Cultural Diversity and Ethnic Minority Psychology

Asian Americans Respond Less Favorably to Excitement (vs. Calm)-Focused Physicians Compared to European Americans

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Objectives: Despite being considered a "model minority," Asian Americans report worse health care encounters than do European Americans. This may be due to affective mismatches between Asian American patients and their European American physicians. We predicted that because Asian Americans value excitement (vs. calm) less than European Americans, they will respond less favorably to excitement-focused (vs. calm) physicians. ***Method:*** In Study 1, 198 European American, Chinese American, and Hong Kong Chinese community adults read a medical scenario and indicated their preference for an excitement-focused versus calm-focused physician. In Study 2, 81 European American and Asian American community college students listened to recommendations made by an excitement-focused or calm-focused physician in a video, and later attempted to recall the recommendations. In Study 3, 101 European American and Asian American middle-aged and older adults had multiple online encounters with an excitement-focused or calm-focused physician and then evaluated their physicians' trustworthiness, competence, and knowledge. ***Results:*** As predicted, Hong Kong Chinese preferred excitement-focused physicians less than European Americans, with Chinese Americans falling in the middle (Study 1). Similarly, Asian Americans remembered health information delivered by an excitement-focused physician less well than did European Americans (Study 2). Finally, Asian Americans evaluated an excitement-focused physician less positively than did European Americans (Study 3). ***Conclusions:*** These findings suggest that while physicians who promote and emphasize excitement states may be effective with European Americans, they may be less so with Asian Americans and other ethnic minorities who value different affective states.

Keywords: affect valuation theory, culture, ethnicity, emotion, patient-physician communication

"One thing that I have gotten consistently positive feedback on is my enthusiasm [from physicians/nurses/patients/staff]."
—Fourth-year medical resident, quoted in Bernard, Balodis, Kman, Caterino, and Khandelwal (2013)

The above quote highlights the emphasis American medical practice places on positive affect, particularly high arousal positive states like enthusiasm and excitement. Indeed, American patients report better outcomes (e.g., greater satisfaction, improved health) after interacting with providers who emphasize more positive affect by smiling or showing enthusiasm (Ambady, Koo, Rosenthal, & Winograd, 2002; Griffith, Wilson, Langer, & Haist, 2003; Hall, Roter, & Rand, 1981; for review, see Roter, Frankel, Hall, &

Sluyter, 2006). What remains unknown is whether this preference generalizes to patients from cultures who value excitement states less. By "culture," we broadly refer to groups (e.g., nationalities, ethnicities) that share a prescribed set of ideas/values/practices; by "ethnicity," we refer to cultural groups within one national context. Understanding cultural sources of health care preferences is particularly important as the U.S. population becomes more culturally diverse, and as patients become increasingly likely to encounter physicians with cultural values and beliefs that differ from their own.

Asian American Health Care Experiences

Patients are healthier, make better health decisions, consume more health information, and like their physicians more if they communicate well with and trust their physicians (for reviews, see Ha & Longnecker, 2010; Street, Makoul, Arora, & Epstein, 2009; Zolnierek & DiMatteo, 2009). On the other hand, patients who have difficulty communicating with and trusting their physicians—for example, many ethnic minorities (Rocque & Leanza, 2015)—are at risk for worse health outcomes. This may be one reason that despite shrinking disparities in access to care (Stanford Center on Longevity, 2016), ethnic disparities in health care utilization (e.g., whether patients have a primary care physician) and effective health care delivery (e.g., how well patients remember their physician's recommendations) continue to persist in the United States (Blendon et al., 2008; National Center for Health Statistics, 2016).

Although most research focuses on disparities in health care among African Americans and Hispanic Americans, Asian Americans also experience challenges in equitable health care. For instance, compared to their European American counterparts, Asian Americans are less likely to be screened, follow treatment recommendations, and get genetic testing for different types of cancers (Centers for Disease Control & Prevention, 2012; Kurian et al., 2017). One reason for these gaps in care may be suboptimal patient-physician interactions. Indeed, Asian Americans feel less satisfied and are less likely to engage with their physicians than their European American (i.e., White) peers (Murray-Garcia, Selby, Schmittdiel, Grumbach, & Quesenberry, 2000; Ngo-Metzger, Legedza, & Phillips, 2004; Saha, Arbelaez, & Cooper, 2003; Taira, Safran, Seto, Rogers, & Tarlov, 1997; Ye, Mack, Fry-Johnson, & Parker, 2012). These differences are particularly pronounced among less acculturated Asian Americans, and hold above and beyond differences in language proficiency or access to care (Chang, Chan, & Han, 2015; United States Commission on Civil Rights, 1999). This raises the possibility that these disparities are due to mismatches between physicians and patients in cultural values (Rocque & Leanza, 2015). Indeed, the more patients feel that their physicians' values are similar to their own (e.g., have similar general values in life), the more they trust, are satisfied, and intend to adhere to physicians' recommendations, regardless of physicians' ethnicities (Street, O'Malley, Cooper, & Haidet, 2008). Similarly, health promotion messages are more persuasive when tailored toward people's cultural motives and goals (Sherman, Uskul, & Updegraff, 2011).

While previous research suggests that positive affect *and* cultural values are important in patient-physician interactions, no studies have examined how the two work in concert. The present work attempts to address this gap in the literature by suggesting that national and ethnic differences in valuing feelings of excitement versus calm (Tsai, 2007; Tsai, Knutson, & Fung, 2006) may result in national and ethnic differences in responses to physicians emphasizing excitement versus calm states.

Cultural Variation in Affect Valuation ("Ideal Affect")

According to affect valuation theory (AVT), how people ideally want to feel, or their "ideal affect," is distinct from how they actually feel, or their "actual affect." Previous studies have demonstrated that ideal affect and actual affect are only moderately correlated, are differentially shaped by cultural and temperamental factors, and independently predict behavior. Thus, we conclude that ideal affect and actual affect are important but distinct constructs. A major tenet of AVT is that culture shapes ideal affect more than actual affect. Across cultures, most people want to feel more positively than they actually feel (e.g., Tsai et al., 2006; Sims et al., 2015); however, the type of positive states people want to feel varies by culture. On average, European Americans ideally want to feel excitement and other high arousal positive states (HAP) more than Chinese, whereas Chinese want to feel calm and other low arousal positive states (LAP) more than European Americans, regardless of how much they actually feel those states (their "actual affect"; Tsai, 2007).

The source of these differences has been linked to a greater emphasis placed on influence (vs. adjustment) goals in individualistic versus collectivistic cultures (Tsai et al., 2006; Tsai, Miao, Seppala, Yeung, & Fung, 2007). Specifically, influencing others (i.e., acting to shape or have an impact on others) requires increased action, and therefore increased arousal, whereas adjusting to others (i.e., attending to and accommodating others) requires suspended action, and therefore, decreased arousal. Thus, the more people want to influence others, the more they should value HAP, whereas the more people want to adjust to others, the more they should value LAP. Indeed, among European Americans, Chinese Americans, and Hong Kong Chinese, cultural differences in how much HAP (vs. LAP) people want to feel are mediated by their endorsement of influence (vs. adjustment) values and goals (Tsai et al., 2007).

Another major tenet of AVT is that above and beyond actual affect, people's ideal affect shapes what choices they make in daily life. For instance, the more people value HAP (vs. LAP) the more they prefer stimulating (vs. soothing) vacations, music, and consumer products (Tsai, 2007; Tsai, Chim, & Sims, 2015). When European American, Asian American, and Hong Kong Chinese were asked to prepare for a task requiring them to either influence or adjust, across cultures, participants who were preparing to influence were more likely to choose stimulating versus soothing music compared to those who were preparing to adjust (Tsai et al., 2007, Study 3). Across conditions, European Americans chose stimulating versus soothing music more than did Hong Kong Chinese, and Asian Americans fell in the middle.

The above studies primarily focused on recreational or leisure choices; however, ideal affect also plays a role in more serious and consequential decisions. In the context of health care, for example, ideal affect predicts physician preference in American student and community samples. The more people valued HAP, the more they preferred a physician who promoted a "dynamic lifestyle," and the

more people valued LAP, the more they preferred a physician who promoted a "relaxed lifestyle" (Sims, Tsai, Koopmann-Holm, Thomas, & Goldstein, 2014; Sims & Tsai, 2015). Across studies, people's actual affect did not predict their preferences for physicians. This work suggests that people respond more positively to physicians whose affective focus matches their ideal affect.

The above studies, however, examined individual differences in ideal affect. In the current studies, we examined whether members of cultures that differ in their ideal affect also vary in their responses to physicians who focus on or promote excitement versus calm states. Moreover, we examined people's responses to physicians at different points in the health care process: not only when they chose a physician, but also after viewing a physician once, and then after multiple (ostensible) encounters with the physician. We primarily focused on Asian American and European American comparisons because we are particularly interested in understanding health care disparities in the United States.

Study 1: Does Less Orientation to American Culture Predict Lower Preference for Excitement (vs. Calm)-Focused Physicians?

In Study 1, we surveyed a community sample of European Americans oriented to American culture, Hong Kong Chinese oriented to Chinese culture, and Chinese Americans oriented to both. Although we were primarily interested in comparisons between Chinese Americans and European Americans, we included Hong Kong Chinese in this first study to obtain the full range of orientation to Chinese culture. We hypothesized that (a) Chinese Americans and Hong Kong Chinese would prefer an excitement (vs. calm)-focused physician less than European Americans would, and (b) based on previous work, cultural differences in physician preference would be sequentially mediated first by influence/adjustment goals and then by ideal HAP/LAP.

Method

Participants

We recruited 198 community adults (mean age = 47.42 years, SD = 18.97 years; Range = 18–90 years; 66 Hong Kong Chinese, 65 Chinese Americans, 67 European Americans; 52.30% female across cultural groups). European Americans and Chinese Americans resided in the San Francisco Bay Area, and Hong Kong Chinese resided in Hong Kong. Using convenience sampling and snowballing methods, we recruited participants in-person from various public locations (e.g., libraries, grocery stores), online through Craig's list and other Internet classifieds, and via local newspapers. Chinese Americans were required to have been born and raised in the U.S. or in a Chinese country (i.e., China, Hong Kong, or Taiwan), to be currently living in the U.S., and to be of Chinese ancestry. Fifty-two percent of Chinese Americans reported being born in a Chinese country. Hong Kong Chinese were required to have been raised in mainland China or Hong Kong, but be currently living in Hong Kong, and to be of Chinese ancestry. European Americans were required to have been raised and be currently living in the U.S., and to be of European ancestry (i.e., grandparents or great-grandparents born in Europe).

We administered the Telephone Interview for Cognitive Status (TICS; Brandt, Spencer, & Folstein, 1988) to screen for cognitive functioning in European American and Chinese American participants, and the Chinese Wechsler Vocabulary Subtest (Gong, 1983) and a free recall verbal task (Gutchess et al., 2002) to screen for cognitive functioning in Hong Kong Chinese participants.

The three cultural groups were comparable in terms of age, $F(2, 196)$ = 0.57, p = .57, and gender distribution, $\chi^2(2)$ = .03, p = .99. Chinese Americans spent significantly fewer years of their lives in the U.S. compared to European Americans, $t(67.26)$ = 6.33, $p < .001$. See Table 1 for demographic information.

Instruments

Twenty-two Chinese Americans and all Hong Kong Chinese completed the measures in Chinese. The rest of the sample completed the measures in English.

Ideal and actual affect. We measured global ideal and actual affect using the Affect Valuation Index (Tsai et al., 2006). Participants rated how often they actually feel and ideally want to feel 37 different emotions over the course of a typical week using a 5-point rating scale (ranging from 1 = *never* to 5 = *all the time*). As in previous work (Sims et al., 2014; Sims & Tsai, 2015), we aggregated across HAP (enthusiastic, excited, elated) and LAP (calm, peaceful, serene). Internal consistency estimates were moderate to high (Hong Kong Chinese ordinal αs: ideal HAP = .65; ideal LAP = .86; actual HAP = .69, actual LAP = .76; Chinese American ordinal αs: ideal HAP = .72; ideal LAP = .75; actual HAP = .58, actual LAP = .69; European American ordinal αs: ideal HAP = .79; ideal LAP = .86; actual HAP = .93, actual LAP = .85).[1] To control for differences in how cultural groups respond to Likert-type scales (Chen, Lee, & Stevenson, 1995), we ipsatized ideal affect ratings by calculating each individual's mean rating across all 37 ideal items and calculating their standard deviation across all 37 ideal items. We then subtracted the overall mean rating from each ideal affect item and divided this difference by the overall standard deviation within individuals. We used the same transformation to ipsatize actual affect ratings.

Cultural orientation. To ensure differences in orientation to Chinese and American cultures between cultural groups, we measured orientation to Chinese and American culture with the General Ethnicity Questionnaire (GEQ; Tsai, Ying, & Lee, 2000) using a 5-point rating scale (ranging from 1 = *strongly disagree* to 5 = *strongly* agree). Chinese American and Hong Kong Chinese participants also reported orientation to Chinese culture. All participants reported orientation to American culture. Internal consistency was high for the Chinese GEQ (Chinese American α = .90; Hong Kong Chinese α = .88) and the American GEQ (Hong Kong Chinese α = .92; Chinese American α = .89; European American α = .90. As intended, the groups differed in orientation to American culture, $F(2, 189)$ = 69.01, $p < .001$, η_p^2 = .42. As shown in Table 1, Hong Kong Chinese were less oriented to American culture than Chinese Americans, $p < .001$, who were less oriented

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[1] Because the majority of ideal affect ratings consisted of few response options and were negatively skewed (skews > −1, SEs = .24), we calculated ordinal alpha coefficients which are more appropriate than Cronbach's alpha for this type of distribution (Gadermann, Guhn, & Zumbo, 2012).

Table 1
Sample Demographics by Study

Characteristic	Study 1: Selecting physician (No encounter)			Study 2: Listening to physician (Single encounter)		Study 3: Evaluating physician (Multiple encounters)	
Ethnicity	European American	Chinese American	Hong Kong Chinese	European American	Asian American	European American	Asian American
n	67	65	66	39	42	50	51
Age *M* (*SE*)	49.15 (2.10)	47.44 (2.17)	45.64 (2.70)	22.18 (1.04)	20.45 (.46)	58.26 (1.50)	54.53 (1.81)
Proportion of life in U.S. *M* (*SE*)[a]	.98 (.01)	.70 (.04)	N/A	.96 (.03)	.89 (.05)	1.00 (.00)	.77 (.03)
% Female	52.20	53.00	51.50	73.70	71.40	62.75	68.00
GEQ *M* (*SE*)[b]	Am: 3.82 (.07)	Am: 3.40 (.08) Ch: 3.67 (.07)	Am: 2.66 (.07) Ch: 3.91 (.05)	—	—	Am: 3.68 (.09)	Am: 3.58 (.08) As: 3.35 (.07)
Ideal affect *M* (*SE*)[c]	HAP: .62 (.05) LAP: .85 (.05)	HAP: .48 (.05) LAP: .77 (.05)	HAP: .44 (.05) LAP: .79 (.05)	HAP: .63 (.05) LAP: .84 (.04)	HAP: .62 (.05) LAP: .97 (.04)	HAP: .40 (.05) LAP: 1.02 (.04)	HAP: .47 (.05) LAP: .99 (.04)

Note. GEQ = General Ethnicity Questionnaire; HAP = high arousal positive; LAP = low arousal positive; Am = American GEQ; Ch = Chinese GEQ; As = Asian GEQ. Study 3 represents a subset of 81 participants who were followed up after the completion of the study. [a] Proportion of life in U.S. calculated by dividing number of years reported living in U.S. by age. [b] Am = American GEQ; Ch = Chinese GEQ; As = Asian GEQ. [c] Ipsatized ratings are shown for ideal affect.

to American culture than European Americans, $p < .001$. In contrast, Hong Kong Chinese were more oriented to Chinese culture than Chinese Americans, $F(1, 129) = 7.50$, $p < .01$, $\eta_p^2 = .06$. Furthermore, whereas Hong Kong Chinese were significantly more oriented to Chinese than American culture, $p < .001$, Chinese Americans were similarly oriented to Chinese and American cultures, $p = .07$, as expected for a bicultural sample.

Choosing a physician scenario. To simulate how patients typically choose their primary care providers, participants were asked to imagine that their current physician was no longer available, and they needed to choose a new physician for their regular care. Physician descriptions [previously reported by Sims et al. (2014) and Jiang, Fung, Sims, Tsai, and Zhang (2016)] were modeled after actual physician profiles offered on many health care organization websites. We provided participants with descriptions of two physicians who were comparable in terms of their credentials (training, education) but varied in terms of whether their views of patient care and outside interests emphasized excitement or calm. For instance, while the excitement-focused physician promoted overall vitality and a dynamic lifestyle, the calm-focused physician promoted a calm and relaxed lifestyle. We did not provide a photo of any of the physicians, nor did we specify the ethnicity or gender of any of the physicians. Participants used a continuous 7-point rating scale (ranging from 1 = *not at all likely* to 7 = *extremely likely*) to indicate their likelihood of selecting each physician. Pretesting with 39 Chinese American and European American community adults (ethnically matched to physician) confirmed that the excitement-focused physician conveyed more HAP (i.e., excited, elated, enthusiastic; $M = 3.63$, $SE = .12$) than the calm-focused physician ($M = 2.39$, $SE = .14$), $F(1, 38) = 58.43$, $p < .001$, $\eta_p^2 = .61$, and the calm-focused physician conveyed more LAP (i.e., calm, relaxed, serene; $M = 3.74$, $SE = .18$) than the excitement-focused physician ($M = 2.33$, $SE = .15$), $F(1, 38) = 46.44$, $p < .001$, $\eta_p^2 = .55$.

Influence and adjustment goals. To assess the extent to which participants valued having an influence on or adjusting to one's environment, we administered the Schwartz Values Survey (SVS; Schwartz, 1992), a widely used measure of cultural values. Participants rated the importance of 57 values using a scale from −1 = *opposite of what I value* to 7 = *extremely important*. Consistent with Tsai et al. (2006), we calculated influence goals by aggregating across eight items from the SVS subscales of stimulation and self-direction (Hong Kong Chinese $\alpha = .84$; Chinese American $\alpha = .69$; European American $\alpha = .76$), and we calculated adjustment goals by aggregating across nine items from two separate SVS subscales of conformity and tradition (Hong Kong Chinese $\alpha = .78$; Chinese American $\alpha = .78$; European American $\alpha = .84$). As with ideal affect, we used a similar transformation to ipsatize ratings of influence and adjustment goals.

Procedure

Participants completed a mail-in, paper-based consent form and survey at home. Participants were first presented with the Choosing a Physician scenario, and then completed measures of actual and ideal affect, cultural values, and cultural orientation. These measures were each separated by several filler questionnaires administered for the purpose of another study. The presentation order of the physicians was counterbalanced. Upon returning the

survey, Hong Kong Chinese received course credit or a small gift for their participation, and American participants were compensated with a $20 USD gift card. All procedures across studies were approved by our institution's human subjects panel review board.

Results

Cultural Differences in Ideal Affect

To ensure that groups differed in ideal affect, we performed univariate ANOVAs in which we entered culture as the independent variable and ideal affect as the dependent variable. To assess the independent effects of actual and ideal affect, we controlled for actual HAP when examining ideal HAP, and we controlled for actual LAP when examining ideal LAP. Findings for raw and ipsatized ratings were similar for all studies and thus, we only report ipsatized ratings throughout the paper. Because one participant entered the same value across all ideal and actual affect items, we could not ipsatize that participants' ratings and therefore, we excluded that participant from subsequent analyses.

There was a significant main effect of culture for ideal HAP, $F(2, 194) = 3.23$ $p < .05$, $\eta_p^2 = .03$. Pairwise comparisons revealed that Hong Kong Chinese wanted to feel HAP ($M = 0.44$, $SE = .05$, 95% CI [0.34, 0.55]) similar to Chinese Americans ($M = 0.48$, $SE = .05$, 95% CI [0.37, 0.58]), $p = .66$, and significantly less than European Americans ($M = 0.62$, $SE = .05$, 95% CI [0.52, 0.72]), $p < .05$. Chinese Americans marginally differed from European Americans, $p = .06$. There was, however, no significant effect of culture for ideal LAP, $F(2, 194) = 0.70$, $p = .50$, $\eta_p^2 = .01$ (Hong Kong Chinese $M = 0.79$, $SE = .05$, 95% CI [0.68, 0.89]; Chinese American $M = 0.77$, $SE = .05$, 95% CI [0.66, 0.87]; European American $M = 0.85$, $SE = .05$, 95% CI [0.75, 0.95]).

Cultural Differences in Likelihood of Choosing the Excitement (vs. Calm)-Focused Physician

To test our first hypothesis that less orientation to American culture would predict a lower preference for the excitement (vs. calm)-focused physician (i.e., Hong Kong Chinese and Chinese Americans would prefer the excitement-focused physician less than European Americans), we conducted a 3 (Culture [Kong Chinese, Chinese American Hong, European American]) × 2 (Physician [Excitement-focused, Calm-focused]) repeated measures analysis of variance (ANOVA) which tested the effect of culture on the difference between ratings of the excited and calm physicians. Culture was treated as a between-subjects factor, and Physician was treated as a within-subjects factor. One participant did not respond to the calm-focused physician item and therefore was excluded from the analysis.

As predicted, there was a significant Culture × Physician interaction, $F(2, 195) = 8.14$, $p < .001$, $\eta_p^2 = .08$. As depicted in Figure 1, Hong Kong Chinese did not prefer the excitement-focused over the calm-focused physician, $p = .74$. Chinese Americans significantly preferred the excitement-focused over the calm-focused physician $p < .05$, and European Americans preferred the excitement-focused over the calm-focused physician even more, $p < .001$. Pairwise contrasts revealed that Hong Kong preference for the excitement-focused physician ($M = $
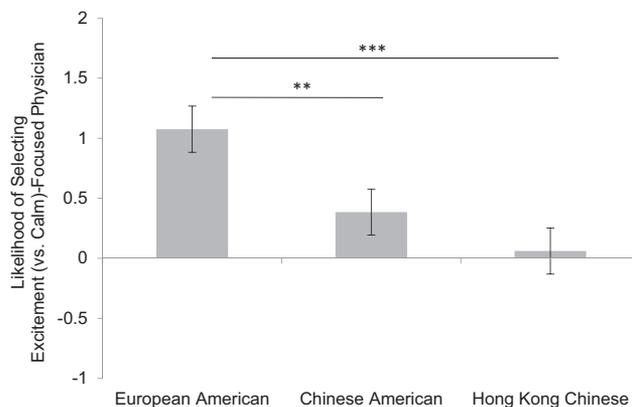

Figure 1. Study 1: Likelihood of selecting an excitement (vs. calm)-focused physician by cultural group. ** $p < .01$. *** $p < .001$.

0.06, $SE = 0.12$, 95% CI [−0.30, 0.42]) was similar to that of Chinese Americans ($M = 0.38$, $SE = 0.19$, 95% CI [0.02, 0.75]), $p = .21$, and significantly lower than that of European Americans ($M = 1.07$, $SE = 0.22$, 95% CI [0.72, 1.43]), $p < .001$. Chinese Americans' preference for the excitement-focused physician was also significantly lower than that of European Americans, $p < .01$. Findings held when controlling for age.[2]

Variation among Chinese Americans in preference for the excitement (vs. calm)-focused physician. To further test our hypothesis, we examined whether among Chinese Americans, those who were more oriented to Chinese versus American culture would be less likely to choose the excitement (vs. calm)-focused physician. To do so, we created a difference score between orientation to Chinese culture and orientation to American culture. Then, we regressed cultural orientation onto preference for the excitement (vs. calm)-focused physician. As expected, the more Chinese Americans were oriented to Chinese versus American culture, the less likely they were to select the excitement (vs. calm)-focused physician, $B = −0.65$, $SE = 0.22$, 95% CI [−1.09, −0.22]; $\beta = −0.37$, $t = 3.02$, $p < .01$. We then assessed the independent effects of orientation to Chinese and American culture on preference for the excitement-focused physician and for the calm-focused physician separately. Analyses revealed that the above finding was driven by both increased orientation to Chinese culture predicting preference for the calm-focused physician, $B = 0.74$, $SE = 0.28$, 95% CI [0.18, 1.30]; $\beta = 0.34$, $t = 2.64$, $p < .05$, and increased orientation to American culture predicting preference for the excitement-focused physician, $B = 0.50$, $SE = 0.24$, 95% CI [0.02, 0.98]; $\beta = 0.28$, $t = 2.09$, $p < .05$.

Cultural Differences in Physician Preference Due to Influence and Adjustment Goals and Ideal HAP and LAP

Based on our previous findings, we predicted that cultural differences in influence versus adjustment goals would predict

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[2] Levene's test revealed unequal variances, $F(2, 195) = 8.98$, $p < .001$, and therefore, we confirmed the cultural difference using non-parametric analyses (Kruskal-Wallis $\chi^2(N = 198, 2) = 15.80$, $p < .001$.

cultural differences in ideal HAP versus LAP, which would in turn predict cultural differences in preference for an excitement-focused versus calm-focused physician (see Figure 2). To test this hypothesis, we conducted a serial mediation analysis using Model 6 of the SPSS PROCESS macro developed by Hayes (2013). This approach allowed us to simultaneously estimate relationships between variables in a sequential fashion. Bias-corrected standard errors and 95% confidence intervals were calculated based on 1,000 bootstrap resamples. Because we observed a linear effect of culture on physician preference as a function of culture, we coded culture accordingly (-1 = Hong Kong Chinese, 0 = Chinese American, 1 = European American). We entered this term as the independent variable, and a difference score between ratings of the excitement-focused versus calm-focused physician as the dependent variable. We included the difference score between influence and adjustment goals as the first mediator and the difference between ideal HAP and ideal LAP as the second mediator. To ensure that the effects of ideal affect held above and beyond those of actual affect, we entered actual HAP and actual LAP as covariates. Age and gender were not significant covariates and thus were excluded from the final model for parsimony.

As reported above, there was a significant effect of culture on preference for the excitement (vs. calm)-focused physician, $B = 0.51$, $SE = .13$, 95% CI [.25, 0.76], $t = 3.92$, $p < .001$. There was also a significant effect of culture on influence versus adjustment goals, $B = 0.71$, $SE = .12$, 95% CI [0.47, 0.95], $t = 5.73$, $p < .001$. Controlling for actual affect, Hong Kong Chinese rated influence goals as less important than adjustment goals ($M = -0.22$, $SE = 0.09$, 95% CI [-0.40, -0.04]). Chinese Americans rated influence and adjustment goals as similarly important ($M = 0.11$, $SE = 0.09$, 95% CI [-0.08, 0.29]), and significantly differed from Hong Kong Chinese, $p < .05$. Influence goals were rated as more important than adjustment goals among European Americans ($M = 0.56$, $SE = 0.09$, 95% CI [0.37, 0.74]), who differed significantly from both Hong Kong Chinese, $p < .001$ and Chinese Americans, $p < .01$. Above and beyond culture, the more important people rated influence versus adjustment goals, the more they valued HAP versus LAP, $B = 0.08$, $SE = .03$, 95% CI [0.02, 0.15], $t = 2.46$, $p < .05$, and the more people valued HAP versus LAP, the more likely they were to select the excitement (vs. calm)-focused physician, $B = 0.43$, $SE = .14$, 95% CI [0.16, 0.71], $t = 3.13$, $p < .01$.

Figure 2. Serial mediation model illustrating the indirect effect of culture on likelihood of selecting the excitement-focused over calm-focused physician first through influence versus adjustment goals then through ideal HAP versus LAP. Culture coded as 1 = European American, 0 = Chinese American, -1 = Hong Kong Chinese; HAP = high arousal positive affective states; LAP = low arousal positive affective states; Values represent standardized beta coefficients. * $p < .05$. ** $p < .01$. *** $p < .001$.

When including both mediators in the model, the effect of culture on preferring the excitement (vs. calm)-focused physician was reduced, $B = 0.43$, $SE = .14$, 95% CI [0.16, 0.71], $t = 3.13$, $p < .01$. See Figure 2 for an illustration of the model and standardized beta coefficients for each path.

Finally, analyses revealed a significant indirect effect of culture on preference for the excitement (vs. calm)-focused physician, first through influence versus adjustment goals and then through ideal HAP versus ideal LAP (serial indirect effect = .021, $SE = .015$, 95% CI [.003, .071]). There were no significant indirect effects through influence versus adjustment goals (indirect effect = .059, $SE = .066$, 95% CI [$-.056$, .200]) or ideal HAP versus ideal LAP (indirect effect = $-.005$, $SE = .024$, 95% CI [$-.065$, .036]) alone, indicating that the effect of culture on preference for the excitement (vs. calm)-focused physician is shaped sequentially first by influence/adjustment goals and then by ideal affect. To confirm the specificity of this path, we also ran a reverse serial mediation in which we entered ideal HAP versus ideal LAP as the first mediator and influence versus adjustment goals as the second mediator, but there was no significant serial mediation (serial indirect effect = .002, $SE = .007$, 95% CI [$-.002$, .038]).

Summary

In sum, we found support for both hypotheses: Chinese Americans and Hong Kong Chinese were less likely to select the excitement (vs. calm)-focused physician than European Americans. Moreover, among Chinese Americans, preference for the excitement (vs. calm)-focused physician was associated with greater orientation to American versus Chinese culture. Finally, cultural differences in preference for the excitement (vs. calm)-focused physician were due to cultural differences in influence versus adjustment goals and ideal HAP versus ideal LAP. Thus, the current research replicates and extends previous work to the context of health care. We did not observe a preference for the calm-focused over excitement-focused physician among Hong Kong Chinese, however. This may in part be due to national differences in health care systems (e.g., Hong Kong Chinese are less likely to choose their physicians in daily life), or may reflect less overall cultural emphasis on the emotional goals promoted by physicians (vs. training and experience; although see Jiang et al., 2016).

Study 1, however, had a number of limitations. First, we did not indicate physicians' ethnicities, and therefore, we do not know whom participants imagined. Indeed, Chinese Americans may have indicated a slightly greater likelihood of selecting an excitement (vs. calm)-focused physician because they imagined European American physicians, which may have primed their American identity. Therefore, in Study 2, we presented videos of physicians that were matched to participants by ethnicity. Second, Study 1 focused on preferences for physicians in anticipation of an actual encounter. Thus, it remains unknown whether there are cultural differences in response to physicians *after* an encounter. To fill this gap in the literature, in Study 2, we examined participants' recall of a physician's recommendations after a video encounter. This also allowed us to investigate the generalizability of our findings to a more automatic and less deliberative patient behavior; that is, listening to a physician. Third, in Study 1, we focused on Chinese Americans, who comprise only one subgroup
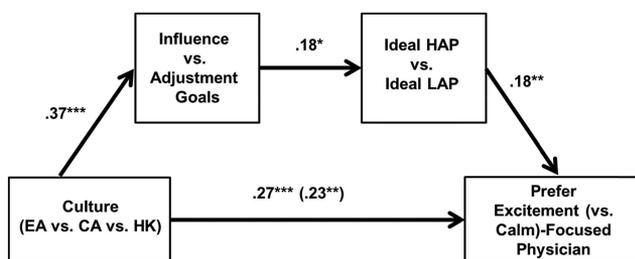
of Asian Americans. Therefore, in Study 2, we sought to examine cultural differences in response to an excitement (vs. calm)-focused physician in a more heterogeneous sample of Asian Americans. Because we conducted this research to better understand ethnic disparities in the U.S. health care system, where patients are able to choose and continue care with their preferred primary care physician, for the remaining studies, we focused only on samples living in the United States.

Study 2: Do Asian Americans Listen Less to an Excitement (vs. Calm)-Focused Physician Compared to European Americans?

To examine whether Asian Americans would listen less to information presented by an excitement (vs. calm)-focused physician compared to European Americans, we assessed participants' recall of recommended health behaviors made by an ethnically matched physician in a health message video. We hypothesized that European Americans would recall more behaviors presented by the excitement (vs. calm)-focused physician, whereas Asian Americans would recall more behaviors presented by the calm (vs. excitement)-focused physician.

Method

Participants

Community college students who self-identified as European American or Asian American were recruited to participate in a "Health Marketing Study" through a student subject pool. In addition, European American participants were required to have been born in the United States or a European country (e.g., Germany, Italy) and Asian American participants were required to have been born in the U.S. or an Asian country (e.g., China, India). We included South and Southeast Asian Americans in this study to increase our sample size. We excluded one European American participant who was born in Tokyo, one Asian American participant who was born in Germany, four participants who were Middle Eastern, and one participant who was Russian. Thirty-eight percent of Asian Americans reported being born in an Asian country.

Eighty-one participants met our eligibility criteria and completed the study for credit in an introductory psychology course (73.71% female; 48.15% European American, 51.85% Asian American; Mean age = 21.25, SD = 4.94). Asian Americans and European Americans were comparable in terms of age, $t(76)$ = 51.03, p = .12, distribution of gender, $\chi^2(1)$ = .04, p = .84, and proportion of years living in the U.S., $t(58.00)$ = 1.24, p = .22. See Table 1 for a summary of sample demographics.

Procedure

When participants arrived in the lab, they were seated at a private computer and told that they were going to view and evaluate a health message video. Participants were also told to pay attention to the video because they would be asked questions about its content after completing their evaluation. We randomly assigned each participant to view either the excitement-focused or the calm-focused physician video. To minimize unintentional priming of mainstream American culture, we matched participants

to the physicians in the videos by ethnicity (i.e., European American participants watched European American physicians; Asian American participants watched Asian American physicians). Before viewing the videos, participants completed an online informed consent and measures of affect and health. After viewing the videos, participants evaluated the health message. Controlling for evaluation ratings of the health messages did not alter results reported below; therefore, we do not discuss this variable further. Finally, participants were asked to list the health recommendations made in the video after approximately 5–10 min. Participants were not able to see the physician in the other condition throughout the study.

Stimuli

Health message video. We developed a health message video (approximately 80 s in length) featuring either an excitement-focused or a calm-focused physician. The physician emphasizing excitement states spoke in an enthusiastic manner and often displayed a wide, toothy smile. The physician emphasizing calm states spoke in a soothing manner and often displayed a closed-mouth smile. Videos are available upon request.

Each physician then described nine health recommendations that were also shown to participants in text appearing for 43.50 s. Participants who viewed the excitement-focused physician were told by the physician that following the recommendations would help them feel "energetic and invigorated!" Participants who viewed the calm-focused physician were told by the physician that following the recommendations would help them feel "relaxed and rested." The recommendations were to (a) Eat a healthy, well-balanced diet and avoid junk food, (b) Drink lots of water, (c) Wash hands regularly, (d) Floss once per day, (e) Know your body, get your vitals checked, (f) Consult a doctor for health advice, (g) Engage in 30 min of aerobic activity every day, (h) Stretch at least twice a day, and (i) Get at least 7 hours of sleep per night.

After watching the video, participants evaluated the health message video. Across ethnic groups, participants rated the excitement-focused physicians as more excited (M = 4.35, SE = .22) than the calm-focused physicians (M = 2.40, SE = .22), $F(1, 78)$ = 39.89, $p < .001$, η_p^2 = .34. Participants also rated the calm-focused physicians as more calm (M = 5.73, SE = .22) than the excitement-focused physicians (M = 4.73, SE = .23), $F(1, 79)$ = 10.13, $p < .01$, η_p^2 = .11. Across ethnic groups, there were no differences in how appealing and easy to understand participants rated the excitement-focused (M_{appeal} = 3.43, SE = .15; $M_{understand}$ = 4.57, SE = .10) and calm-focused physicians (M_{appeal} = 3.46, SE = .14; $M_{understand}$ = 4.49, SE = .10), multivariate $F(2, 76)$ = 0.24, p = .79, η_p^2 = .01.

Instruments

Ideal and actual affect. We assessed and then ipsatized global ideal and actual affect ratings as in Study 1. We then averaged ipsatized ratings of enthusiastic, excited, and elated to create ideal and actual HAP aggregates, and we averaged ipsatized ratings of calm, peaceful, and serene to create ideal and actual LAP aggregates (European American ordinal αs: ideal HAP = .71; ideal LAP = .71; actual HAP = .76, actual LAP = .83; Asian American ordinal αs: ideal HAP = .72; ideal LAP = .66; actual HAP = .86, actual LAP = .69).

Recall of health recommendations. To assess the degree to which participants listened and paid attention to the physician, participants were asked to "please recall as many of the physician's health recommendations as possible." We calculated the total number of recommendations correctly listed as an indicator of accuracy. To be counted as correct, participants' responses had to refer to the specific behavior as well as the suggested duration/amount. For example, for 30 min of aerobic activity to be coded as correct, participants must have indicated "30 minutes" and "aerobic" in their response. Half credit was given if a participant listed the behavior without the duration (e.g., "aerobic activity"). Responses that were not a precise representation of the original content (e.g., "exercise") or a clear misrepresentation (e.g., "eat fruits and vegetables") were coded as incorrect. A second coder was used to establish interrater reliability. Absolute agreement was high ($ICC = .95$, 95% CI [.90 – .97]).

Results

Ethnic Differences in Ideal Affect

To determine whether the two ethnic groups differed in their ideal affect, we conducted two between-subjects ANOVAs in which ethnicity was the independent variable. In the first model, ideal HAP was the dependent variable, and actual HAP was the covariate. In the second model, ideal LAP was the dependent variable, and actual LAP was the covariate. There were no interactions involving Condition (Excitement-focused Physician, Calm-focused Physician), and therefore, the interaction term was not included in the model.

There were no differences by ethnicity in ideal HAP, $F(1, 78) = .01$, $p = .93$, $\eta_p^2 = .00$, but ethnic groups did significantly differ in ideal LAP, $F(1, 78) = 5.09$, $p < .05$, $\eta_p^2 = .06$. Consistent with previous research (Tsai et al., 2006), Asian Americans wanted to feel HAP ($M = 0.62$, $SE = .05$, 95% CI [0.52, 0.72]) as much as European Americans ($M = 0.63$, $SE = .05$, 95% CI [0.52, 0.73]), but they wanted to feel LAP ($M = 0.97$, $SE = .04$, 95% CI [0.89, 1.05]) more than did European Americans ($M = 0.84$, $SE = .04$, 95% CI [0.76, 0.92]).

Ethnic Differences in Recalled Health Recommendations Provided by an Excitement (vs. Calm)-Focused Physician

To test our hypothesis that Asian Americans would recall fewer recommendations made by the excitement (vs. calm)-focused physician than European Americans, we conducted a 2 (Ethnicity [European American, Asian American]) × 2 (Condition [Excitement-focused Physician, Calm-focused Physician]) between subjects ANOVA in which we entered the total number of recommendations recalled correctly as the dependent variable.[3] We found a significant Culture × Condition interaction, $F(1, 77) = 4.00$, $p < .05$, $\eta_p^2 = .05$. As illustrated in Figure 3, European Americans correctly recalled more recommendations when viewing the excitement-focused physician ($M = 6.55$, $SE = .39$, 95% CI [5.78, 7.33]) than the calm-focused physician ($M = 5.43$, $SE = .38$, 95% CI [4.67, 6.18]), $p < .05$. In contrast, Asian Americans correctly recalled a slightly higher number of recommendations when viewing the calm-focused ($M = 5.81$,

$SE = .37$, 95% CI [5.07, 6.55]) than the excitement-focused physician ($M = 5.43$, $SE = .37$, 95% CI [4.69, 6.17]), although this difference was not significant, $p = .47$. Moreover, European Americans' recall was significantly higher than Asian Americans after viewing the excitement-focused physician, $p < .05$, whereas there was no significant ethnic difference in response to the calm-focused physician, $p = .47$.[4]

Summary

As predicted, Asian Americans recalled fewer recommendations provided by an excitement (vs. calm)-focused physician compared to European Americans. These findings suggest that patients may attend and listen more to a physician whose affect matches their culturally valued affect. Thus, cultural differences in ideal affect may not only shape preference for physicians prior to an encounter but also may shape responses to physicians during and after an encounter.

Unlike in Study 1, Asian Americans in Study 2 showed a slight preference toward the calm- (vs. excitement)-focused physician (both physicians were also Asian American). As suggested above, this may be because Asian Americans in Study 1 imagined a European American physician, which primed their American identity, whereas Asian Americans in Study 2 saw an Asian American physician. However, the Asian American actor in Study 2 spoke English like a native English speaker, and therefore, may have cued both Asian and American identities among Asian Americans. Therefore, in the final study, we used an Asian American actor with a slight accent, to prime Asian more than American culture among bicultural Asian Americans. Second, in Studies 1 and 2, we assessed participants' responses to physicians before and after a single encounter. It is possible that cultural differences in ideal affect have less of an influence on patients' responses to their physicians as they become more familiar with them. Therefore, in the final study, we examined people's responses to an excitement (vs. calm)-focused physician after multiple encounters.

Study 3: Do Asian Americans Evaluate an Excitement (vs. Calm)-Focused Physician Less Positively Compared to European Americans After Multiple Encounters?

In Study 3, we examined whether Asian Americans would evaluate an excitement (vs. calm)-focused physician less positively after multiple encounters. We randomly assigned Asian Americans and European Americans to an excitement-focused or calm-

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[3] We observed a similar pattern of results when examining total number of recommendations listed (including incorrect responses).

[4] Levene's test revealed unequal variances, $F(3, 77) = 4.47$, $p < .01$. Asian Americans showed more variance when viewing the excitement-focused physician ($SD = 2.16$) than European Americans ($SD = 1.04$), whereas Asian Americans showed less variance when viewing the calm-focused physician ($SD = 1.10$) than European Americans ($SD = 2.10$). However, ANOVA is robust to heterogeneity of variance when sample sizes are equal and the largest standard deviation of the groups is no more than three times the size of the smallest standard deviation (Brown & Forsythe, 1974). We also confirmed findings with an independent samples t-test not assuming equal variances.
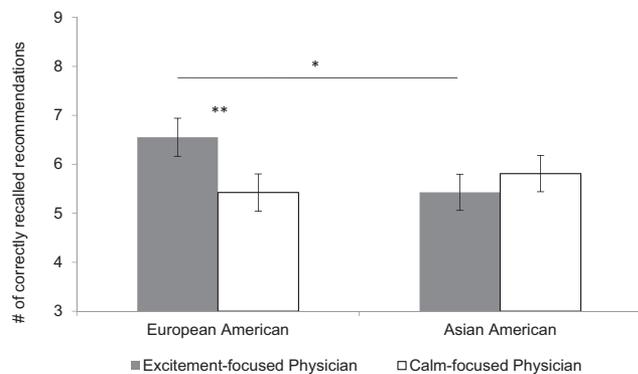
Figure 3. Study 2: Number of correctly recalled recommendations made by an excitement-focused or calm-focused physician by cultural group. $^{*} p < .05.$ $^{**} p = .01.$

focused physician with whom they had to interact with multiple times over the course of a week through an ostensible "virtual health center" website. We hypothesized that Asian Americans would respond to an excitement (vs. calm)-focused physician less positively than European Americans after multiple encounters.

Method

Participants

We recruited a convenience sample of community adults from the San Francisco Bay Area to "help evaluate a virtual health center pilot program" via newspaper advertisements, Craig's list, and flyers distributed at public locations (e.g., libraries, grocery stores). For the purpose of another study, we screened participants and excluded anyone who had major health limitations (dietary and functional; $n = 5$), did not live in the San Francisco Bay Area ($n = 8$), or did not have access to the Internet ($n = 1$).

We recruited Asian Americans using similar criteria as in Study 1 except that we included other East Asian countries of origin (i.e., China, Japan, Korea) to ensure a sufficient sample size. Specifically, we required that Asian Americans were born in the United States or an East Asian country and whose parents were both born in an East Asian country. The final sample consisted of 101 adults (mean age = 56.38 years, $SD = 11.94$; Range = 27–87 years; 65.35% female). We attempted to recruit an equal number of Asian Americans ($n = 51$) and European Americans ($n = 50$) who were comparable in terms of age, $t(99) = 1.58$, $p = .12$, and gender distribution, $\chi^2(1) = 0.31$, $p = .58$. Not surprisingly, the proportion of years living in the U.S. was significantly greater for European Americans than for Asian Americans, $t(44.00) = 7.02$, $p < .001$.

Finally, we followed up with a subset of Asian Americans to complete the American and Asian GEQs and a subset of European Americans to complete the American GEQ. European Americans ($n = 34$) were similarly oriented to American culture ($M = 3.68$, $SE = .09$) as Asian Americans ($n = 47$; $M = 3.57$, $SE = .07$), $t(79) = 0.86$, $p = .39$. Asian Americans' mean orientation to Asian culture ($M = 3.35$, $SE = .07$) was marginally lower than their orientation to American culture, $t(42) = 1.69$, $p < .10$, indicating

that this sample of Asian Americans was somewhat more Americanized relative to the Chinese American participants in Study 1. See Table 1 for demographic information.

Procedure

We recruited participants to "evaluate and provide feedback on a pilot test of a virtual health center." We then scheduled participants for a phone session so that a research assistant could guide them through portions of the virtual health center website. First, research assistants introduced participants to the Bay Area Virtual Health Center website and then directed participants to click on a link to provide informed consent and complete a general health assessment survey. Upon completing the survey, research assistants then asked participants to navigate to the "Meet Your Virtual Physician" web page. We randomly assigned 50 participants to view the excitement-focused physician (Asian American $n = 25$; European American $n = 25$) and 51 participants to view the calm-focused physician (Asian American $n = 26$; European American $n = 25$). Because patients may at least initially prefer a physician of their same ethnicity, we matched participants to physicians by ethnicity. After the initial review of the website and after viewing an introductory video by their physician, participants clicked on a link to a survey where they provided an evaluation of the website.

Research assistants then scheduled a second phone session two days later during which they helped participants navigate a "Feedback" web page displaying a video of their physician describing how engagement in healthy behaviors will ensure either feeling energized (excitement-focused physician) or relaxed (calm-focused physician). Several days later, participants received an email from their assigned physician with his photograph embedded and a link to an evaluation survey. Upon completion of the survey, participants were debriefed. Participants were compensated with a $25 gift card. Other data from this study have been reported elsewhere, along with a detailed description of the procedures, website, and videos (Sims & Tsai, 2015).

Stimuli

An Asian American actor and a European American actor were hired to portray excitement-focused and calm-focused physicians. Physician descriptions were shown on a web page called "Meet Your Virtual Physician" and included his photograph, his views on patient care, and a brief introductory video of the physician. An additional video in which physicians provide health recommendations to participants was embedded on a web page called "Feedback." As with Study 1, physicians were comparable in medical training, but varied in terms of how much they emphasized excitement or calm states in their views of patient care and outside interests. For instance, whereas the excitement-focused physician wanted to increase "patients' overall vitality," the calm-focused physician wanted patients to lead a "calm and tranquil lifestyle." In the introductory and feedback videos, the excitement-focused physician also displayed a wide, toothy smile, and spoke in an enthusiastic manner, whereas the calm-focused physician displayed a closed-mouth smile, and spoke in a soothing manner. Videos are available upon request.

Instruments

Health. We assessed participants' health status by asking them to indicate whether or not they experienced each of 31 chronic health problems (e.g., high blood pressure, chronic pain) during the past 12 months. Seventy-four percent ($n = 75$) of participants reported no health problems. There was a significant ethnic difference, $\chi^2(1) = 4.92$, $p < .05$, such that fewer Asian Americans reported having at least one health condition (65%) compared to European Americans (84%). There were no differences in health by Condition (Excitement-focused Physician, Calm-focused Physician), $\chi^2(1) = 0.00$, $p = .95$.

Ideal and actual affect. We measured global ideal and actual affect using the AVI (Tsai et al., 2006) at the beginning of the week prior to participants' introduction to their physician. We ipsatized ratings and calculated the same HAP (enthusiastic, excited, elated) and LAP (calm, peaceful, serene) aggregates as in Studies 1 and 2. Internal consistency estimates were high (Asian American ordinal αs: ideal HAP = .79; ideal LAP = .86; actual HAP = .85, actual LAP = .84; European American ordinal αs: ideal HAP = .85; ideal LAP = .90; actual HAP = .82, actual LAP = .97).

Evaluation of website. To ensure that participants across ethnicities and conditions perceived the quality of the website similarly, at the end of the week, participants evaluated the website. First, participants indicated how much they agreed with the following statements ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*): "The Virtual Bay Health Center website is user friendly"; "The Virtual Bay Health Center website is appealing"; "I am satisfied with my experience with the Virtual Bay Health Center website." Then, on a scale from 1 (*Excellent*) to 5 (*Poor*), participants also rated the Virtual Bay Health Center overall. We reverse coded the last item, and then aggregated across the four items to create an overall website evaluation score (α = .84).

Evaluation of physician. At the end of the week, participants were shown the same photo and description of their physician portrayed on the website at the beginning of the week and asked to rate how much they "trusted" their physician (1 = *Extremely trusted* to 7 = *Extremely distrusted*), how "knowledgeable" their physician was (1 = *Extremely unknowledgeable* to 7 = *Extremely knowledgeable*), and how "competent" their physician was (1 = *Extremely incompetent* to 7 = *Extremely competent*). We reverse scored trust ratings and aggregated across the three items to create an overall physician capability score (α = .87) as reported in Sims and Tsai (2015).

Results

One Asian American and two European Americans did not complete all questionnaires and were excluded from the final analyses. Because we observed ethnic differences in health, we included this as a covariate throughout our analyses.

Ethnic Differences in Ideal Affect

As with Study 1, to ensure that ethnic groups differed in ideal affect as predicted by AVT, we first conducted two between subjects' ANOVAs. There were no interactions with condition.

Consistent with Study 1, across conditions, there was no significant main effect of ethnicity for ideal HAP, $F(1, 95) = 0.55$, $p = .46$, $\eta_p^2 = .01$. Asian Americans wanted to feel HAP ($M = 0.46$, $SE = .05$, 95% CI [0.36, 0.56]) as often as European Americans ($M = 0.41$, $SE = .05$, 95% CI [0.30, 0.51]). Contrary to Study 2 and previous results, however, there was also no significant effect of ethnicity for ideal LAP, $F(1, 95) = 0.25$, $p = .62$, $\eta_p^2 = .00$. Asian Americans wanted to feel LAP ($M = 0.99$, $SE = .04$, 95% CI [0.92, 1.07]) as often as European Americans did ($M = 1.02$, $SE = .04$, 95% CI [0.94, 1.10]).

Ethnic Differences in Physician Evaluation

To test our hypothesis that Asian Americans would evaluate an excitement (vs. calm)-focused physician less positively than European Americans, we conducted a 2 (Ethnicity: Asian American, European American) × 2 (Condition: Excitement-focused Physician, Calm-focused Physician) between-subjects ANOVA. We included evaluation of the physician as the dependent variable and controlled for health as mentioned above. To assess participants' evaluations of the physician independent of the quality of the website, we entered ratings of the website as a covariate. There were no significant main effects of Ethnicity, $F(1, 92) = 0.45$, $p = .51$, $\eta_p^2 = .01$, or Condition, $F(1, 92) = 0.00$, $p = .96$, $\eta_p^2 = .00$. As illustrated in Figure 4, however, as predicted, there was a significant Ethnicity × Condition interaction, $F(1, 92) = 8.28$, $p < .01$, $\eta_p^2 = .08$. Pairwise contrasts revealed that Asian Americans evaluated the excitement-focused physician ($M = 5.01$, $SE = .15$, 95% CI [4.70, 5.32]) less positively than the calm-focused physician ($M = 5.47$, $SE = 0.15$, 95% CI [5.17, 5.77]), $p = .05$. European Americans evaluated the excitement-focused physician ($M = 5.35$, $SE = .17$, 95% CI [5.02, 5.69]) more positively than the calm-focused physician ($M = 4.91$, $SE = .15$, 95% CI [4.61, 5.21]), $p = .05$. Moreover, Asian Americans' evaluation of the excitement-focused physician was lower than European Americans' evaluation, although this difference was not significant, $p = .15$. However, Asian Americans' evaluation of the calm-focused physician was significantly more positive than that of European Americans, $p < .05$.
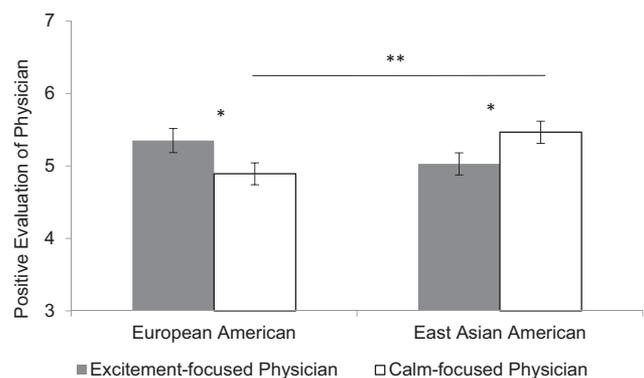

Figure 4. Study 3: Evaluation of excitement-focused and calm-focused physicians by cultural group. *Note.* * $p < .05$. ** $p < .01$.

Summary

In line with our hypothesis, Asian Americans evaluated the excitement (vs. calm)-focused physician less positively than European Americans did. In contrast to Studies 1 and 2, Asian American participants also responded to the calm (vs. excitement)-focused physician more positively than did European Americans. Thus, in a real world context after multiple online encounters with a personal physician, Asian Americans responded more positively toward a calm (vs. excitement)-focused physician, whereas European Americans responded more positively toward an excitement (vs. calm)-focused physician. Unlike Studies 1 and 2, these differences emerged despite no ethnic differences in self-reported ideal affect. This divergence may reflect differences between explicitly and implicitly endorsed ideal affect, but is also consistent with some arguments that self-report may not be the best measure of cultural values (Heine, Lehman, Peng, & Greenholtz, 2002; Morling & Lamoreaux, 2008).

General Discussion

Across three studies, using multiple methods of assessment at distinct phases of the health care decision process, we observed significant cultural/ethnic variation in how people respond to excitement (vs. calm)-focused physicians. In Study 1, Chinese Americans and Hong Kong Chinese were less likely to choose an excitement (vs. calm)-focused physician than European Americans because they valued influence (vs. adjustment) goals less and valued HAP (vs. LAP) less. In Study 2, Asian American community college students recalled fewer health recommendations made by an excitement (vs. calm)-focused physician than did European Americans. Finally, in Study 3, Asian American community adults evaluated an excitement (vs. calm)-focused physician less positively after multiple encounters compared to European Americans. Taken together, our findings suggest that patients prefer and respond more favorably to physicians whose affective focus matches their culturally valued affect.

Across studies, European Americans consistently preferred the excitement-focused physician more than the calm-focused physician. Among Asian Americans, however, preference for one physician over another varied by study, as did their ideal affect. Although future research is needed to explore these differences, it is possible that they reflect the different cultural identities primed in each study. In Study 1, we did not provide information about the ethnicity of the physicians, and therefore, it is possible that we inadvertently primed Asian Americans' mainstream American identities because the physician community in the U.S. health care system is still predominantly European American. In Study 2, we showed participants an Asian American physician speaking fluent English, which may have primed both identities, and in Study 3, we showed participants an Asian American physician with a slight accent, which may have primed Asian identities. These findings also suggest that Asian Americans' relative response to an excitement-focused or calm-focused physician may be more situationally dependent. Indeed, previous research suggests that emotional experience is more context-dependent among Asian cultural groups (Oishi, Diener, Napa Scollon, & Biswas-Diener, 2004; Perunovic, Heller, & Rafaeli, 2007). This may be particularly so for Asian Americans oriented to both Asian and mainstream American cultures, who may change their ideal affect depending on which culture is most salient in a given context (Bencharit, Fung, Ho, & Tsai, 2016). Future studies are needed to systematically explore how Asian Americans' responses might vary depending on the cultural primes prominent in health care settings. Additionally, we found no preference for the excitement (vs. calm)-focused physician among Hong Kong Chinese. As noted earlier, this may be due to this particular type of choice—it is relatively uncommon to be able to choose a primary care physician—but it is also possible that emotional expressions may matter less than training or experience in Hong Kong Chinese health contexts (although see Jiang et al., 2016). Future research is needed to explore these possibilities.

In Study 3, we found ethnic differences in patients' evaluations of physicians even though there were no ethnic differences in self-reported ideal affect. This raises questions about how implicit or explicit ideal affect is, how automatic or deliberate people's responses to others' affective focus may be, and under what circumstances implicit versus explicit ideal affect may be more predictive of behavior. These findings are also consistent with the assertion that self-report does not always fully capture deeply held cultural ideas and values (Heine et al., 2002; Morling & Lamoreaux, 2008). Future work should explore how to assess ideal affect more implicitly than the AVI questionnaire allows. For instance, studies combining self-report with neuroimaging methods have already shed light on how culture shapes people's ideal affect at different levels of processing (see Park, Tsai, Chim, Blevins, & Knutson, 2015; Park, Blevins, Knutson, & Tsai, 2016).

Limitations

There are some notable limitations of the current work. First, we matched patients and physicians by ethnicity in Studies 2 and 3 and thus, it is unclear whether patients would prefer a physician focusing on their ideal affect when physicians are from different ethnic backgrounds than their own. We would predict that ideal affect match would matter even more under those conditions. It would be important in future work to estimate the incremental value of matching physicians to patients' ideal affect versus ethnicity and other characteristics that predict good patient-physician encounters (e.g., gender matching). Second, we used participants of various ages throughout all three studies. We did so to examine whether cultural differences persist regardless of experience in making health care decisions or health status. In order to include participants of all ages, however, we constrained the context to primary care and promotion of healthy behaviors. Future research should examine whether cultural differences persist when people are making decisions that are relevant to a particular life stage, such as during a pregnancy, or various illnesses, such as treating arthritis or cancer. Third, these studies were correlational, and thus, experimental work is needed to determine whether manipulating culturally shaped ideal affect influences preferences and responses to physicians. Finally, we compared European American and different Asian American ethnic groups; additional studies, however, are needed to assess generalizability to other ethnicities, as well as to actual clinical settings.

Implications

Affect valuation theory. This research provides further empirical support for affect valuation theory in the context of health

care. Cultural differences in ideal affect emerge not only for leisure choices such as choosing music, but also for more serious choices such as choosing a physician. We also showed that cultural differences in ideal affect persisted across situations representing distinct, progressive phases of the judgment and decision-making process within a health care context. These cultural differences emerged across both deliberative (e.g., evaluating a physician) and automatic (e.g., recalling information given by a physician) behavioral responses. In addition, these findings point to the applicability of AVT to understanding cultural variation in interpersonal relationships and health-related consequences (e.g., Campos, 2015; Newman & Roberts, 2013). Here, we showed that cultural ideals of emotion shape people's initial preferences for people, how well they listen to someone else during a single encounter, and their judgments about another person after multiple encounters. Thus, while attention has been paid to the role of actual positive affect and health (e.g., Ong, 2010), our findings indicate that ideal affect should be considered as well.

Health care disparities. These findings have significant implications for understanding ethnic disparities in patient-physician encounters and how best to match patients and physicians. While some studies find less disparity when matching patients and physicians by race/ethnicity (Cooper & Powe, 2004; LaVeist & Nuru-Jeter, 2002; Tarn et al., 2005), others do not (Blanchard, Nayar, & Lurie, 2007; Traylor, Schmittdiel, Uratsu, Mangione, & Subramanian, 2010), suggesting that ethnic match alone may be insufficient for addressing these disparities. Rather, a match to patients' values may be key. Indeed, in addition to our findings on patient-physician interaction, others have found that across ethnicities, people are persuaded more by health information reflecting their cultural and emotional values (see also Mikels et al., 2010; Sherman, Uskul, & Updegraff, 2011; Soto, Chentsova-Dutton, & Lee, 2013). These findings are consistent with our own.

In Studies 2 and 3, we presented physicians as encouraging patients to feel excited or calm and expressing excited or calm states themselves, raising the question as to whether observed cultural differences may be due to the physician's affect, the affective framing of their goals for care, or both. In Study 1, however, we observed a cultural difference in preferences even though we did not include an image of the physician. In Study 1, we had also asked patients to rate their likelihood of filling a prescription for a medication that made them feel excited or calm states and found a similar effect of culture, with Asian Americans preferring the stimulating versus sedating medication less than European Americans (this effect was also serially mediated by influence/adjustment goals and ideal affect, serial indirect effect = .022, SE = .021, 95% CI [.001, .111]). Together, these findings suggest that framing health care outcomes in line with patients' ideal affect, as opposed to matching physician expressions, is likely key to optimizing health care encounters. Thus, physicians need not change how they behave, but rather should consider whether the kinds of affective outcomes they are helping their patients achieve match patients' ideal affect. Studies have demonstrated the importance of affect in patient-physician communication but no research has investigated it as a source of ethnic disparities in patients' experiences with their health care providers. The current research suggests that understanding which affective states are most valued in a patient's culture may enhance patient-physician interactions. Moreover, physicians promoting excitement-

based activities or treatments, such as engaging in vigorous exercise to feel energized, may be more effective when caring for European Americans but less so when caring for Asian Americans who identify strongly with Asian cultural values.

With a historical shift from paternalistic to patient-centered medical care, it is more important than ever to identify and understand patients' values. If physicians focus on patients' ideal affect, patients may continue to see them more, better remember information provided, and feel more positively about their clinical encounters and their overall health care. Together, our findings suggest that by understanding how patients ideally want to feel, physicians may be better able to address the needs of their patients, particularly those from cultural backgrounds that differ from their own.

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