Culture and Social Comparison Seeking: The Role of Self-Motives

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Three studies examined the relation between cultural background and social comparison seeking. Compared to European Canadians, Asian Canadians sought more social comparisons, particularly those that were upward (Study 1), more social comparisons after failure (Study 2), and more social comparisons after failure when the opportunity for self-improvement was made salient (Study 3). Taken together, these data spotlight Asian Canadians' interest in social comparisons that allow for self-improvement.

Keywords: *social comparison; culture; self-construal; self-improvement*

Social comparison can involve comparing to others doing better (i.e., upward social comparison) or worse (i.e., downward social comparison) than the self. The present research examines possible cultural differences in the desire to seek social comparison information. Specifically, we examine whether those from East Asian backgrounds are more likely than those from Western backgrounds to seek social comparison information, particularly in ways that allow for self-improvement.

People often make social comparisons to serve their underlying motives. Although Festinger (1954) suggested that people frequently engage in social comparison in the interest of self-evaluation, it has become increasingly clear that social comparison serves other goals as well (e.g., Wood, 1989; Wood & Taylor, 1991). Those who are motivated by a desire for self-improvement often prefer to make upward comparisons to others in ways that can lead to feelings of inspiration (Brickman & Bulman, 1977; Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Lockwood & Kunda, 1997) and improved performance (Blanton, Buunk, Gibbons, & Kuyper, 1999; Huguet, Dumas, Monteil, & Genestoux, 2001; Seta, 1982). Those motivated by self-enhancement tend to use social comparison in different ways, for example, by recruiting downward social comparisons (e.g., Pyszczynski, Greenberg, & LaPrelle, 1985; Taylor, Wood, & Lichtman, 1983; Wills, 1981; Wood, Taylor, & Lichtman 1985), by avoiding threatening social comparisons (e.g., Brickman & Bulman, 1977), or by seeking out certain upward social comparisons (Collins, 1996). For instance, although individuals under threat (e.g., cancer patients) can make downward social comparisons to feel better, they can also seek contact, information, and affiliation with those who are better-off in the service of inspiration and self-improvement (Taylor & Lobel, 1989).

Culture and Social Comparison Seeking

Cultural background may have important implications for social comparison processes. In general, those from Eastern and Western cultural contexts differ in the extent to which they construe the self as interconnected with or distinct from those around them (e.g., Markus & Kitayama, 1991; for discussion of ways of viewing the self, see Sedikides & Brewer, 2001). The Western self tends to be independent, individualistic, autonomous, agentic, and separate, whereas the Eastern self tends to be interdependent, collectivistic, ensembled, communal,

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and relational (Heine, Lehman, Markus, & Kitayama, 1999; Singelis, 1994; Triandis, 1989).[1]

In comparison to independent selves, those who are more interdependent often are more concerned with collective than personal goals (Hofstede, 1980; Triandis, 1989), more likely to have an extraindividual (i.e., externally oriented) than intraindividual (i.e., internally oriented) focus (Heine, 2001), and more concerned with and bounded by relationships, roles, and social duties (Heine, 2001). Those with highly developed independent self-construals tend to be more focused on their own thoughts, feelings, and goals. Those with highly developed interdependent self-construals, in contrast, are generally more concerned with the thoughts, feelings, behaviors, and goals of others (Markus & Kitayama, 1991), and consequently may be more likely to seek social comparison information. In support of this suggestion, Gibbons and Buunk (1999) found that interpersonal orientation (i.e., the extent to which individuals pay attention to and base their behavior on the ways others behave) was correlated with interest in social comparison. We anticipated that those who are more interdependent[2] (i.e., those from East Asian cultural backgrounds and who are chronically more collectivistic) will be more likely to seek social comparison information than their less interdependent counterparts (i.e., those from Western cultural backgrounds and who are chronically less collectivistic).

Although independence can at times prompt social comparison seeking to see the self as unique, different, or better than others, we hypothesized that interdependence would predict social comparison seeking. This is because being interdependent—that is, fitting in with socially prescribed roles, standards, and duties—by definition, requires comparison to others. Being independent, on the other hand, might involve some social monitoring, but to be separate and bounded from others one does not necessarily need to engage in social comparison. Furthermore, the current studies involve social comparison situations in which self-improvement is particularly salient (i.e., performance situations in which upward rather than downward social comparisons might be deemed more relevant and appropriate). As we argue next, Asian Canadians often are motivated by self-improvement, and this is another reason why we anticipated that in the present studies Asian Canadians would seek more social comparisons than European Canadians.

Those from East Asian backgrounds are less likely to exhibit self-enhancement motives (Heine et al., 1999; Heine & Lehman, 1995, 1997; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997) and are more likely to be motivated by self-improvement than those from Western backgrounds (Heine et al., 2001; White & Lehman, 2005). For example, Heine et al. (2001) found that European North Americans who received failure feedback persisted *less* on a follow-up task than those who received success feedback. In contrast, Japanese who received failure feedback persisted *more* on a follow-up task than those who received success feedback. The finding that those from East Asian backgrounds were more persistent in the face of failure suggests that they are particularly motivated by self-improvement.

It may seem counterintuitive that those who are more interdependent would be more motivated by self-improvement, especially if this goal is seen as a self-serving orientation. However, the literature suggests that those who are more interdependent are particularly concerned with shared standards and norms, and rather than trying to improve for self-promoting reasons, their self-improvement motives reflect a desire to not fall behind the group (see Heine et al., 2001, for discussion). Because those in more collectivistic contexts often are motivated to live up to the consensually shared standards of the ingroup, it is crucial for them to be able to adjust themselves accordingly. This orientation leads to a self that is viewed as more uncertain (Campbell et al., 1996), adjustable (Morling, Kitayama, & Miyamoto, 2000; Weisz, Rothbaum, & Blackburn, 1984), and ultimately improvable (Heine et al., 2001).

Research in Western contexts reveals that people often engage in and respond to social comparison in a manner that reflects underlying self-enhancement motives. For example, to see the self in a positive light, people seek out downward social comparisons (Wills, 1981), avoid upward comparison information (Pyszczynski et al., 1985), and rate themselves more positively after public than private failure (Greenberg & Pyszczynski, 1985). Whereas Westerners and independent selves are often motivated to bolster self-esteem, and selectively seek social comparison information in ways that maintain positive self-regard, research suggests that East Asians and interdependent selves may engage in social comparison for different reasons. That is, they may be motivated to (a) monitor the social environment, (b) evaluate the self in relation to the social context, (c) affiliate with or feel a sense of connectedness with others, and (d) improve the self. Although it is clear that Westerners too engage in social comparison to serve informational, affiliative, and self-improvement goals, our hypothesis is that those from East Asian backgrounds are more likely to do so, and consequently are more likely to seek social comparisons, particularly those that are upward and allow for self-improvement.

Although, to our knowledge, cultural differences in social comparison seeking have not been documented, self-reported levels of collectivism have been shown to be positively related to reports of engaging in academic-

related social comparisons, a stronger desire to make upward comparisons, and a weaker desire to make downward comparisons (Chung & Mallery, 1999). The present studies build on this research by examining possible cultural differences in social comparison seeking and by utilizing a behavioral measure in addition to self-reports of social comparison seeking. Specifically, we examined whether Asian Canadians were more likely than European Canadians to seek social comparisons, especially those that are upward (Study 1), and whether Asian Canadians continued to seek social comparisons after experiencing failure (Study 2). Finally, we investigated whether Asian Canadians were more likely to seek upward social comparisons after failure, particularly when the opportunity for self-improvement was made salient (Study 3).

STUDY 1

In Study 1, we had participants complete a spatial reasoning test, informed them of their ranking, and gave them the opportunity to view other participants' scored tests (see Pyszczynski et al., 1985; Wheeler, 1966, for similar methodologies). Many previous studies using such measures have forced participants to make social comparisons (see Wood, 1996, for commentary). Although we gave our participants the opportunity to view how other people performed, we also gave them the option not to look. Participants also were able to make both upward and downward social comparisons if they so wished. We anticipated that Asian Canadians would seek more social comparisons, and in particular more upward social comparisons, than would European Canadians.

Method

Participants. Twenty-three European Canadians (22 women, 1 man, *M* age = 21.4) and 28 Asian Canadians (23 women, 5 men, *M* age = 23.5) participated in this study for course credit.[3]

Materials and procedure. Participants took part individually in a laboratory study ostensibly about spatial reasoning and personality. We chose spatial reasoning as our task because in pilot testing we found that students perceived this to be an important skill, and there were no gender or culture differences in ratings of perceived ability at this skill. In an effort to increase the perceived importance of the test, participants were told that spatial reasoning is an important intellectual skill that affects a wide variety of work-related and everyday tasks and that this test reflects overall intelligence. They also were informed that tests of spatial reasoning often are administered alone and used as an estimate of one's overall intelligence level because these tests are not sensitive to the cultural biases that plague other intelligence tests. The test involved participants observing a sequence of patterns or shapes and then deciding, out of several possibilities, which object should come next in the sequence. Participants were given 5 min to complete the test. They were informed that no one completes the test in the allotted time, the more difficult questions are weighted more heavily in scoring, and they should guess and move on to the next question if they are unsure of an answer. This was done to ensure that participants' true performance on the test was ambiguous. Upon completion of the test, the experimenter told the participant that it would take a few minutes to score it. Five minutes after leaving the room ostensibly to score the test, the experimenter returned with the participant's score. All participants received a score that was "about average" to ensure they could make both upward and downward social comparisons.

Participants then read the following:

> Often students indicate that they would like to know the scores of students at other rankings. At this point in the study we will give you the opportunity to view some of the scores of other students who also completed the test. Below is a list of rankings of students who have completed the spatial reasoning test with our researchers. From this list of rankings below *you may check 0 to 7 rankings* that you would like to view. *You may choose less than 7 if you wish or you may decide that you are not interested in examining this information at all.*

Participants were told that if they selected rankings to view, they would see both the test and the test score of each ranking. Each participant's own ranking was highlighted and participants had the opportunity to check off up to 7 other rankings that they wanted to view. There were a total of 88 rankings to choose from—half of these being above the participant's own score and half being below the participant's score. After the participant made his or her selection(s), the researcher left the room ostensibly to retrieve the tests of the other participants. We recorded the number of upward social comparisons, downward social comparisons, and total social comparisons (i.e., the sum of both upward and downward comparisons) as the main dependent measures.

To examine whether those from Asian Canadian and European Canadian backgrounds found the test approximately equally relevant and interpreted their scores similarly, participants were asked one question about *task importance* ("How important was it for you to do well on the spatial reasoning test?") and one question regarding *perceptions of their own performance* ("Compared to other people in general, how would you rate your overall performance on the spatial reasoning test?").

In addition, a measure of *interest in social comparison* was created by forming an index of the following items: "How interested were you in seeing how others performed on the test?" and "How much did you want to compare your performance with the performance of others?" ($r = .70$, $p < .0001$). The measures of task importance, perceptions of performance, and interest in social comparison were all completed on 7-point Likert scales. Participants then completed a measure of self-construal (Singelis, Triandis, Bhawuk, & Gelfand, 1995; see also Triandis, 1996). This measure assesses both individualism ($\alpha = .78$), or the degree to which "the self is defined as independent and autonomous from collectives" (Triandis, 1996, p. 409; e.g., "Being a unique individual is important to me"), and collectivism ($\alpha = .70$), or the degree to which "the self is defined as an aspect of a collective" (Triandis, 1996, p. 409; e.g., "I usually sacrifice my self-interest for the benefit of my group"). In addition, participants completed measures of self-concept clarity (Campbell et al., 1996; $\alpha = .89$) and self-esteem (Rosenberg, 1965; $\alpha = .86$). Uncertainty about the self (e.g., Festinger, 1954) and self-esteem (e.g., Wheeler & Miyake, 1992) tend to be related to social comparison seeking, and thus we employed these measures as covariates in some of the analyses. The individual difference measures were completed on 5-point Likert scales.

Results and Discussion

Reactions to the spatial reasoning test. There were no statistically reliable cultural differences in perceived task importance, $t(49) = .99$, $p < .33$, or perceived performance compared to others, $t(49) = .1.51$, $p < .14$.[4] As anticipated, Asian Canadians reported significantly greater interest in social comparison ($M = 4.77$) than did European Canadians ($M = 3.87$), $t(49) = 2.13$, $p < .04$.

Culture and social comparison seeking. Because participants had the opportunity to make both upward and downward social comparisons, social comparison direction was analyzed as a within-subjects variable. A 2 (culture: Asian Canadian vs. European Canadian) × 2 (social comparison direction: upward vs. downward) mixed-model ANOVA was conducted. We anticipated that Asian Canadians would seek more social comparisons than would European Canadians. Indeed, there was a significant main effect for culture, revealing that Asian Canadians selected more social comparisons ($M = 3.71$) than did European Canadians ($M = 1.22$), $F(1, 49) = 16.23$, $p < .0001$, $\eta^2 = .25$. In addition, there was a main effect for social comparison direction indicating that participants tended to seek more upward ($M = 1.61$) than downward ($M = 0.86$) social comparisons, $F(1, 49) = 18.11$, $p < .0001$, $\eta^2 = .27$.

TABLE 1: Frequency of Social Comparison Among Asian Canadians and European Canadians (Study 1)

	Cultural Background	
Type of Social Comparisons Sought	*Asian Canadians (N = 28)*	*European Canadians (N = 23)*
Upward social comparisons		
M	2.39_a	0.83_b
SD	1.72	1.23
Downward social comparisons		
M	1.32_c	0.39_b
SD	1.06	0.78

NOTE: Numbers indicate the average number of social comparisons selected. Within columns and rows, means with differing subscripts differ at least at the $p < .005$ level, two-tailed. The difference between the number of upward and downward social comparisons sought by European Canadians is marginally significant at the $p < .08$ level.

Furthermore, the interaction between culture and social comparison direction was marginally significant, $F(1, 49) = 3.24$, $p < .08$, $\eta^2 = .06$. Planned contrasts (Howell, 1997) indicated that Asian Canadians sought significantly more upward than downward comparisons, $t(49) = 2.82$, $p < .005$, and significantly more upward comparisons than did European Canadians, $t(49) = 3.77$, $p < .0001$ (refer to Table 1). These data support our hypothesis that Asian Canadians are particularly interested in upward social comparison information.

Self-construal and social comparison seeking. Correlational analyses revealed that collectivism was related to overall social comparison seeking, $r(49) = .54$, $p < .0001$. Collectivism was related to the seeking of both upward, $r(49) = .47$, $p < .002$, and downward, $r(49) = .52$, $p < .0001$, social comparisons. Individualism was not significantly related to the seeking of social comparisons in general, $r(50) = .10$, *ns*, upward social comparisons, $r(50) = .10$, *ns*, or downward social comparisons, $r(50) = .09$, *ns*. Asian Canadians scored significantly higher on collectivism ($M = 3.60$) than did European Canadians ($M = 3.30$), $t(49) = 2.57$, $p < .02$. There was no significant cultural difference in individualism, $t(49) = .99$, *ns*.

Mediational analyses were employed to examine whether self-construal (in this case, collectivism) mediated the relation between cultural background and social comparison seeking. Cultural background was associated with social comparison seeking, $F(1, 49) = 16.23$, $p < .0001$, $\beta = .50$, and with collectivism, $F(1, 49) = 6.63$, $p < .02$, $\beta = .35$. Furthermore, collectivism was significantly predictive of social comparison seeking when cultural background was statistically controlled, $F(2, 47) = 10.43$, $p < .01$, $\beta = .39$. When statistically controlling for collectivism, the relation between culture and social comparison seeking was significantly reduced, $F(2, 47) =$

10.75, $p < .01$, $\beta = .39$, as indicated by a Sobel's test of mediation (Baron & Kenny, 1986; Sobel, 1982), $Z = 2.02$, $p < .05$. Thus, self-construal played a partial mediational role in the relation between culture and social comparison seeking.[5]

Other individual differences and social comparison seeking. Because self-esteem and uncertainty about the self tend to be related to social comparison seeking, we examined whether cultural background and self-construal were related to social comparison even when these other constructs were statistically controlled. The relation between cultural background and social comparison seeking remained significant when self-esteem and self-concept clarity were included as covariates, $F(1, 47) = 20.07$, $p < .0001$, $\eta^2 = .30$. Similarly, the association between collectivism and social comparison seeking remained significant when self-esteem and self-concept clarity were statistically controlled, $r(46) = .51$, $p < .0001$.

Immigrant status account for social comparison seeking. One alternative explanation for the findings in Study 1 is that because many of the Asian Canadian participants were immigrants to Canada, they may be more uncertain about their relative standing and consequently more interested in social comparison. Thus, it may be "immigrant status" that leads Asian Canadians to be particularly oriented toward social comparison information. To test this possibility, we examined the length of time participants had been in Canada. This sample was highly variable in that some Asian Canadian participants were born in Canada, some had immigrated to Canada when they were quite young, and some had only recently immigrated to Canada. We reran the analyses controlling for years in Canada, and this did not alter the cultural differences in seeking upward social comparisons, downward social comparisons, or overall social comparison seeking (all ps $< .01$).[6]

Study 1 revealed that cultural background was related to social comparison seeking in general. The relation between culture and social comparison seeking was partially mediated by collectivism. Furthermore, Asian Canadians sought more upward social comparisons than did European Canadians, in line with the notion that Asian Canadians are motivated in this regard by self-improvement. Alternative explanations such as differences in self-esteem, self-concept clarity, and immigrant status did not account for the pattern of results.

Although collectivism was related to social comparison seeking, individualism was not. Similarly, past research has found that interdependence, but not independence, moderates the consequences of social comparisons. Kemmelmeier and Oyserman (2001), for example, found that those high in interdependence rated their performance more positively in response to upward comparison than in the absence of social comparison, whereas those low in interdependence had less positive reactions in response to upward comparison than in the absence of social comparison. Independence, however, did not moderate the consequences of social comparison. Interdependence, therefore, seems more telling in terms of social comparison processes than independence.

STUDY 2

Study 2 further examined the seeking of upward and downward social comparison information, this time manipulating whether upward (i.e., failure feedback) or downward (i.e., success feedback) comparisons were anticipated (refer to Psyzczynski et al., 1985, for a conceptually similar manipulation). A participant who is told that he or she performed below average and seeks social comparisons is most likely to encounter those who performed better (i.e., upward social comparisons), whereas a participant who is told that he or she performed above average and seeks social comparisons is most likely to encounter those who performed worse (i.e., downward social comparisons). Thus, given the nature of this task, a person motivated by self-improvement is more likely to seek social comparison information after failure than after success because such information can help one improve and can provide a source of motivation and encouragement. In contrast, a person motivated more by self-enhancement is more likely to avoid social comparisons after failure and seek social comparisons after success because such strategies allow one to view the self in a positive light. As such, our main prediction was that Asian Canadians would seek more social comparisons after failure than success and more social comparisons after failure than would European Canadians.

Method

Participants. Thirty-five European Canadians (29 women, 6 men, *M* age = 20.0) and 34 Asian Canadians (23 women, 11 men, *M* age = 19.0) completed the study for course credit.

Materials and procedure. Participants once again took part individually in a study ostensibly about spatial reasoning and personality. As in Study 1, each participant completed the spatial reasoning test and the experimenter left the room to score the test. To be blind to feedback condition, the experimenter randomly selected a feedback sheet without looking at the condition. Adapting a procedure from Pyszczynski et al. (1985, Experiment 1), when the experimenter returned, each participant read a feedback sheet that indicated either that he or she performed very well (above average) on

TABLE 2: Frequency of Social Comparison Among Asian Canadians and European Canadians After Success Versus Failure Feedback (Study 2)

	Cultural Background	
Feedback Condition	*Asian Canadians (N = 34)*	*European Canadians (N = 35)*
Failure feedback		
M	3.38_a	1.11_b
SD	2.71	1.68
Success feedback		
M	1.59_b	1.44_b
SD	1.94	2.12

NOTE: Numbers indicate the average number of social comparisons selected. Within columns and rows, means with differing subscripts differ at least at the $p < .01$ level, two-tailed.

the test (i.e., success feedback) or that he or she performed very poorly (below average) on the test (i.e., failure feedback). Rather than having participants select specific rankings to view (as in Study 1), the dependent variable in Study 2 was the number of tests the participant chose to view. That is, participants simply checked the number of scored tests (from 0 to 7) they wished to view. Participants completed the same measures of task importance, perceptions of own performance, and interest in social comparison as in Study 1.

Results and Discussion

Manipulation checks. Those who received positive feedback had more positive ratings of their performance ($M = 5.23$) than those who received negative feedback ($M = 2.55$), $t(66) = 9.78$, $p < .0001$. Thus, the feedback manipulation appeared to be successful.

Reactions to the spatial reasoning test. There were no significant cultural differences in ratings of task importance or perceived performance (ps $> .4$). As in Study 1, Asian Canadians reported more interest in social comparison ($M = 4.34$) than did European Canadians ($M = 3.29$), $t(66) = 2.59$, $p < .02$.

Culture and social comparison seeking. A 2 (culture: Asian Canadian vs. European Canadian) × 2 (feedback: success vs. failure) ANOVA revealed a main effect for culture, $F(1, 65) = 5.51$, $p < .03$, $\eta^2 = .08$. Replicating Study 1, Asian Canadians ($M = 2.48$) sought more social comparison information than did European Canadians ($M = 1.28$). As anticipated, this main effect was qualified by a significant Feedback × Culture interaction, $F(1, 65) = 4.27$, $p < .05$, $\eta^2 = .06$. After success, Asian Canadians and European Canadians exhibited similar tendencies to seek social comparison information (see Table 2). However, the two groups diverged in their behavioral responses to failure. Asian Canadians sought significantly more social comparisons after failure than did European Canadians, $t(65) = 4.17$, $p < .0001$. The difference in number of social comparisons sought by Asian Canadians in the success and failure conditions was significant, $t(65) = 3.15$, $p < .01$. There was no statistically reliable main effect for feedback condition, $F(1, 65) = 2.01$, $p < .17$, $\eta^2 = .03$.

Study 2 revealed that Asian Canadians were more interested in seeking social comparison information after failure than were European Canadians. In addition, Asian Canadians sought more social comparisons after failure than success, providing tentative support for the notion that Asian Canadians are more likely to seek social comparisons that allow for self-improvement.

STUDY 3

Although Study 2 is consistent with the hypothesis that Asian Canadians are more motivated by self-improvement than are European Canadians, Study 2 relies on the assumption that seeking social comparisons after failure reflects a self-improvement motive. In Study 3, we manipulated self-improvement motives independently of feedback condition and measured the seeking of both upward and downward social comparisons. Specifically, all participants received failure feedback but half were told that later in the session they would complete a very similar test, whereas the other half were told that they would complete a very dissimilar test. Presumably, after experiencing failure, anticipating a similar test would increase a self-improvement motive, whereas anticipating a dissimilar test would decrease such a motive (see also Markman, Gavanski, Sherman, & McMullen, 1993, for a conceptually similar manipulation within the domain of counterfactual thinking).

We anticipated that when the possibility for self-improvement was not salient (i.e., a dissimilar test was expected), Asian Canadians would be less likely to seek upward comparisons, and their seeking of social comparisons would more resemble that of European Canadians. In contrast, when the opportunity for self-improvement was made salient (i.e., a similar test was expected), we anticipated that Asian Canadians would be particularly interested in seeking upward social comparisons, more so than European Canadians. Our key prediction, therefore, was that of a three-way interaction between cultural background, self-improvement condition, and social comparison direction.

Method

Participants. Twenty-five European Canadians (20 women, 5 men, *M* age = 22.0 years) and 34 Asian Canadi-

ans (28 women, 6 men, *M* age = 20.0 years) completed the study for course credit.

Materials and procedure. As in Studies 1 and 2, participants took part individually in a study ostensibly about spatial reasoning and personality. The procedure was identical to the procedure in the failure condition in Study 2, with two exceptions. First, when the experimenter left the room to score the test, each participant was given a description of a task they would complete later in the session. In the similar (self-improvement) condition they read,

> In the second part of the study we are going to have you complete a second reasoning test. This second test is very similar to the first test you completed. It is actually an alternate version of the first test and will measure your spatial and analytical reasoning ability.

In the dissimilar condition they read,

> In the second part of the study we are going to have you complete a second reasoning test. This second test is very dissimilar to the first test you completed. It is actually a test of numerical reasoning and will measure your numerical and mathematical reasoning ability.

The second difference from Study 2 was that participants were given the opportunity to choose to see up to seven tests from those who scored both above and below them (as in Study 1). As a manipulation check of our induction of a self-improvement motive, participants were asked about their motives (i.e., for selecting or not selecting social comparisons) after taking the spatial reasoning test. Specifically, participants answered questions that tapped self-improvement ("To get better at the task," "To obtain a goal," "To improve my own situation," and "To learn what to do or what not to do"; $\alpha = .80$), self-enhancement ("To make myself feel better," "To feel good about my own situation," and "To reassure myself of my own situation"; $\alpha = .70$), and self-evaluation ("To evaluate my own performance," "To see how I am doing," "To provide insight into my own situation," and "To see if I am performing well enough"; $\alpha = .70$) motives. These items were adapted from Helgeson and Mickelson (1995) and were answered on a Likert scale ranging from *not at all* (1) to *very much so* (5). Finally, participants completed the measures of task importance, perceptions of performance, and interest in social comparison described in Study 1.

Results and Discussion

Manipulation checks. Because all participants in this study received failure feedback, we conducted a one-sample *t* test against the scale midpoint for ratings of perceived performance. Participants' ratings of perceptions of their own performance ($M = 2.32$) were significantly below the scale midpoint of 4, $t(58) = 12.00$, $p < .0001$. The failure feedback thus appeared to be successful. Those in the self-improvement (i.e., similar test) condition reported being more motivated by self-improvement ($M = 3.74$) than those in the no self-improvement (i.e., dissimilar test) condition ($M = 3.22$), $t(57) = 2.06$, $p < .05$. The self-improvement and no self-improvement conditions did not differ in reports of self-enhancement, $t(57) = .06$, *ns*, or self-evaluation, $t(57) = 1.05$, $p < .3$, motives.

Reactions to the spatial reasoning test. There were no significant cultural differences in ratings of task importance or perceived performance (*p*s > .4). In this study, Asian Canadians did not report being significantly more interested in social comparison ($M = 3.32$) than did European Canadians ($M = 2.92$), $t(57) = .95$, *ns*.

Culture, self-improvement, and social comparison seeking. A culture (Asian Canadian vs. European Canadian) × self-improvement condition (similar task vs. dissimilar task) × direction of social comparison (upward vs. downward) mixed-model ANOVA with direction of social comparison as a within-subjects variable revealed the predicted three-way interaction, $F(1, 55) = 4.78$, $p < .04$, $\eta^2 = .10$. Asian Canadians who believed they were going to complete a similar task later in the session were significantly more likely to seek upward than downward social comparisons, $t(55) = 5.89$, $p < .0001$, and were significantly more likely than European Canadians to seek upward social comparisons, $t(55) = 6.11$, $p < .0001$ (refer to Table 3).[7] European Canadians, on the other hand, did not seek significantly more upward than downward social comparisons when a second similar task was anticipated. These findings lend additional support to our hypothesis that Asian Canadians are particularly likely to seek upward social comparisons under conditions that allow for self-improvement (i.e., after failure and when a second similar task is anticipated).

The interaction between self-improvement condition and cultural background significantly predicted upward social comparison, $F(1, 55) = 7.90$, $p < .01$, $\beta = .62$, but only marginally predicted self-improvement ratings, $F(1, 55) = 3.60$, $p < .065$, $\beta = .17$. Self-improvement ratings did not statistically mediate the relation between the interaction term (Culture × Self-Improvement) and upward social comparison. The relation between self-improvement ratings and number of upward social comparisons, although in the expected direction, was not statistically reliable, $r = .15$, $p < .27$. In addition, when self-improvement was included as a variable in the analysis the interaction between self-improvement condition

TABLE 3: Frequency of Upward and Downward Social Comparison After Failure Among Asian Canadians and European Canadians as a Function of Self-Improvement Motive (Study 3)

	Cultural Background			
	Asian Canadians (N = 34)		*European Canadians (N = 25)*	
	Upward	*Downward*	*Upward*	*Downward*
Different task anticipated				
M	$.78_{a}$	$.11_{b}$	$.46_{a}$	$.09_{b}$
SD	1.17	.32	.82	.30
Similar task anticipated				
M	3.19_{b}	1.19_{c}	1.00_{cd}	$.57_{d}$
SD	1.64	1.05	1.11	.85

NOTE: "Upward" and "downward" refer to the direction of social comparison. Numbers indicate the average number of social comparisons selected. Within columns and rows, means with differing subscripts differ at least at the $p < .05$ level, two-tailed.

and cultural background continued to predict upward social comparison, $F(1, 54) = 8.06$, $p < .01$.

In addition, the interaction between cultural background and social comparison direction was significant, $F(1, 55) = 10.45$, $p < .01$, $\eta^2 = .16$. Asian Canadians sought more upward social comparisons ($M = 1.98$) than did European Canadians ($M = 0.73$), but the two groups sought similar numbers of downward social comparisons (Ms = 0.33 and 0.12, for Asian Canadians and European Canadians, respectively). The interaction between self-improvement condition and social comparison direction was significant, $F(1, 55) = 5.81$, $p < .01$, $\eta^2 = .10$, indicating that those in the self-improvement condition sought more upward social comparisons ($M = 2.09$) than those in the no self-improvement condition ($M = 0.62$) and more upward social comparisons than downward social comparisons ($M = .88$). There was also a Culture × Self-Improvement Condition interaction, $F(1, 55) = 7.25$, $p < .01$, $\eta^2 = .12$. The difference in number of social comparisons sought between European Canadians in the self-improvement condition ($M = 1.57$) and those in the no self-improvement condition ($M = 0.55$) did not reach significance, $t(55) = 1.48$, $p < .2$. In contrast, Asian Canadians who believed they had the opportunity for self-improvement sought significantly more social comparisons ($M = 4.38$) than did those in the no self-improvement condition ($M = 0.89$), $t(55) = 5.92$, $p < .0001$.

Finally, significant main effects on social comparison seeking were revealed for both self-improvement condition, $F(1, 55) = 24.40$, $p < .0001$, $\eta^2 = .31$, and culture, $F(1, 55) = 11.87$, $p < .0001$, $\eta^2 = .18$. Those who expected to take a second similar test (and hence had an opportunity for improvement) selected more social comparisons ($M = 2.97$) than those who expected to take a dissimilar test ($M = 0.72$). In addition, Asian Canadians ($M = 2.63$) sought more social comparisons than did European Canadians ($M = 1.06$). Finally, there was a main effect for social comparison direction, indicating that participants sought more upward ($M = 1.42$) than downward ($M = 0.50$) social comparisons, $F(1, 55) = 35.57$, $p < .0001$, $\eta^2 = .39$.

The key finding in Study 3 is that compared to European Canadians, Asian Canadians sought significantly more upward social comparisons after failure, especially when the opportunity for self-improvement was made salient. Although there were no cultural differences in self-reported interest in social comparison, there were cultural differences in the behavioral measure of social comparison seeking. Because people often are unable to verbalize their mental processes, such as motives or desires (Nisbett & Wilson, 1977), it was important to provide behavioral evidence of social comparison seeking.

GENERAL DISCUSSION

Across three studies, Asian Canadians sought more social comparisons than did European Canadians. Past research suggests that, compared to Westerners, those from East Asian cultures are more extraindividually focused (Heine, 2001) and are particularly concerned with the thoughts, feelings, behaviors, and goals of others (Markus & Kitayama, 1991). The present findings extend this past research and suggest that similar cultural differences exist for social comparison seeking. Furthermore, we documented that Asian Canadians sought more upward than downward social comparisons (Study 1), more social comparisons after failure than after success (Study 2), and more upward social comparisons after failure, especially when the opportunity for self-improvement was made salient (Study 3). Taken together, these data suggest that Asian Canadians seek social comparisons in ways that facilitate self-improvement. The findings complement past research suggesting that those from East Asian backgrounds are more motivated by self-improvement (e.g., Heine et al.,

2001) and tend to view the self as more malleable and improvable (Tweed & Lehman, 2002) than those from Western backgrounds. That is, those from East Asian backgrounds are more likely to hold incremental rather than entity theories of the self (Dweck, Hong, & Chiu, 1993). It follows then that East Asians would have a strong focus on improving themselves.

The present findings do not imply, however, that those from East Asian backgrounds will always engage in more social comparison than those from Western backgrounds. Because the current studies were set in a context in which self-improvement was relevant (i.e., achievement-related tests), Asian Canadians may have been more likely to seek social comparisons. Under conditions in which self-improvement motives are relevant, and perhaps under conditions in which other interdependent goals are activated (e.g., goals to affiliate with others or to fit into the social environment), those from East Asian backgrounds are likely to be more interested in social comparison. Of interest, although Asian Canadians in Study 2 sought more social comparisons after failure than did European Canadians, European Canadians did not seek more social comparisons after success than Asian Canadians. This may be owing, at least in part, to the type of task used. The social comparison seeking measure involved a performance-related task, one which might better allow for self-improvement than self-enhancement. Indeed, from the participants' point of view, it might seem somewhat odd to look at how other people did after performing well on the test oneself. However, one motivated by self-enhancement might avoid looking at how other people did after experiencing failure. It may be that in situations that make self-enhancement salient or allow for the opportunity to differentiate the self from others, European Canadians would be more interested in social comparison than would Asian Canadians.

We also do not mean to suggest that independent selves are not motivated by self-improvement. Indeed, in Studies 1 and 3, European Canadians sought somewhat more upward than downward social comparisons. Independent selves clearly have a desire for self-improvement as well, but the desire for self-enhancement may often interfere with this. Future research could profitably examine this issue.

Underlying Mechanisms

Our explanation for the relation between culture and general social comparison seeking focuses on self-construal. Those from East Asian backgrounds (who have more interdependent self-construals) monitor the social environment to obtain important information. For people who are interdependent, being aware of social standards, norms, and cues is critical. Study 1 provided evidence that self-construal plays a mediational role in the relation between culture and social comparison seeking.

We have two explanations for the more interesting finding that Asian Canadians were more likely than European Canadians to seek upward social comparisons, particularly when the opportunity for self-improvement was made salient (i.e., a second similar task was anticipated). The first explanation is that those from East Asian backgrounds are highly motivated by self-improvement. Being more interdependent may lead to a desire to keep up with group standards and lead to more social comparison under conditions in which self-improvement is relevant. That Asian Canadians sought more upward social comparisons and sought more social comparisons after failure than success provided indirect evidence that the Asian Canadian participants were seeking social comparisons in ways that would facilitate self-improvement. By manipulating the possibility for self-improvement independently of feedback (Study 3), we provided more direct evidence for the account that Asian Canadians seek social comparison information in the service of self-improvement.

A second explanation, not incompatible with the first, is that Asian Canadians are not as threatened by upward social comparison information. It may be the case that those from Eastern backgrounds experience more positive affective reactions to upward social comparisons than those from Western backgrounds. Tesser's self-evaluation maintenance (SEM) model (e.g., Tesser, 1988; Tesser, Millar, & Moore, 1988) is relevant here. In brief, this model proposes that when a close other excels at a task that is self-relevant, a "comparison" process is invoked, which invariably has negative self-evaluative and affective consequences for the self. However, when a close other performs well in a domain that is not self-rrelevant, the individual can enjoy the accomplishments of the close other via a "reflection" process. More recent research, though, indicates that when feelings of closeness are enhanced (e.g., Brown, Novick, Lord, & Richards, 1992; McFarland, Buehler, & McKay, 2001) or an interdependent self-construal is activated (e.g., Gardner, Gabriel, & Hochschild, 2002; Stapel & Koomen, 2001), people can have more positive reactions to relevant upward social comparisons. For those from East Asian backgrounds (who have chronically activated interdependent self-construals), the self may feel more psychological closeness with similar or relevant others, and comparing to successful others may not generally lead to negative consequences for the self. It may be that whereas for Westerners upward social comparisons often have a negative emotional impact, for those from East Asian backgrounds upward social comparisons are not as threatening and might have more positive

affective consequences. Preliminary research in our laboratory supports this notion that for Asian Canadians upward social comparisons often have more positive affective consequences than do downward social comparisons (White, Lehman, & Cohen, 2005).

Taken together, the current studies provide evidence that compared to European Canadians, Asian Canadians seek more upward social comparisons, and do so in particular when the opportunity for self-improvement is apparent. The Asian Canadian data depict a quite different portrait of social comparison activity than is commonly found in western samples, and this portrait goes hand-in-hand with previously documented cultural differences in psychological processes.

NOTES

1. We note the connection that has been drawn between gender and self-construal. For instance, Cross and Madson (1997; see also Gabriel & Gardner, 1999) proposed that women are more likely than men to include close relationships as part of the self. Furthermore, compared to women, men appear to attach greater importance to social comparisons (particularly downward social comparisons) as a source of self-esteem (Schwalbe & Staples, 1991) and have been shown to gain feelings of self-worth by seeing the self as more unique from others (Josephs, Markus, & Tarafodi, 1992). Thus, a reasonable prediction is that gender-based self-construal differences are related to the seeking of different types of social comparisons. In the present studies, gender did not moderate any of the results, but it is important to note that our male sample sizes were very small. Examining gender was not the goal of the present research; rather, we focus on cultural background.

2. We anticipated that interdependence would be more highly associated with social comparison seeking than would independence. Past research has found that interdependence, but not independence, moderates the consequences of comparisons (Kemmelmeier & Oyserman, 2001).

3. Throughout the present studies we compared the responses of Asian Canadian (e.g., Chinese, Korean, Japanese descent) and European Canadian (e.g., British, French, German descent) participants because of established differences in self-construal between those from East Asian and Western European backgrounds.

4. Across the three studies, all of the findings remained significant when task importance and perceived improvement were statistically controlled.

5. In Study 1, participants completed self-report measures of self-construal after completing the social comparison seeking task to ensure that we did not inadvertently prime self-construal or create a demand characteristic prior to the task. Because of this, our mediational analysis should be treated with caution. And, of course, we cannot infer that self-construal is a causal mediator of the relation between culture and social comparison seeking because self-construal was not manipulated in this study. Analyses were conducted to examine the mediational role of self-construal between culture and upward and downward social comparison separately. The results revealed that self-construal was a partial mediator of the relation between culture and the seeking of both upward and downward social comparisons (both Sobel's tests $p < .05$).

6. Length of residence in Canada did not predict significant variance in social comparison seeking in any of the studies. The immigrant status account, therefore, is an unlikely explanation for the findings.

7. All of the main effects and interactions remained significant in Study 3 when self-esteem ($\alpha = .90$) and self-concept clarity ($\alpha = .80$) were statistically controlled (all ps $< .04$), with the exception of the interaction between comparison direction and self-improvement condition, $F(1, 51) = 2.71$, $p < .11$.

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