

WHAT HAPPENS WHEN YOU “CAN’T READ THE AIR”? CULTURAL FIT AND APTITUDE BY VALUES INTERACTIONS ON SOCIAL ANXIETY

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Poor ability to decode others' emotions has been linked with social anxiety; however, does this association differ according to the degree to which one values interconnectedness and emotional attunement? The authors propose an intra-personal cultural fit hypothesis suggesting that the association between emotion recognition ability and social anxiety is moderated by the degree to which one holds an interdependent self-construal. In a sample of Asian American (AA) and European American (EA) college students, emotion recognition ability was assessed using laboratory task and self-report methods, and associations with self-reported social anxiety were examined. Results provide initial support for the hypothesized aptitude by values interaction, indicating that problems *reading the air* have greater costs for social anxiety among AAs who endorsed high collectivism.

In Japanese youth circles, you might hear the phrase *Kuuki ga Yomenai* (or K.Y.) used to describe social missteps. Literally translated, *Kuuki* means “air” and *Yomenai* means “cannot read”; the phrase refers to one who lacks the skill to interpret and respond to social

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cues. In Japanese cultural contexts, competent individuals are expected to “read the air”—to be attuned to others’ motivations, emotions, and attitudes, however subtly communicated. Surely, “reading the air” is a requisite goal and valuable skill set across social groups. But a well-honed sensitivity to others may be prioritized in collectivistic compared to individualistic cultural contexts. Within interdependent or individualistic contexts, people derive esteem from their ability to adjust themselves to social cues, restraining their own impulses to maintain harmony. Thus, the major task of communication is to “read the other person’s mind” (Markus & Kitayama, 1991). This can be contrasted with individualistic contexts, where esteem is garnered by the ability to express one’s self and individuality, and interpersonal skills emphasize direct expression to “say what’s on your mind” (Markus & Kitayama, 1991).

When cultural contexts intersect, tensions between competing priorities in social situations emerge. Indeed, bicultural identity has been shown to influence social processes and psychosocial adjustment (e.g., Benet-Martínez, Leu, Lee, & Morris, 2002). Bicultural individuals such as Asian Americans—who have a collectivistic cultural heritage yet reside in a mainstream Western context—may be encouraged both to adjust oneself to the social environment as well as to freely express and individuate oneself. Such competing priorities may be magnified during specific developmental periods, such as the transition to adulthood and college in which Western cultural scripts emphasize individuation-separation as a healthy goal (e.g., Mattanah, Hancock, & Brand, 2004). However, these goals may be contrasted with the socialization of emotional attunement and interconnectedness in East Asian familial settings. As such, the college experience of Asian American students provides a unique context to study how these opposing socio-emotional priorities may impact adjustment.

One might expect members of cultures that prioritize emotional attunement to be more accurate at reading social cues and perceiving others’ feelings. However, evidence suggests that individuals of East Asian descent may be at a general disadvantage in emotion recognition compared to individuals of European descent (Lau, Fung, Wang, and Kang, 2009; Matsumoto, 1992), although some evidence indicates that this disadvantage may be true only for perceptions of strangers versus close others (Ma-Kellams & Blascovich, 2012). Matsumoto (1989) argues that collectivistic cultures may encourage individuals to perceive affect in ways that avert disruptions to

group harmony (e.g., by attributing less intensity to negative expressions). Furthermore, because restraint over emotional display is valued in East Asian cultural contexts (Matsumoto, 1993), there may be less exposure to emotional expressivity (Wong, Bond, & Mosquera, 2008) and thus less opportunity to learn to differentiate emotional displays (Lau et al., 2009). Indeed, Lau and colleagues (2009) demonstrated that elevated levels of social anxiety in Asian American versus European American college students was jointly explained by two variables: a greater vigilance to social evaluation and face concerns representative of East Asian collectivistic cultures) coupled with decreased emotion recognition ability.

Thus, a cultural imperative for emotional sensitivity may not enhance perceptual abilities, but rather may moderate the association between emotion perception abilities and social anxiety. For example, skills in perceiving the emotional experiences of others will have more or less important implications depending on whether these abilities are prioritized or valued in one's social world. Individuals who cannot read the air may be more vulnerable to social anxiety in a collectivistic cultural context. A cognitive behavioral perspective of social anxiety contends that an excessive self-focus and monitoring of one's performance inadvertently reduces attention to social partners, leading to more anxiety (Clark & Wells, 1995). It is likely that a cultural priority on interpersonal attunement may further drive these processes by contributing to greater self-monitoring in order to be appropriate and responsive to one's social partners. The notion of cultural fit has been used to refer to the fit between one's internalized cultural framework (i.e., personality, affect, cognition, and behavior) and cultural norms and practices of the society in which one resides (Searle & Ward, 1990). Well-being is achieved when there is a close fit, while anxiety arises with poor fit. Taken further, we contend that individual differences in internalized cultural values can dictate the extent to which certain aptitudes or deficits are linked with wellness vs. anxiety.

Although the notion of cultural fit has generally been used in an ecological sense, we take the theory of cultural fit and apply it to intra-personal processes. We posit that a better intra-personal fit between what one believes to be important (i.e., values and priorities) and one's demonstrated abilities in those areas (i.e., aptitudes and skills) promotes well-being, whereas a discrepancy brings about anxiety. In a sample of Asian American and European American college students residing in a single societal context, we examine

the extent to which interdependent values moderates the association between emotion recognition ability and specific dimensions of social anxiety. We incorporate a performance-based measure of emotion recognition so as not to rely exclusively on self-appraisals of ability. We expect that the implications of high or low ability in emotion recognition will vary depending on the individual's culturally informed priorities, and that the anxiety associated with deficits in emotion recognition would be intensified to the degree that one holds a collectivistic orientation. In contrast, we hypothesize that the repercussions of K.Y.—an inability to read the air—could be attenuated among individuals who do not view their well-being as intimately linked to the feelings and goals of others.

METHODS

SAMPLE AND PROCEDURES

Participants were 264 (69.3% female) undergraduate students enrolled in introductory psychology courses at two large public universities who volunteered in exchange for course credit. The sample included 148 European American (EA) students and 116 Asian American (AA) students of East (i.e., Chinese, Korean, Japanese) and Southeast Asian ancestry (i.e., Vietnamese who self-reported their ancestry). We included these cultural groups given that Chinese- and other Confucian-based cultures have been found to prioritize interpersonal harmony (Zhang, Lin, Nonaka, & Beom, 2005), a value that is facilitated by socioemotional attunement. Among the AA participants, 76 (65.5%) were U.S. born and 40 were foreign-born.¹

Participants were introduced to the study, provided consent, and were then asked to complete a computerized emotion recognition task before completing questionnaires.

MEASURES

Collectivism. The 32-item Individualism Collectivism Scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995) assessed beliefs about the degree to which they see themselves as separate from others or connected with others. This scale further differentiates horizontal

1. We conducted the analyses separately for the East Asian, Southeast Asian, U.S.-born Asian, and foreign-born Asian groups in order to examine whether our study findings held within each smaller group. With the exception of one pattern out of twelve, all simple slope patterns mapped onto the ones found using the larger Asian American sample (Figures 1 and 2).

(e.g., egalitarian relations) and vertical (e.g., hierarchical relations) dimensions of individualism and collectivism resulting in four subscales (horizontal-collectivism, vertical-collectivism, horizontal-individualism, vertical-individualism). Singelis et al. (1995) report that because the horizontal and vertical dimensions of collectivism are moderately correlated, they may be used as a single composite when researchers are not interested in sub-dimensions. Since the collectivism dimensions were moderately correlated in the current sample ($r = .45, p < .001$ for EAs and $r = .62, p < .001$ for AAs), we used the summed Collectivism score to assess collectivistic values ($\alpha = .73$ for EAs and $\alpha = .77$ for AAs).

Social Anxiety. The 18-item Social Anxiety Scale for Adolescents (SAS-A; La Greca, 1998) measured social anxiety across three dimensions: Fear of Negative Evaluation ($\alpha = .92$ for EAs, $\alpha = .90$ for AAs), Distress in New Situations ($\alpha = .87$ for EAs, $\alpha = .85$ for AAs), and General Social Inhibition ($\alpha = .81$ for EAs, $\alpha = .72$ for AAs). Example items included "I worry about what others think of me" and "I'm afraid that others will not like me." The SAS-A has been validated for use with college age young adults (García-López, Olivares, Hidalgo, Beidel, & Turner, 2001).

Neuroticism. We used the neuroticism subscale from the Big Five Inventory (BFI; John & Srivastava, 1999), which measures the five major domains of personality. Participants rated the extent to which each item (e.g., can be tense, worries a lot) characterized them on a 5-point scale. The neuroticism subscale of the BFI was included in this study as a covariate, to account for the possibility that preoccupation with the emotional reactions of others may be related to social anxiety through a shared association with general negative affectivity. Internal consistency was good in the current sample ($\alpha = .78$ for EAs, $\alpha = .75$ for AAs).

Self-Reported Emotion Perception Competence. We used the Sensitivity to Others subscale of the Revised Self-Monitoring Scale (RSMS; Lennox & Wolfe, 1984) as a self-report measure of emotion perception competence. Participants rated items such as "I am often able to read people's true emotions correctly through their eyes" on a 6-point scale. The RSMS is correlated with performance on a video-based test of accuracy in social perception (Costanzo & Archer, 1989) and is strongly correlated with behavioral mimicry—the ability to decode and emulate positive and negative social behaviors

(Estow, Jamieson, & Yates, 2007). Cronbach's alphas in the current sample were good ($\alpha = .78$ for EAs and $\alpha = .74$ for AAs).

Video Emotion Recognition Task (V-ERT). The V-ERT was used as an objective performance indicator of emotion perception competence (Kang & Lau, 2013). Participants were asked to view video clips and identify the emotions felt by individuals discussing personal experiences. The stimuli were from interviews conducted with EA and AA college students, after which interviewees recorded the emotions they were feeling during moments of the interview. Fourteen discrete video clips were extracted from recordings and participants were asked to identify the emotion being expressed by the interviewee with a mouse click (angry, anxious, frustrated, happy, sad, surprised). Scores could range from 0 to 14 reflecting the number of correctly identified emotions. The validity of the V-ERT is supported by associations with self-reported emotional sensitivity on the RSMS Sensitivity to Others subscale ($r = .37, p < .05$) in the current sample.

RESULTS

CULTURAL GROUP DIFFERENCES

Table 1 displays descriptives for all study variables across groups. Independent sample *t*-tests showed EAs scored significantly higher than AAs on Sensitivity to Others, $t(262) = -3.48, p < .001$, and on the V-ERT, $t(262) = -3.18, p < .01$. AAs were significantly higher than EAs on Distress in New Situations, $t(262) = 2.22, p < .05$. There were no other significant ethnic differences.

MODERATION ANALYSES

Hierarchical regression analyses were conducted to examine the associations between emotion perception competence (self-reported and objective performance) on social anxiety indices as a function of interdependent self-construal. In the first step for each hierarchical regression analysis, the social anxiety subscales were regressed on the emotion perception competence variable and collectivism variable. We also controlled for gender and neuroticism. In the second step of each analysis, the interaction term between emotion perception competence and collectivism was entered. Self-reported emo-

TABLE 1. Mean Scores and Standard Deviations for Main Study Variables

| | European Americans (<i>n</i> = 148) | Asian Americans (<i>n</i> = 116) | <i>t</i> -statistic <i>df</i> (262) |
|--|---|--------------------------------------|-------------------------------------|
| Individualism Collectivism Scale | | | |
| Collectivism | 101.36 (14.25) | 102.67 (15.07) | 0.73 |
| Self-Monitoring Scale | | | |
| Sensitivity to Others' Expressive Behavior | 4.26 (0.83) | 3.90 (.86) | -3.48*** |
| Big Five Inventory | | | |
| Neuroticism | 2.92 (0.70) | 2.94 (.64) | 0.18 |
| Emotion Recognition | | | |
| V-ERT | 9.55 (1.51) | 8.85 (2.04) | -3.18** |
| Social Anxiety | | | |
| Fear of Negative Evaluation | 18.67 (7.73) | 20.34 (7.39) | 1.77 |
| Distress in New Situations | 16.07 (5.76) | 17.65 (5.72) | 2.22* |
| General Inhibition | 7.57 (3.62) | 8.03 (3.33) | 1.06 |

* $p < .05$; ** $p < .01$; *** $p < .001$

tion perception competence was not significantly associated with collectivism within the full sample, $r(262) = .02$, *ns*, EA sample, $r(146) = .02$, *ns*, or AA sample, $r(114) = .03$, *ns*. However, objective emotion perception performance was positively correlated with collectivism in the full sample, $r(262) = .19$, $p < .01$, and AA sample, $r(114) = .28$, $p < .01$, but not in the EA sample, $r(146) = .13$, *ns*.

In the full sample, we found a significant interaction between self-reported emotion perception competence and collectivism on Distress in New Situations ($\beta = -.20$, $p < .001$, $\Delta R^2 = .04$, $p < .001$), and between objective emotion perception performance and collectivism in predicting General Inhibition ($\beta = -.13$, $p < .05$, $\Delta R^2 = .02$, $p < .05$). Next, we conducted the analyses separately for EAs and AAs. The hypothesized interactions were not significant predictors of any of the three social anxiety indices for EAs, although there was a marginally significant interaction between self-reported emotion perception competence and collectivism on Distress in New Situations ($\beta = -.13$, $p < .10$, $\Delta R^2 = .02$, $p < .10$). However, for AAs, there was a significant interaction between self-reported emotion perception competence and collectivism in the prediction of Distress in New Situations ($\beta = -.30$, $p < .001$, $\Delta R^2 = .09$, $p < .001$), as well as a significant interaction between objective emotion perception performance and collectivism predicting General Inhibition ($\beta = -.22$, $p < .05$, $\Delta R^2 = .04$, $p < .05$). See Table 2.

Figure 1 shows that self-reported emotion perception competence had a significant negative association with Distress in New Situa-

TABLE 2. Associations Between Emotion Recognition (Self-Reported and Performance-Based) and Collectivism on Social Anxiety

| | Full Sample (n = 264) | | | | European Americans (n = 148) | | | | Asian Americans (n = 116) | | | |
|-----------------------------|-----------------------------------|------|----------|-----------------|------------------------------|------|--------|-----------------|---------------------------|------|---------|-----------------|
| | B | SE B | β | ΔR ² | B | SE B | β | ΔR ² | B | SE B | β | ΔR ² |
| | Distress in New Situations | | | | | | | | | | | |
| <i>Step 1: Main Effects</i> | | | | | | | | | | | | |
| Gender | -1.87 | .73 | -.15** | | -2.09 | .99 | -.16* | | -1.19 | 1.10 | -.01 | |
| Collectivism | .01 | .02 | .02 | | .02 | .03 | .05 | | -.02 | .03 | -.05 | |
| Neuroticism | 2.91 | .50 | .34*** | | 3.26 | .64 | .40*** | | 2.36 | .81 | .27** | |
| Sensitivity to others | -.62 | .39 | -.09 | .12*** | -.69 | .53 | -.01 | .17*** | -.11 | .59 | -.02 | .07† |
| or V-ERT | -.57 | .19 | -.18** | .15*** | -.50 | .30 | -.13† | .18*** | -.49 | .27 | -.18† | .10* |
| <i>Step 2: Interaction</i> | | | | | | | | | | | | |
| Sensitivity × Collectivism | -.092 | .027 | -.199*** | .038*** | -.06 | .04 | -.13† | .02† | -.14 | .04 | -.30*** | .09*** |
| or V-ERT × Collectivism | -.011 | .011 | -.061 | .00 | -.02 | .02 | -.07 | .00 | -.01 | .01 | -.10 | .01 |
| General Inhibition | | | | | | | | | | | | |
| <i>Step 1: Main Effects</i> | | | | | | | | | | | | |
| Gender | -1.39 | .46 | -.18** | | -1.76 | .64 | -.22** | | -.830 | .689 | -.118 | |
| Collectivism | .00 | .01 | -.01 | | .00 | .02 | .01 | | -.009 | .021 | -.041 | |
| Neuroticism | 1.29 | .32 | .25*** | | 1.83 | .41 | .36*** | | .452 | .508 | .087 | |
| Sensitivity to others | -.17 | .25 | -.04 | .08*** | -.088 | .342 | -.020 | .14*** | -.084 | .372 | -.022 | .02 |
| or V-ERT | -.30 | .12 | -.15** | .01*** | -.18 | .19 | -.07 | .15*** | -.36 | .16 | -.22* | .06 |
| <i>Step 2: Interaction</i> | | | | | | | | | | | | |
| Sensitivity X Collectivism | -.01 | .02 | -.03 | .00 | -.002 | .023 | -.007 | .00 | -.017 | .025 | -.065 | .00 |
| or V-ERT X Collectivism | -.01 | .01 | -.13* | .02* | -.015 | .014 | -.085 | .007 | -.017 | .008 | -.215* | .04* |

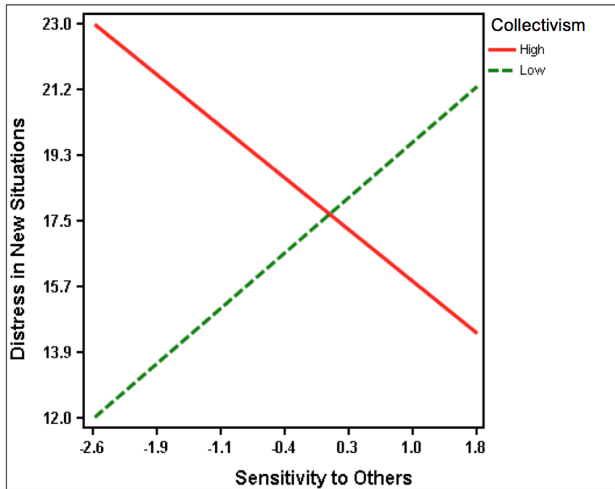


FIGURE 1. The association between self-reported emotion perception competence and distress in new situations as a function of collectivism, Asian Americans.

tions when participants scored high on collectivism ($\beta = -.32, p < .01$), compared to the significant positive association when participants scored low on collectivism ($\beta = .29, p < .05$). Figure 2 shows objective emotion perception performance to be negatively correlated with General Inhibition when participants scored high on collectivism ($\beta = -.37, p < .01$), compared to the null association when participants scored low on collectivism ($\beta = -.06, ns$).

DISCUSSION

The purpose of this study was to examine the concept of cultural fit as an intra-personal process in the cultural context of Asian American versus European American college students. Previous investigations have been limited to the study of how individual differences in social attributes fit within the dominant culture of the host society to predict well-being. Taking an intra-personal approach instead, we found that individual cultural orientation may determine the importance of one's aptitude for emotion perception for social anxiety. The expected aptitude by values interaction was evident in our AA subsample in three instances. In each instance, Asian Americans who endorsed higher levels of collectivism showed more anxiety when they lacked the ability to accurately encode the emotional reactions of others

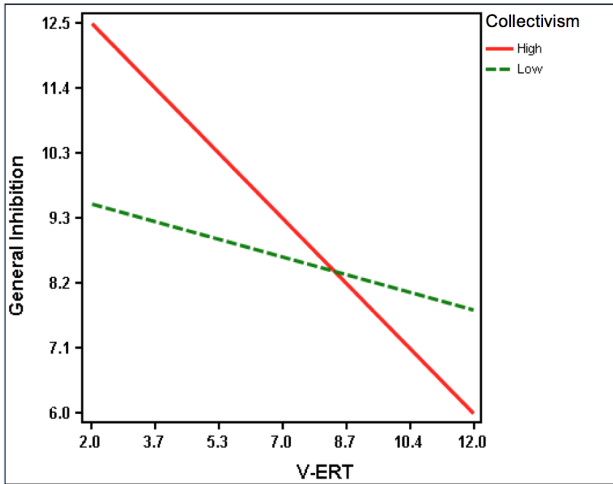


FIGURE 2. The association between emotion recognition performance and general inhibition as a function of collectivism, Asian Americans.

In two of the three interactions, we observed an apparent cross-over effect when our analyses involved self-reported emotion sensitivity. AAs who endorsed high levels of collectivism enjoyed protection from social anxiety—specifically distress in new situations and general inhibition—when they reported strong abilities in emotion recognition. In contrast, among AAs with low levels of collectivism, high self-appraised sensitivity to others' emotions conferred risk for these dimensions of social anxiety. The meaning of this self-perceived ability may differ according to one's self-construal. In the context of interdependent values, this sensitivity to others is consonant with a culturally-dictated investment in monitoring the feelings of others for the purposes of preserving smooth relationships (e.g., Markus & Kitayama, 1991). Yet, for people who do not subscribe to collectivism, such sensitivity interferes with pursuing the alternative goal of freely asserting and expressing the self.

Indeed, cognitive models of social anxiety emphasize the role of impaired processing of social cues driven by concerns that one might behave inappropriately causing rejection or loss of status (Clark & Wells, 1995). Thus, attentional resources are directed to one's own behavior and away from the emotional cues of others. This, in turn, can produce inept interactions that serve to maintain social anxiety. Our findings suggest that without personally endorsing collectivism, a self-reported alertness to others' emotional states may be more akin to the vigilance to social evaluation thought to

drive social anxiety. Our data indicate that attentiveness to social and emotional cues may not always be a liability (for social anxiety) or an asset (for interpersonal attunement). Rather, the aptitude for tuning into others' feelings takes on meaning and functionality within one's internal cultural world and valued interpersonal goals.

We do not see such a cross-over effect when using a performance measure of emotional sensitivity (i.e., V-ERT), where there was no apparent cost to high performance among AAs with low collectivism scores. Emotion recognition accuracy was associated with lower social anxiety, consistent with data supporting cognitive models of social anxiety from predominantly EA college samples (Mansell, Clark, Ehlers, & Chen, 1999). This emotion perception ability had a generally protective effect against social anxiety among EAs and AAs, and conferred significantly stronger protection against social inhibition for AAs who endorsed collectivism more compared to AAs who valued collectivism less. Thus, any burden of emotional sensitivity for those with interdependent values may rest upon the awareness of one's proclivity to tune in to the emotional states of others, rather than the aptitude for doing so.

In the current study, the aptitude-by-values interactions were limited to AAs; collectivism did not moderate the link between emotion recognition and social anxiety for EA's. We did not expect the demonstration of cultural fit to be circumscribed by cultural group. However, there are a few plausible explanations for why this pattern may have occurred. First, for bicultural AAs, the process of reconciling a minority viewpoint with reference to a majority cultural perspective may render the resultant self-construal more salient and thus more powerful for determining what contributes to well-being. The tension between individualistic and collectivistic views of the self may not have the same implications for EAs. Indeed, collectivism is tied to measures of social distress among AAs in ways not observed among EAs (Ho & Lau, 2011), and tends to amplify the importance of relational vulnerability factors for psychological distress (Yoon & Lau, 2008).

Another possibility is that cultural fit may be most influential when focused on the abilities that are prioritized within the individuals' heritage culture. Thus for AAs, emotion recognition is central given the collectivistic priority of attunement. Perhaps tenets of cultural fit among EAs would be best revealed with a focus on aptitude for emotion expression, a priority for individualistic goals. Indeed, individuals from different cultural orientations are dif-

ferentially affected by emotion expression (e.g., Kim & Sherman, 2007). Although it is often assumed that the inhibition of emotion expression has negative consequences for well-being, these associations are intensified for EAs and attenuated for AAs (Butler, Lee, & Gross, 2007). Thus, the role of internal cultural orientation may shape well-being outcomes in domains of greatest cultural salience, with collectivism shaping the role of receptive emotional abilities, while individualism influences the importance of expressive emotional abilities.

Our AA sample included first- and second-generation AA college students who may retain ethnic heritage values and priorities that may at times conflict with the mainstream cultural milieu in North American college environments. This developmental period of emerging adulthood is often one in which acculturation and identity formation processes are active and salient among ethnic minorities navigating bicultural demands. These processes are fluid and cultural priorities may be in flux. Thus, we may not find the same aptitude by values interactions for AAs who are more mature developmentally or who may be better practiced integrating themselves into the social worlds of both the heritage and mainstream American cultures.

Our findings suggest that for AA college students, a sensitivity to others' emotional states can be either protective or risky depending on the extent to which the person prioritizes collectivism. That this was observed only for self-appraised emotion recognition, rather than task performance, underscores the importance of self-perception in these processes. Clinically, it may be fruitful to provide psychoeducation to AAs about how heightened sensitivity to social cues may ironically present barriers to achieving the goal of attunement. Furthermore, skills training in emotion perception could be valuable, with the goal of reducing self-focused attention and diverting attention toward decoding emotion cues (Matsumoto & Hwang, 2011). Improving performance in emotion recognition through skills training may be an avenue to reduce the risk of social anxiety, particularly among those with collectivistic concerns.

We applied the notion of cultural fit, traditionally used in an ecological sense, to intrapersonal processes and found evidence that the within-person fit of collectivism and emotion recognition ability predicts distress in the unique cultural context of AA college students. Whereas prior work has been limited by reliance on surveys, we used a multi-method approach, harnessing the power of self-

reports and performance measures of emotion recognition. However, the interpretation of our findings should be tempered by some limitations. First, our focus on AA and EA college students limits generalizability. Our inclusion of performance tasks broadened our methodological approach; however, we still relied on laboratory assessments, which limit ecological validity. Future research could employ behavioral studies outside the laboratory, such as experience sampling methods to investigate questions of cultural fit. Similarly, our measure of collectivism was a frequently used individualism-collectivism scale. More refined measures can unpack the determinants of cultural variability in patterns of individual social adjustment. These limitations point toward opportunities to more fully investigate questions about cultural fit—what attributes confer well-being for whom and under what cultural conditions?

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