

# What Constitutes a Good Life? Cultural Differences in the Role of Positive and Negative Affect in Subjective Well-Being

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**ABSTRACT** East Asians and Asian Americans report lower levels of subjective well-being than Europeans and European Americans. Three studies found support for the hypothesis that such differences may be due to the psychological meanings Eastern and Western cultures attach to positive and negative affect. Study 1 demonstrated that the desire to repeat a recent vacation was significantly predicted by recalled positive affect—but not recalled negative affect—for European Americans, whereas Asian Americans considered both positive and negative affect. Study 2 replicated this effect in judging satisfaction with a personal friendship. Study 3 linked changes in European Americans' life satisfaction to everyday positive events caused by the self (vs. others) and changes in Japanese life satisfaction to everyday negative events caused by others (vs. the self). Positive affect appears particularly meaningful for European Americans and negative affect for Asian Americans and Japanese when judging a satisfying vacation, friendship, or life.

Are East Asians and Asian Americans less happy, on average, than Europeans and European Americans? Cross-cultural surveys of sub-

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jective well-being have consistently shown that individuals sharing an Eastern cultural heritage report less frequent and intense positive affect and lower levels of life satisfaction than those sharing a Western cultural heritage (Diener, Diener, & Diener, 1995; Kitayama, Markus, & Kurokawa, 2000; Oishi, Diener, Lucas, & Suh, 1999; Schkade & Kahneman, 1998; Veenhoven, 2006). On the basis of this research, one might conclude that Easterners (including Chinese, Japanese, and Korean Americans) are indeed less happy than Westerners.

Yet, if cross-cultural differences in subjective well-being can be accounted for by the straightforward explanation that Easterners are simply less happy than Westerners, they might be expected to differ both in global surveys and in their affective reactions to events at the time they occur (online). Specifically, Westerners' online responses to everyday experiences should be more positive or less negative than Easterners' reactions. However, the evidence for this expectation is mixed.

On the one hand, some studies have found that Asian Americans reported and showed less intense positive emotions (Mesquita & Karasawa, 2002; Tsai, Chentsova-Dutton, Freire-Bebeau, & Przymus, 2002; Tsai, Levenson, & McCoy, 2006) or more intense negative emotions (Tsai et al., 2006) than European Americans. On the other hand, Oishi (2002) found that Asian Americans do not actually *experience* fewer positive emotions than European Americans but rather *recall* experiencing fewer positive emotions than European Americans. In this study, European and Asian American participants rated their daily experiences (e.g., "How good or bad was today?") each day for a week, and—contrary to the expectation that Asian Americans would report fewer positive daily experiences or that European Americans would report more positive daily experiences—no differences were found between the average ratings of Asian and European Americans. But when these same participants were asked, at the end of the week, to rate the past 7 days as a whole (e.g., "How good or bad was the week?"), the European American participants reported having a better week than the Asian Americans. Furthermore, European Americans rated the week globally more highly than the average of their daily reports, whereas Asian Americans did not. Similar findings emerged when participants rated their online experience of several positive emotions, also over a 1-week period. Although the proportion of time European and Asian Americans spent in positive moods during the week did

not differ, European Americans retrospectively estimated having spent more time in positive moods than did Asian Americans. Taken together, these mixed results cast doubt on the possibility that cross-cultural differences in well-being reflect discrepant hedonic experiences, because this explanation would predict consistent differences in the on-line experience of affect.

### What Constitutes a Good Life?

In this article, we seek to explain East-West differences in subjective well-being in light of Eastern versus Western approaches to constructing the meanings of emotional events and how positive and negative affect are weighed when deciding what constitutes a good life (see Wirtz & Chiu, 2008). There is some evidence that Easterners and Westerners may use different cultural theories to construct—and reconstruct—their life experiences. For example, Western cultures emphasize self-enhancement: Being able to achieve and to celebrate one's success is a major source of Westerners' self-esteem. Conversely, Eastern cultures emphasize fitting in and fulfilling obligations: Being able to critically reflect on and learn from one's past failures and to minimize future failures is a defining characteristic of a well-adjusted Easterner (Heine, Lehman, Markus, & Kitayama, 1999; Heine et al., 2001). Lee, Aaker, and Gardner (2000) suggested that Westerners' independent self-construal leads to an emphasis on "positive features of the self and potential gains in situations," whereas Easterners' interdependent self-construal leads to a focus on "potentially negative aspects of the self and situations in an attempt to avoid future social mishap" (p. 1123). In a series of studies, Heine et al. (2001) found that European Canadians and Japanese responded differently when their efforts on an academic task were met with either success or failure. When Canadians were given an easy task on which they performed well, they tended to persist on a subsequent, similar task longer than when they were given a difficult task on which they performed poorly. Among Japanese the trend reversed, such that they persisted longer after failure than after success. Oishi and Diener (2003) reported a similar result in both an academic and a recreational task.

The divergent cultural theories described above may also influence the way Westerners and Easterners appraise positive and negative life experiences and construct their self-esteem from these events

(Kim, Peng, & Chiu, 2008). In a series of studies, Kitayama, Markus, Matsumoto, and Norasakkunkit (1997) had Japanese living in Japan or in the United States, along with Americans, evaluate Japan-made (i.e., written by Japanese) and U.S.-made (i.e., written by Americans) success and failure events on their relevance for self-esteem. Japanese found failure events to be more relevant to self-esteem than success events, and Americans displayed the reverse ranking. Japanese thought that failures would decrease their self-esteem more than success would increase their self-esteem, and Americans thought the opposite.

Eastern and Western cultures also vary considerably in the degree to which positive or negative affect is thought to be (un)desirable or (in)appropriate. For instance, individuals from Eastern nations (Korea, China) view the feeling and expression of positive affect to be less desirable than individuals from Western nations such as the United States (Diener, Suh, Smith, & Shao, 1995). Similarly, Eid and Diener (2001) found that Western nations (United States and Australia) were relatively homogeneous in their norms for positive affect compared to Eastern nations (China and Taiwan). That is, there was little within-culture variability among Westerners in their attitude toward positive affect as desirable and appropriate and greater variability among Easterners. As a consequence, those living in Western nations might feel strong pressure to conform to these standards for positive affect, as “deviations from this norm of happiness might have a strong impact, and being unhappy might be regarded as failing. People who are less happy are expected to correct their unhappiness by using, for instance, psychotherapy” (p. 880). Thus, Westerners may be more motivated to recall positive affect than negative affect and vice versa for Easterners. In a pattern consistent with this hypothesis, Oishi (2002) demonstrated that the greatest predictor of how European Americans recalled the past week was the *best* day of the week. For Asian Americans, it was the *worst* day of the week.

Finally, culture may shape the way people experience and recall affect directly through widely accepted norms, but also indirectly through the role of affect in implicit theories and culturally prescribed uses of affect in judgment. For example, research exploring implicit theories of the “good life” reveals that happiness is an important component of such theories among Westerners (King & Napa, 1998). If Westerners tend to perceive happy lives as desirable

and moral lives, they may be more motivated to later recall their own experiences of happiness.

### Overview of the Present Research

In the present research, we hypothesize that Easterners' and Westerners' divergent cultural constructions of positive and negative events and affect influence not only the reconstruction of such events and their associated affect but also how the reconstructed memories enter into satisfaction judgments and choices about future actions. In three studies, the experience and recall of positive and negative affect by individuals with a Western cultural heritage (European Americans) and an Eastern cultural heritage (Asian Americans, Japanese) is compared.

Study 1 examines the extent to which a “good” vacation (i.e., a vacation worth repeating) depends on the experience of positive affect—or on the absence of negative affect—and whether culture moderates how affect is weighed in such a decision. We predict that the presence of positive affect will be more important than the absence of negative affect in predicting Westerners' desire to repeat a vacation experience. Easterners, in contrast, are expected to give greater consideration than Westerners to the absence of recalled negative affect when deciding how much they would like to repeat a vacation. In addition, Study 1 attempts to replicate the finding that European Americans display a bias toward the recall of positive affect (cf., Oishi, 2002) while also examining for the first time whether a similar pattern can be identified for Easterners' recall of negative affect.

Study 2 offers an additional cross-cultural examination of how positive and negative affect are weighed in a different type of judgment: participants' satisfaction with a personal friendship. Using an experimental design, we asked participants to recall either a positive event or a negative event from a friendship and to describe the details of the event. Recalled positive and negative affect are then compared within each event as predictors of how satisfied participants are with the friendship as a whole.

In Study 3, the different meanings Easterners and Westerners attribute to positive and negative events were compared, along with how these meanings affect changes in their life satisfaction. Study 3 asked participants to record everyday positive and negative events

immediately after they had taken place and to identify the cause of each event they wrote about—was the event attributable to self or to others? If Easterners tend to accept responsibility for affectively negative events in daily life (consistent with the ethos of self-improvement) whereas Westerners are inclined to take credit for positive events (consistent with the goal of enhanced self-esteem) and, further, that the culture-specific meanings attributed to positive and negative events are connected to changes in life satisfaction, the hypothesis that culture moderates the relation between attributions about positive and negative events and life satisfaction would be supported. In addition, these findings may offer insight about the features of their environments that Easterners and Westerners attend to, and provide further evidence for the utility of studying emotional experiences from a cultural perspective.

### **STUDY 1: WHAT CONSTITUTES A GOOD VACATION?**

Is a good vacation filled with positive moments, lacking negative moments, or both? Study 1 analyzes the degree to which recalled positive affect (PA) and negative affect (NA) indicate a vacation experience worth repeating (i.e., what kind of past affective experiences one would like to replicate in a future vacation). European American participants were expected to view a “good vacation” in much the same way that they have been found to view a “good life”—as depending on the amount of positive affect experienced (King & Napa, 1998). Therefore, it was predicted that European Americans’ desire to take a similar vacation would be best predicted by their recollection of positive affect. Asian American participants were also expected to view a “good vacation” as a vacation that contained positive affect—the goal of most vacations, after all, is probably to have a good time. However, Asian Americans were expected to also pay attention to the negative aspects of their vacation, giving weight to these aspects when rating the degree to which they would like to take a similar vacation in the future. In other words, it was predicted that Asian Americans’ rated desire to take a similar vacation would depend not only on the presence of positive affect, but also on the *absence* of negative affect.

To test these hypotheses and to determine whether European Americans exhibit a positive affect recall bias (and Asian Americans a negative affect bias), the online and recalled experience

of European and Asian Americans taking spring break vacations was compared.<sup>1</sup> While on vacation, participants rated the intensity with which they were experiencing a series of both positive and negative emotions using the experience sampling method, recording their affect on personal data assistants (PDAs) at random intervals. After the vacation ended, participants recalled the intensity with which they had experienced each emotion while on vacation and also rated their desire to take a similar trip in the future.

### Method

Participants were recruited from flyers posted around the University of Illinois campus in Urbana–Champaign and earned \$25 for their participation. Volunteers answered a few screening questions. Participants were ineligible for the study if they had been in a similar (i.e., experience sampling) study in the past, did not plan on leaving campus for at least 4 days, or were simply going home for the break. Eligible participants provided information on their ethnicity, gender, and age. Forty-six participants took part in this study, but 5 participants were excluded because of incomplete data or PDA malfunction.

During their spring break vacations, participants carried PDAs that were programmed to randomly signal them seven times per day. Each time they were prompted by the PDA, participants indicated how intensely they had been experiencing five positive (pleasant, sociable, calm, happy, joyful) and five negative (unpleasant, irritated, guilty, sad, worried) emotions in the moment before they heard the PDA's distinctive page, on a scale from 0 (*not at all*) to 6 (*maximum intensity*; cf., Diener & Emmons, 1985). Four weeks after participants returned from their vacations, they were asked to recall how intensely they had actually experienced each positive and negative emotion while on the vacation. Finally, approximately 5 weeks after the vacation had ended and 1 week after the retrospective reports were made, participants were asked, "Would you take this same vacation over again (assuming you hadn't just been there, but that you know what you now know)?" Responses were made on a scale from 1 (*definitely no*) to 4 (*neutral*) to 7 (*definitely yes*).

Because the hypothesis being tested focused on differences between self-identified Asian Americans ( $n = 22$ , 9 female, mean age = 21.09 years,  $SD = 1.03$ ) and self-identified European Americans ( $n = 16$ , 11 female,

1. The data analyzed in Study 1 were previously used in Wirtz, Kruger, Scollon, and Diener (2003). All analyses reported herein, however, are new and were not reported in that paper.

mean age = 20.56 years,  $SD = 2.35$ ), 2 Hispanic participants and 1 participant who did not report his ethnicity were also excluded. This left a total sample of 38 participants (18 male, 20 female).

### Results and Discussion

The five positive (pleasant, sociable, calm, happy, joyful) and five negative (unpleasant, irritated, guilty, sad, worried) emotions were averaged to create indices of online PA ( $\alpha = .87$ ), online NA ( $\alpha = .90$ ), recalled PA ( $\alpha = .80$ ), and recalled NA ( $\alpha = .78$ ). The means and standard deviations of these variables are presented in Table 1. Given the moderate correlation between recalled PA and recalled NA in both samples ( $r = -.44$  for European Americans and  $-.45$  for Asian Americans; see Table 2), we treated recalled PA and NA as separate predictors in our analysis (see Diener & Emmons, 1985, for more on the independence of PA and NA).

#### *Predicting Desire to Repeat the Trip From Positive and Negative Affect*

Does recalled positive affect or the absence of recalled negative affect (or both) characterize a vacation that one would like to repeat? We predicted that the different meanings Easterners and Westerners give

**Table 1**  
Means and Standard Deviations for Online and Recalled PA and NA (Study 1)

	Asian Americans		European Americans		Whole Sample	
	Mean	<i>SD</i>	Mean	<i>SD</i>	Mean	<i>SD</i>
Online PA	3.63	0.83	3.85	0.66	3.72	0.76
Recalled PA	4.22	0.75	4.91	0.71	4.51	0.80
Overall PA <sup>a</sup>	3.92	0.66	4.38	0.63	4.12	0.68
On-line NA	0.90	0.57	0.85	0.66	0.88	0.60
Recalled NA	1.93	0.74	1.31	0.81	1.67	0.82
Overall NA <sup>a</sup>	1.42	0.58	1.08	0.69	1.28	0.64

*Note.* Ratings were made on a scale ranging from 0 (*not at all*) to 6 (*maximum intensity*).

<sup>a</sup>Overall PA refers to mean of the online and recalled PA and overall NA refers to the mean of online and recalled NA.



**Table 2**  
 Correlations Between PA, NA, and the Desire to Take a Similar  
 Vacation in the Future for European Americans and Asian Americans

	Recalled NA	Desire to repeat trip
European Americans		
Recalled PA	-.44	.55*
Recalled NA		-.32
Asian Americans		
Recalled PA	-.45*	.52*
Recalled NA		-.57**

\* $p < .05$ , \*\* $p < .01$ .

to positive and negative affect within an event lead to different emphases placed on positive and negative affect when judging whether a vacation experience is repeatable. To the extent that the desire to take a similar vacation is better predicted by PA than NA for European Americans or that NA is more predictive of this desire for Asian Americans than for European Americans, this hypothesis would be supported.

First, we examined the effect of recalled PA on participants' desire to repeat the vacation. We regressed the desire to repeat the trip on recalled PA (mean-centered), ethnicity (dummy-coded), and their interaction. We also included participant gender in the regression as a control variable. The results showed that women ( $M = 6.25$ ,  $SD = 1.07$ ) had a greater desire to repeat the trip than did men ( $M = 5.39$ ,  $SD = 1.50$ ),  $t(33) = 4.57$ ,  $p < .05$ . In addition, participants who recalled more positive affect indicated a stronger desire to repeat the trip,  $B$  for recalled PA = 1.12,  $t(33) = 3.55$ ,  $p = .001$ . The Ethnicity  $\times$  Recalled PA interaction was not significant,  $B = -0.46$ ,  $t(33) = -0.99$ , *ns*, indicating that recalled PA was associated with the desire to repeat the trip to a similar extent for Asian and European Americans.

Next, we performed a similar analysis using participants' recalled NA. We regressed the desire to repeat the trip on recalled NA (mean-centered), ethnicity (dummy-coded), and their interaction. Again, we included participant gender in the regression as a control variable. The results showed that participants who recalled more negative affect were less inclined to repeat the trip,  $B$  for recalled

NA =  $-1.39$ ,  $t(33) = -4.53$ ,  $p < .001$ . This association was stronger among Asian Americans than among European Americans, as the significant Ethnicity  $\times$  Recalled NA indicated,  $B = 1.09$ ,  $t(33) = 2.44$ ,  $p < .05$ . Table 2 shows the correlations between recalled PA, recalled NA, and the desire to repeat the trip. Consistent with our prediction, for European Americans, recalled PA and the desire to take a similar vacation were significantly related ( $r = .55$ ,  $p < .05$ ), but recalled NA and the desire to repeat the trip were not ( $r = -.32$ , *ns*). For Asian Americans, recalled NA was the best predictor of the desire to take a similar vacation ( $r = -.57$ ,  $p < .01$ ), although recalled PA ( $r = .52$ ,  $p < .05$ ) was also significantly related to the desire to go again. Table 1 shows that this finding is not due to greater variability in PA among European Americans or to greater variability in NA among Asian Americans. Indeed, the variances in PA and NA between the two samples were not reliably different,  $F = 0.37$  for PA and  $F = 0.04$  for NA.

Finally, for each ethnic group, we regressed the desire to repeat the trip on recalled PA and recalled NA simultaneously. For European Americans, only recalled PA was marginally associated with the desire to repeat the trip,  $B$  for Recalled PA =  $0.58$ ,  $t(13) = 2.00$ ,  $p = .07$ ;  $B$  for recalled NA =  $-0.09$ ,  $t(13) = -0.36$ , *ns*. For Asian Americans, only recalled NA had a significant incremental predictive relationship,  $B$  for Recalled PA =  $0.42$ ,  $t(19) = 1.03$ , *ns*;  $B$  for recalled NA =  $-1.18$ ,  $t(19) = -2.84$ ,  $p < .01$ . In summary, compared to European Americans, Asian Americans gave greater weight to negative affect in rating the desire to take a similar vacation.

### *Online Versus Recalled Affect*

We also analyzed the intensity of online and recalled affect reported by the participants. We hypothesized that, although participants would not differ in their moment-by-moment hedonic experience, differences would emerge when participants recalled their past affect (cf. Oishi, 2002). In particular, we hypothesized that European Americans would display a bias toward recalled positive affect intensity, whereas Asian Americans would display a bias toward recalled negative affect intensity.

An analysis of variance (ANOVA) with culture (Asian American, European American) and participant gender as between-subjects variables and time of measurement (online, recalled) and affect valence (positive affect, negative affect) as within-subjects variables

confirmed the predicted result: a three-way interaction between culture, time of measurement, and affect valence,  $F(1, 36) = 9.44$ ,  $p < .01$ .<sup>2</sup> To understand the nature of this interaction, separate Culture  $\times$  Affect Valence ANOVAs were performed on the online and recalled measures of affect. For the online measure, the main effect of affect valence was significant,  $F(1, 36) = 268.62$ ,  $p < .001$ . Online positive affect ( $M = 3.72$ ) was much more intense than online negative affect ( $M = 0.88$ ), indicating that participants' vacation experiences were more positive than negative. Consistent with previous findings, neither the main effect of culture,  $F(1, 36) = 0.34$ , nor the interaction,  $F(1, 36) = 0.60$ , was significant ( $p > .05$ ). Thus, Asian and European Americans did not differ in their momentary experience of positive and negative affect.

For recalled affect, a significant Culture  $\times$  Affect Valence interaction demonstrated the hypothesized pattern,  $F(1, 36) = 9.79$ ,  $p = .003$ . As Table 1 shows, European Americans' recalled PA was significantly higher than Asian Americans' recalled PA ( $M = 4.91$  vs.  $4.22$ ),  $t(36) = 2.89$ ,  $p < .01$ ,  $d = .94$ , and Asian Americans' recalled NA was significantly higher than the European Americans' recalled NA ( $M = 1.93$  vs.  $1.31$ ),  $t(36) = -2.43$ ,  $p < .05$ ,  $d = .80$ . Thus, European Americans exhibited a bias toward the recall of positive affect compared with Asian Americans, who exhibited a bias toward the recall of negative affect compared with European Americans. Further, cultural differences were found in recalled—not online—affect.<sup>3</sup>

2. Because none of the effects involving participant gender were significant,  $F_s < 1.27$ , *ns*, we dropped this variable in the analyses reported. In addition to the three-way interaction, there was also a significant two-way interaction between Culture and Valence,  $F(1, 36) = 5.21$ ,  $p < .05$ , indicating that European Americans reported more intense PA ( $M = 4.38$ ,  $SD = 0.63$ ) than Asian Americans ( $M = 3.92$ ,  $SD = 0.66$ ),  $t(36) = 2.15$ ,  $p < .05$ ,  $d = .71$ . Asian Americans did not report significantly more intense NA ( $M = 1.42$ ,  $SD = 0.58$ ) than did European Americans ( $M = 1.08$ ,  $SD = 0.69$ ),  $t(36) = -1.62$ ,  $p = .12$ ,  $d = .53$ .

3. Other significant effects in this analysis include a main effect for valence, such that participants reported experiencing PA more intensely than NA,  $F(1, 36) = 281.09$ ,  $p < .001$ . This is not surprising, as participants were on vacation at the time. There was also a main effect for time of measurement, indicating that participants recalled more intense affect than they reported online,  $F(1, 36) = 123.75$ ,  $p < .001$ . This finding is consistent with previous research showing a *rosy view* (Mitchell, Thompson, Peterson, & Cronk, 1997) or *impact bias* (Wilson, Meyers, & Gilbert, 2003) in which individuals generally tend to overestimate the affective consequences of past events.

In sum, Study 1 demonstrates two key findings. First, the weight given to recalled positive and negative affect in rating the desire to take a similar vacation differed by culture. The best predictor of European Americans' desire to take a similar vacation was recalled positive affect, whereas Asian Americans' desire to repeat the vacation was related to both recalled negative affect and positive affect. It is particularly interesting that even in a vacation domain, in which having a good time is likely a highly valued outcome for all participants, Asian Americans' later inclination to repeat the experience depended not just on the presence of positive emotions but on the absence of negative emotions. Second, European and Asian Americans showed no difference in their online experience of positive or negative emotions. When recalling their affect, however, the two groups show distinctly different patterns. European Americans recalled more intense positive affect than Asian Americans, and Asian Americans recalled more intense negative affect than European Americans.

## **STUDY 2: WHAT CONSTITUTES A GOOD FRIENDSHIP?**

Study 1 contained certain methodological strengths, such as the ecological validity of assessing affect in a real-life context that was meaningful to participants. Yet the ecological approach of Study 1 forfeited some of the internal validity that an experimental design could offer. In addition, the sample size was small, and the event—a spring break vacation—was dominated by the experience of positive affect, making it unclear whether the pattern of results would replicate if negative events were also considered. For instance, the intensity of recalled negative affect was very low for European Americans ( $M = 1.31$ ). It is possible that only when overall levels of recalled negative affect are low do Europeans tend to give greater weight to positive affect in later judgments.

Study 2 took a closer look at the role of PA and NA in Easterners' and Westerners' judgments of what constitutes a good friendship, addressing some of the shortcomings of the first study. By using an experimental design in which participants were explicitly instructed to recall a very positive or very negative event, we made the intensity of recalled positive and negative affect more comparable. Further, Study 2 sought to replicate the findings of the first study in a new domain (friendship) and a slightly different global judgment from

Study 1 (satisfaction with friendship). After recalling a positive or negative friendship-related event, participants rated how much they felt various emotions during the event, followed by a measure of their satisfaction with the friendship.

The design of Study 2 thus produces four between-subjects conditions in which participants recall their PA and NA: (1) Asian Americans recalling a positive event, (2) Asian Americans recalling a negative event, (3) European Americans recalling a positive event, and (4) European Americans recalling a negative event. Participants who recall positive events are expected to report a higher satisfaction with their friendship than those who recall negative events. Based on Study 1 results, we further predict that European Americans' friendship satisfaction judgment would be affected primarily by the positive affect associated with the recalled event, whereas Asian Americans' friendship satisfaction judgment would be affected by the positive *and* negative affect associated with the recalled event.

## Method

### *Participants*

Eighty-nine University of Illinois students earned course credit for their participation. Because analyses focused on differences between individuals of European descent and East Asian descent, all other ethnicities ( $n = 19$ ) were excluded. Three European American participants (7%) were not born in the United States; data from these participants were also excluded. This left 67 participants, including 39 self-identified European Americans (female = 18, male = 21; mean age = 18.82 years,  $SD = 0.76$ ) and 28 self-identified East Asian Americans (female = 16, male = 12; mean age = 20.32 years,  $SD = 2.13$ ). Twelve Asian American participants (43%) were not born in the United States and reported having spent an average of 12 to 14 years in the United States; 10 Asian American participants (36%) reported Chinese as their first language and 5 (18%) reported first speaking Korean.

### *Procedure and Materials*

Participants were instructed to write about an event from a personal friendship. The valence of the event was manipulated between subjects, so that participants wrote about either a very pleasant or very unpleasant event in the friendship. Participants were asked to indicate when the event occurred and to write the initials of their friend. After recounting the event and their reaction to it, participants responded to an extended ver-

sion of the Wirtz et al. (2003) emotion checklist; they recalled how much they experienced 6 positive emotions (relieved, sociable, happy, joyful, calm, pleasant) and 12 negative emotions (uneasy, disappointed, discourage, on edge, irritated, tense, sad, low, worried, guilty, unpleasant, agitated) when the event actually occurred on a scale from 0 (*not at all*) to 6 (*maximum intensity*).

Participants next completed an adaptation of the five-item Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; see also Pavot & Diener, 1993), modified to assess participants' satisfaction with the friendship they had written about. The scale asked participants to indicate their agreement with statements such as "I am satisfied with this friendship" on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

### Results and Discussion

Participants' ratings of the 6 positive and 12 negative emotions were averaged to create a single index of PA and NA for the recalled event (recalled PA:  $\alpha = .93$ , recalled NA:  $\alpha = .95$ ). Next, satisfaction with friendship (SWF) was calculated by averaging participants' responses to the five-item scale ( $\alpha = .94$ ).

#### *Manipulation Checks*

Before testing our predictions, we performed analyses to show that recalling a positive event would elicit more recalled PA than NA and a relatively high level of friendship satisfaction, whereas recalling a negative event would elicit more recalled NA than PA and a relatively low level of friendship satisfaction. Moreover, these effects should be of comparable magnitude in the cultural ethnic groups.

As expected, the valence manipulation affected participants' recalled PA and NA in the expected direction (see Table 3). A Culture (Asian American vs. European American)  $\times$  Participant Gender  $\times$  Event Valence (positive event vs. negative event)  $\times$  Affect Valence (PA vs. NA) ANOVA revealed a significant Affect Valence  $\times$  Event Valence interaction,  $F(1, 66) = 225.91, p < .001, \eta_p^2 = .79$ . Table 3 shows that when participants recalled a positive event, they reported a high level of PA ( $M = 4.08, SD = 1.04$ ) and a low level of NA ( $M = 0.55, SD = 0.74$ ),  $t(37) = 14.69, p < .001$ ; when they recalled a negative event, they reported a high level of NA ( $M = 3.05, SD = 1.22$ ) and a low level of PA ( $M = 0.74, SD = 0.77$ ),  $t(28) = 7.58, p < .001$ . No higher-order interactions were significant,  $F_s < 3.0, ns$ , indicating that the event valence manipulation had a

**Table 3**  
Means and Standard Deviations for Recalled PA and NA During  
Positive and Negative Events (Study 2)

	Asian Americans		European Americans		Whole Sample	
	Mean	SD	Mean	SD	Mean	SD
Positive event PA	4.46	0.94	3.81	1.04	4.08	1.04
Negative event PA	0.88	0.85	0.64	0.73	0.74	0.77
Overall PA <sup>a</sup>	2.92	2.01	2.42	1.83	2.63	1.91
Positive event NA	0.46	0.94	0.61	0.72	0.55	0.74
Negative event NA	3.53	1.13	2.72	1.20	3.05	1.22
Overall NA <sup>a</sup>	1.78	1.80	1.53	1.42	1.63	1.58

*Note.* Ratings were made on a scale ranging from 0 (*not at all*) to 6 (*maximum intensity*).

<sup>a</sup>Overall PA refers to mean of the positive event and negative event PA and overall NA refers to the mean of positive and negative event NA.

similar impact on recalled affect for individuals from both cultural groups.<sup>4</sup> This result indicated that the event valence manipulation was able to make salient a relatively high magnitude of recalled NA.

A Culture  $\times$  Event Valence  $\times$  Participant Gender ANOVA performed on friendship satisfaction revealed that the valence manipulation had a significant effect on satisfaction with friendship,  $F(1, 59) = 19.04$ ,  $p < .001$ ,  $\eta_p^2 = .24$ . Participants reported a higher satisfaction with friendship when they recalled a positive event ( $M = 6.00$ ,  $SD = 1.05$ ) than when they recalled a negative event ( $M = 4.31$ ,  $SD = 1.87$ ). Again, none of the other effects in the analysis were significant,  $F_s < 2.50$ , *ns*. In short, the event valence manipulation was effective in eliciting differential levels of recalled PA, recalled NA, and friendship satisfaction. Furthermore, the effects of the manipulation were comparable in the two ethnic groups.

4. There was also a significant main effect of affect valence,  $F(1, 59) = 10.25$ ,  $p < .01$ ,  $\eta_p^2 = .14$ , such that participants reported a higher intensity of positive ( $M = 2.63$ ,  $SD = 1.91$ ) than negative affect ( $M = 1.63$ ,  $SD = 1.58$ ), a main effect of culture,  $F(1, 59) = 8.93$ ,  $p < .01$ ,  $\eta_p^2 = .13$ , such that Asian Americans recalled a higher overall intensity of affect ( $M = 2.35$ ,  $SD = 0.54$ ) than did European Americans ( $M = 1.98$ ,  $SD = 0.58$ ), and a main effect of event valence,  $F(1, 59) = 8.67$ ,  $p < .01$ , such that participants recalled more intense affect when they recalled a positive ( $M = 2.32$ ,  $SD = 0.51$ ) than negative event ( $M = 1.90$ ,  $SD = 0.60$ ).

*Predicting Satisfaction With Friendship From Positive and Negative Affect*

Is recalled positive affect or the absence of recalled negative affect (or both) indicative of a satisfying friendship? We hypothesized that—consistent with Study 1—the answer depends on one’s cultural heritage. To test whether European and Asian Americans would give different weights to positive and negative affect when evaluating friendship satisfaction, a linear model was fitted to friendship satisfaction with culture, participant gender, and event valence as between-subjects factors and PA (mean-centered) and NA (mean-centered) as continuous predictors.

Consistent with past studies, there was a significant main effect of culture,  $F(1, 54) = 13.37, p = .001, \eta_p^2 = .20$ ; European Americans ( $M = 5.35, SD = 1.75$ ) reported a higher level of friendship satisfaction than did Asian Americans ( $M = 5.16, SD = 1.60$ ).

Consistent with the Study 1 results, there was a significant main effect of PA,  $F(1, 54) = 4.07, p < .05, \eta_p^2 = .07$ . Participants who recalled more positive affect reported a higher level of friendship satisfaction ( $r = .51$ ). No higher order interactions involving recalled PA were significant,  $F_s < 2.80, ns$ , indicating that the two ethnic groups both used recalled positive affect when judging friendship satisfaction.

The Culture  $\times$  NA  $\times$  Event Valence interaction was significant,  $F(1, 54) = 5.00, p < .05, \eta_p^2 = .09$ . To understand this interaction, for each ethnic group, a linear model was fitted to friendship satisfaction using Event Valence, NA, Participant Gender, and Event Valence  $\times$  NA as predictors. Among European Americans, there was a significant main effect of event valence,  $F(1, 34) = 7.49, p = .01, \eta_p^2 = .18$ . These participants reported a higher level of friendship satisfaction after recalling a positive event ( $M = 6.31, SD = 0.68$ ) than a negative one ( $M = 4.11, SD = 1.95$ ).

Among Asian Americans, the only significant effect in the linear model was the Event Valence  $\times$  NA interaction,  $F(1, 23) = 9.91, p < .01, \eta_p^2 = .30$ . When recalling a positive event, intensity of recalled NA was negatively associated with friendship satisfaction ( $r = -.60, p = .01$ ). However, recalled NA was not significantly associated with friendship satisfaction when a negative event was recalled ( $r = .46, p < .10$ ).

In summary, both ethnic groups gave weight to PA when rendering a friendship satisfaction judgment. However, only Asian Americans



considered NA in positive friendship events in their evaluation of friendship satisfaction. These results are consistent with those of Study 1 and extend the pattern to situations where the intensity of recalled affect was manipulated experimentally, thereby reducing mean differences (which were further controlled for statistically) between Asian and European Americans. Study 2 also extended previous findings to a predominantly negative event. In effect, Study 2 showed that European Americans might improve their satisfaction with friendship by focusing on the good parts of a past friendship-related event, whereas Asian Americans might lower their satisfaction with friendship by focusing on the bad parts of a good event. In the present study, as in previous studies, European Americans reported a higher level of satisfaction than did East Asians. If remembering some positive affect could elevate European Americans' satisfaction and remembering some negative affect—even in a positive event—could depress Asian Americans' satisfaction, the findings from the present study may help explain how East–West differences in life satisfaction emerge.

### **STUDY 3: WHAT CONSTITUTES A GOOD LIFE?**

Study 2 showed that attending to negative aspects of interpersonal events can lower Easterners' friendship satisfaction, probably because negative interpersonal experiences are perceived to be indicative of one's social standing. Studies examining overall life satisfaction have produced results consistent with this idea. Unlike Westerners, who rely on their feeling of self-esteem when evaluating their own life satisfaction (Diener & Diener, 1995), Easterners depend not only on the presence of self-esteem for a sense of life satisfaction, but also on the presence of harmony in interpersonal relationships (Kwan, Bond, & Singelis, 1997). In other words, the better Westerners feel about themselves, the more highly satisfied they are with their lives as a whole; when directly compared, self-esteem was found to be a better predictor of life satisfaction than relationship harmony in the United States. In contrast, self-esteem and relationship harmony predicted life satisfaction equally well in Hong Kong.

Study 3 seeks to extend the results of our first two studies by examining whether experiencing negative events perceived to be caused by other people (versus oneself) will also lower life satisfaction—particularly among Easterners. If Westerners chronically focus on

positive affect experienced by the self and use the experience of that affect to elevate self-esteem—and thus as a basis for feeling satisfied with their lives—it might be predicted that Westerners will tend to pay more attention to—and report—positive events that they cause themselves. That is, it is predicted that Westerners would be more likely than Easterners to report positive events attributable to (or construed as attributable to) themselves. The life satisfaction of Westerners may thus tend to depend on how frequently they experience positive events attributable to the self.

In contrast, to the extent that Easterners habitually focus on social harmony, it might be predicted that Easterners will tend to report positive events in daily life that are attributable to others more than to the self. Furthermore, to the extent that Easterners are vigilant in avoiding negative interpersonal experiences to achieve greater social harmony, and thus as a basis for feeling satisfied (or dissatisfied) with their lives, their life satisfaction would depend on the absence of negative events perceived to be caused by others.

Study 3 employed an event-contingent recording (ECR) method. Similar to the experience-sampling method (see Study 1), the goal of ECR is to measure experience as it unfolds outside the laboratory, in the real world. However, ECR relies not on a random sampling of online emotions, but instead allows participants to record positive and negative daily events at their discretion. Participants in this study were instructed to record one positive and one negative event daily, for a period of 3 weeks. After recording each event, participants also recorded their attribution about the cause of the event. At the beginning and end of the 3-week recording period, participants were asked to rate their current life satisfaction. Finally, one additional design change relative to Studies 1 and 2 is that Study 3 compares a European American sample with a Japanese sample, who not only share an Eastern cultural heritage, but—unlike Asian Americans—remain immersed in that heritage presently.

## Method

### *Participants*

Forty-four paid participants took part in this study. This sample included 23 European Americans at the University of Illinois at Urbana-Champaign (male = 12, female = 11) and 21 Japanese participants (male = 4, female = 17) from International Christian University in Japan.

*Procedure and Materials*

The study employed an ECR procedure in which participants were instructed to record one positive and one negative event per day, immediately after the event took place, on a handheld PDA. Participants also recorded a brief description of the event on the PDA (e.g., "I had a mishap while shaving my head," or "Today I was walking past some vending machines and a dollar that someone had left came out. Since no one was around, I took the dollar, thinking that a little luck had come upon me."). After recording each event, participants were asked about the causes of the event. Specifically, they were asked, "Why do you think the event happened (due to YOU or due to OTHERS?)" Responses were made on a scale from 1 (*strongly me*) to 4 (*equally me and others*) to 7 (*strongly others*). We reverse scored this item so that higher scores would indicate greater tendencies to take personal responsibility for the event. The event recording continued for a period of 3 weeks. At two points in time (prior to starting and upon finishing the study) participants completed the five-item Satisfaction With Life Scale (Diener et al., 1985; see also Pavot & Diener, 1993) as part of a larger questionnaire.

**Results and Discussion**

Responses on the five-item Satisfaction With Life Scale were averaged at Time 1 ( $\alpha = .83$ ) and at Time 2 ( $\alpha = .82$ ). Attributions about the causes of events over the course of the study were averaged to create a composite attribution measure, except where otherwise noted.

*Cultural Differences in Attribution*

An ANOVA was performed for the attribution measure with event valence (positive event, negative event) as a within-subjects variable and culture (European American, Japanese) and participant gender as between-subjects variables.

The results illustrate the interaction of culture and event valence,  $F(1, 39) = 4.40, p < .05, \eta_p^2 = .10$ . As shown in Table 4, European Americans rated positive events as more due to the self (vs. others) than did Japanese ( $M = 4.46$  vs. 3.32),  $t(41) = 4.96, p < .001, d = 1.34$ , although the two groups did not differ in their attributions for negative events ( $M = 4.09$  vs. 3.77),  $t(41) = 1.00, ns$ . In addition, Japanese were more likely to report positive (vs. negative) events as attributable to others,  $t(19) = 2.53, p < .05$ , whereas European Amer-

**Table 4**  
**Participants' Ratings of the Cause of the Positive and Negative Events as Attributable to the Self or to Others**

	Japanese		European Americans		Whole Sample	
	Mean	SD	Mean	SD	Mean	SD
Positive events	3.32	0.84	4.46	0.66	3.95	0.94
Negative events	3.77	1.16	4.09	0.94	3.93	1.04
Overall <sup>a</sup>	3.55	0.93	4.28	0.53	3.94	0.81

*Note.* Ratings were made on a 7-point scale, with higher scores indicating greater tendencies of self-attribution.

<sup>a</sup>Overall refers to the mean tendency to make self-attributions for both positive and negative events.

icans were similarly inclined to attribute to others positive and negative events,  $t(22) = 1.42$ , *ns*. On the whole, consistent with our predictions, European Americans (compared to Japanese) were more likely to take responsibility for positive events. In contrast, Japanese were more likely to attribute positive (vs. negative) events to others.<sup>5</sup>

#### *Predicting Changes in Life Satisfaction From Attributions*

To examine how attributions about the causes of everyday positive and negative experiences affect life satisfaction, a mean *others versus self* attribution was computed, separately for positive and negative events, using data from the first 4 days of the study. The same procedure was then repeated for the last 4 days of the study. The first and last 4 days of the study were chosen for the following reason: Individuals participated in Study 3 for a mean of 17.47 ( $SD = 4.53$ ) days, making the first 4 days approximately equivalent to the first quarter of the study and the last 4 days equivalent to the last quarter of the study. As a global, memory-based judgment, we hypothesized

5. Other significant effects included the main effect of culture,  $F(1, 40) = 4.09$ ,  $p = .05$ ,  $\eta_p^2 = .10$ , such that European Americans were more likely to attribute events to the self ( $M = 4.28$ ,  $SD = 0.53$ ) than were Japanese ( $M = 3.55$ ,  $SD = 0.93$ ), and the main effect of participant gender, such that men were more likely than women to attribute events to the self ( $M = 4.41$ ,  $SD = 0.70$ ; women:  $M = 3.67$ ,  $SD = 0.76$ ),  $F(1, 40) = 5.94$ ,  $p < .05$ ,  $\eta_p^2 = .13$ .

that life satisfaction is most likely to be affected by attributions from the start and end of the study, due to the primacy of early events and the recency of later events (cf. Murdock, 1962).

When the attribution is used to predict participants' life satisfaction at the end of the study (controlling for their life satisfaction at the beginning of the study), an interesting pattern appears. As shown in Table 5, European Americans' change in life satisfaction during the study was predicted by the degree to which they attributed positive events to the self (vs. others), a finding that was significant for events taking place in the first 4 days of the study (partial  $r = .46$ ,  $p = .05$ ) and directionally consistent (but nonsignificant) for recent events taking place during the last 4 days of the study (partial  $r = .36$ ,  $p = .14$ ). When we combined the data from the first 4 days and the last 4 days of the study, the partial correlation between attribution of positive events to the self (vs. others) and Time 2 life satisfaction (controlling for Time 1 life satisfaction) was  $.42$ ,  $p < .05$ . In other words, the more positive events European Americans reported as due to the self (vs. others), the more their satisfaction increased from Time 1 to Time 2. In contrast, as shown in Table 5, European Americans' change in life satisfaction was not related to how they interpreted the causes of negative events.

Among Japanese, however, the tendency to attribute recent negative events in the last 4 days to the self (vs. others) was positively correlated with life satisfaction at Time 2 (controlling for life satisfaction at Time 1; partial  $r = .60$ ,  $p < .01$ ). Put differently, experiencing recent negative events perceived to be caused by others made Japanese participants feel worse about their lives over time. This finding is consistent with the notion that relationship harmony is an

**Table 5**  
Correlations Between Time 2 Life Satisfaction (Controlling for Time 1 Life Satisfaction) and Self-Attribution Tendency

	Positive Event		Negative Event	
	First 4 Days	Last 4 Days	First 4 Days	Last 4 Days
European Americans	.46*	.36	-.01	-.02
Japanese	-.19	.03	-.16	.60**

\* $p < .05$ , \*\* $p < .01$ .

important predictor of life satisfaction among Easterners (Kwan et al., 1997) and the idea that Japanese need to feel respected to feel good (Kitayama et al., 2000). Among Japanese, when other people create negative events or situations, particularly those of an interpersonal nature, life satisfaction is likely to be lower as a consequence. Finally, just as the cause of negative events was unrelated to European Americans' change in life satisfaction, the cause of positive events was unrelated to the life satisfaction of Japanese participants.

In summary, Study 3 demonstrates that European Americans are more likely to take credit for good things that happen to them, but Japanese tend to attribute the causes of good experiences to others. These data are consistent with the idea that PA is important to European Americans: As experiences unfold in daily life, European Americans draw a connection between PA-producing events and the self. Indeed, the correlational data from Study 3 show that the more they attributed positive events to themselves, the greater European Americans' life satisfaction was at the end of the study (controlling for their life satisfaction at the beginning of the study). Japanese participants, on the other hand, actually had a greater tendency to describe positive (vs. negative) events as caused by others. Moreover, the more Japanese participants attributed negative events to others, the less satisfied they were with their lives at the end of the study (controlling for their life satisfaction at the start of the study), a finding that attests to the adverse effects of negative interpersonal events on life satisfaction in Japanese culture.

## GENERAL DISCUSSION

How do we construct a sense of subjective well-being on the basis of our everyday experiences? The answer depends, in part, on the culturally based knowledge traditions and practices to which we have been exposed. The present research hypothesizes that Eastern and Western cultures differ in widely held norms for affect and implicit theories about the role of affect in judgments. Strong norms and beliefs about what constitutes a good life in the West focus attention on the positive aspects of affective experience only, a difference that manifests when Westerners construct judgments on the basis of their past emotions. This contrasts with Eastern norms that emphasize the importance of minimizing negative affect as part of a cultural aspi-

ration toward harmony in social relations and role perfection. As a result, Easterners rely to a greater extent than Westerners on the absence of negative affect in constructing judgments on the basis of past emotions. It is not the case that Westerners do not feel unhappy or ignore all negative aspects of experience when deciding whether to continue a friendship or go on a certain vacation. Nor, for that matter, is it the case that Easterners do not feel happy or ignore the positive parts of experience when making judgments (Easterners' vacation preferences, for instance, were based on both the presence of positive affect and the absence of negative affect). Rather, it is simply that these parts of affective experience are given different psychological meanings and imbued with greater weight depending on one's cultural heritage.

The present set of studies serves to more broadly highlight several interesting phenomena. First, they demonstrate the emphasis on positive affect when rendering judgments in Western cultures. Among European Americans in the present research, recalled positive affect (which was exaggerated relative to actual experience) was clearly emphasized when contemplating future actions (Study 1) and in a satisfaction judgment (Study 2). When recalling a friendship-related event, the presence of recalled positive affect in that event could increase participants' satisfaction with the friendship as a whole. In contrast, among Asian Americans, negative affect has equal or even higher status than positive affect. The intensity of recalled negative affect (which was exaggerated relative to actual experience) was the strongest predictor of a potential future choice (Study 1), and the presence of negative affect in a positive event could lower participants' friendship satisfaction (Study 2).

The emphasis on positive affect in the West and the special role of negative affect in the East reinforce previous research (e.g., Eid & Diener, 2001) showing that norms for positive affect are more homogenous in the West than the East. These findings also confirm East–West differences in the status of positive versus negative events in relation to self-esteem and subjective well-being judgments. Study 3 found that European Americans attributed positive events to the self (vs. others) more than Japanese participants. Japanese attributed negative events to the self (vs. others) more than positive events. Study 3 also found that the attributions participants made predicted changes in their life satisfaction (a component of subjective well-being) up to several weeks later. Changes in Westerners' life

satisfaction were predicted by the degree to which they viewed positive events as caused by the self, and changes in Easterners' life satisfaction were predicted by how much they reported experiencing negative events attributable to others. These data mirror previous research in which Japanese found events describing failure to be more relevant to self-esteem than success-related events, and Americans showed the opposite pattern (Kitayama et al., 1997). Japanese further thought that failures would lower their self-esteem more than they thought success would elevate their self-esteem, and again Americans showed the reverse pattern. In a related vein, Oishi (2002) found that Easterners' recalled satisfaction with the past week was predicted by the worst day of the week, whereas Westerners' satisfaction was predicted by the best day of the week.

One implication of this result is that Westerners can make themselves feel happy by thinking about past positive events. Westerners can also use the presence of positive affect in past events to buffer the impact of negative experiences on life satisfaction. Easterners, in contrast, may be led by the presence of negative affect in past events to dampen the effect of positive experiences on their life satisfaction. In short, Westerners see the good aspects of past experiences and life satisfaction benefits, whereas Easterners see the bad aspects of a good experience and life satisfaction suffers.

The current investigation also replicates and extends a number of previous empirical findings. Oishi's (2002) finding that European Americans recall experiences as more positive than Asian Americans, even though the two cultural groups do not differ in day-to-day reports of experience, was replicated in Study 1. European and Asian Americans on spring break vacations reported similar levels of on-line positive affect, but after the trip ended European Americans recalled a higher intensity of positive affect relative to Asian Americans. Study 1 thus confirmed that previously reported cross-cultural differences in subjective well-being are not due to discrepancies in actual emotional experiences or instantaneous emotional responses to these experiences.

Oishi's (2002) findings were also extended in two ways. First, Study 1 examined negative affect in addition to positive affect, finding once again that there were no differences in the online experience of affect between European and Asian Americans. When asked to remember their affective experience, however, the Asian Americans recalled a greater intensity of negative affect than European Amer-



icans. Second, Study 1 showed that the same pattern appeared when affective intensity was assessed rather than affective frequency, as in previous research. Additionally, the present set of studies is the first to establish that Westerners rely more heavily on recalled positive affect than on negative affect to choose future actions on the basis of past experiences (Study 1) and to evaluate their satisfaction with life domains (Study 2). Easterners, in contrast, rely on both recalled positive and negative affect when making these same evaluations.

Study 3 replicated cross-cultural differences in attributions about the causes of positive and negative events (e.g., Hamilton, Blumenfeld, Akoh, & Miura, 1990), finding that European Americans were more likely to attribute positive events to themselves than were Japanese. Further, Study 3 demonstrates that the tendency to attribute positive events to the self among Westerners and the tendency to attribute negative events to others among Japanese predict changes in life satisfaction.

### Limitations

Although the present three studies together yield strong evidence that East–West differences in subjective well-being follow from the different psychological meanings given to positive and negative affect cross-culturally, it is important to recognize several limitations of the present research. First, the present studies do not isolate the mediating variable(s) responsible for the differential emphasis on positive and negative affect. For instance, the present data do not contain direct evidence that participants hold certain implicit theories (presumably one of the root causes of the effects observed) about the role of affect in different types of judgments or that these theories differ across cultures. That is, participants are not asked explicitly whether they believe a good vacation is a happy vacation or a satisfying friendship is one without much negative affect. Yet previous research (Oishi, 2002) has suggested that, to the extent that Easterners and Westerners do differ in the weight assigned to positive and negative affect, they may not be aware of it. The assumption in the current research is that, although it may be possible to articulate implicit theories when asked, they need not be articulated to guide behavior. Rather, the role of different types of affect in specific judgments is made chronically accessible by living in or being significantly exposed to a particular culture. In this regard, future

research could benefit from directly measuring participants' exposure to Eastern and Western cultures. The pattern of results in the present studies, however, is consistent in that the Asian Americans of Studies 1 and 2 and the Japanese participants of Study 3 exhibit a similar emphasis on recalled negative experience.

Second, an assumption in the present studies is that because Westerners and Easterners habitually use positive and negative affect to differing degrees in judgments they focus on these types of affect differentially when recalling experience. Future research is needed to test this assumption. For instance, in future research, the extent to which individuals believe positive or negative affect is relevant to a judgment can be manipulated prior to asking them to recall affect during a past event. The current data are, however, inconsistent with the possibility that differences in the intensity of recalled affect produce differences in the weighting of affect in judgments. In Study 2, the magnitude of recalled affect is experimentally and statistically controlled, yet the differential weighting of positive and negative affect remains.

In Study 3, it was found that Westerners tend to attribute positive events to the self (vs. others) more than Easterners do. In contrast, Easterners attribute negative events to the self (vs. others) to a greater extent than positive events. Furthermore, the degree to which positive events are attributed to the self predict increases in Westerners' life satisfaction, and the degree to which negative events are attributed to others predict decreases in Easterners' life satisfaction. This pattern is consistent with the previously established relation between self-esteem and life satisfaction among Westerners and between relationship harmony and life satisfaction among Easterners. It is unclear from Study 3, however, whether participants' subjective interpretations of the causes of different events were identical to what an observer might identify as the objective causes of different events. In other words, it is impossible to tell whether Western participants chose to report positive events that they genuinely caused or whether they simply construed events of ambiguous origin as due to themselves. Similarly, Easterners' ratings may reflect their efforts to take responsibility for events that they did not truly bring about. A more important point is that Study 3 lacks the internal validity needed to conclude with certainty that the events participants reported over the 3-week period were responsible for changes in their life satisfaction. Participants decided which daily events to record,

and unrecorded events may have had a more significant impact on their life satisfaction. The correlational data of Study 3 must be interpreted with this caveat in mind.

### Conclusions

The present research takes several important first steps in explaining a very important question about the validity of global, recall-based measures of affect. These widely relied upon measures have been known to be subject to distortion for some time. The present results help to demonstrate that this distortion is both systematic and meaningful, resulting from and serving divergent cultural goals. In attempting to resolve these issues in the recall of positive and negative affect, the present results also provide insight into one component of subjective well-being: satisfaction with life and with important domains of life. Easterners have often reported lower levels of satisfaction than Westerners, and, to the extent that the presence of negative affect in events and experiences can lower the satisfaction of Easterners more readily than Westerners, this may in part account for such differences.

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