greater practice with crossword puzzles. It is possible that European Americans might have reached a ceiling effect in the number of words that they could reasonably solve in the given time, although theoretically, they could have solved eight more words. Alternatively, maybe European Americans were overall more motivated at baseline than Mexicans, and thus their motivation had less room to be influenced by the manipulation. It might also be possible that for some reason, European Americans' performance motivation is not as sensitive as Mexicans' performance motivation to the particular emotion manipulation that we employed. Future research would be needed to explore these possibilities.

GENERAL DISCUSSION

Based on previous research highlighting the importance of warm interpersonal relationships in Mexican cultural contexts, as conveyed by the concepts of *personalismo* and *simpatica*, we examined cultural differences in the prevalence and impact of interpersonally engaging and disengaging emotions. Sampling everyday emotion-eliciting situations in Mexican and European American cultural contexts, Study 1 found that Mexicans were more likely than European Americans to report experiencing interpersonally engaging emotions, whereas European Americans were more likely than Mexicans to report experiencing interpersonally disengaging emotions. These findings

demonstrate that interpersonally engaging emotions are more common in non-Western cultures beyond Japan. Notably though, both groups reported experiencing more disengaging emotions than engaging emotions.

Extending previous research on the relationship between affect and motivation (Winkielman et al., 2005), Study 2 documented for the first time that interpersonally relevant emotional states can enhance performance motivation on unrelated tasks. Mexican participants solved more word search puzzles after recalling situations in which they experienced positive interpersonally engaging emotions, and fewer puzzles after recalling negative interpersonally engaging emotions, whereas positive and negative disengaging emotions had no influence. This finding shows that Mexicans' motivation is highly sensitive to the interpersonal significance of their current affective states. In contrast, European Americans' motivation was not influenced by the emotion manipulations, indicating that their performance motivation is less influenced by their emotional states than that of Mexicans.

While the present studies were an initial attempt to examine the prevalence and motivational consequences of interpersonally relevant affective states in Mexican contexts, many questions remain. Although Study 1 documented that Mexicans are more likely than European Americans to recall situations in which they experienced interpersonally engaging emotions, it is possible that overall, the two groups experience a similar frequency of engaging in disengaging emotions but that engaging situations are relatively more salient for Mexicans, and disengaging emotions less salient. Future research might test this possibility by providing both groups of participants with the same set of situations and asking them to rate the extent to which they would experience different engaging and disengaging emotions in each situation (e.g., Kitayama et al., 2006).

The results of Study 2 are provocative but future research needs to more closely examine the types of motivations that are influenced by interpersonally relevant affective states. Together with Winkielman et al. (2005), our study shows that emotions can influence a wide range of outcomes ranging from appetitive motivation to performance motivation, which is not surprising given the functional overlap between emotion and motivation at the psychological level (Frijda, 1999). Future research might cross different emotion manipulations with different motivational outcomes to document which types of

motivational outcomes are most influenced by which emotional states. Our finding that the valence and interpersonal engagement emotions did not influence European American participants' performance, particularly when contrasted with the large effect observed among Mexicans, raises some questions. Is it the case that the manipulation was less effective in arousing the target emotions in European Americans than in Mexicans, or are interpersonally relevant affective states simply less meaningful for European Americans? Might the same manipulation influence some other measure of motivation for European Americans? Future research might explore these intriguing possibilities.

Although this study was conducted with students in Mexico, the findings are relevant to Mexican American students because even second- and third-generation Mexican Americans engage with the ideas and practices of Mexican contexts in their families (Valdes, 1996). Educators in the US often try to motivate students by making them feel good about themselves, proud of themselves, confident of themselves, and so on; they seek to evoke these positive interpersonally disengaging emotions because these emotions highlight the self as distinct from others and better than others, as is normative in European American settings. However, the above findings suggest that students from Mexican backgrounds might instead be more motivated by emotions that highlight their positive relationships and closeness with others. Similarly, negative interpersonally engaging emotions, such as shame and embarrassment, might particularly undermine the motivation of Mexican students. To close the substantial gap between Mexican American and European American students in academic performance and high school graduation rates (Casserly, Petteruti, & Williams, 2006; Suarez-Orozco & Suarez-Orozco, 2001), educators in the US need to engage in culturally sensitive pedagogy by using different strategies to motivate and to avoid demotivating students from different cultural backgrounds (Gutiérrez & Rogoff, 2003; Markus, 2008; Trumbull, Rothstein-Fisch, & Greenfield, 1999).

While the present research demonstrated the motivating effects of interpersonally engaging emotions by using performance on a verbal task as the dependent measure, to ensure that the findings are broadly applicable to the educational context, future research might further test whether interpersonally engaging emotions have similar effects on Mexican students' performance on spatial and math tasks. Future research might also design an intervention to train teachers in

school districts with large Latin American populations to use positive interpersonally engaging emotions to motivate students, while minimizing the use of negative interpersonally engaging emotions.

Whereas researchers have focused on valence and arousal as the two most important dimensions of emotion, the present research highlights interpersonal engagement as perhaps an equally important dimension—one that is sensitive to cultural nuances and one that has significant motivational consequences.

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