

Culture, self-construal, and affective reactions to successful and unsuccessful others

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Abstract

Three studies examined whether cultural background and self-construal predict affective reactions to successful and unsuccessful others. Asian-Canadians and those with more interdependent self-construals had less positive affective reactions to an unsuccessful than a successful other, and less positive affective reactions to an unsuccessful other than did European-Canadians and those with less interdependent self-construals (Study 1). Priming self-construal in a sample of European-Canadians mimicked these cultural differences (Study 2), and this priming effect was moderated by cultural background (Study 3). Asian-Canadians primed with interdependence (but not independence) had less positive affective reactions to an unsuccessful than a successful target, whereas European-Canadians primed with independence (but not interdependence) had more positive affective reactions to an unsuccessful than a successful target.

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“How selfish so ever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity or compassion, the emotion which we feel for the misery of others, when we either see it, or are made to conceive it in a very lively manner. That we often derive sorrow from the sorrow of others, is a matter of fact too obvious to require any instances to prove it”—Adam Smith (1759).

“It is not enough that I succeed. Others must fail”—aphorism, variously attributed to 17th century French author François La Rochefoucauld, playwright Oscar Wilde, authors Gore Vidal, George Santayana, and Truman Capote, Oracle CEO Larry Ellison, and Genghis Khan.

As these quotes suggest, learning of the success or failure of another person can have myriad affective consequences. Such social information can lift one’s spirits and motivate positive performance, but can also deflate self-esteem and foster negative moods. The current research examines a variable that seems inextricably related to affective reactions to the performance of others—namely, culturally-based self-construal, or the degree to which an individual feels interconnected with others. In brief, our thesis is that, in response to the performance of others, those from East Asian backgrounds may more typify the Adam Smith type of reaction, whereas those from European North American backgrounds may more typify the La Rochefoucauld type of reaction.

Some social comparison research has documented contrast effects, or negative self-evaluative and affective reactions to comparisons with more successful others (i.e., upward social comparisons) and positive self-evaluative and affective reactions to comparisons with less successful others (i.e., downward social comparisons;

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e.g., Brickman & Bulman, 1977; Morse & Gergen, 1970; Wills, 1981; see Gibbons & Gerrard, 1989; Smith, 2000; Suls & Wheeler, 2000, for reviews). However, reactions to successful and unsuccessful others do not always follow this pattern (e.g., Collins, 1996; Smith, 2000). Findings suggest that affective consequences of social comparison are not intrinsic to its direction (e.g., Buunk, Collins, Taylor, VanYperen, & Dakof, 1990), and that both upward and downward comparisons can have positive or negative implications for the self, depending on the context (e.g., Brown, Novick, Lord, & Richards, 1992; Hemphill & Lehman, 1991; Lockwood & Kunda, 1997). Thus, when people learn of the success or failure of another person, they can also exhibit assimilation effects wherein they experience favorable responses to upward comparison targets and unfavorable responses to downward comparison targets (e.g., Brewer & Weber, 1994; McFarland, Buehler, & MacKay, 2001; Pelham & Wachsmuth, 1995; see Markman & McMullen, 2003, for a recent review of assimilation and contrast effects in comparative evaluation).

One theory that accounts for moderating factors in affective reactions to the success or failure of another person is Tesser's self-evaluation maintenance (SEM) model (e.g., Beach et al., 1998; Tesser, 1980, 1988; Tesser, Millar, & Moore, 1988). This perspective holds that people have a basic motivation to maintain or enhance self-evaluation. The theory further posits that when a close other excels at a task that is self-relevant or central to self-definition, a "comparison" process is invoked, which invariably has negative evaluative and affective consequences for the self. However, when a close other excels in a domain that is not self-relevant, the individual can enjoy the accomplishments of the close other via a "reflection" process. In such situations an individual can bask in the other's accomplishments.

More recent research, however, suggests that when the other person is perceived to be particularly close, people may have more positive reactions to the success of others than to the failure of others, even when the task is relevant (e.g., Brown et al., 1992; see also Lockwood, Dolderman, Sadler, & Gerchak, 2004). For example, McFarland et al. (2001) found that, after learning about another person's performance, affective assimilation effects were more pronounced when people shared with the target an identity relationship (i.e., an extremely close relationship in which a person considers the target to be an important part of his or her identity), as compared to either a unit or a non-unit relationship. The current research expands upon this earlier work by examining whether self-construal and cultural background predict affective reactions to successful and unsuccessful others.

Self-construal as a moderator of affective reactions to successful and unsuccessful others

Self-construal refers to the extent to which the self is construed as being interconnected with, or separate and

distinct from, others. The independent construal of self is characterized as autonomous, unique, and bounded, whereas the interdependent self is viewed as inextricably interwoven with others (Markus & Kitayama, 1991; Sedikides & Brewer, 2001; Triandis, 1989). Although there is important within-culture variability, interdependent and independent self-construals tend to be exemplified by those from East Asian and European/North American cultures, respectively (e.g., Heine, Lehman, Markus, & Kitayama, 1999; Hofstede, 1980; but see Oyserman, Coon, & Kemmelmeier, 2002). That is, in general, East Asians tend to have more chronically activated interdependent self-construals than do European North Americans, whereas European North Americans tend to have more chronically activated independent self-construals than do East Asians.

Compared to European North Americans, those from East Asian backgrounds are generally more concerned with the thoughts, feelings, and goals of others, and are more concerned with "fitting in" rather than standing out (Markus & Kitayama, 1991; Triandis & Trafimow, 2001). Such an orientation means that East Asians are often less apt to have self-enhancement motives than those from Western backgrounds (e.g., Heine, *in press*; Heine & Hamamura, submitted for publication; Heine & Lehman, 1995, 1997a, 1997b, White & Lehman, 2005a; but see also Brown & Kobayashi, 2002; Sedikides, Gaertner, & Toguchi, 2003). In fact, those from East Asian backgrounds are sometimes more motivated by self-improvement goals in order to meet group expectations (Heine, 2001). Supporting this notion, research from our laboratory (White & Lehman, 2005b) has demonstrated that Asian-Canadians are more likely than European-Canadians to seek out information about successful than unsuccessful others, particularly after experiencing failure and when the task allows for self-improvement.

Although Asian-Canadians may compare to successful others with an eye toward self-improvement, it is also possible that, for Asian-Canadians, learning about the success of another person has more positive affective consequences than learning about the failure of another person. According to Triandis (1995, p. 2), those who are more collectivistic exhibit a "social pattern consisting of closely linked individuals" and they "emphasize their connectedness to members of these collectives." If an individual chronically feels more interconnected with others, information that another is performing well may lead to positive affect, whereas information that another is performing poorly may lead to negative affect. Those who are more interdependent and interconnected with others may also feel a greater sense of empathy to relevant others (e.g., Joireman, Needham, & Cummings, 2002). Thus, interdependent selves may feel more negatively when others perform poorly than when others perform well, relative to independent selves.

Despite little research directly testing cultural differences in affective reactions to successful and unsuccessful others, a set of studies by McFarland and Buehler (1995)

is suggestive in this regard. These researchers demonstrated that those who did not value their groups highly (a classification based on self-report measures of collective self-esteem, cultural background, and a manipulation of the strength of positive bond towards a particular social group) had more positive reactions to performing well within an unsuccessful group (i.e., being a big fish in a small pond) than to performing poorly within a successful group (i.e., being a small fish in a big pond). Those who did value their groups highly, in contrast, had similar reactions to being a big fish in a small pond and being a small fish in a big pond. In other words, those who felt positively connected to their groups were more likely to exhibit an assimilation effect in their reactions to the successful performance of their peer groups. Although, McFarland and Buehler examined comparisons to group averages, cultural background and self-construal may similarly moderate affective reactions to information involving the relative success of another person. In another related study, Chung and Mallery (1999) examined academic-related social comparisons and found that higher collectivism (based on scale ratings, not cultural background) was associated with an increased desire to compare in general, an increased desire to make upward comparisons, and a decreased desire to make downward comparisons. However, this research focused on self-reports of collectivism in relation to self-reported propensities to engage in different types of social comparisons. Thus, the first goal of the current research was to investigate whether self-construal (based on cultural background as well as self-ratings) moderates affective reactions to the success or failure of another particular individual.

A second goal of the present research was to examine the effects of self-construal priming on affective reactions to the success or failure of others. Past research indicates that situational cues can influence which self-construal is activated at a given time (Gardner, Gabriel, & Lee, 1999; Trafimow, Triandis, & Goto, 1991). Research also indicates that those who are exposed to an interdependence priming manipulation perceive a greater degree of self-other similarity (Kuehnen & Hannover, 2000), predict more positive performance outcomes for a close friend than a stranger on a self-relevant domain, exhibit more positive reactions to a successful in-group (Gardner, Gabriel, & Hochschild, 2002), and have more positive self-ratings in response to upward social comparisons (Stapel & Koomen, 2001). Thus, we also predicted that self-construal priming would moderate affective reactions to successful and unsuccessful others.

In three studies we tested the hypothesis that those with stronger interdependent self-construals, as referenced by cultural background (Studies 1 and 3), self-reports (Study 1), and priming (Studies 2 and 3), would have less positive affective reactions to unsuccessful than successful others, and less positive affective reactions to unsuccessful others than would those with weaker interdependent self-construals.

In addition, we examined whether cultural background and situational priming would interact to predict affective reactions to successful and unsuccessful others.

Study 1

Study 1 extends past research in two important ways. First, we examined whether both cultural background and self-reported self-construal would predict affective reactions to successful and unsuccessful others. Second, whereas past research examining self-construal and social comparison has asked participants to self-report their responses towards successful and unsuccessful others (e.g., Chung & Mallery, 1999), we exposed participants to a more involving task in a controlled laboratory setting. Specifically, participants listened to an audio-taped interview of what was ostensibly another student responding to a series of questions about her university experience. The target student responded to the questions in a way that indicated either that she was doing very well or very poorly. We anticipated that Asian-Canadians would have less positive affective reactions to the unsuccessful than the successful target, and less positive affective reactions to the unsuccessful target than would European-Canadians.

Method

Participants

Participants were 21 European-Canadian (13 females and 8 males, mean age = 19.1 years, $SD = 1.50$) and 23 Asian-Canadian (17 females and 6 males, mean age = 19.7 years, $SD = 1.80$) undergraduates.¹ This study utilized a 2(cultural background: Asian-Canadian vs. European-Canadian) \times 2(target performance: successful target vs. unsuccessful target) between subjects design.

Procedure

Participants came to the laboratory in groups of 2–4 for a study ostensibly on personality and impression formation. Participants first listened to an audio-taped interview of another psychology student (ostensibly a participant in another study) who described herself either as doing well academically, having lots of friends, and adapting well to university life (i.e., successful target), or as doing poorly academically, having few friends, and not adapting well to university life (i.e., unsuccessful target);

¹ In Studies 1 and 3 we compared the responses of Asian-Canadian and European-Canadian participants because of established differences in self-construal between those from Eastern and Western backgrounds. We selected those of East Asian descent (e.g., Chinese, Japanese, and Korean) and those of European descent (e.g., British, French, and German) as representing Asian-Canadians and European-Canadians, respectively. The majority of the Asian-Canadian sample in Studies 1 and 3 was of Chinese descent (78.3% and 85.5%) and the majority of the European-Canadian sample in Studies 1–3 was of British descent (or British mixed with another European background; 85.5%; 65.2%; and 50.0%).

see Aspinwall & Taylor, 1993; Lockwood, 2002, for similar manipulations).² After listening to one of the two versions of the tape, participants completed ratings of their own positive (e.g., happy, pleased, and enthusiastic) and negative (e.g., sad, distressed, and anxious) mood, ranging from 1 (not at all) to 7 (extremely). The wording of the mood items was modeled after the PANAS (positive affect and negative affect scales; Watson, Clark, & Tellegen, 1988), but some adjectives were removed and others added owing to their relevance to this particular situation. In order to be consistent with the cover story and as a manipulation check, participants also made the same mood ratings for the target person and made a series of judgments about the target's personality. These ratings were made on scales ranging from 1 to 9, and included the items: very disliked–very likable, very poorly adjusted–very well adjusted, very unfriendly–very friendly, very hard to work with–very easy to work with, very incompetent–very competent, very unintelligent–very intelligent, not at all self-confident–very self-confident (taken from McFarland, White, & Newth, 2003), as well as four additional items: very unkind–very kind, very dishonest–very honest, very unreliable–very reliable, and very close-minded–very open-minded.

In addition, participants gave the same ratings of their own personality and completed ratings of perceived psychological closeness to the target (i.e., “How close do you feel to the person on the tape?”, “How similar are you to this person?”, “How much do you have in common with this person?”, “To what extent would others group you and this other person in the same category?”)

² In the current studies, we did not highlight the cultural background of the target student. One potential criticism of this is that if Asian-Canadians are the minority and European-Canadians are the majority, all participants might envision the student on the tape to be European-Canadian. This may be problematic because a social comparison to a European-Canadian by another European-Canadian would represent an in-group comparison, whereas a social comparison to a European-Canadian by an Asian-Canadian would represent an out-group comparison, if ethnicity defined the in group and out group. It is important to note, however, that in the Psychology Department at the University of British Columbia, Asian-Canadians and European-Canadians are approximately equally represented. Second, we conducted a pilot study to examine this issue. Thirty-one volunteers were asked to listen to one of the two stimulus tapes and complete a brief questionnaire. Participants were asked to “...[T]hink about what categories or group memberships come to mind with regard to the person on the tape. That is, if you were to include this other person in social categories which ones would you choose based on the information in the tape? A social category can refer to any way in which people put other people into groups.” To ensure that participants understood that cultural/racial background is one form of social category we included some examples: “e.g., gender, race, or other more specific categories like athlete, student, nerd, etc.” Participants' open-ended responses revealed that the most common social categories to come to mind were: gender (77.4%), personality-related categories (e.g., introvert; 64.5%), being a student (54.8%), and other social categories (e.g., a nerd; 32.3%). Mentions of cultural/racial background were relatively rare (12.9%), with three people citing Caucasian and one person citing Asian background. Thus, based on these open-ended data, it does not appear that the tape activated thoughts of a distinct cultural background among the majority of participants.

and liking for the target (“How much do you care about this person?”, “How much do you like this other person?”), which were completed on 7-point Likert scales. The closeness and liking measures were adapted from Tesser and Collins (1988). Results using these measures were inconsistent across studies, and thus we delay discussion of them until the general discussion section.

Participants then completed a validated measure of self-construal (Singelis, 1994). This measure assesses two dimensions of self-construal: the degree to which the self is viewed as bounded, unitary, and separate from the social context (i.e., independence [e.g., “I enjoy being unique and different from others in many respects”]) and the degree to which the self is viewed as interconnected with the social context (i.e., interdependence [e.g., “It is important to me to maintain harmony within my group”]). Finally, because we wanted to use them as covariates in some of the analyses, participants completed measures of self-concept clarity (Campbell et al., 1996) and self-esteem (Rosenberg, 1965).

Results

Creation of indexes

An index of participants' mood was created by first reverse scoring the negative mood items, and then averaging all of the mood items ($\alpha = .94$). Indexes of the perceived mood of the target ($\alpha = .97$), positivity of impressions of the target ($\alpha = .86$), positivity of self-impressions ($\alpha = .87$), perceived closeness of target ($\alpha = .87$), liking for the target ($\alpha = .71$), interdependence ($\alpha = .78$), and independence ($\alpha = .73$) also were created by averaging the pertinent items for each index.

Manipulation checks

Participants in the unsuccessful target condition rated the target's mood as being more negative ($M = 2.82$) than did those in the successful target condition ($M = 5.79$), $t(41) = 18.20$, and $p < .0001$. In addition, those in the unsuccessful target condition rated the target's personality less positively ($M = 4.80$) than did those in the successful target condition ($M = 6.61$), $t(41) = 7.50$, and $p < .0001$. Thus, our manipulation of target performance was successful.

Cultural background and affective reactions to successful and unsuccessful others

We anticipated that Asian-Canadians would report less positive mood after exposure to the unsuccessful than the successful target, whereas European-Canadians would exhibit the opposite pattern. A 2(cultural background: Asian-Canadian vs. European-Canadian) \times 2 (target performance: successful target vs. unsuccessful target) ANOVA on the mood index revealed the anticipated interaction between culture and target performance, $F(1, 40) = 6.16$, $p < .02$, and $f = .39$ (refer to top two rows

Table 1
Affective reactions to a successful versus an unsuccessful other as a function of cultural background (Study 1) and self-construal priming (Study 2)

	Target performance	
	Successful target	Unsuccessful target
<i>Cultural background (Study 1)</i>		
European-Canadians	$M = 4.46_a$ $SD = 0.69$	$M = 4.93_a$ $SD = 1.03$
Asian-Canadians	$M = 4.99_a$ $SD = 1.11$	$M = 3.95_b$ $SD = 1.07$
<i>Self-Construal Priming (Study 2)</i>		
Independent	$M = 4.46_a$ $SD = 1.18$	$M = 4.77_a$ $SD = 1.03$
Interdependent	$M = 4.95_a$ $SD = .92$	$M = 4.04_b$ $SD = .96$

Note: Within each study, within columns and rows, means not sharing a common subscript differ at at least the $p < .05$ level. The exception is in Study 2 for those in the unsuccessful target condition where the difference between those primed with independence and those primed with interdependence was marginally significant, at the $p = .06$ level.

of Table 1).³ Planned contrasts (Howell, 1997) indicated that Asian-Canadians had less positive affective reactions after listening to the unsuccessful target ($M = 3.95$) than to the successful target ($M = 4.99$), $t(40) = 2.30$, $p < .03$, and $d = .98$, whereas European-Canadians had somewhat (albeit non-significantly) more positive affective reactions after listening to the unsuccessful target ($M = 4.93$) than to the successful target ($M = 4.46$), $t(40) = 1.56$, $p < .13$, and $d = .72$. Asian-Canadians had less positive affective reactions after listening to the unsuccessful target than did their European-Canadian counterparts, $t(40) = 2.39$, $p < .03$, and $d = 1.02$. There were no reliable main effects for cultural background, $F(1, 40) = .52$, $p > .48$, and $f = .11$ or target performance, $F(1, 40) = .87$, $p > .35$, and $f = .15$.

Self-concept clarity and self-esteem

Because uncertainty about the self (Pelham & Wachsmuth, 1995) and self-esteem (Aspinwall & Taylor, 1993) have been shown to moderate affective reactions to social comparison, we included these variables as covariates in the analyses. The interaction between cultural background and target performance on mood remained significant when self-concept clarity and self-esteem were

statistically controlled, $F(1, 37) = 5.67$, $p < .05$, and $f = .39$.⁴

Self-construal and affective reactions to successful and unsuccessful others

Although Asian-Canadians scored higher on interdependence ($M = 3.73$) than European-Canadians ($M = 3.36$), $t(41) = 2.21$, $p < .04$, and $d = .69$, there was no statistically reliable difference in independence between Asian-Canadians ($M = 3.29$) and European-Canadians ($M = 3.54$), $t(41) = 1.34$, $p < .19$, and $d = .42$. To test whether scores on interdependence predicted affective reactions to the performance of the target, we performed a median-split on the interdependence scale.⁵ A 2(interdependence: lower vs. higher) \times 2(target performance: successful target vs. unsuccessful target) ANOVA revealed a significant interaction, $F(1, 40) = 4.89$, $p < .05$, and $f = .35$. Those higher in interdependence had less positive affective reactions to listening to the unsuccessful ($M = 4.07$) than the successful target ($M = 5.00$), $t(40) = 2.07$, and $p < .05$, and $d = .95$, whereas those lower in interdependence had similar affective reactions to listening to the unsuccessful ($M = 4.75$) and successful ($M = 4.35$) targets, $t(40) = .98$, $p < .34$, and $d = .41$. The interaction between target performance and independence was not statistically reliable, $F(1, 40) = 2.52$, $p > .13$, and $f = .25$.

Discussion

Study 1 demonstrated that Asian-Canadians and European-Canadians reacted differently to hearing about the fortunes or misfortunes of another person. Asian-Canadians' self-reported moods were significantly less positive after exposure to the unsuccessful than the successful other. And Asian-Canadians reported less positive moods in response to the unsuccessful target than did European-Canadians. However, because we did not include a "no social information" control group, we cannot know which group's reactions changed from "baseline" in response to successful and unsuccessful others; we can only make relative statements about the effect of the successful vs. unsuccessful target's performance. Similar findings held when we examined participants' level of interdependence. Unlike those lower in interdependence, those higher in interdependence felt less positively when they heard about another person's difficulties than when they heard about another person's successes.

Study 2

Although Study 1 provided preliminary evidence that cultural background and self-construal are moderators of affective reactions to successful and unsuccessful others, it does not permit casual inferences. In Study 2 we examined

³ There were no gender differences in reactions to successful and unsuccessful others, in this or any of the studies. However, we acknowledge that the connection has been drawn between gender and self-construal. For example, Cross and Madson (1997) have proposed that women are more likely than men to include close relationships as part of the self. Furthermore, social comparison research has found that SEM effects are more pronounced for men than women (Beach et al., 1998; Tesser, 1988), which may be due to women being higher in relational interdependence (see Cross & Madson, 1997; Gabriel & Gardner, 1999; Gardner et al., 2002). Our small male subgroups made it difficult to detect gender differences, however, our goal in the current studies was to focus on the constructs of culture and self-construal.

⁴ The key interaction effects in Studies 2 and 3 also remained significant when self-esteem and self-concept clarity were used as covariates.

⁵ We used median splits for these analyses for ease of presentation of the means. Importantly, the results held when using regression, $F(1, 40) = 8.43$, $p < .01$, and $\beta = 1.87$.

the causal role of self-construal in affective reactions to the performance level of another person by manipulating whether an independent or interdependent view of the self was activated. People simultaneously hold both independent and interdependent views of the self (e.g., Singelis, 1994), but situational primes can make either type of self-construal preferentially activated (e.g., Gardner et al., 1999; Trafimow et al., 1991). Recently, Stapel and Koomen (2001) found that self-construal priming can influence self-ratings (e.g., attractive, friendly, and successful) in response to social comparison information. These researchers observed contrast effects in self-ratings when an independent self-construal was activated, but assimilation effects when an interdependent or social self-construal was activated. Study 2 builds on this research by utilizing an alternative priming method and by measuring affective reactions after listening to either a successful or an unsuccessful other. In line with Study 1, we anticipated that those primed with interdependence would have less positive affective reactions to listening to unsuccessful than successful others, and less positive affective reactions to listening to unsuccessful others than those primed with independence.

Method

Participants

Wanting to hold culture constant in this first priming study, we included only European-Canadians. Forty-six participants (36 females and 10 males; mean age = 19.9 years, $SD = 2.63$) completed this study for course credit. A 2(priming: independence vs. interdependence) \times 2(target performance: successful target vs. unsuccessful target) between subjects design was used.

Procedure

Participants took part in groups of 2–4 in a study ostensibly on personality and impression formation. Participants first completed either an independent or interdependent priming manipulation.⁶ In the independent condition partici-

pants read: “As one of our measures of personality we would like you to take a few minutes to describe yourself. Please think of what makes you different from other students taking psychology at UBC. What do you expect yourself to do (e.g., in the future)?” In the interdependent condition participants read: “As one of our measures of personality we would like you to take a few minutes to describe yourself. Please think of what you have in common with other students taking psychology at UBC. What do you expect yourself and other psychology students to do (e.g., in the future)?” Participants were given 5 min to write down their responses and then they listened to one of the two audio-tapes described in Study 1. Finally, participants completed the same measures of their own mood ($\alpha = .90$), the target’s mood ($\alpha = .96$), and the target’s personality as in Study 1 ($\alpha = .85$).

Results

Manipulation checks

Participants in the unsuccessful target condition rated the target’s mood more negatively ($M = 3.18$) than did those in the successful target condition ($M = 5.78$), $t(44) = 13.45$, and $p < .0001$. In addition, those in the unsuccessful target condition rated the target’s personality less positively ($M = 5.25$) than did those in the successful target condition ($M = 6.94$), $t(44) = 6.59$, and $p < .0001$.

Self-construal priming and affective reactions to successful and unsuccessful others

We anticipated that those primed with interdependence would have less positive affective reactions to listening to the unsuccessful than the successful other, and less positive affective reactions to listening to the unsuccessful other than those primed with independence. A 2(priming: independence vs. interdependence) \times 2(target performance: successful target vs. unsuccessful target) ANOVA on the mood index revealed a significant prime \times target performance interaction, $F(1, 42) = 4.28$, $p < .05$, and $f = .32$ (see last two rows of Table 1). Specifically, those primed with interdependence had less positive affective reactions to listening to the unsuccessful ($M = 4.04$) than the successful ($M = 4.95$) other, $t(42) = 2.06$, $p < .05$, and $d = .95$. After listening to the unsuccessful target, those in the interdependent prime condition had marginally less positive affective reactions ($M = 4.04$) than did those in the independent prime condition ($M = 4.77$), $t(42) = 1.92$, $p = .06$, and $d = .77$. There were no main effects for prime condition, $F(1, 42) = .16$, $p < .70$, and $f = .06$, or target performance, $F(1, 42) = 1.05$, $p < .32$, and $f = .16$, on self-reports of own moods.

Discussion

The results of Study 2 suggest that primed self-construal moderates the affective consequences of learning about the success or failure of another person. As may be seen by comparing the first two rows of Table 1 with the last two rows, the patterns of the interactions for Studies 1 and 2 are

⁶ We adapted a priming procedure used by Trafimow et al. (1991) to make the task more relevant to comparisons with another university student. Forty-one participants completed a pretest of our priming manipulation. They were given 5 min to complete either the independent or the interdependent priming task and then they completed the same self-attitudes instrument (Kuhn & McPartland, 1954) that was used by Trafimow et al. (1991). This task involves completing 20 sentences that begin with “I am....” Those who have the independent self activated should theoretically generate more idiosyncratic responses, such as personal qualities, traits, and attitudes (e.g., “I like soccer”). Those who have the collective self activated should generate more collectivistic or group responses such as group memberships or categories with which the person shares a common fate (e.g., “I am on a soccer team”). The results of the pretest indicated that those primed with an independent self-construal generated more idiosyncratic responses ($M = 16.10$) than those primed with an interdependent self-construal ($M = 14.10$), $t(39) = 3.30$, and $p < .02$. Those primed with an interdependent self-construal generated more group responses ($M = 3.14$) than those primed with an independent self-construal ($M = 1.75$), $t(39) = 2.16$, and $p < .04$. These results suggest that the priming manipulation was successful.

strikingly similar. Primed self-construal in Study 2 moderated affective reactions to the performance of another person in a way parallel to cultural background and chronic self-construal in Study 1.

Study 3

Study 2 revealed that the activation of self-construal influenced European-Canadians' affective reactions to the performance of another person, such that it mimicked observed cultural (and chronic self-construal) differences. In Study 3 we investigated whether we could replicate the effect of cultural background in Study 1 and the priming effect in Study 2, and also examined a cultural background by prime interaction. In addition, in order to enhance the generalizability of the findings we utilized a different priming manipulation than that used in Study 2.

We anticipated that the priming manipulation would interact with cultural background. In particular, although interdependence priming among Asian-Canadians might enhance the effects of successful and unsuccessful others on affect (e.g., less positive reactions to unsuccessful than successful others), independence priming might reduce or even eliminate the effects of successful and unsuccessful others on affect. Conversely, independence priming among European-Canadians might enhance the effects of successful and unsuccessful others on affect (e.g., more positive reactions to unsuccessful than successful others), whereas interdependence priming might reduce or even eliminate the effects of successful and unsuccessful others on affect. In addition, we predicted that the priming manipulation would have a stronger effect on Asian-Canadians than European-Canadians. According to Hong, Morris, Chiu, and Benet-Martinez (2000), bicultural individuals are better able to engage in "frame switching," which allows one to move between interpretative frames rooted in different cultures in response to cues in the environment. Bicultural Asian-Canadians, therefore, should be more responsive to culturally-related primes (Hong et al., 2000). The interaction between the culturally dominant self-schemas and the situationally primed ones should mimic quite naturally everyday life for Asian-Canadians, who engage in continual frame switching as they move back and forth between contexts that are more "Asian" and those that are more "Western" (Hong et al., 2000). Thus we anticipated that, although priming effects would be observed for both Asian-Canadians and European-Canadians, the effect of priming would be greater for Asian-Canadians. That is, we predicted a three-way interaction between culture, priming, and target performance on moods.

Method

Participants

Participants were 42 European-Canadian (38 females and 4 males, mean age = 21.8 years, SD = 6.00) and 38 Asian-Canadian (30 females and 8 males, mean age = 20.1

years, SD = 1.80) undergraduates. A 2(cultural background: Asian-Canadian vs. European Canadian) \times 2(prime: independence vs. interdependence) \times 2(target performance: successful target vs. unsuccessful target) between subjects design was used.

Materials and procedure

Participants took part in groups of 2–4 in a study ostensibly on verbal comprehension, personality, and impression formation. As our purported measure of verbal competence, participants were asked to read a short description of a person's trip to Victoria, BC and were told that they would later be asked some questions about the story. We informed participants that we were interested in whether people can recall information when they are somewhat distracted, and thus they were to circle all the pronouns as they read the story. In the independence priming condition all the pronouns were singular (e.g., I, me), whereas in the interdependence priming condition all the pronouns were plural (e.g., we, us). This priming procedure was modeled after that of Gardner and colleagues (Brewer & Gardner, 1996; Gardner et al., 1999). Participants then listened to one of the two tapes described in Study 1 as a manipulation of target performance, and completed the measures of mood ($\alpha = .94$), target's mood ($\alpha = .98$), and target's personality ($\alpha = .91$) used in Study 1. As a manipulation check of the priming manipulation, participants completed measures of independence ($\alpha = .85$) and interdependence ($\alpha = .87$; Singelis, 1994).

Results

Manipulation checks

Participants in the unsuccessful target condition rated the target's mood more negatively ($M = 2.82$) than did those in the successful target condition ($M = 5.83$), $t(79) = 16.03$, and $p < .0001$. Moreover, those in the unsuccessful target condition rated the target's personality less positively ($M = 4.84$) than did those in the successful target condition ($M = 6.66$), $t(79) = 8.34$, and $p < .0001$. Those who received the interdependence priming rated themselves as more interdependent ($M = 3.78$) than those who received the independence priming ($M = 3.44$), $t(78) = 2.34$, and $p < .03$. In addition, those in the independent prime condition rated themselves as more independent ($M = 3.51$) than those in the interdependent prime condition ($M = 3.14$), $t(78) = 2.07$, and $p < .05$. As would be predicted, Asian-Canadians had higher ratings of interdependence ($M = 3.91$) than did European-Canadians ($M = 3.36$), $t(78) = 3.86$, and $p < .0001$, and European-Canadians had higher ratings of independence ($M = 3.57$) than did Asian-Canadians ($M = 3.01$), $t(78) = 3.32$, and $p < .01$. Thus, our manipulations of target performance and self-construal priming appeared to be successful.

Main effects

A 2(cultural background: Asian-Canadian vs. European-Canadian) \times 2(prime: independence vs. interdependence)

$\times 2$ (target performance: successful target vs. unsuccessful target) ANOVA on the index of the participant's mood revealed main effects for cultural background, $F(1, 72) = 4.57$, $p < .04$, $f = .25$ and for target performance, $F(1, 72) = 5.15$, $p < .03$, and $f = .27$. European-Canadians had more positive affective reactions ($M = 4.76$) than did Asian-Canadians ($M = 4.38$), and participants had more positive affective reactions after listening to successful others ($M = 4.78$) than to unsuccessful others ($M = 4.37$). There was no significant main effect for prime condition, $F(1, 72) = .14$, ns. Our interest, however, was in the interactions.

Interactions involving cultural background, prime, and target performance

Replicating Study 1, cultural background significantly interacted with target performance to predict mood, $F(1, 72) = 18.23$, $p < .0001$, and $f = .50$. Asian-Canadians had significantly less positive affective reactions to listening to the unsuccessful ($M = 3.79$) than the successful ($M = 4.97$) target, $t(72) = 4.52$, $p < .001$, and $d = 1.50$, whereas European-Canadians had somewhat (though not significantly) more positive affective reactions to listening to the unsuccessful ($M = 4.98$) than the successful ($M = 4.58$) target. Asian-Canadians again exhibited less positive affective reactions to listening to an unsuccessful target than did European-Canadians, $t(72) = 4.48$, $p < .0005$, and $d = 1.43$.

In addition, conceptually replicating the effect found in Study 2, a prime \times target performance interaction emerged, $F(1, 72) = 14.12$, $p < .0001$, and $f = .45$. Planned contrasts indicated that those in the interdependence prime condition ($M = 5.08$) had more positive affective reactions to listening to the successful target than did those in the independence prime condition ($M = 4.47$), $t(72) = 2.20$, $p < .05$, and $d = .71$. And those in the independence prime condition ($M = 4.74$) had more positive affective reactions to listening to the unsuccessful target than did those in the interdependence prime condition ($M = 3.99$), $t(72) = 2.96$, $p < .01$, and $d = .95$. The difference between affective reactions in the successful and unsuccessful target conditions was significant in the interdependence condition, $t(72) = 4.16$, $p < .001$, and $d = .133$, but not in the independence condition.

Finally, the predicted three-way interaction was statistically reliable, $F(1, 72) = 4.21$, $p < .05$, and $f = .24$. As seen in Table 2, the most positive affective reactions were reported by

Asian-Canadians who were primed with interdependence and exposed to the successful target ($M = 5.62$), whereas the most negative affective reactions were reported by Asian-Canadians who were primed with interdependence and exposed to the unsuccessful target ($M = 3.39$). In addition, European-Canadians had their most positive affective reactions ($M = 5.29$) when they were primed with independence and exposed to the unsuccessful target. The two-way interaction contrast of target performance \times prime had a value of 1.10 for Asian-Canadians [(5.62 – 3.39) – (4.31 – 4.18)] and a value of .61 for European-Canadians [(4.54 – 4.59) – (4.62 – 5.29)]; the larger interaction contrast for Asian-Canadians (as compared to European-Canadians) produced the significant three-way interaction.

Discussion

In sum, Study 3 replicated effects showing that cultural background and self-construal priming predict people's affective reactions to the performance of another person. Asian-Canadians and those primed with interdependence had less positive affective reactions to another's unsuccessful state, and more positive affective reactions to another's successful state, whereas there was a non-significant tendency for the reverse to be true among European-Canadians and those primed with independence. Although among Asian-Canadians interdependence priming led to more positive affective reactions after listening to successful than unsuccessful others, independence priming led to similar affective reactions to successful and unsuccessful others. Conversely, whereas independence priming among European-Canadians led to more positive affective reactions after listening to unsuccessful than successful others, interdependence priming led to similar reactions to successful and unsuccessful others. Further, as anticipated, the priming effects were stronger for Asian-Canadians than for European-Canadians, producing the culture \times prime \times target performance interaction.

General discussion

Taken together, these studies revealed that self-construal, as indexed by a self-reported individual difference measure (Study 1), cultural background (Studies 1 and 3),

Table 2

Affective reactions to a successful versus an unsuccessful other among European-Canadians and Asian-Canadians as a function of self-construal priming (Study 3)

Target performance	Self-construal priming			
	Independent		Interdependent	
	Successful target	Unsuccessful target	Successful target	Unsuccessful target
European-Canadians	$M = 4.63_a$ $SD = .68$	$M = 5.29_a$ $SD = .82$	$M = 4.54_a$ $SD = .85$	$M = 4.59_a$ $SD = .74$
Asian-Canadians	$M = 4.31_a$ $SD = .76$	$M = 4.18_a$ $SD = .41$	$M = 5.62_b$ $SD = 1.09$	$M = 3.39_c$ $SD = .94$

Note: Within columns and rows, means not sharing a common subscript differ at at least the $p < .05$ level.

and priming manipulations (Studies 2 and 3), moderated affective reactions to the success or failure of another person. Asian-Canadians, those characterized by interdependence, and those primed with interdependence had the least positive affective reactions to unsuccessful others.

We believe that Asian-Canadians and those with chronically or temporarily-activated interdependent self-construals have a greater empathic response—or at least a more easily elicited empathic response—to relevant others than do European-Canadians and those with chronically or temporarily-activated independent self-construals. It is this empathic response that we suggest fosters the sort of natural human sympathy Smith (1759) described in the opening quote: others' happiness can make people happy; others' sadness can make people sad.

One issue is whether Asian-Canadians or those with more interdependent self-construals exhibited these affective reactions because they were literally assimilating the other's success or failure to the self and making it their own (i.e., basking in reflected glory (Cialdini et al., 1976) or wallowing in another's failure). If one shares an identity relationship with someone, then this other's success has the potential to become one's own success (e.g., McFarland et al., 2001). That does not seem to be driving the effects in these three studies, however. For Asian-Canadians and those with strong interdependent self-construals (in Study 1) and those primed with interdependence (in Study 2), their self-ratings were neither enhanced by the target's success nor diminished by the target's failure (all $ps > .2$). In Study 3, Asian-Canadians in the interdependence prime condition were more likely to have higher self-ratings after another's success (the culture \times prime \times target interaction predicting self-ratings was significant at $p < .03$), but self-ratings did not mediate the affective reactions in this study. Thus, across the current studies, the affective responses of Asian-Canadians and those with more interdependent selves seem not to be driven by self-related concerns.

Neither did feelings of closeness or liking for the target mediate the effects in these three studies. Feelings of closeness or liking generally were associated with feeling happier about the target's success and worse about the target's failure (for closeness, significantly so in Study 3, though not in Studies 1 and 2; for liking, marginally in Studies 2 and 3). However, these relations with closeness and liking were independent of the cultural background and self-construal relations, as indicated by mediation analyses.

Why would the empathic effects of cultural background and self-construal on affect not be accounted for by self-ratings, closeness, or liking? Measurement error for the mediating variables is one possibility. However, we think the phenomena actually have a deeper explanation. That is, we believe our effects reflect the "primacy of affect" (Zajonc, 2003) that is shown in at least some sorts of empathic feeling. As Smith (1759) well understood, these empathic feelings can be primary in the sense that gut-level affect is primary (Damasio, 1999; Zajonc, 2003).

They are primary at that very basic level in the same way mammals' reactions are primary when they become distressed at the sight of distressed conspecifics (Preston & de Waal, 2002). They are primary in the same way that we automatically show emotional contagion and complicated behavioral mimicry effects to others—and even to stimuli presented subliminally (Bargh, 1997; Dimberg & Thunberg, 1998; Dimberg, Thunberg, & Elmehed, 2000). And they are primary in the sense that they need not be mediated by any conscious attribution or thought (Bargh, 1997; Bem, 1972).

Future research

Certainly this is not the end of the story, though. In these three studies, the target was a random student, and so it is plausible that feelings of closeness or liking are not the point here. And while the empathic affective response of Asian-Canadians and those with interdependent selves was not mediated by self-ratings in these studies, it makes little sense to assume that this will never be the case. Indeed, affective responses that operate partly through the self probably follow naturally from certain types of identity relationships with close others. In the real world, people probably feel some mixture of pleasure for and pride in other people's accomplishments when those others are quite close. The Yiddish words *kvell* and *naches* capture this nicely because they both embrace a mixture of "pleasure plus pride" (Rosten, 1992, 1968) when one sees another, often one's child, excel. In such close relationships, one's own self is not wholly absent, which is why, as the *Jewish Daily Forward* (2001) wrote, one can *shep naches* from the accomplishments of one's child but not from those of the New York Knicks.

Conversely, it is close-minded to think that European-Canadians' emotional responses to the social world will never reflect the natural human inclination toward sympathy, or are always driven by implications for the self or self-enhancement. One does not go see *Death of a Salesman* for the *schadenfreude*, for example. Future research questions thus involve exploring similarities as well as differences in the ways East Asians and European-North Americans respond to social information. In this paper, we have examined the default responses of Asian-Canadians and European-Canadians to information about the success or failure of a fellow student. But this is only a default response (and it may be overridden), and this is only one type of relationship. Further work should explore similarities and differences in affective responses to the successful vs. unsuccessful performance of others in the context of various sorts of interpersonal relationships, various sorts of psychological situations, and various sorts of within-culture individual differences. Such similarities and differences might include not only how people respond to the successful or unsuccessful performance of others, but also how those responses serve various intrapersonal or interpersonal needs and ends.

Conclusion

For now, we close by noting that psychologists have become increasingly interested in the factors that influence how people respond affectively to successful and unsuccessful others. Sometimes people respond the way Adam Smith would predict, and sometimes they respond the way La Rouchefoucauld would predict. The present studies suggest that there are important cultural and self-construal differences in such responses. Asian-Canadians and those with stronger interdependent self-construals (but not European-Canadians and those with weaker interdependent self-construals) felt worse after hearing about a fellow student's difficulties, and better after hearing about her successes. Future research could profitably explore the boundary conditions of these effects, as well as examine the adaptive (or maladaptive) functions of various social comparison processes in differing cultural contexts.

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