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## Research Article

# A social identity perspective on aspirational advertising: Implicit threats to collective self-esteem and strategies to overcome them

Claudiu V. Dimofte a,\*, Ronald C. Goodstein b, Anne M. Brumbaugh c

<sup>a</sup> College of Business Administration, San Diego State University, San Diego, CA 92182, USA
 <sup>b</sup> McDonough School of Business, Georgetown University, Washington, DC 20057, USA
 <sup>c</sup> Medical University of South Carolina, Charleston, SC 29425, USA

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### Abstract

This research explores the effects of consumers' self-comparisons with specific social identities associated with a product-based out-group that are primed by aspirational advertising. We hypothesize and find that when a consumer's relevant identity is inferior to the primed social identity, product attitudes suffer. The process accounting for this effect consists of a negative social comparison between the two that reduces the consumer's related collective self-esteem. This outcome is more (less) apparent under conditions of high comparison salience (identification with the inferior in-group). We also demonstrate two marketer strategies that alleviate this negative effect: facilitated affiliation (i.e., making desired outgroup membership appear accessible) and indirect self-affirmation (i.e., improving perceptions of worth associated with other self identities). The results advance theoretical knowledge of social identity processes influencing consumer attitudes.

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It is widely acknowledged that consumers' purchases and brand relationships contribute to their social identities in ways that demonstrate the power of marketing and the value of brand equity. Phenomena such as brand relationships (Fournier, 1998), brand communities (Muniz & O'Guinn, 2001), and conspicuous consumption (Veblen, 1899) attest to the importance that consumers place on their marketplace brand and social interactions. These interactions are guided by relevant social identities that constitute facets of the consumers' self-concepts and that marketing stimuli and situations bring to bear. Among the marketing contexts wherein consumers' social identities are most clearly at play is that of aspirational

advertising, a marketing communications strategy that features products associated with social out-groups that the consumer seeks membership into. There are two basic conditions for an advertisement to entail an aspirational quality: (1) the prior association of the promoted product with a favorably perceived social group; and (2) the consumer's non-member status in that group (cf., Escalas & Bettman, 2003).

Much of the previous research on the topic employed promotional messages involving luxury goods. This is in line with the perception that "consumption of luxury is often discussed in terms of aspirations to elite status or to assert symbolic dominance over others" (Dion & Arnould, 2011, p. 2). Advertisements for luxury goods clearly entail an aspirational quality for the average consumer, who does not belong to the wealthy social class but naturally aspires to. However, non-luxury goods/services can also just as easily display an aspirational dimension: consider a casual runner seeing an advertisement for an energy drink. The purchase and

<sup>\*</sup> Corresponding author at: San Diego State University, College of Business Administration, 5500 Campanile Drive, San Diego, CA 92182, USA. *E-mail addresses:* cdimofte@mail.sdsu.edu (C.V. Dimofte), goodster@georgetown.edu (R.C. Goodstein), anne.brumbaugh@alumni.duke.edu (A.M. Brumbaugh).

use or consumption of the promoted product are then offered by the marketer as a potential way for the consumer to access the desired social group (i.e., athletes). We argue that luxury aspiration advertising is just a special case of the aspirational advertising account we put forth in this research, wherein we move beyond luxury goods in order to extend both theory and managerial relevance.

In the general advertising framework, the spokespersons or actors featured in advertisements are the means by which marketers convey or suggest what the aspirational out-group is. Thus, the energy drink ad will likely employ professional athlete types as suggestive primes, making the aspirational nature of the message apparent. At the same time, the viewer's realization that membership in the desirable featured (or implied) out-group has not yet been achieved will emerge from a social comparison process whereby the relevant social identity (i.e., myself as an athletic person) is salient and inferior to that featured in the ad (i.e., that is a real athlete). This is related to recent social psychology research on women and ideal body images, which found that when idealized body images were blatantly highlighted in ads the message was received negatively and the source was denigrated (Wan, Ansons, Chattopadhyay, & Leboe, 2013). When presented subtly, however, the ads were perceived positively, despite drops in self-image. As the authors suggest, fruitful research opportunities exist in looking at individual differences in how people cope with such ads (an issue they did not investigate), specifically "in terms of self-esteem" (Wan et al., 2013, p. 45). This is one of the contributions of the current research; we argue that an unfavorable social comparison resides at the core of aspirational advertising and often produces reductions in consumers' collective selfesteem that lead to negative product attitudes. Across several studies, we support this conceptual account, demonstrate its processing mechanism, and present specific variables (consumerand stimulus-specific) that moderate the effect.

## Conceptual background

Research has shown that consumers are quite adept at noting and articulating the social identities associated with specific products. Haire (1950) found that an instant coffee buyer was perceived to be a lazy housewife compared to a drip coffee buyer who cared about her family. Grubb and Hupp (1968) showed that the Volkswagen owner was perceived as creative, practical, and thrifty, and that the Pontiac owner was seen as adventurous, sporty, and pleasure-oriented. Importantly, research demonstrates that congruency between one's self and a product or category-related social identity leads to favorable effects for an advertised brand or product (Govers & Schoormans, 2005). This is the basic precept behind the tried and true strategy of target marketing.

The principles behind cognitive consistency theories (Festinger, 1954) provide the mechanism by which consistency between a product-related identity and the self leads to positive product evaluations. Specifically, a product has a positive association with the social identity that personifies it, and exposure to that product, often via an advertisement, activates beliefs about this identity in consumers' minds. Consumers then compare themselves to that identity to assess if they are similar and thus in the

same in-group. If similar, their in-group status creates a positive association with the respective identity, and in order to maintain cognitive consistency, consumers adopt a favorable disposition toward the product (e.g., Bolton & Reed, 2004).

What happens, however, when the comparison between this social identity and the self is unfavorable? Think of the casual jogger who compares himself to professional athletes linked with high performance running shoes or a middle-aged woman who compares herself to the young models with flawless skin closely associated with beauty products. If the perceived difference between the consumer and product-related identity is favorable (i.e., they are similar enough), the comparison yields positive product attitudes. However, if the perceived difference is unfavorable (i.e., they are dissimilar), the comparison may yield negative attitudes toward the product (Mussweiler & Bodenhausen, 2002).

We propose that under certain conditions associated with aspirational advertising, social comparisons with an identity associated with a product (category) may actually lower product attitudes. Relative to prior research, this account advances consumer psychology knowledge in important ways. Previous work in social psychology has generally looked at the assimilation or contrast effects that occur when individuals engage in purposeful or spontaneous self-comparisons in non-commercial contexts, with direct consequences for selfevaluations (e.g., Mussweiler & Bodenhausen, 2002). In consumer research, social comparison theory has been applied to evaluate consumer judgments of the idealized lifestyles of reference groups (Englis & Solomon, 1995), to assess consumer self-satisfaction after exposure to ads featuring idealized others (e.g., Richins, 1991), or to evaluate how non-targeted consumers may respond to advertisements aimed at out-groups (e.g., Aaker, Brumbaugh, & Grier, 2000). The related work of White and Argo (2009) looked at the avoidance tendencies that low self-esteem consumers have toward products associated with identities that are threatened via unrelated information primed prior to ad processing.

Our research examines a more complex theoretical account involving a triad of constructs: the self (the ad viewer), a directly salient other (the ad spokesperson), and an implied relevant other (the primed product-related social identity). Thus, we integrate Greenwald's (Greenwald et al., 2002) Unified Theory and Crocker and Luhtanen's research on collective self-esteem (Crocker & Luhtanen, 1990; Luhtanen & Crocker, 1992) to explain the mechanisms that yield negative product attitudes following unfavorable social comparisons. Five studies demonstrate the conditions and processes that drive these effects and provide support for our theoretical account.

Within this social comparison account we introduce the *product-related social identity* construct and show that consumers are aware of and respond to it in aspirational advertising, in ways that marketers may not realize. These identities are part of the schema associated with product categories and their ads (Goodstein, 1993). We apply this psychological construct to marketing practice to suggest that when segmenting the market one needs to be concerned with segment profiles that already exist, in particular if they do not map well onto the ones marketers

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plan to employ. In other words, we find that consumers make up their own mind about whom certain product categories are for and forcing them to think otherwise may hurt the brand. This reinforces the finding that social perceptions are created from exposure to cultural knowledge and media. Just as implicit stereotypes get created suggesting that blacks are more athletic than whites (e.g., Kay, Day, Zanna, & Nussbaum, 2013), automatic perceptions exist that blacks are more likely to be basketball shoe users. Telling people otherwise via aspirational advertising threatens their knowledge structures and may produce negative responses. We demonstrate this phenomenon and, guided by theoretical accounts from social psychology, provide specific strategies that marketers can employ so that the perceived gap between consumers' selves and the product-related social identity suggested by the aspirational ad will not elicit these negative responses.

## The Unified Theory

Heider's Balance Theory proposed that people's attitudes are affected by the need to maintain cognitive consistency within a triad consisting of one's self, another person, and an attitude object (Heider, 1946). That is, an individual who likes another person (i.e., a product-related social identity) who favors a particular attitude object (i.e., the product) will come to favor that attitude object in order to maintain positive multiplicative relations among the self, the person, and attitude object (Heider, 1946).

Greenwald et al.'s (2002) Unified Theory extends Balance Theory within the social domain by identifying the processes underlying the relationship between the self, a social category, and specific attributes associated with the social category or self. The theory identifies two specific attitudinal triads that must be in balance (the balance congruity principle) in order to maintain one's self-esteem vis-à-vis social group membership and stereotypes (see Fig. 1, top). One triad contains nodes corresponding to the self, a social category, and a specific attribute. The link between the self node and a social category node is considered an identity, the link between the self node and an attribute node is considered a self-concept, and the link between a social category node and an attribute node is considered a stereotype. A second triad contains the self and social category nodes as well as a valence node denoting an overall positive-negative evaluation. The link between the social category node and the valence node is considered an attitude toward the social category, and the link between the self node and the valence node is considered a component of one's self-esteem. Positive self-esteem is maintained when one shares a favorable attribute with in-group members of a social category.

Applied to our examples, exposure to an ad (e.g., for running shoes/beauty products) activates information about the product, including the product-related social identity (fast athlete/young beauty) and its associated focal attribute (speed/attractiveness). If a consumer perceives herself to be similar to the product-related social identity and sharing at least somewhat the focal attribute in common, links between nodes are positive and balanced, reinforcing consistent and positive relationships between the product and self. If, on the other

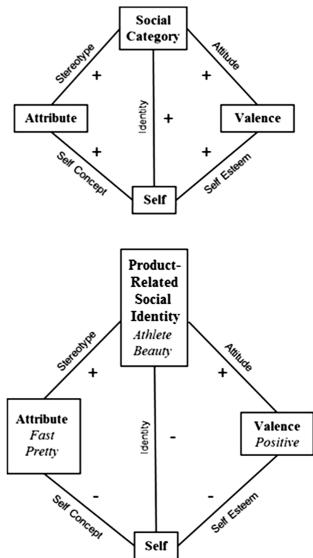


Fig. 1. Application of Unified Theory balanced identity designs.

hand, the consumer perceives being different and inferior to the product-related social identity (e.g., because one is slow or unattractive), the link between the self and the ad-implied social identity is negative (see Fig. 1, bottom). The consumer may resolve this inconsistency in a number of ways. The advertiser likely created the aspirational ad in the hope that the consumer would recognize that she could become more like the desired social identity by purchasing the promoted offering, thus returning the link between the self and product-related social identity to a positive state. For many, however, the inconsistency might be resolved by making the links involving the self, the attribute, and valence become negative, making salient that she does not possess the desired attributes and resulting in a loss of self-esteem. The casual jogger believes he is not like the athlete, not fast, and not good; the middle-aged woman believes she is not like the youthful beauty, not pretty, and not good. The focal attitude triad on which the marketer initially hoped to capitalize — between the product, the related social identity, and the self — thus becomes unbalanced by the disconnect between the self and the product-related social identity. If the self does not resolve the inconsistency as the marketer intended (i.e., by purchasing the product and becoming like the desired social identity), the consumer may do so by experiencing a loss in self-esteem and rejecting the product (cf., Govers & Schoormans, 2005; Heider, 1946).

Other researchers have also proposed that linking an advertising message to a consumer's self-concept can have negative consequences for the marketer. In their seminal research, White and Argo (2009) argue that when an advertisement threatens an important dimension of one's self-identity, ad reactions and subsequent behavior can work against the advertiser. In a series of studies, these authors find that choices of consumers high (low) in collective self-esteem are not (are) affected by such identity threats. In their studies, threats to self-identity are manipulated exogenously. A unique related contribution of the present research is that these threats are endogenous to the ad itself and arise from a viewer's comparison between herself and a product-related social identity, with adverse impact on self-concept and attitudinal responses to ads.

Self-esteem that derives from membership in a social category is best captured by the collective self-esteem construct (Crocker & Luhtanen, 1990; Luhtanen & Crocker, 1992). Whereas personal self-esteem is generally thought to be the overall evaluation of oneself based on one's individual characteristics (Rosenberg, 1965), collective self-esteem is the overall evaluation of oneself that derives from one's membership in relevant social groups (Crocker & Luhtanen, 1990; Luhtanen & Crocker, 1992). Research suggests that these are different constructs, each with its own distinct antecedents (Bizman & Yinon, 2004) and outcomes (Crocker & Luhtanen, 1990), and that they may work simultaneously to influence an individual's overall level of self-worth (Katz, Joiner, & Kwon, 2002). Thus, when membership in a social category is made salient by self comparisons with a product-related social identity, it is collective (rather than personal) self-esteem that is affected.

The remainder of this article is structured as follows. We sequentially develop a series of hypotheses that are addressed in five studies aimed at evaluating the loss of collective self-esteem associated with the unfavorable comparison of one's self and a product-related social identity, and its impact on attitudes. First, we address relevant conditions for this contrast: high social comparison salience (Study 1) and low strength of identification with the inferior in-group (Study 2). Study 3 shows that the loss of collective self-esteem mediates the impact of aspirational ads on product attitudes. Studies 4 and 5 demonstrate that the threat to collective self-esteem can be eliminated via facilitated affiliation (i.e., hinting that access from the inferior in-group into the desired out-group is possible) and indirect self-affirmation (i.e., enhancing consumer's self on an unrelated identity), respectively. Finally, we discuss the theoretical and practical implications of our findings.

Social comparisons with product-related social identities

Social psychology often uses the relationship between gender stereotypes and affiliation with math and science as a fruitful context to study how negative attributes associated with social

group membership impacts self-esteem (e.g., Crocker, Karpinski, Quinn, & Chase, 2003). The stereotype is that women are typically inferior to men in these areas and much available data suggest that these stereotypes represent self-fulfilling prophecies. For example, U.S. employment statistics indicate that women comprise 47% of the total workforce but only 20% of the employees who work in computer and mathematics-related occupations (U.S. Bureau of Labor Statistics, 2009). These differences are not attributable to unique gender-based abilities or to early exposure to science, math, and technology subjects. In fact, there are no significant gender differences with respect to taking part in, achievement in, and liking for these subjects through elementary school (National Science Foundation, 2006). Instead, these differences are believed to result from the application of cultural stereotypes that associate math and science with males and the shift of females away from math and science as they progress through middle and high school (National Science Foundation, 2006). By high school, these stereotypes are indeed self-fulfilling as evidenced by significant gender differences in the math portion of the College Board SAT (where women score lower), but no such differences emerge in the verbal portion of the test (FairTest, 2008).

Indeed, extant research shows that these stereotypes exist within the cognitive systems of both men and women and have the effects that the Unified Theory (Greenwald et al., 2002) would suggest. For example, Nosek, Banaji, and Greenwald (2002) found that math was strongly associated with men among both male and female respondents and that females evaluated math less favorably than males did. Importantly, the association of math with men and women with their gender in-group caused women to display a strong negative association between themselves and math, while no such dissociative effects were found for men and liberal arts and sciences (Nosek et al., 2002). Importantly, the association of the female gender with inferior abilities in math and science affects both women's actual performance on math and science-related tasks (Brown & Josephs, 1999) and how they feel about their performance on such tasks (Cohen & Garcia, 2005). Similarly, we verified that gender stereotypes existed within our subject population. In a pretest of ethnic, gender, and other stereotypes using respondents from the same general population from which we draw the participants for most of our main studies (N = 65), we found that a significantly greater percentage of women were at least somewhat familiar with the women-are-bad-at-science stereotype (Men = 54.2%, Women = 84.6%;  $\chi^2$  = 9.43, p < .01). Furthermore, 33.3% of men and 43.6% of women believed that there was at least some truth to this stereotype.

In our first studies, we extend these ideas in the context of consumer research to explain unfavorable attitudes resulting from product-related social identities that are inconsistent with female consumers' identity. Generally, we propose that ads promoting science and math-related products activate a male identity that is associated with math and science fluency and that the opposite, low prowess association is primed about women's abilities in math and science. An unfavorable comparison of one's self-identity as female with the men-as-superior-at-science stereotype causes a loss in collective self-esteem among women based on their membership

in the female social category. To balance the relations between the self, the unfavorable stereotype, and the product, this loss in collective self-esteem results in a lowered product attitude. Prior research suggests that these general trends are exacerbated in the presence of a moderator that brings women's membership in the contextually stigmatized female social group to the cognitive fore. This is because people have many social identities, of which only one or few may be salient and operant at a given time (Briley & Wyer, 2002). Qualities associated with a salient identity will influence how one views oneself (Hoge & McCarthy, 1984). For instance, Sinclair, Hardin, and Lowery (2006) argue that when an identity associated with a particular stereotype is made salient, the effects of the stereotype are more pronounced. They show, for example, that when a math-favorable Asian identity is made salient among Asian-American women, they evaluate their math abilities more favorably than verbal abilities, but the opposite occurs when a math-unfavorable female identity is made salient. They replicate these effects among European- and African-American male and female subjects (Sinclair et al., 2006). Finally, recent related work by Wan et al. (2013) finds that advertising featuring idealized female body images can produce defensive coping if the message is blatant (a proxy for high salience), leading to negative product attitudes.

We thus propose that when a product category depicted in an ad elicits a product-related social identity that is unfavorable with respect to one's salient identity, cognitive consistency may be maintained through a reduction in related collective self-esteem. As described above, this reduction in collective self-esteem similarly lowers product attitudes through an adjustment in the relationships among the self-concept, the product-related social identity, and the product.

**H1a**. When the basis of comparison is salient, an unfavorable comparison between a consumer and a product-related social identity will lower the consumer's collective self-esteem.

**H1b**. Collective self-esteem will influence product attitudes only for consumers for whom the comparison is both salient and unfavorable.

### Study 1

To evaluate H1a and H1b, we conducted a study in which the participants viewed an ad for a science-related product associated with a male identity. For women, the comparison between the self and the product-related social identity is unfavorable and should result in a loss of gender-based collective self-esteem when gender is made salient (H1a); no such effect is expected to occur for men, for whom the comparison is favorable. This loss of collective self-esteem will influence product attitudes only for women for whom the comparison was salient and unfavorable (H1b).

### Method

## Participants, procedure, and measures

The participants were 209 undergraduate students (116 male, 93 female) at a metropolitan university on the East Coast of the United States who participated in a study described

ambiguously as an experiment intended to obtain their reactions to different types of advertisements. This study was one of several administered during a group testing session that partially fulfilled a research requirement for an undergraduate marketing course. The session was held in a behavioral lab with computers located in individual cubicles.

The participants were randomly assigned to an advertisement condition that featured either female or male endorsers. First, the assigned advertisement was presented and the screen cleared. Next, the participants completed five items for attitude toward the ad ( $\alpha = .94$ ) and five items for attitude toward the product ( $\alpha = .93$ ). Then, the participants were asked to jot down any thoughts they had about the ad in an open-ended response format. These responses were coded independently by two judges (both blind to experimental condition) for any mention of gender to evaluate gender salience for each subject (agreement occurred in over 90% of cases and disagreements were resolved through discussion). At this point, the screen again cleared and indicated that the participants would be completing another, ostensibly different, study. Here, they completed the 16 items from Luhtanen and Crocker's (1992) collective self-esteem scale adapted for use with gender in-groups ( $\alpha = .85$ ). Details for these and all measures for all studies are presented in the Appendix.

## Stimuli

In this study, the participants viewed one of two ads for Microsoft scientific data analysis software, a science-related product associated with a male identity (Chaika, 1996). In both ads, 12 pictures of individual scientists appeared on the screen one at a time until all were shown. Then, the screen cleared, and the following text appeared: "That is where Microsoft comes in. Our latest generation software packages ensure that your data analyses are accurate, insightful, and as meaningful as your passion for science. Look for our logo on all your software packages — you are likely to find us there. Because we share your commitment to excellence in scientific research." Finally, the Microsoft logo and tagline, "At Microsoft, we stand in awe of you and your potential<sup>TM</sup>" appeared. The ad lasted 20 s.

To manipulate gender salience, we created one version of the ad in which all 12 scientists were female and one in which all were male. Because females are inconsistent with the gender stereotype implied by the product-related social identity, we expected that the female ad would make gender salient among both male and female respondents (Dimofte, Forehand, & Deshpandé, 2003).

#### Results

## Gender salience

Participant gender had no effect on collective attitudes toward the ad or product (ps > .20). Both men and women

<sup>&</sup>lt;sup>1</sup> We anticipated that a gender mismatch between participants and ad sources would lead to unfavorable non-target market effects that we would explain via the loss of collective self-esteem. However, we failed to obtain this effect across several studies, leading us to understand that the loss of collective self-esteem is robust when moderators related to social identity are present (in this study, it is gender salience; in Study 2, it is strength of identification).

were significantly more likely to mention gender in their open-ended responses after exposure to the ad featuring female (versus male) endorsers (22.0% vs. 11.0%,  $\chi^2 = 4.63$ , p < .03). In addition, women as atypical users of scientific data analysis software were significantly more likely to mention gender than were men (23.7% vs. 10.3%,  $\chi^2 = 6.71$ , p < .01). To capture gender salience among both men and women, we coded their responses as 1 if they mentioned gender in this response (high salience) or 0 if they did not (low salience).

## Hypothesized effects

To evaluate H1a, we used a 2 (participant gender: male or female) × 2 (gender salience: low or high) ANOVA with collective self-esteem as the dependent measure. The model was significant (F(3, 205) = 3.80, p < .01) as was the main effect of participant gender (F(1, 207) = 9.23, p < .01); women had significantly lower collective self-esteem ( $M_{women} = 20.64$ ) than did men ( $M_{men} = 21.72$ ). This result is consistent with previous research (e.g., Severiens & Dam, 1998), lending face validity to our findings. Planned contrasts revealed that gender salience had no influence on collective self-esteem for men ( $M_{high} = 22.25$  vs.  $M_{low} = 21.66$ , F(1, 207) < 1, ns; see Table 1). As expected, however, women for whom gender was made salient had lower collective self-esteem compared to women for whom gender was not made salient ( $M_{high} = 19.90$  vs.  $M_{low} = 20.87$ , F(1, 207) = 2.28, p < .07). H1a was thus supported.

To analyze our attitudinal hypothesis, we regressed attitude toward the product on the fully crossed model of collective self-esteem, dummy coded gender salience, and dummy coded participant gender. Attitude toward the ad (F(1, 200) = 556.54,p < .01) was included as a covariate to enable us to isolate appropriately the effects of ad factors on product attitudes (cf., Shimp, 1981). The model was significant (F(8, 200) =67.28, p < .01) as were the main effects of participant gender (F(1, 207) = 3.68, p = .05), the interaction between collective self-esteem and participant gender (F(1, 207) = 4.02, p < .05)the interaction between participant gender and gender salience (F(1, 207) = 3.36, p = .06), and the hypothesized three-way interaction (F(1, 207) = 3.62, p = .05). To evaluate hypothesis H1b, we followed Winer's (1971) advice that planned contrasts be used to study hypothesized effects regardless of the significance of any specific omnibus test. This involved conducting planned comparisons by estimating coefficients separately for each of the four cells constituted by the 2 (gender salience) × 2 (participant gender) design. Results showed that the loss of collective self-esteem was associated with significantly lower product attitudes only for women for whom gender had been made salient (B = .15, t = 2.68, p < .01); the other three coefficients were not statistically different from zero (all ts < 1, ns), as proposed in H1b.

Table 1 Collective self-esteem means in Studies 1 and 2.

	Participant gender	
	Male	Female
Study 1		
Gender salience low	21.66 <sup>a</sup>	$20.87^{a}$
Gender salience high	22.25 <sup>a</sup>	19.90 <sup>b</sup>
Study 2		
Gender identification low		
Product gender male	21.38 <sup>a</sup>	22.89 <sup>a</sup>
Product gender female	21.81 <sup>a</sup>	21.78 <sup>b</sup>
Gender identification high		
Product gender male	24.49 <sup>a</sup>	24.14 <sup>a</sup>
Product gender female	$23.30^{b}$	24.31 <sup>a</sup>

Note: Different superscripts within same row denote significant differences in means (p < .05 or lower).

## Discussion

This study supports that when reviewing ads, consumers may compare their selves with social identities associated with a particular product category. Consistent with previous research on gender—science stereotypes, this salient comparison results in a loss of self-esteem for women, but not for men (Crocker et al., 2003). Importantly, we show that the loss of self-esteem related to women's self comparison against the positively valued male out-group influences product attitudes. Also significant is the fact that these effects are subtle and seem to occur when gender is made salient. We extend these findings next using strength of group identity as the moderating factor.

Social comparisons and strength of in-group identification

Identification with an in-group implies a commitment to and investment in the collective that comprises the in-group, creating a bond between the individual and group (Leach et al., 2008). One important function of in-group membership is to provide members with a basis for a positive affiliation and an identity that enhances their overall self-esteem (Leach et al., 2008). Individuals, however, vary in their degree of identification with various in-groups of which they are members, and strength of identification with a self-relevant in-group is favorably related to attitudes toward the in-group, consumption of products associated with the in-group, and responses to in-group spokespeople shown in advertising (Dimofte et al., 2003).

Research has shown that strong identification with an in-group is associated with higher member self-esteem (e.g., Aberson, Healy, & Romero, 2000), that a positive group identity reduces the effects of a threat on collective self-esteem (Derks, Van Laar, & Ellemers, 2006), and that strong internalization of group identity shields one from stereotype threat based on that identity (Davis, Aronson, & Salinas, 2006). Furthermore, Crocker and Major (1989) find that even members of groups that are associated with social stigmata develop strategies to protect and increase their self-esteem. In essence, a strong, positive association with a social group enhances one's self-esteem even when the group may be stigmatized and that high self-esteem serves a protective function

 $<sup>^2</sup>$  Most of our predicted effects involve interpreting two- and three-way interactions within experiments investigating relatively rare phenomena. Herein, we interpret a priori hypothesized effects within higher order interactions as statistically significant at p < .10 because of the relative difficulty in obtaining these effects (cf., Nickerson, 2000; Rosnow & Rosenthal, 1989).

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against a threat to one's identity as a member of the group (Crocker & Major, 1989; Derks et al., 2006). Therefore, we propose that consumers who identify strongly with a relevant in-group will be less susceptible to a loss of self-esteem resulting from unfavorable comparisons of their identities with a superior out-group social identity. We also propose that the impact of such a loss of self-esteem will affect product attitudes for consumers who identify only weakly with their inferior in-group.

**H2a**. When a consumer identifies weakly with his/her in-group, an unfavorable comparison between the consumer and the product-related social identity will lower the consumer's collective self-esteem.

**H2b**. Collective self-esteem will influence attitude toward the product only for consumers for whom the comparison is unfavorable.

## Study 2

In this study, we test H2a and H2b which propose that strong identification with their gender group will protect women from the loss of collective self-esteem associated with comparing their selves to a male-favorable product-related social identity and reduce its impact on product attitudes.

## Method

Stimuli, participants, procedure, and measures

The stimuli and procedures used in this study were identical to those of Study 1. The participants were 119 undergraduates (66 male, 53 female) from the same metropolitan East Coast university. After seeing the ad to which they had been randomly assigned, the screen cleared and the participants completed the ad ( $\alpha = .94$ ) and product ( $\alpha = .89$ ) attitude scales. Next, they were asked to complete the collective self-esteem ( $\alpha = .79$ ) measure, again under the guise of being part of a different study. Subjects were then informed that another study was to begin and were asked to complete Phinney's (1992) Multigroup Ethnic Identity Measure adapted for gender identification ( $\alpha = .86$ ; see Appendix). A median split on this item was used to create a high/low strength of gender identification factor; we provide the results for both the dichotomized variable (for ease of mapping onto H2a) and the continuous measure.

#### **Results**

## Hypothesized effects

To test H2a, we performed a 2 (strength of gender identification: low or high)  $\times$  2 (ad spokesperson gender: male or female)  $\times$  2 (participant gender: male or female) ANOVA with collective self-esteem as the dependent variable. The model was significant (F(7, 111) = 6.88, p < .01), as was the expected three-way interaction (F(1, 117) = 4.08, p < .05); no other effects were significant. Results of planned contrasts

show that among low gender identification women, collective self-esteem was lower when the ad spokesperson was female (M=21.78) than when it was male (M=22.89, F(1, 117)=2.35, p=.06) and that ad spokesperson's gender had no influence on collective self-esteem for high gender identification women  $(M_{FemaleActor}=24.31 \text{ vs. } M_{MaleActor}=24.13, p>.20$ ; see Table 1). Thus, hypothesis H2a was supported.<sup>3</sup> Further, these results are consistent with those of Study 1 in that the results were obtained only when gender was made salient (i.e., when the ad spokespeople were female).

To test H2b, we regressed attitude toward the product on the fully crossed model of collective self-esteem, gender identification, and participant gender with attitude toward the ad serving as a covariate (F(1, 110) = 199.56, p < .01). The model was significant (F(8, 110) = 28.24, p < .01) as was the interaction between gender identification and participant gender (F(1,117) = 4.14, p < .04) and the hypothesized three-way interaction (F(1, 117) = 4.71, p < .03). We conducted planned comparisons by estimating coefficients separately for each of the four cells constituted by the 2 (gender identification) × 2 (participant gender) design. We expected that collective self-esteem would be related to attitude toward the product for all women, but the results show that the loss of collective self-esteem was associated with lower product attitude only for high gender identification women (B = 3.79, t = 1.86, p = .06); the other three coefficients were no different from zero (all Fs < 1, ns). Hypothesis H2b was therefore only partially supported.

## Discussion

Study 2 shows that consumers' strength of identification with an in-group inferior on a product-relevant dimension to the out-group described by the ad spokesperson moderates their responses to the ad. In other words, women who strongly identify with their gender group (stereotyped as inferior in terms of scientific software prowess) do not derogate the ad. Our results support the proposition that stronger in-group identification provides a buffer to the consumer's self-esteem, which drops less after the activation of unfavorable social comparisons or social stereotypes. Thus, only women who scored high in terms of their in-group identification did not experience a drop in collective self-esteem. The underlying mechanism by which we predicted collective self-esteem to operate was via a loss, thus negatively influencing product attitudes. However, the significant effect may also be interpreted positively: for high gender identification women, higher collective self-esteem related to being female may be related to higher overall product attitudes compared to men and/or women with low collective self-esteem.

<sup>&</sup>lt;sup>3</sup> As an alternative way to analyze the data, we regressed collective self-esteem on the fully crossed model of strength of gender identification, dummy coded ad participant gender, and dummy coded ad spokesperson gender. The model was significant (F(7, 111) = 8.13, p < .001) as was the hypothesized three-way interaction (B = 3.47, t = 2.13, p < .04). A marginally significant interaction of strength of gender identification and participant gender was also observed (B = -2.06, t = -1.83, p < .07). The slope difference test for the critical pair of slopes (i.e., female respondents of higher vs. lower gender identification) was significant at p < .10.

Study 3

### Overview and hypothesis

In this study, we address several limitations inherent to the previous experiments and extend the scope of our findings to a domain other than gender. The first two studies drew on gender identity and the stereotype that males are superior to females at math and science to operationalize product-related social identities and their effects on product attitudes. Though previous research and pretesting provided sound justification for this choice (e.g., White & Argo, 2009), substantial variation in the importance of gender as a salient and relevant identity and in individuals' subscription to the stereotype made for highly conservative tests of our hypotheses. Because of the subtlety of the processes underlying our results, we were unable to test the mediation processes implied by collective self-esteem as the mechanism for product-level non-target market outcomes. In this study, however, we use students' membership in their university student body to effect favorable and unfavorable comparisons with product-related social identities and to provide a more robust context in which to evaluate mediation.

Additionally, the design of this study remedies two shortcomings of the previous studies.

First, although a male-only ad for math and science products might not be viewed as unusual, the heavy handedness of having only female characters in an ad for such products may have triggered processes other than those we explored that may have affected our results as well. Therefore, herein we manipulate favorable in-group and unfavorable out-group comparisons through the use of subtler taglines that denote the intended users of the product. Second, although self-reported collective self-esteem in these studies was elicited in a way that was ostensibly unrelated to our manipulations and dependent variables, it is possible that some respondents provided inflated in-group evaluations or unconsciously adjusted their explicit collective self-esteem responses to demonstrate that the ads did not affect them. Therefore, in this study we use an Implicit Association Test (IAT-Greenwald, McGhee, & Schwartz, 1998; see Appendix) to measure collective self-esteem so as to avoid these potential demand and self-presentation effects. In sum, the design of this study enables us to extend our previous results and evaluate the following hypothesis:

**H3**. Collective self-esteem will mediate the impact of comparisons between a consumer and a product-related social identity on product attitudes.

Method

## Stimuli and participants

One hundred fifty nine students from the same university population used in the previous studies ("University X") viewed one of three ads for the fictitious Dinzeo brand of backpacks. In the ads, a single picture of a backpack featuring an innovative design was presented in the middle of the screen and the brand logo was featured at the bottom. To manipulate product-related social identity, the ad included

one of three captions producing a control condition with no implied product-related social identity ("Stay smart. Stay with Dinzeo"), a favorable in-group social identity condition ("Created exclusively for University X students. Sold exclusively at University X bookstores"), or an unfavorable out-group social identity condition ("Created exclusively for Ivy League college students. Sold exclusively at Ivy League college bookstores"). University X is a highly regarded private university but is consistently ranked below Ivy League universities, considered to be elite in the U.S. (Xin & Normile, 2008). Thus, the comparison between oneself as a University X student and a higher status Ivy League out-group should be unfavorable and should result in a loss of collective self-esteem and lower attitudes.

## Procedure and measures

Procedures for this study are identical to those of the previous studies. After seeing the ad to which they had been randomly assigned for 10 s, the screen cleared and the participants completed the five item product attitude scale ( $\alpha=.89$ ) used in the previous studies. Next, the participants performed an Implicit Association Test measuring their implicit collective self-esteem by evaluating the relative associations of in-group/out-group items and good/bad items (see the Appendix for full descriptions of the Implicit Association test items and measure used). Stronger associations between in-group items with good (bad) items imply higher (lower) collective self-esteem related to membership in the in-group.

Results

To test H3 and its mediation prediction, we conducted regression analyses per Baron and Kenny (1986). Two dummy variables were created to reflect the three conditions manipulating the product-related social identity such that an in-group dummy was coded as one for the University X in-group condition, an out-group dummy was coded as one for the Ivy League out-group condition, and both were coded zero otherwise to yield effects coding contrasted against the control condition.

In the first step of the mediation analysis, collective self-esteem was regressed against these two dummy variables. Results show that the model was significant (F(2, 156) = 6.94,p < .01), with the in-group condition yielding higher collective self-esteem relative to the control condition (B = .11, t = 2.08, p < .02), the out-group condition yielding lower collective self-esteem relative to the control condition (B = -.10,t = -1.92, p < .03), and the difference between the in-group and out-group conditions reaching significance (B = .21, t =3.72, p < .01) as expected. In the second step, attitude toward the product was regressed against the two dummy variables. The results show that the model was significant (F(2, 156))6.20, p < .01), with the in-group condition yielding more favorable product attitudes compared to the control condition (B = .70, t = 21.80, p < .01). The out-group condition had no effect on attitudes compared to the control condition (B = .13, t = .69, p > .20). The difference in product attitudes between the in-group and out-group conditions was significant (B = .57, t = 2.71, p < .01). Additionally, collective self-esteem had a significant direct effect on attitudes (model F(1, 157) = 14.77, p < .01, B = 1.10, t = 3.84, p < .01). Finally, in the third step, attitude toward the product was regressed against the two dummy variables and collective self-esteem. This model was significant (F(3, 155) = 8.02, p < .01), collective self-esteem significantly influenced product attitudes (B = .97, t = 3.29, p < .01), the effect of the in-group condition on attitudes was attenuated (B = .59, t = 2.94, p < .01), and the associated Sobel test was significant (z = 1.84, p < .03). All tests of moderated mediation whereby the mediating effect of collective self-esteem on product attitudes differed depending on the product-related social identity condition were non-significant (ps > .20). Hypothesis 3 was thus supported, indicating that collective self-esteem partially mediates the effect of self/ product-related social identity comparisons on product attitudes.<sup>4</sup>

### Discussion

Study 3 allowed us to extend our hypotheses beyond the usage of gender stereotypes as test conditions. Our results support the hypothesized effects using college membership as the in-group versus aspirational out-group comparison. The consistent pattern of results across different social group operationalizations as well as explicit and implicit measures provides confidence in the robustness of the effect and the validity of our conceptual account of aspirational advertising. Thus, across three studies we find support for the general premise that aspirational ads may have negative effects on product attitudes and this effect appears to be due to losses in self-esteem. Our results are important as they go beyond other research that suggests that negative effects may accrue to ads that utilize schematically appropriate spokespeople (e.g., Aaker et al., 2000) and finds that these effects only occur to audiences that the advertisements did not intend to target. In contrast, we find that negative effects may accrue to their actual target market and this result has both conceptual and practical

This leads us to question whether aspirational advertising is simply an ineffective andrisky marketing tool or there may be ways to alter the scenario in a manner that will render these ads effective for targeted consumers, as intended. Two streams of social psychological research allow us to make predictions as to how to make such ads work without (or despite) the loss in collective self-esteem. We term the two related strategies facilitated affiliation and indirect self-affirmation and predict that their use can foster the positive effects that aspirational advertising is supposed to engender. The specifics of our approach are presented in Studies 4 and 5 next.

## Studies 4 & 5

Overview and hypothesis

The identity threat that aspirational ads pose to many individuals is problematic because it occurs for the very consumers that the advertisements target. It is clearly not the case that science textbooks are pitched only to male Asian students, nor are perfumes exclusively designed for young beautiful women. However, featuring such actors or spokespeople in the message in order to convey the aspirational nature of the product has damaging effects on the target market response. Having documented in the previous experiments that social comparisons and the related threats to collective self-esteem underlie consumer response to aspirational advertising, the next step involves the question of how marketers can avoid this damaging effect on product attitudes. Although an apparent solution would be the use of more subtle cues that make the contrast less salient (cf., Wan et al., 2013), this approach entails risks in terms of consumers potentially still noticing the unfavorable social comparison as well as extracting the appropriate semantic (i.e., aspirational) meaning from the message. The issue is important on both theoretical and practical grounds: on the one hand, it is of interest to assess the extent to which relevant conceptual accounts from cognitive and social psychology may operate in a context that is typically not considered among those that affect an individual's feelings of self-worth or emotional well-being. On the other hand, advertisers generally aim to avoid offending, threatening, or in any way upsetting their audiences, as this can clearly have deleterious effects on their products. Providing guidance in terms of how this can be achieved will leave both consumers and marketers better off.

Two streams of research provide guidance in terms of the mechanisms that can be employed to address the social comparison problem. First, previous work in social psychology has found that, from an early age, individuals exhibit an intrinsic need for affiliation (i.e., belongingness to specific social groups) that is at the core of humans' social nature (Larson, Csikszentmihalyi, & Graef, 1980). Since aspirational ads present desirable out-groups that most consumers desire access to, exposure to such messages elicits the need for affiliation among most viewers (see McGhee and Teevan (1967)). While for some consumers this is sufficient motivation to purchase the featured product (Mead, Baumeister, Stillman, Rawn, & Vohs, 2011), for most individuals the extent of this out-group prime is limited to the social comparison process uncovered in the previous studies and the related experience of a threat to collective self-esteem. To address this gap between the inferior in-group and the superior out-group, advertisers need to communicate to the consumer (either directly or indirectly) that access to the aspirational social group and the associated social identity is feasible. In practical terms, this entails softening the contrast between the two groups (i.e., "you are not that different"), or presenting the aspirational out-group as a natural, organic evolution of the current in-group (i.e., "they were once like you"). We term this strategy facilitated affiliation (see Choi and Winterich (2013) for a related approach) and propose that it can be successful

<sup>&</sup>lt;sup>4</sup> Given the results of study 2, these findings suggest that our subjects were not very strong identifiers with University X. This is not surprising given that they were only incoming freshmen and sophomores at the time of the study and literature suggests intense loyalty to the group needs time to develop (see Adler and Adler (1988)).

in preventing the attitudinal reductions found to be associated with identity threats in the previous studies.

A second stream of literature relevant to the discussion is that on self-affirmation. As a particular coping strategy for threats to the self, self-affirmation entails individuals' efforts to maintain a self-concept image that is adaptive, competent, and morally adequate (Steele, 1988). To counteract the negative effect of the social comparison inherent to their aspirational messages, advertisers could therefore attempt to simultaneously provide an opportunity for self-affirmation (i.e., "stroke consumers' egos"). This can be done in a less than obvious way (i.e., even in a domain not directly relevant to that of the threat), as previous research in social psychology has shown: Knowles, Lucas, Molden, Gardner, and Dean (2010) found that self-enhancement strategies are interchangeable, such that self-esteem threats in one domain can be addressed through *indirect self-affirmations* in unrelated domains.

Finally, even though membership in the aspirational out-group is likely desirable, the extent to which attitudinal responses will translate into purchase intentions may still vary. If the identity threat is mitigated via facilitated affiliation or indirect self-affirmation, access to the desired out-group becomes possible through purchase. Yet the newly acquired membership is not fully "monetized" unless it is clearly visible to others (cf., White & Dahl, 2006). We therefore expect that the social signaling value associated with the promoted product will drive purchase intentions, such that products that can be used or consumed in social contexts will be more attractive given their power to "broadcast" consumers' newly earned group membership.

The final two studies thus manipulate the effect observed in the previous experiments and present actionable strategies to improve consumer response, based on the following hypotheses:

**H4.** Facilitated affiliation and indirect self-affirmation will eliminate the negative effect of unfavorable comparisons between a consumer and a product-related social identity on product attitudes.

**H5**. Product category type will moderate the negative effect of comparisons between a consumer and a product-related social identity on purchase intentions. Products featuring high (low) social signaling value will elicit high (low) purchase intentions.

Study 4 — Method

## Stimuli and participants

One hundred and forty seven undergraduate students from a large state university ("University Y") on the West Coast

viewed one of two ads for the fictitious MarketPro Strategist brand. The featured product was either a very complex business software package or business calculator, which were pretested to entail low and high social signaling value, respectively  $(M_1 = 3.64, \text{ vs. } M_2 = 4.76, t(41) = 2.63, p < .02 \text{ on a 7-point}$ item asking how much the product says about the user to others:  $1 = nothing \ at \ all, \ 7 = a \ lot$ ). In the ads, a stylized picture of a flow diagram connecting various software package screen icons or calculator buttons was presented in the middle of the screen, along with the names and logos of several top business school programs as ranked by U.S. News and World Report. Both ads thus featured identity threat, as the copy presented the product as "The most advanced business software, used by the top business students." and employed the slogan "If you want to be the best, use the best." To manipulate aspiration, the ad also included one of two captions producing a basic aspirational condition ("Developed by business school graduates from a top University") and a facilitated affiliation condition ("Developed by business school graduates from University Y"). University Y is a state university with a well-regarded business program but not considered to be in the top tier of U.S. educational institutions (Xin & Normile, 2008). Thus, the comparison between oneself as a University Y student and a higher status, top program out-group should be unfavorable and should result in a loss of collective self-esteem. At the same time, the positive effect of facilitated affiliation should be most obvious for the calculator product's purchase intentions, given its higher social signaling value. The design was thus a 2 (product social signaling value: software — low, or calculator — high)  $\times$  2 (aspiration: basic — featured out-group unlikely to be accessed, or facilitated — featured out-group likely to be accessed).

## Procedure and measures

Procedures for this study are identical to those of the previous studies. After seeing the ad to which they had been randomly assigned for 15 s, the screen cleared and the participants completed the five item ad attitude ( $\alpha = .90$ ) and product attitude ( $\alpha = .92$ ) scales previously used. They also provided their intent to purchase the promoted product on a two-item scale anchored at 1 = definitely not interested and 7 = definitely interested, and 1 = definitely would not buy and 7 = definitely would buy, respectively ( $\alpha = .89$ ). Next, the

<sup>&</sup>lt;sup>5</sup> An illustrative marketplace example is a recent advertising campaign from Microsoft for its software products. Given that the average consumer is not well versed in the company's latest technological market offerings but nonetheless aspires to employ them, the brand's marketers had to carefully navigate the social comparison-based process captured in our previous studies. To provide the required self-affirmation, Microsoft has employed the tagline "We Stand in Awe of You and Your Potential," clearly aiming to improve the consumer's perceptions of self-worth. In fact, the slogan could be construed to also work via facilitated affiliation, as the consumer's potential would likely make her access into the proficient software user social group more likely.

<sup>&</sup>lt;sup>6</sup> Having documented the role of threats to self-esteem in the previous studies and because our focus in this research is on the circumstances that explain and improve the effectiveness of aspirational advertising strategies, we did not include a control condition featuring a non-aspirational theme for the promoted products. We speculate that such alternative promotional theme would benefit from the absence of a salient negative social comparison but would lack the motivational drive provided by facilitated affiliation.

<sup>&</sup>lt;sup>7</sup> This ensured that the social comparison was salient across the board and that in the facilitated affiliation condition the viewers construed the software/calculator user out-group as more reachable (a pretest suggested that to be the case). Combined with a freshman student sample population (i.e., low on identification with the University Y student body), the conditions for the unfavorable contrast captured in the previous studies were replicated.

participants were asked to complete the collective self-esteem measure adapted for their university student body social group ( $\alpha = .89$ ), under the guise of being part of a different study.

### Results

## Hypothesized effects

A two-way ANOVA with the two experimental factors as predictors and collective self-esteem as the dependent measure found renewed support for our conceptual account. A significant main effect of aspiration condition (F(1, 143) = 4.67, p < .04) revealed that respondents in the basic aspiration condition had significantly lower collective self-esteem (M = 18.58) than did those exposed to facilitated affiliation (M = 19.80). The same analysis was pursued with product attitude as the dependent measure and attitude toward the ad (F(1, 142) = 33.94, p < .001) as a covariate. The model was significant (F(4, 142) = 78.97, p < .001), as was the main effect of aspiration condition (F(1, 142) = 6.73, p < .02); respondents in the facilitated affiliation condition exhibited significantly higher product attitudes (M = 5.10) than did those exposed to the basic aspiration advertisement (M = 4.56).

To analyze our final hypothesis and the role of the product's social signaling value in behavioral terms, a similar two-way ANOVA was run with purchase intentions as the dependent variable. The model was significant (F(3, 143) = 4.85, p < .01) as were the main effect of aspiration condition (F(1, 143) = 9.87, p < .01) and the interaction between aspiration and product signaling (F(1, 143) = 3.91, p < .05). Planned contrasts revealed that the level of product signaling had no influence on purchase intent in the basic aspiration condition ( $M_{low} = 3.97$  vs.  $M_{high} = 3.80, F(1, 143) < 1$ ), but produced significantly higher buying interest in the facilitated affiliation condition ( $M_{low} = 4.22$  vs.  $M_{high} = 4.87, F(1, 143) = 4.73, <math>p < .04$ ). H5 was thus supported.

#### Discussion

This study supports the argument that consumers exposed to aspirational advertising compare themselves with the salient and desirable product-related social identity, and that facilitated affiliation is an appropriate antidote to the negative attitudinal effects that the primed unfavorable social comparison can have. In short, when aspirational advertisements suggest to consumers that the transition into the desired out-group is feasible, the threat to collective self-esteem is reduced and product attitudes do not suffer. The study also highlights that the positive effects of facilitated affiliation are stronger in product categories that feature high signaling value. In line with prior research by Berger and Heath (2007), our findings suggest that acquiring and displaying products associated with aspirational social groups convey to others in the marketplace that membership in the respective desirable group has been achieved, allowing the consumer to broadcast the relevant social identity and bolstering perceptions of self-worth.

## Study 5

The final study is similar in purpose to the previous experiment, in that it evaluates the effectiveness of indirect self-affirmation as a specific strategy to alleviate the negative effects of unfavorable social comparisons on consumer response to aspirational advertising (H4). To enhance the confidence in our results, the study involved paid adult respondents from an online consumer panel and actual marketplace brands. Furthermore, the study employed a new proxy variable for the role of self-esteem as processing mechanism behind the basic effect.

## Method

## Stimuli and participants

One hundred and seventeen adult participants were recruited from amazon.com's Mechanical Turk online panel and were paid at market rate for responding to a survey about their consumer behavior. The survey invitation required that the respondents be mothers, making their gender identity salient. The focal brand was L'Oreal and its advertisement for the Mega Volume Collection Mascara featured a supermodel with an attractive body and face next to the product. Compared to the average viewer, the supermodel was expected to be perceived as an aspirational but threatening ideal of female beauty. The ad copy highlighted the product's features: a collagen-based formula producing enhanced volume and a desirable black smoke look for the eyes.

## Procedure and measures

The procedures for this study are similar to those of the previous studies. Online respondents were first exposed, in random order, to a series of four still ads for products from various product categories (chocolate, TV, sunscreen, and car tires). The sunscreen ad served as the prime that either provided self-affirmation or not. In the self-affirmation condition, the ad featured an average looking woman with a child on a beach and argued that the product (coming from either L'Oreal or Revlon) would provide adequate sun protection for the entire family, as a good mother naturally would want. It was expected that this ad would appeal to our respondents' maternal social identity and provide self-affirmation by "stroking their ego," in colloquial terms. The control ad featured a beach with no actors and the ad copy mentioning the product's sun protection quality. The use of either L'Oreal or Revlon was meant to assess the extent to which the self-affirmation's positive effects would carry onto the subsequent, focal L'Oreal ad even if the self-affirmation originated somewhere other than with the focal

After about five minutes of filler tasks involving unrelated studies on numerosity, the respondents were exposed to the focal L'Oreal aspirational advertisement for mascara described above. After seeing the ad for 15 s, the screen cleared and the respondents completed the five item ad attitude ( $\alpha$  = .93) and product attitude ( $\alpha$  = .94) scales previously used. Next, the participants were asked to provide their thoughts related to the L'Oreal mascara advertisement. Given that previous research has

found individuals to be more positive in their thoughts subsequent to self-affirmation (Crocker, Niiya, & Mischkowski, 2008), we employed the LIWC (Linguistic Inquiry and Word Count — Pennebaker, Booth, & Francis, 2007) software package to code the valence of respondents' post-ad exposure open thoughts. It was expected that those in the L'Oreal self-affirmation condition would be more positive, a score for which was automatically calculated by the software by subtracting the number of negative thoughts from that of positive thoughts expressed after exposure to the focal aspirational L'Oreal mascara ad. The design was thus a 2 (prime: self-affirmation ad or control ad) × 2 (prime brand: same as focal — L'Oreal, or alternative — Revlon) full factorial.

### Results

## Hypothesized effects

The focal ad was threatening, a fact supported by the generally low attitudes exhibited by our sample (overall  $M_{ad} = 3.04$ ,  $M_{product} = 3.51$ , each below the mean of our 7-point scales). Typical comments about the advertisement included "I am very unattractive compared to her," "it made me compare my own body to hers and I don't look like that," "the model is gorgeous, I want to look like her," "it made me feel fat," "I thought about how good looking the model is," and "the model with the beautiful lashes definitely made me want the product." Also as expected, all of the respondents mentioned their gender in an open-ended item asking them to briefly describe themselves along the dimensions of their choosing.

A two-way ANOVA was run with the two experimental factors as predictors, product attitude as the dependent measure, and attitude toward the ad (F(1, 112) = 587.41, p < .001) as a covariate. The model was significant (F(4, 112) = 147.61,p < .001), as was the main effect of self-enhancement ( $F(1, \frac{1}{2})$ ) 112) = 6.63, p < .02) and the interaction of the two factors (F(1, 112) = 4.13, p < .05); the main effect of prior brand was marginal: F(1, 112) = 2.97, p = .08. The respondents in the prior self-affirmation condition exhibited significantly higher product attitudes (M = 3.64) than did those not self-affirmed prior to the focal ad (M = 3.37), in support of H5. Importantly, planned contrasts suggest that the interactive effect was driven by the more favorable response (M = 3.84) of consumers exposed to the focal brand's prior self-affirmation ad (i.e., L'Oreal's sunscreen featuring a mother with child on the beach), with no self-affirmation benefit (M = 3.44, F(1,112) = 7.74, p < .01) obtained from an alternative brand's message (i.e., the identical Revlon ad). There was no difference in attitudes between consumers exposed to the Revlon self-affirmation and control ads (M = 3.44 vs. M = 3.39, ns), suggesting that, although the affirmation can be indirect in the sense of coming from a different domain (i.e., motherhood prime from an earlier sunscreen ad) it cannot be indirect by coming from another brand.

Finally, the results of the LIWC analysis for the respondents' open thoughts were also supportive of our account. A two-way ANOVA with the two experimental factors as predictors and the coded emotion score (number positive-negative) for the open thoughts as the dependent measure

uncovered a significant interaction of the two factors (F(1, 113) = 8.38, p < .01). Planned contrasts suggest that the interactive effect was driven by the more positive thoughts (M = 2.76) of consumers exposed to the L'Oreal prior self-affirmation ad, with no self-affirmation benefit (M = .01, F(1, 113) = 9.97, p < .01) obtained from an alternative brand's message (i.e., the identical Revlon ad) or from the control prior L'Oreal ad (M = .29, F(1, 113) = 7.20, p < .01).

#### Discussion

The results of the final study highlight another strategy for marketers to employ in their aspirational advertising with the goal of avoiding the negative effects of unfavorable social comparisons inherent to their ads. Providing self-affirmation (i.e., making consumers "feel good about themselves"), even in domains unrelated to the critical category associated with the aspirational social identity gives the consumer a boost in self-worth and makes her more open to aspiring for a desirable out-group and its products. Interestingly, although this prior self-affirmation is not domain-specific, it is brand-specific. Thus, merely relying on ad placement and contextual aids as self-affirmation providers is insufficient: the consumer must note that the source of the self-affirmation is the same as that of the subsequent aspirational threat message and successive advertisements are likely required in this strategy.

## General discussion

Our research finds that comparison with a product-related social identity (i.e., a mental image of the typical user associated with a product category being promoted) influences attitude toward an advertised product differentially depending on the nature of the comparison. Specifically, when the ad elicits knowledge about an out-group social identity that is superior to the viewer on some relevant dimension, the viewer experiences a loss of collective self-esteem, leading to diminished attitudes toward the advertised product. This contribution to the literature on target market effects complements extant findings that have found favorable effects from ad-induced social comparison processes (e.g., Govers & Schoormans, 2005).

We explored this phenomenon in five studies. In Study 1, we demonstrated that this effect occurs when the basis for comparison is made salient by elements within an advertisement. We showed in Study 2 that strong identification with one's devalued in-group attenuated the previously demonstrated effects of unfavorable comparisons with a valued, oppositional product-related social identity on collective self-esteem and product attitudes. Study 3 replicated these effects in a domain other than gender and showed that collective self-esteem indeed mediates the effect of self/product-related social identity comparisons on product attitudes. Finally, Studies 4 and 5 showed that facilitated affiliation and indirect self-affirmation are viable strategies for the marketers to employ in their aspirational advertising campaigns in order to limit the negative effects of the implied negative social comparison.

Our results have a number of significant theoretical contributions for understanding the role that beliefs about product-related social identities have for attitudinal processes, each of which suggests meaningful directions for future research. Notably, this research is novel in that it shows that these social identities heretofore considered to foster a favorable affiliation through an aspirational focus may instead alienate many consumers. While others have suggested similar alienation (e.g., Aaker et al., 2000; Wan et al., 2013), our research goes beyond this earlier work. First, we find negative advertising effects when consumers are, in fact, members of the targeted audience. This is consistent with our self-esteem argument but inconsistent with the audience membership positioning adopted in previous work (e.g., Aaker et al., 2000). Second, we are actually able to reverse our effect (an issue not investigated previously) by influencing self-esteem prior to exposure. This argues for the fact that self-esteem is relevant to our findings, whereas a mere targeting argument would not account for our pattern of results.

The results suggest that product-related social identities act as ambassadors of product beliefs much like advertising sources (i.e., spokespeople) act as endorsers of advertising messages. When these social identities and ad sources are consistent and positive, previously identified favorable attitude outcomes related to the ad-implied social identity occur (Govers & Schoormans, 2005). However, when they are inconsistent, social identification processes that yield unfavorable self-social identity comparisons may hurt product attitudes (Hilmert, Kulik, & Christenfeld, 2006). This interplay between advertising source and product-related social identity is an area that has yet to be explored in consumer psychology research.

This research is also novel in utilizing Greenwald's Unified Theory (Greenwald et al., 2002) within the consumer domain. The Unified Theory allowed us to posit multiple attitudinal triads among different entities affecting product attitudes by explicitly identifying how valence is related to attitude objects in a complex cognitive network of products, social categories, attributes, and the self. We necessarily had to make some assumptions about the content of some of these entities. For example, we relied on previous research (e.g., Nosek et al., 2002) and a modest pretest to support our use of a male-science-math social identity for math and science related product categories. This decision limited our ability to assess the effects among male subjects as there is no similar stereotype against which they would compare themselves unfavorably. To evaluate the robustness of our results, future research should address product-related social identities that have the potential to lower the self-esteem of male consumers. Additionally, application to other stereotypes (e.g., African-Americans as athletes, Asians as technology experts) to which various consumers assimilate or contrast against would further generalize our results. However, Studies 3 and 4 data suggest that the effect is robust and obtains even for groups where membership is chosen (i.e., a university's student body) as opposed to ascribed (i.e., gender).

Interestingly, our results emerged only in the presence of moderators that brought the contrast between women's self-concepts and their ad-suggested shortcomings to the cognitive fore. People are amazingly resilient, reframing threats to their identity in ways that yield positive self-evaluations (White & Argo, 2009). We suspect that in many cases our participants did so, making our results that much harder to observe. For example, some women may have altered relations such that they derogated the ad source or perceived themselves not to be in the target market for the product based on the inconsistent product-related social identity. Research building on our work could manipulate self-identity salience (Hoge & McCarthy, 1984), brand user prototype (Munson & Spivey, 1981), advertising source (Simpson, Snuggs, Christiansen, & Simples, 2000), self-construal (White, Argo, & Sengupta, 2009), and processing goals (Stout & Dasgupta, 2013) to evaluate how and when the threats to one's identity that we unearthed influence product attitudes versus when more adaptive processes are at play (Crocker et al., 2003; Derks et al., 2006).

Future research should drill down into some of the more micro-level mechanisms that might be driving our results. Specifically, the collective self-esteem scale comprised four sub-factors: membership, private, public, and identity aspects (Luhtanen & Crocker, 1992). It may be that different results would obtain on different sub-scales based on specific contextual factors. For example, in the case of a publicly consumed product linked to one's membership in an aspirational group, the effects might operate through the public and membership subscales rather than the private and identity subscales. A manipulation that causes a viewer to compare himself to a product-related social identity based on a numerically distinctive self-identity might operate via the identity subscale. Importantly, in our set of studies aspirational group membership is not limited to luxury status identification. Although luxury group membership is important, achieving that membership may in fact cause one to devalue the luxury brand (e.g., Dion & Arnould, 2011).

Finally, we utilized Unified Theory to create a story by which different links, nodes, and associations changed based on one's need for cognitive consistency and lead to changes in attitudes mediated by collective self-esteem. We did not measure if these specific changes (i.e., the valence change in the link between the self and a product-related social identity) occurred, but rather inferred that they had via changes to collective self-esteem. Other mechanisms may also be at work. For example, comparisons between the self and different product-related social identities might give rise to changes in attitudes toward the groups of which consumers are members, or make salient different aspects of self, either of which might contribute to attitude change. Future research should explore these alternative (or perhaps complementary) mechanisms for the results we observed.

## Appendix A. Measures

Attitude toward the Ad: 7-point scales anchored at really disliked/liked, very unfavorable/favorable, very bad/good, very unpleasant/pleasant, completely uninformative/informative.

Attitude toward the Product: 7-point scales anchored at very bad/good, very negative/positive, worthless/valuable, very unpleasant/pleasant, very low/high quality.

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Thought listing: please list some of the things that came to mind when you looked at the previous ad.

Gender-adapted Luhtanen and Crocker Collective Self-Esteem Scale (1992): 7-point Likert scales.

- 1. I am a worthy member of my gender group.
- 2. I often regret that I belong to my gender group. (R)
- 3. Overall, my gender is considered good by others.
- 4. Overall, my gender has very little to do with how I feel about myself. (R)
- 5. I feel I don't have much to offer to my gender group. (R)
- 6. In general, I'm glad to be a member of my gender group.
- 7. Most people consider my gender group to be more ineffective than other groups. (R)
- 8. My gender is an important reflection of who I am.
- 9. I am a cooperative participant in the activities of my gender group.
- 10. Overall, I often feel that my gender group is not worthwhile.(R)
- 11. In general, others respect my gender.
- 12. My gender is unimportant to my sense of what kind of a person I am. (R)
- I often feel I'm a useless member of my gender group.
   (R)
- 14. I feel good about my gender.
- 15. In general, others think that my gender group is unworthy. (R)
- 16. In general, belonging to my gender is an important part of my self-image.

Gender-adapted Group Identification Phinney Measure (1992): 7-point Likert scales.

- 1. I am active in organizations or social groups that include mostly members of my own gender.
- 2. I am happy that I am a member of the gender I belong to.
- 3. I have a strong sense of belonging to my gender.
- 4. I understand pretty well what my gender means to me.
- 5. I have a lot of pride in my gender group.
- 6. I feel a strong attachment toward my gender group.

Implicit Collective Self-Esteem IAT (Greenwald et al., 1998) We employed the latest IAT effect measure (D), which rescales individual IAT effects by within-participant latency variability. An overall latency standard deviation (SD) from the IAT's 2 combined tasks is computed for each participant. D is the millisecond-difference score divided by this SD.

The IAT items used in Study 3 were as follows:

*In-group*: we, our, ours, us, ourselves *Out-group*: they, their, those, them, themselves *Good*: joy, rainbow, beauty, warmth, peace, heaven *Bad*: death, vomit, agony, corpse, slime, stink

The in-group items define a social in-group, as opposed to simple self-specific items (e.g., I, mine, me). Accordingly, this

IAT is a collective self-esteem measure, as opposed to a basic self-esteem test.

## References

- Aaker, J., Brumbaugh, A. M., & Grier, S. A. (2000). Nontarget markets and viewer distinctiveness: The impact of target marketing on advertising. *Journal of Consumer Psychology*, 9(3), 127–140.
- Aberson, C. L., Healy, M. R., & Romero, V. L. (2000). In-group bias and self-esteem: A meta-analysis. *Personality and Social Psychology Review*, 4(2), 157–173.
- Adler, P. A., & Adler, P. (1988). Intense loyalty in organizations: A case study of college athletics. *Administrative Science Quarterly*, 33(3), 401–417.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Berger, J., & Heath, C. (2007). Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research*, 34(2), 121–134.
- Bizman, A., & Yinon, Y. (2004). Social self-discrepancies from own and other standpoints and collective self-esteem. *Journal of Social Psychology*, 144(2), 101–113.
- Bolton, L., & Reed, A., II (2004). Sticky priors: The perseverance of identity effects on judgment. *Journal of Marketing Research*, 41(3), 397–410.
- Briley, D., & Wyer, R. S., Jr. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of Consumer Research*, 29(3), 400–415.
- Brown, R. P., & Josephs, R. A. (1999). A burden of proof: Stereotype relevance and gender differences in math performance. *Journal of Personality and Social Psychology*, 76(2), 246–257.
- Chaika, M. (1996). Computer game marketing bias. Crossroads, 3(2), 4.
- Choi, W. J., & Winterich, K. P. (2013). Can brands move in from the outside? How moral identity enhances out-group brand attitudes. *Journal of Marketing*, 77(2), 96–111.
- Cohen, G. L., & Garcia, J. (2005). "I am us": Negative stereotypes as collective threats. *Journal of Personality and Social Psychology*, 89(4), 566–582.
- Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, 85(3), 507–516.
- Crocker, J., & Luhtanen, R. (1990). Collective self-esteem and in-group bias. *Journal of Personality and Social Psychology*, 58(1), 60–67.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608–630.
- Crocker, J., Niiya, Y., & Mischkowski, D. (2008). Why does writing about important values reduce defensiveness? Self-affirmation and the role of positive other-directed feelings. *Psychological Science*, 19(7), 740–747.
- Davis, C., Aronson, J., & Salinas, M. (2006). Shades of threat: Racial identity as a moderator of stereotype threat. *Journal of Black Psychology*, 32(4), 399–417.
- Derks, B., Van Laar, C., & Ellemers, N. (2006). Striving for success in out-group settings: Effects of contextually emphasizing in-group dimensions on stigmatized group members' social identity and performance styles. Personality and Social Psychology Bulletin, 32, 576–588.
- Dimofte, C. V., Forehand, M. R., & Deshpandé, R. (2003). Ad schema incongruity as elicitor of ethnic self-awareness and differential advertising response. *Journal of Advertising*, 32(4), 7–18.
- Dion, D., & Arnould, E. J. (2011). Retail luxury strategy: Assembling charisma through art and magic. *Journal of Retailing*, 87(4), 502–520.
- Englis, B. G., & Solomon, M. R. (1995). To be and not to be: Lifestyle imagery, reference groups, and the clustering of America. *Journal of Advertising*, 24(1), 13–28.
- Escalas, J. E., & Bettman, J. R. (2003). You are what they eat: The influence of reference groups on consumers' connections to brands. *Journal of Consumer Psychology*, 13(3), 339–348.
- FairTest (2008). SAT Scores 2008 Release. http://www.fairtest.org/sat-scores-2008-release

- Festinger, L. (1954). A theory of social comparison processes. *Human relations*, 117–140.
- Fournier, S. (1998). Consumers and their Brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343–373.
- Goodstein, R. C. (1993). Category-based applications and extensions in advertising: Motivating more extensive processing. *Journal of Consumer Research*, 20(1), 87–99.
- Govers, R. C. M., & Schoormans, J. P. L. (2005). Product personality and its influence on consumer preference. *Journal of Consumer Marketing*, 22(4), 189–197
- Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109(1), 3–25.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464–1480.
- Grubb, E. L., & Hupp, G. (1968). Perception of self, generalized stereotypes, and brand selection. *Journal of Marketing Research*, 5(1), 58–63.
- Haire, M. (1950). Projective techniques in marketing research. *Journal of Marketing*, 14(2), 649–656.
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, 21, 107–112.
- Hilmert, C. J., Kulik, J. A., & Christenfeld, N. J. S. (2006). Positive and negative opinion modeling: The influence of another's similarity and dissimilarity. *Journal of Personality and Social Psychology*, 90(3), 440–452.
- Hoge, D. R., & McCarthy, J. D. (1984). Influence of individual and group identity salience in the global self-esteem of youth. *Journal of Personality* and Social Psychology, 47(2), 403–414.
- Katz, J., Joiner, T. E., & Kwon, P. (2002). Membership in a devalued social group and emotional well-being: Testing a model of personal self-esteem, collective self-esteem, and group socialization. Sex roles, 47(9/10), 419–431.
- Kay, A. C., Day, M. V., Zanna, M. P., & Nussbaum, A. D. (2013). The insidious (and ironic) effects of positive stereotypes. *Journal of Experimental Social Psychology*, 49(2), 287–291.
- Knowles, M. L., Lucas, G. M., Molden, D. C., Gardner, W. L., & Dean, K. D. (2010). There's no substitute for belonging: Self-affirmation following social and nonsocial threats. *Personality and Social Psychology Bulletin*, 36(2), 173–186.
- Larson, R., Csikszentmihalyi, M., & Graef, R. (1980). Mood variability and the psychosocial adjustment of adolescents. *Journal of Youth and Adolescence*, 9(6), 469–490.
- Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., et al. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, 95(1), 144–165.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18(3), 302–318.
- McGhee, P. E., & Teevan, R. C. (1967). Conformity behavior and need for affiliation. *Journal of Social Psychology*, 72(1), 117–121.
- Mead, N. L., Baumeister, R. F., Stillman, T. F., Rawn, C. D., & Vohs, K. D. (2011). Social exclusion causes people to spend and consume strategically in the service of affiliation. *Journal of Consumer Research*, 37(5), 902–919.
- Muniz, A. M., Jr., & O'Guinn, T. C. (2001). Brand community. Journal of Consumer Research, 27(4), 412–432.
- Munson, J. M., & Spivey, W. A. (1981). Product and brand-user stereotypes among social classes. *Journal of Advertising Research*, 21(4), 37–46.
- Mussweiler, T., & Bodenhausen, G. V. (2002). I know you are, but what am I? Self-evaluative consequences of judging in-group and out-group members. *Journal of Personality & Social Psychology*, 82(1), 19–32.

- National Science Foundation (2006). New formulas for America's Workforce 2: Girls in science and engineering (NSF 06-60). Arlington, VA: National Science Foundation.
- Nickerson, R. S. (2000). Null hypothesis statistical testing: A review of an old and continuing controversy. *Psychological Methods*, 5, 241–301.
- Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). Math = male, me = female, therefore math ≠ me. *Journal of Personality and Social Psychology*, 83(1), 44–59.
- Pennebaker, J. W., Booth, R. J., & Francis, M. E. (2007). Linguistic inquiry and word count.
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7(2), 156–176.
- Richins, M. L. (1991). Social comparison and the idealized images of advertising. *Journal of Consumer Research*, 18(1), 71–83.
- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton Press.
- Rosnow, R. L., & Rosenthal, R. (1989). Statistical procedures and the justification of knowledge in psychological science. *American Psychologist*, 44, 1276–1284.
- Severiens, S., & Dam, G. T. (1998). A multilevel meta-analysis of gender differences in learning orientations. *British Journal of Educational Psychology*, 68(4), 595–608.
- Shimp, T. A. (1981). Attitude toward the ad as a mediator of consumer brand choice. *Journal of Advertising*, 10(2), 9–15.
- Simpson, E. M., Snuggs, T., Christiansen, T., & Simples, K. E. (2000). Race, homophily, and purchase intentions and the black consumer. *Psychology & Marketing*, 17(10), 877–889.
- Sinclair, S., Hardin, C. D., & Lowery, B. S. (2006). Self-stereotyping in the context of multiple social identities. *Journal of Personality and Social Psychology*, 90(4), 529–542.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. Advances in Experimental Social Psychology, 21, 261–302.
- Stout, J. G., & Dasgupta, N. (2013). Mastering one's destiny: Mastery goals promote challenge and success despite social identity threat. *Personality* and Social Psychology Bulletin, 39(6), 748–762.
- U.S. Bureau of Labor Statistics (2009). Women in the labor force: A databook. Report 1018 (http://www.bls.gov/cps/wlf-databook-2009.pdf, last accessed June 27, 2014).
- Veblen, T. (1899). Theory of the leisure class: An economic study in the evolution of institutions. New York: Macmillan.
- Wan, F., Ansons, T. L., Chattopadhyay, A., & Leboe, J. P. (2013). Defensive reactions to slim female images in advertising: The moderating role of mode of exposure. *Organizational Behavior and Human Decision Processes*, 120(1), 37–46.
- White, K., & Argo, J. J. (2009). Social identity threat and consumer preferences. Journal of Consumer Psychology, 19(3), 313–325.
- White, K., Argo, J. J., & Sengupta, J. (2009). Dissociative versus associative responses to social identity threat: The role of consumer self-construal. *Journal of Consumer Research*, 39(4), 704–719.
- White, K., & Dahl, D. W. (2006). To be or not be? The influence of dissociative reference groups on consumer preferences. *Journal of Consumer Psychology*, 16(4), 404–414.
- Winer, B. J. (1971). Statistical principles in experimental design. New York: McGraw-Hill.
- Xin, H., & Normile, D. (2008). Chinese universities: Gunning for the Ivy League. Science, 319, 148.