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# Body Use and Reference Group Impact: With Whom Do We Compare Our Bodies?

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## Abstract

Fifty U.S. Olympic speedskating team members, 50 professional models, and 80 college students completed the Body Esteem Scale (BES; Franzoi & Shields, [1984](#)) and indicated for each of the 35 BES items whether when evaluating themselves they most frequently use as a comparison standard same-sex people in general, same-sex professional models, or elite same-sex athletes. Consistent with social comparison theory that people seek similar others as comparison targets, college students were more likely than Olympic athletes or professional models to compare themselves to people in the general population, athletes were more likely than students or models to compare themselves to elite athletes, and models tended to be more likely than students or athletes to compare themselves to elite models. As hypothesized, college women more frequently than college men compared themselves to professional models when evaluating body aspects associated with weight concern and sexual attractiveness, and the more female skaters' compared themselves to models, the more their negative body attitudes associated with weight concern increased and the more interested they were in changing weight-related body aspects.

## Keywords

Body esteem; Social comparison; Reference groups

Social comparison theory (Festinger, [1954](#)) hypothesizes that people's desire for stable, accurate self-appraisals motivates them to evaluate their opinions and abilities by comparing themselves with others. Although temporal comparisons are also a useful source of self-knowledge, social comparisons are perceived as providing the most useful information to the self (Huttenlocher & Higgins, [1971](#); Wilson & Ross, [2000](#)). Social comparisons are even sought in situations when objective standards are readily available (Klein, [1997](#)), and such comparisons can occur spontaneously, with minimal cognitive effort (Dunning & Hayes, [1996](#); Gilbert, Giesler, & Morris, [1995](#)).

As originally articulated by Festinger (1954) and supported by later research, when people engage in social comparison, they seek to compare themselves with others who are similar to them on the relevant domain (e.g., Bosveld, Koomen, & van der Pligt, 1994; Goethals, 1986; Schachter, 1964; Suls, Martin, & Wheeler, 2000). This is so because the more similar other people are to them the more likely they will be able to use the information gained through social comparison in better understanding themselves and their future plans of action. For example, if aspiring chefs want to evaluate their culinary abilities, comparing themselves to fellow chefs-in-training will yield more useful information than comparing themselves to friends and family members who may be challenged by *Hamburger Helper* recipes. However, despite the advantages in seeking similar others as comparison targets, it often requires more time and cognitive effort than does selecting more readily available targets (Mussweiler & Rüter, 2003; Tversky & Kahneman, 1974).

Another important aspect of the social comparison process is the *self-relevance* of the comparison domain. Generally, being outperformed by comparison targets poses more serious self-evaluation threats when the comparison domains are high rather than low in self-relevance (e.g., Morf & Rhodewalt, 1993; Tesser, Millar, & Moore, 1988). Thus, it is very likely that our chefs' feelings of self-worth will be more seriously threatened if they judge themselves less worthy than a comparison target in the kitchen rather than on the basketball court.

## Social Comparison and the Physical Self

Social comparison and attention to cultural standards is an important means by which people evaluate their bodies (Dittmar, 2005; Hospers & Jansen, 2005; Miller & Halberstadt, 2005; Stice, Maxfield, & Wells, 2003). The vast majority of research on physical self-comparison has involved the experimental manipulation of the comparison process by exposing participants to targets who either closely match or significantly diverge from ideal physical appearance standards (e.g., Frisby, 2004; Tiggemann & McGill, 2004). Consistent with social comparison theory, these studies generally show increased body dissatisfaction and social physique anxiety following exposure to comparison targets who closely match cultural ideals of physical appearance (e.g., Engeln-Maddox, 2005; Halliwell & Dittmar, 2004; Lin & Kulik, 2002).

Although the experimental manipulation of comparison targets has yielded important insights into the social comparison process, the purpose of the present study was to examine what types of reference groups people typically choose as comparison targets when they evaluate their own bodies. In social comparison, reference groups serve as a valuable means to achieve articulated self-definition (Alwin, Cohen, & Newcomb, 1991; Becker, 2005; Hyman, 1960). People often define themselves and evaluate their adequacy on a specific dimension of the self-or as a whole self-by using the standards of their various reference groups (Escalas & Bettman, 2003, 2005; Sussman, Simon, Stacey, Dent, Ritt, Kipke, 1999). Do the reference groups that people use when they evaluate their own bodies conform to the "similarity comparison" pattern? To date, no study has specifically addressed this question.

Heinberg and Thompson's (1992) study is one of the few that has investigated the relative importance of specific comparison targets when people evaluate their physical attributes. In that study, college students rated the degree to which they compared themselves to six different reference groups (family, friends, classmates, celebrities, average college student, average USA citizen) on seven different attributes (popularity, fashion/clothes, confidence, intelligence, athletic ability, figure/physique,

attractiveness). Results indicated a stronger connection between social comparison and body image/eating disturbance for women than for men, especially for appearance-related attributes. Further, for women, but not for men, the ascribed importance of a comparison group was a better predictor of body image/eating disturbance than was the similarity between the participant and the comparison target.

In the present investigation we sought to examine further the role that specific reference groups play in people's evaluations of their bodies by specifically testing whether the way in which people "use" their bodies influences which reference groups they most frequently use as comparison targets when evaluating their physical selves. Consistent with social comparison theory, we hypothesized that young adults would be most likely to rate as "most frequently used comparison target" those reference groups that use their bodies in a manner similar to the self-evaluators. The three reference groups examined as comparison targets in the present study were elite athletes, professional models, and people in the general population, whereas the three self-evaluator groups were U.S. Olympic speedskaters, professional models, and college students. We predicted that, when asked to evaluate their bodies, college students would be more likely than elite speedskaters or professional models to rate same-sex people in the general population as the most frequently used comparison target, because many of the members of this reference group use their bodies in a manner that is more similar to college students than to athletes or models. The same "similarity comparison" predictions were made for speedskaters and models: speedskaters would be more likely than students or models to choose the top same-sex athletes in the country as their most frequently used comparison target group when evaluating their bodies, and models would be more likely than students or skaters to choose as their most frequently used comparison target group the top same-sex models in the country.

## Gender-Related Social Comparison Tendencies

Although this "similarity comparison" pattern was hypothesized for the three self-evaluator groups, we expected that the gender-specific relevance of certain body aspects would influence participants' tendencies to compare these body aspects to dissimilar reference groups. These gender differences were expected for body aspects that North American culture traditionally identifies with one gender more than the other.

Our culture, like many around the world, places a premium on women's physical attractiveness, or the female *body-as-object* (Davis, [1990](#); Franzoi & Chang, [2000](#)). Starting in childhood, the average woman is taught that her body as an object of beauty is a significant factor in how others judge her overall value (James, [2000](#)). The pervasiveness of this attention to women's physical appearance can be seen in television commercials and magazine advertisements, where professional models, representing the female body-as-object ideal, convey difficult-to-attain attractiveness standards, especially related to weight and thinness (Wiseman, Sunday, & Becker, [2005](#)). A number of studies have shown that women's weight-related body esteem is adversely affected by their exposure to such advertisements (e.g., Bissell & Zhou, [2004](#); Frisby, [2004](#); E. Henderson-King & D. Henderson-King, [1997](#); Schooler, Ward, Merriwether, & Caruthers, [2004](#); Tiggemann & McGill, [2004](#); Wiederman & Pryor, [2000](#)). Although men are also judged by their physical appearance, women's bodies as aesthetic objects play a larger role in how others judge their overall value, especially in heterosexual relationships (Irving, DuPen, & Berel, [1998](#); Townsend & Wasserman, [1997](#)).

One consequence of this cultural fixation on the female form is that women are more likely than men to attend to and identify with body aspects such as legs, buttocks, face, chest, and lips, which are often objectified by others and judged for their static beauty (e.g., Franzoi, [1995](#); Fredrickson, Roberts, Noll, Quinn, & Twenge, [1998](#); Jones, [2004](#)). We believe that this gender difference is influenced by the greater cultural pressure exerted on women compared to men to engage in upward social comparison toward those who represent the body-as-object ideal, namely, professional models and other highly attractive individuals (Bissell, [2004](#); Bissell & Zhou, [2004](#); Thornton & Maurice, [1997](#)). Such body esteem loss precipitated by upward comparison is consistent with social comparison theory (Kulik & Gump, [1997](#); Major, Sciacchitano, & Crocker, [1993](#)).

In the present study, we investigated whether women were more likely than men to engage in upward social comparison to same-sex professional models when evaluating those aspects of their bodies most closely associated with cultural physical attractiveness standards. Based on the previously discussed research, and in contrast to the earlier proposed “similarity comparison” hypothesis, we predicted that when evaluating body aspects associated with weight concern and sexual attractiveness, college women and female athletes would be more likely than college men and male athletes, respectively, to choose same-sex professional models as their most frequently used comparison target group. We further hypothesized that the more frequently that women choose models as their comparison target group when evaluating aspects of the body associated with weight concern and sexual attractiveness, the more dissatisfied they would be with these body aspects, and the more interested they would be in changing them. This hypothesis is consistent with previous research that indicates that women who consider thinness a relevant self-dimension experience greater loss of self-worth after comparing themselves to women who more closely match cultural ideals of thinness than do women who perceive thinness as less self-relevant (Brown & Dittmar, [2005](#); Dittmar & Howard, [2004](#); Halliwell & Dittmar, [2004](#)).

In contrast to women’s tendency to focus exclusively on appearance in evaluating their bodies, men are more likely also to consider fitness and power as relevant components of their physical selves (Aglia & Tantleff-Dunn, [2004](#); Franzoi, [1995](#); Klomsten, Skaalvik, & Espnes, [2004](#); Leit, Gray, & Pope, [2001](#), [2002](#)). Both developmental and historical research suggests that this is so because men are typically trained for a world of action, in which the body’s ability to move adeptly through physical space forms a basis for others’ judgments of their physical selves (Grogan & Richards, [2002](#); Koff, Rierdan, & Stubbs, [1990](#)). This cultural emphasis on the male *body-as-process* undoubtedly helps to explain why physical capabilities are a relevant dimension of boys’ and young men’s body concepts (McCabe & Ricciardelli, [2004](#); Murnen, Smolak, Mills, & Good, [2003](#)), and also why their degree of muscular strength is related to positive body esteem, social confidence, and self-satisfaction (Furnham, Badmin, & Sneade, [2002](#); Jones, [2004](#); Mackinnon, Goldberg, Cheong, Elliot, Clarke & Moe, [2003](#); Pope, Phillips, & Olivardia, [2000](#)). Due to this cultural focus on the male body-as-process, when asked to evaluate aspects of their bodies associated with physical conditioning and upper body strength, we predicted that male students and male models would be more likely than their female counterparts to choose elite same-sex athletes, a dissimilar reference group, as their most frequently used comparison target group.

Although we hypothesized these gender differences in comparing physical conditioning and upper body strength to elite athletes, we did not necessarily expect that male students and male models who more frequently choose elite athletes as their comparison target when evaluating their own physical condition and muscular strength (an upward social comparison) would be more dissatisfied with or more

interested in changing these body aspects than those men who are less likely to engage in such upward comparisons. In other words, although we believe that women often hold themselves accountable to the physical appearance standards set by elite models, we were much less confident that men would be similarly affected when comparing their physical abilities to elite athletes.

Although the hypothesis that men's tendency to compare themselves to elite athletes would not adversely affect their body esteem is seemingly inconsistent with social comparison theory, it is consistent with two previous studies that indicate that men appear to have a self-serving bias when evaluating their bodies. In an experiential-sampling study of young adults' daily body awareness tendencies, Franzoi, Kessenich, and Sugrue (1989) found that whereas men were more likely to focus on their bodies when their body evaluations were positive rather than negative, women's situational body awareness was not influenced by the valence of their current body attitudes. Similarly, Powell, Matacin, and Stuart (2001) found that, unlike women, men generally rated their body aspects more positively than they rated the body aspects of other same-sex individuals, and when they evaluated themselves less positively on a particular desirable physical trait they tended also to rate the trait as less important to possess in the first place. Together, the results of these two studies suggest that, whereas women often have difficulty dismissing some negative aspect of their bodies as unimportant, men may have a greater cultural luxury of ignoring evidence that suggests that they fall short of body ideals. For these reasons, we did not expect that men who are more likely to compare certain aspects of their bodies to elite athletes would necessarily express more negative attitudes toward those body aspects than men who are less likely to engage in such upward social comparisons.

## Method

### Participants

Twenty-six male and twenty-four female members of the 1994 United States Olympic Speedskating Team (mean age: 21 years) volunteered to participate in the study. Among the 50 speedskaters were 36 members from the U.S. Long-Track Team and 14 members from the U.S. Short-Track Team, who together represented 85% of the Olympic Speedskating Team. We also recruited 25 male and 25 female professional models (mean age: 26 years) represented by a Milwaukee modeling agency and identified by the agency's director as her most popular models.<sup>1</sup> Data were also collected from 25 male and 55 female college students from Marquette University (mean age: 19 years). Although no skaters were paid for their participation, each model was paid a \$25 fee, and each student received extra credit in an introductory psychology class. All skaters and models were of European ancestry, as were the vast majority of students.

### Measures

#### Body Esteem Scale

The Body Esteem Scale (BES; Franzoi & Shields, 1984) was used to measure men's and women's body attitudes, and consists of 35 body parts and functions rated on a 5-point Likert scale that ranges from "1" ("Have strong negative feelings") to "5" ("Have strong positive feelings"). Factor analysis indicates that the body items that comprise the BES are best conceptualized as composed of three gender-specific dimensions. The three women's BES subscales measure attitudes toward *sexual attractiveness* (body scent, lips, ears, chin, chest or breasts, appearance of eyes, cheeks/cheekbones, sex drive, sex organs, sex activities, body hair, face), *weight concern* (appetite, waist, thighs, body build, buttocks, hips, legs,

figure or physique, appearance of stomach, face), and *physical condition* (physical stamina, reflexes, muscular strength, energy level, biceps, physical coordination, agility, health, physical condition). In contrast, the three men's BES subscales measure attitudes toward *physical attractiveness* (nose, lips, ears, chin, buttocks, appearance of eyes, cheeks/cheekbones, hips, feet, sex organs, face), *upper body strength* (muscular strength, biceps, body build, physical coordination, width of shoulders, arms, chest or breasts, figure or physique, sex drive), and *physical condition* (appetite, physical stamina, reflexes, waist, energy level, thighs, physical coordination, agility, figure or physique, appearance of stomach, health, physical condition, weight). Since the scale's development, a number of studies have suggested that both men's and women's scales are adequately valid and reliable and relatively free from social desirability pressures (Cecil & Stanley, [1997](#); Franzoi, [1994](#); Franzoi & Herzog, [1986](#); Silberstein, Striegel-Moore, Timko, & Rodin, [1988](#); Thomas & Freeman, [1990](#)). In the present study, both the 35 individual BES items and the summed items that comprise the separate BES subscales were used as measures.

#### Body change interest measures

As in previous studies (Franzoi, [1995](#); Franzoi & Herzog, [1987](#)), the BES was also used to measure the degree of interest participants had in changing their bodies by altering the body aspects in BES response categories. After having recorded their attitudinal responses on the standard BES, participants were asked to use a 5-point Likert scale that ranged from 1 ("definitely would not change") to 5 ("Definitely would change") to rate how interested they would be in changing something about each of the body aspects. Responses were summed using the BES dimensional categories to form three subscale scores for each person.

#### Body comparison standard measures

The 35 BES items were also used to determine the degree to which participants differed in their comparison standards when evaluating their bodies. After they had completed the BES and the body change interest measures, participants also indicated for each BES item which of the following five comparison standards they most frequently use when evaluating that particular body item on their own bodies: comparison to same-sex people in general; comparison to same-sex professional models seen in magazines and television advertisements; comparison to top same-sex athletes; comparison to the way they themselves were in the past; comparison to the way they themselves may become in the future. This assessment procedure yielded a series of percentile scores: the percent of the total 35 BES items and the percent of the items on each body esteem dimension that were most frequently evaluated using either (1) general population comparison standards, (2) professional model comparison standards, (3) top athlete comparison standards, or (4) temporal self-comparison standards (either past or future). Because none of the temporal comparisons were relevant to the present study's hypotheses, they were not included in the subsequent analyses.

#### Procedure

Data were collected during 1994–1995. While they were training for the Olympics, skaters were either mailed or hand-delivered a questionnaire that contained the body measures, as well as age, weight, height, and other background questions. After they had completed the questionnaire, the skaters placed it in a self-addressed, stamped envelope, and mailed it to the first author. Models were hand-delivered the same questionnaire by the agency director. As with the skaters, when the models had completed the questionnaire, they mailed it to the first author. College students completed the questionnaires in small groups during regular class sessions.



## Results

### Physical comparisons

The female models were approximately 12 in taller (68.4 vs. 66.9 in),  $t_{(47)} = -2.51, p < .05$ , and about 19 lbs lighter (123.8 vs. 143.0 lbs),  $t_{(47)} = 4.54, p < .001$ , than the female skaters, which resulted in a significantly lower body mass index score (BMI: 18.50 vs. 22.33),  $t_{(47)} = 8.50, p < .001$ . The college women did not significantly differ from the skaters on either height (65.5 in) or weight (139.2 lbs), and they had a comparable body mass (BMI: 23.06 vs. 22.33),  $t_{(78)} = -.61$ , but these students were about 3 in shorter,  $t_{(78)} = -2.76, p < .01$ , 16 lbs heavier,  $t_{(78)} = 2.60, p < .01$ , and had a higher body mass,  $t_{(78)} = 3.25, p < .005$ , than the models. Although the male models were approximately 2 in taller than the male skaters (72.2 vs. 70.4 in),  $t_{(49)} = -3.11, p < .01$ , they did not significantly differ in weight (models: 172.0 lbs, skaters: 169.6 lbs) or body mass (BMI: 1.60 vs. 1.52),  $t_{(49)} = 1.60$ . The college men did not differ from the skaters on either height (70.9 in), weight (167.9 lbs), or body mass (BMI: 23.35 vs. 23.79)  $t_{(47)} = .59$ , but were about 2 in shorter than the models,  $t_{(47)} = -2.63, p < .05$ , although they did not differ in body mass (BMI: 23.35 vs. 23.09),  $t_{(47)} = .34$ .

### Body group comparison standards

A multivariate analysis of variance with “group” and “gender” as the predictor variables and the three group comparison percentile scores (general population, professional models, elite athletes) as the dependent variables revealed significant main effects for gender,  $F_{(3,154)} = 2.67, p < .05$ , and group,  $F_{(6,308)} = 15.56, p < .001$ , but no significant interaction effect,  $F_{(6,308)} = .98, n.s.$ . Subsequent univariate gender analyses indicated significant effects only for model comparisons,  $F_{(1,156)} = 5.63, p < .05$ . As hypothesized, women were more likely than men more frequently to use models when evaluating their own bodies (21.9% vs. 15.1%),  $t_{(160)} = -2.10, p < .05$ . Regarding univariate group analyses, there were significant effects for general population comparisons,  $F_{(2,156)} = 9.73, p < .001$ , model comparisons,  $F_{(2,156)} = 4.06, p < .05$ , and athlete comparisons,  $F_{(2,156)} = 34.50, p < .001$ .

Consistent with the “similarity comparison” hypothesis (Table 1), students were more likely than skaters (40.2 vs. 27.7%),  $t_{(113)} = -2.55, p < .05$ , and models (40.2 vs. 25.3%),  $t_{(117)} = 3.10, p < .005$ , more frequently to use the general population when evaluating their bodies. Likewise, skaters were more likely than models (28.2 vs. 7.2%),  $t_{(88)} = 6.32, p < .001$ , and students (28.2 vs. 7.9%),  $t_{(113)} = 6.26, p < .001$ , more frequently to use athletes when evaluating their bodies. Finally, there was a marginally significant tendency for models more frequently to compare themselves to other models when evaluating their bodies than for skaters to do so (24.4 vs. 7.1%),  $t_{(88)} = -1.71, p < .10$ , and for students to do so (24.4 vs. 16.6%),  $t_{(117)} = -1.84, p < .07$ . Overall, these findings support the hypothesis that the people who most frequently compare their bodies to a particular reference group are those who use their bodies in a manner similar to the reference group members.

Table 1 Percent of body items primarily evaluated by comparison to particular reference groups.

	General population comparison	Elite athlete comparison	Professional model comparison
Skaters	27.7%	28.2% <sup>a</sup>	17.1%
Models	25.3%	7.2%	24.4% <sup>a</sup>

Students	40.2% <sup>a</sup>	7.9%	16.6%
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Percentages in each column with a superscript are significantly different from the other group percentages in the column.

Another objective of the present study was to test whether there are gender differences in comparing oneself to dissimilar reference groups. In this regard, we first tested for gender differences among college students and skaters regarding their tendencies to compare themselves to professional models—a dissimilar reference group—for body aspects related to women’s sexual attractiveness and weight concern.<sup>2</sup> Among college students, a multivariate analysis of variance revealed a significant gender effect,  $F_{(3,68)} = 3.02, p < .05$ . Subsequent analyses showed that, as expected, this gender difference was associated with the two women’s body esteem dimensions most closely related to cultural beauty standards (weight concern: Women: 27.6%, Men: 4.7%,  $t_{(71)} = -4.55, p < .001$ ; sexual attractiveness: Women: 25.8%, Men: 10.5%,  $t_{(71)} = -2.92, p < .005$ ) and not the physical condition dimension (Women: 5.1%, Men: 1.2%,  $t_{(72)} = -1.28, p > .20$ ). However, counter to our predictions, these gender differences were not found among the elite athletes. Although the group means were in the expected direction, female skaters were not significantly more likely than male skaters to use models as a comparison standard either when evaluating body items on the weight concern dimension (Women: 22.7, Men: 12.8%),  $t_{(45)} = -1.40, p > .15$ , or the sexual attractiveness dimension (Women: 27.9%, Men: 26.2%),  $t_{(42)} = -.22, n.s.$

We also tested for gender differences among college students and models regarding their tendencies to compare themselves to elite athletes—a dissimilar reference group—on body aspects related to men’s physical conditioning and upper body strength.<sup>3</sup> However, counter to expectations, multivariate analyses of variance revealed no significant gender effect for either students,  $F_{(2,69)} = .09, n.s.$ , or models,  $F_{(2,46)} = .78, n.s.$ , and thus, no further analyses were conducted. These findings suggest that when evaluating body aspects related to physical conditioning and upper body strength, male students and male models are not more likely than their female counterparts to refer to elite athletes.

### Comparison tendencies to dissimilar elite targets

Although no gender differences were found among the skaters in more frequently using models as a reference group when evaluating their attractiveness, female skaters’ tendencies to use models as a reference group was related to their weight concern body attitudes. As hypothesized, the more frequently female skaters compared their body items on the weight concern dimension to professional models the more negative were their body attitudes,  $r = -.57, p < .01$ , and the more interested they were in changing those aspects of their bodies,  $r = .48, p < .05$ . Although the direction of these correlations were similar among female students, they were not significant (model comparison & body attitudes,  $r = -.27, n.s.$ ; model comparison & interest in change,  $r = .19, n.s.$ ). Female students’ tendencies to compare their sexual attractiveness to professional models’ was related to an increased desire to change this body aspect,  $r = .35, p < .05$ , but comparison to models was not significantly related to more negative body attitudes, although it was in the expected direction,  $r = -.20$ . No significant correlations were found when female skaters compared their sexual attractiveness to professional models (sexual attractiveness & model comparison,  $r = .06, n.s.$ ; desire for change & model comparison,  $r = .27, n.s.$ ).

Regarding men's comparison tendencies to dissimilar elite athletes, as predicted, male students' tendencies to compare their physical condition and upper body strength to elite athletes' were not significantly related to their attitudes toward these body aspects of the participants' bodies (physical condition,  $r = .23$ , n.s.; upper body strength,  $r = .21$ , n.s.). Similar nonsignificant comparison/body esteem correlations were obtained for the male models (physical condition,  $r = -.29$ , n.s.; upper body strength,  $r = -.04$ , n.s.). It is interesting that male students who more frequently compared themselves to elite athletes on upper body strength and physical condition were the *least* interested in changing these aspects of their bodies (upper body strength,  $r = -.48$ ,  $p < .05$ ; physical condition,  $r = -.52$ ,  $p < .05$ ). For the male models, there were no significant comparison/body change correlations (physical condition,  $r = .27$ ; upper body strength,  $r = .13$ , n.s.).

## Discussion

One of the primary goals of the present study was to determine whether the reference groups people use when evaluating their bodies conform to the well-documented "similarity comparison" pattern found in other areas of social life (Bosveld et al., [1994](#); Goethals, [1986](#)). Consistent with social comparison theory, we found that people who most frequently compare their bodies to a particular reference group are those who use their bodies in a manner similar to the reference group members. Specifically, we found that when evaluating their bodies, college students are more likely than elite athletes or professional models to compare themselves to same-sex people in the general population, Olympic athletes are more likely than students or models to compare themselves to elite same-sex athletes, and there was a tendency for professional models to be more likely than students or athletes to compare themselves to elite same-sex models.

Although these findings support our hypothesis that reference groups attract similar others for body comparison purposes, we found evidence that women are more likely than men to use attractive models as comparisons when evaluating their own bodies. Further, when college students evaluated body aspects associated with weight concern and sexual attractiveness, college women used models as a comparison standard more frequently than college men did. Also as expected, no significant gender differences in model comparisons were found when students evaluated those body aspects related to their physical condition. Similar significant gender differences in model comparisons were not found among skaters, although group means were in the expected direction. Despite these nonsignificant gender comparisons among athletes, a related hypothesis was supported for women skaters: The more frequently they compared weight-related aspects of their bodies to professional models, the more negative were their attitudes toward those aspects of their bodies and the more interested they were in changing them. Although the direction of these correlations were similar among college women, they were not statistically significant.

One possible explanation for these different findings among female skaters and students is that elite sports participation may sufficiently shift the body focus of many women athletes, making them generally less inclined than other women to judge their bodies according to traditional feminine beauty ideals. This explanation is consistent with a recent ethnographic analysis of elite female college soccer players' day-to-day body awareness experiences. George's ([2005](#)) interviews with these athletes showed that although cultural norms did influence some of the players' self-perceptions, many of these athletes subtly resisted notions of idealized female bodies and constructed their own meanings about their physical selves. If a similar shift in body focus took place among some of the elite female skaters in the

present study, it might explain why individual differences in female skaters' model comparison tendencies were significantly correlated with their weight concern. That is, participation in masculine sports such as speedskating (and soccer) may sufficiently decrease social pressure on a substantial number of women to judge themselves according to feminine beauty ideals. In turn, this decreased pressure may have the effect of increasing the power of individual difference variables in predicting the type of social physique anxiety to which the BES weight concern subscale is sensitive.

A related "dissimilarity comparison" pattern was expected, but not found, among men for physical condition and upper body strength. When evaluating aspects of their bodies related to these two body esteem dimensions, male students and male models were not more likely than their female counterparts to use elite athletes as a reference group. As hypothesized, male models' and male students' tendencies to compare their physical condition and upper body strength to elite athletes were not significantly related to more negative attitudes toward these aspects of their bodies. Indeed, male students' tendencies to compare their upper body strength and physical condition to elite athletes was actually related to *less* expressed interest in changing the body items associated with these two body esteem dimensions.

In explaining the different pattern of findings regarding reference group use and men's and women's body esteem, it might be useful to reexamine our previous discussion concerning the cultural emphasis placed on the male body-as-process versus the female body-as-object. Research on the physical attractiveness stereotype suggests that the body as a static aesthetic object has a bigger impact on first impression formation than does the body as a dynamic process (e.g., Dion, Berscheid, & Walster, [1972](#); Feingold, [1992](#); Karraker & Stern, [1990](#)). In other words, regarding the physical self, in everyday encounters people's first impressions of others are more strongly shaped by how they *look* rather than how they *move*. This greater cultural emphasis on the body-as-object may largely explain why it is often more important for young women to be sufficiently pretty than for young men to be sufficiently athletic. For women, attending to feminine standards of beauty may be a much more competitive comparative process than it is for men to attend to masculine standards of athleticism and power. It may also explain why exposure to those who match these two different body ideals appear to have different effects on women and men. Men may be more likely than women to have a self-serving bias regarding their body evaluations (Franzoi et al., [1989](#); Powell et al., [2001](#)) because gender-shaped cultural standards allow them to be less attentive to male body ideals. In essence, gender socialization may make it more likely that men can attend to same-sex individuals who represent the male body-as-process ideal without inducing the type of competitive comparison process that appears to be common among women when they attend to same-sex persons who represent the female body-as-object ideal.

One assumption underlying this possible explanation of the present findings is that, unlike the cultural reinforcement for women to strive continually to achieve the female body-as-object ideal, men are allowed to *disidentify* sufficiently with the male body-as-process ideal so that competitive social comparison is less likely to be the cognitive response when they observe elite athletes in action. Although the male body-as-process ideal undoubtedly influences men's body esteem, it may not be nearly as important as is the female body-as-object ideal for women's body esteem. The present results may reflect that reality.

Part of this explanation of the present study's two different sets of findings for women and men is admittedly post-hoc, and, thus, requires further empirical analysis. Possible future avenues of inquiry

might be to examine whether people's responses to elite athletes tend to induce social reflection and a "basking in reflected glory" rather than social comparison (Morf & Rhodewalt, 1993; Tesser, 1988; Tesser & Campbell, 1982), and whether women are more negatively affected than men are by being exposed to body-as-object ideals.

## Footnotes

1. The researchers acknowledge that there is a possibility that American young adults' body perceptions have shifted somewhat since the mid-1990s when these data were collected. However, a recent cross-sectional analysis of body attitudes among selected samples of American young adults from 1983 through 2001 does not suggest that significant changes have occurred in gender-related body attitudes (Cash, Morrow, Hrabosky, & Perry, 2004). In addition, there is ample evidence that the gender-related body attitude issues focused on in the present study are still as highly relevant today as they were in the previous decade (e.g., see the 2005 special issue on body image in *Journal of Social and Clinical Psychology*). Finally, the primary focus of the present study was on how individuals attend to similar versus dissimilar reference groups when evaluating their bodies, a social psychological process that is not likely to be affected by cultural trends that may have occurred during the past decade. Thus, although the current data set was collected in the mid-1990s, there is little reason to believe that it is "outdated" regarding the current study's theoretical focus.
2. Because our interest was in exploring gender differences in comparing oneself to same-sex models when evaluating body aspects related to women's sexual attractiveness and weight concern, we used the body items that comprise the women's sexual attractiveness and weight concern subscales in constructing the model comparison measures for both women and men.
3. Because our interest was in exploring gender differences in comparing oneself to same-sex athletes when evaluating body aspects related to men's physical condition and upper body strength, we used the body items that comprise the men's physical condition and upper body strength subscales in constructing the athletes comparison measures for both men and women.

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