Dissociative versus Associative Responses to Social Identity Threat: The Role of Consumer Self-Construal

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The current research examines the conditions under which consumers demonstrate associative versus dissociative responses to identity-linked products as a consequence of a social identity threat. Across four studies, the authors test the notion that reactions to social identity threat may be moderated by self-construal by examining subcultural differences in ethnic background, priming self-construal, and investigating cross-national differences in cultural background. Those with more independent self-construals tend to avoid identity-linked products when that identity is threatened versus not threatened. Those with more interdependent self-construals, in contrast, demonstrate more positive preferences for identity-linked products when that aspect of social identity is threatened. These effects arise because, while independents are motivated to restore positive self-worth when a social identity is threatened, interdependents access a repertoire of social identities to fulfill belongingness needs when threatened.

Marketers often attempt to connect their brand with an aspect of consumer social identity, such as gender, nationality, university, or ethnicity. To illustrate, a recent Old Spice campaign attempts to connect its brand with male gender identity through the use of the tagline "Smell like a man, man," whereas Secret links its brand of deodorant to female gender identity with the tagline "Strong Like a Woman." Presumably, such tactics induce target consumers to evaluate the identity-linked brand more favorably. However, recent research suggests that the effectiveness of identity-linking strategies may depend on contextual factors. For instance, White and Argo (2009) find that when consumers experience a threat to an aspect of their social identity (e.g., receive negative information regard-ing their gender group), they sometimes avoid products associated with that identity (e.g., products linked to their gender). The present research seeks to demonstrate that not only can a social identity threat produce avoidance behaviors but that under certain conditions it can cause consumers to evaluate identity-linked products more favorably. We integrate conceptual perspectives from three different streams of thought—social identity theory (Tajfel and Turner 1979, 1986), self-construal theory (Singelis 1994), and social rejection research (Knowles and Gardner 2008)—to predict when and why a threat to an aspect of social identity will lead to a dissociative response (avoidance of identity-linked products) versus an associative response (increased preference for identity-linked products).

We propose and find that when those with more independent self-construals experience a threat to an aspect of social identity, the desire to restore individual self-worth becomes paramount, resulting in an avoidance of identity-linked products. By dissociating from a negatively viewed identity (e.g., avoiding products associated with a threatened aspect of identity) independents are able to see the self in a more positive light. In contrast, when individuals with highly interdependent self-construals are exposed to a social identity threat, belongingness needs become focal. Interdependents satisfy these needs by activating and associating with several salient social identities in addition to the threatened identity. In the product evaluation context, this results

in an association effect—namely, an increased evaluation of identity-linked products.

The current investigation makes several contributions to the marketing and psychology literatures. First, while research on different types of self-threats has found evidence for either association (e.g., under personal identity threat; Gao, Wheeler, and Shiv 2009) or dissociation (under social identity threat; White and Argo 2009), the present work is the first to our knowledge to obtain simultaneous evidence for both types of consumer response within the same context. Moreover, the finding that under certain circumstances an identity-linked product can be evaluated more positively under conditions of social identity threat (vs. no social threat) is both novel and counterintuitive. Second, while past research draws on different theoretical perspectives to obtain an understanding of how self-construal influences consumer information processing (e.g., Krishna, Zhou, and Zhang 2008; Mandel 2003), the present research is the first, we believe, to draw on self-construal perspectives in order to understand when and why social identity threat might exert opposing effects on consumer preferences. Third, we predict that although both independents and interdependents experience the same degree of social identity threat, their divergent responses to this threat are driven by different mechanisms. For independents, social identity threat motivates self-worth concerns, which they resolve by dissociating from identity-linked products (i.e., decreasing evaluations of identity-linked products). For interdependents, social identity threat activates a social belongingness need, which they satisfy by activating and reinforcing their bonds with salient social groups, which results in the formation of more favorable evaluations of group-linked products.

THEORETICAL BACKGROUND

Social Identity and Consumer Preferences

Social identity theory (Tajfel and Turner 1986) and its extension, self-categorization theory (Turner 1985), propose that identity comprises two levels: personal identity (i.e., identity related to a person's individual sense of self) and social identity (i.e., the various identities that are related to groups to which a person belongs or is affiliated). That is, each individual has a repertoire of identities that includes one's individual-level identity and various social identities. These theories further propose that the aspect of identity most likely to drive behavior is dependent on the context. That is, an individual can respond to a given situation in ways that are consistent with either that individual's personal identity or one of many possible social identities (e.g., father, Canadian, golfer; Brewer 1991; Tajfel and Turner 1986).

Past research in marketing shows that consumers often engage in identity-congruent behaviors and evaluate products more favorably when the product is linked with an aspect of social identity that is chronically viewed as important (e.g., Kleine, Kleine, and Kernan 1993) or is situationally primed (e.g., Forehand and Deshpandé 2001). More recent work,

however, has found that when an aspect of social identity becomes temporarily threatened (e.g., individuals receive negative information about their gender identity), consumers often respond to this threat by avoiding identity-linked products (White and Argo 2009). This dissociative effect is consistent with research finding that people often seek to maintain a positive self-worth by avoiding association with a negatively viewed group (Branscombe and Wann 1994; Doosje, Elmers, and Spears 1995; Spears, Doosje, and Ellemers 1997).

While White and Argo (2009) find that the dissociative effect is mitigated for individuals who strongly value and identify with the threatened group (i.e., those high in collective self-esteem derived from that specific group), the extant research on social identity threats has not identified instances of an *associative effect*, whereby a *social identity threat* induces consumers to increase their preferences for products linked to that social identity. We apply insights from the literatures examining self-construal (e.g., Markus and Kitayama 1991; Singelis 1994) and social rejection (Knowles and Gardner 2008; Mead et al. 2011) to the domain of social identity threat (White and Argo 2009). In doing so, we lay the platform for a conceptualization of when and why a threat to a specific social identity can produce either a dissociative or associative response to products that are linked to the threatened identity.

Self-Construal and Responses to Social Identity Threat

Self-construal refers to the extent to which the self is viewed as being separate and distinct from, or interconnected with, others (Singelis 1994). Specifically, the independent self is viewed as being autonomous, unique, and bounded, whereas the interdependent self is viewed as inextricably interwoven with others and is highly collectivistic, communal, and relational (e.g., Markus and Kitayama 1991). Of particular relevance to the current research is the finding that higher levels of independence are related to a focus on individual-level goals (e.g., Heine and Lehman 1995, 1997), while higher levels of interdependence are associated with valuing one's social identities and possessing strong bonds with one's social groups (e.g., Trafimow, Triandis, and Goto 1991). We argue that this distinction contains direct implications for how these two groups of individuals react to social identity threat. Note that this article follows the approach used in much of the consumer literature, which conceptualizes independent versus interdependent self-construal in relative rather than absolute terms (Aaker 2000; Aaker and Sengupta 2000; Escalas and Bettman 2005).

Those who are more independent often behave in a manner consistent with a self-enhancement motive (Heine et al. 1999; Heine and Lehman 1995, 1997; White and Lehman 1995b), or the desire "to enhance the positivity of their self-conceptions and to protect the self from negative information" (Sedikides 1993, 18). As such, among independents, a social identity threat should activate a desire to restore and maintain positive individual self-worth, which can be achieved by avoiding association with a negatively imbued aspect of social identity. In

support of this notion, prior research suggests that one way of maintaining positive self-evaluations is to avoid association with negatively viewed groups (Branscombe and Wann 1994; Spears et al. 1997) and products associated with negatively viewed group identities (Berger and Heath 2007, 2008; White and Argo 2009; White and Dahl 2006, 2007). Consequently, a dissociative effect on preferences should be observed for independents, such that they will evaluate identity-linked products less favorably when the identity is threatened versus not threatened.

In contrast to those who are more independent, those higher in interdependence are not as motivated to protect individual self-worth (Heine et al. 1999; Heine and Lehman 1995, 1997; Kitayama et al. 1997; White and Lehman 2005b). Therefore, interdependents should react quite differently in response to social identity threat. In particular, we predict that interdependents will try to satisfy belongingness needs by activating and embracing multiple social identities. Support for this expectation is derived from research on social rejection (Knowles and Gardner 2008; Mead et al. 2011). It has been found that reliving an experience of social rejection (which presumably activates a need to belong) leads participants to bring to mind several different salient group identities (e.g., ethnic group, gender group, status as a university student) and to also evaluate these groups more favorably as compared to a no-rejection control (Knowles and Gardner 2008). Such activation of salient groups identities has been conceptualized as a means of coping with threat (Knowles and Gardner 2008).

We argue that a social identity threat should lead to this type of response for those higher in interdependence because these individuals define their self-concepts in terms of their group memberships (Trafimow et al. 1991). Accordingly, when a valued membership group is threatened (e.g., when students are exposed to negative information about their university identity), the belongingness need will become activated for interdependents, who will respond to the threat by activating and connecting to their salient group identities. These identities should include the threatened group—because it is salient (e.g., Knowles and Gardner 2008)—but also other membership groups (e.g., one's family, gender group, football team).

In sum, our position is that a social identity threat evokes different needs and therefore brings forth different compensatory strategies among independents versus interdependents. Independents are motivated by the need to protect self-worth and satisfy this need by dissociating from the threatened group. Interdependents are driven by the need to belong to valued groups; therefore, they satisfy this need by activating and connecting to salient groups, including the one that has been threatened, and products linked to these identities. We note that the current theoretical perspective harbors important differences with past research in both social psychology (e.g., Cohen and Garcia 2005; Doosje, Ellemers, and Spears 1994; Ellemers, Spears, and Doosje 1997; Luhtanen and Crocker 1992; Spears et al. 1997) and marketing (e.g., White and Argo 2009; White and Dahl 2007). Previous research has argued that the effects of social

identity threat may be minimized for individuals who are strongly tied to the particular group that is under threat because the threat causes them to reaffirm their allegiance to that specific group (e.g., White and Argo 2009). In contrast, the current perspective draws on research that shows that people can activate their group memberships at a broader level (e.g., Crocker et al. 1994; Crocker and Luhtanen 1990; Knowles and Gardner 2008). We suggest that social identity threat can lead interdependents to activate and associate with a repertoire of group identities, not just the one that is under threat. This view thus posits that a threat to a student's university, for example, will cause the student to not just strengthen bonds with his or her university but also to activate and associate with other important group identities, such as gender.

The Current Research

A set of four experiments tests the predictions arising from our conceptualization of dissociative versus associative responses to social identity threat. Using subcultural differences in ethnic background as a proxy for self-construal, study 1 demonstrates the predicted differences in reactions to social identity threat (vs. no threat): independents (interdependents) are found to evaluate identity-linked products less (more) favorably. Further, these effects are mediated by the activation of multiple social identities under threat. Study 2 replicates the dissociative/associative effects via self-construal priming. Consistent with our conceptualization, this study demonstrates that interdependents not only report more positive evaluations of products linked to the focal identity when threatened (vs. not threatened) but also exhibit an associative effect for a different aspect of social identity. Studies 3 and 4 then focus on providing evidence for the posited difference in underlying goals that leads independents and interdependents to engage in dissociation versus association, respectively. In particular, study 3 finds that dissociation enables independents to restore self-worth, while association enables interdependents to satisfy belongingness needs. Convergent with these findings, using a cross-cultural sample, study 4 shows that allowing independents to engage in affirmation at the individual level of the self attenuates the effect of threat on dissociation, while allowing interdependents to engage in affirmation of the groups to which they belong attenuates the effect of threat on the associative response.

STUDY 1

As a first test of our theoretical framework, study 1 examines differences in reactions to social identity threat between independents and interdependents by exploring subcultural differences in ethnic background: Caucasian (independent) and Asian (interdependent) Canadians. Although there is important within-culture variability in self-construal, those from Western cultural backgrounds tend to have relatively more independent self-construals, whereas those from East Asian cultural backgrounds tend to possess more interdependent self-construals (e.g., Heine et al. 1999; Triandis 1989). Research further con-

firms that cultural differences in self-construal exist between Caucasians and Asians living in North America (e.g., Aaker and Schmitt 2001; Escalas and Bettman 2005; White and Lehman 2005a, 2005b; White, Lehman, and Cohen 2006). Following from our conceptualization, we propose that while Caucasian Canadians (i.e., independents) will show a dissociative response (i.e., a reduced preference for identity-linked products), Asian Canadians (i.e., interdependents) will demonstrate an associative response (i.e., a heightened preference for identity-linked products) when social identity is threatened versus not threatened. This study also examines our proposition that the associative effect arises because interdependents, but not independents, activate and connect to multiple group identities when threatened along one particular social identity dimension.

Method

Participants and Design. Eighty-two undergraduates from a large North American university participated in this study in exchange for course credit. University identity, which has been shown to be a salient and important aspect of social identity for undergraduates (LeBoeuf, Shafir, and Bayuk 2010), was chosen as the focal identity in all studies reported in the current research. This study utilized a 2 (social identity threat: university threat vs. no threat) × 2 (self-construal: independent vs. interdependent) between-subjects experimental design. Self-construal was operationalized via subcultural differences in ethnic background. In particular, Caucasian Canadians ($n = 38$) were used as a proxy for independents and Asian Canadians ($n = 44$) were used as a proxy for interdependents.

Pretests. To confirm that cultural background was indeed related to self-construal in the predicted ways, a pretest with the population of interest was conducted. Thirty-eight Caucasian Canadians and 32 Asian Canadians completed a measure of interdependent self-construal (e.g., "It is important to me to maintain harmony within my group"; $\alpha = .75$) and independent self-construal (e.g., "My personal identity independent of others is very important to me"; $\alpha = 70$; Singelis 1994). Asian Canadians were more interdependent ($M = 5.20$) than Caucasian Canadians ($M = 4.70$; $t(68) = 3.08$, $p < .01$), while Caucasian Canadians were more independent ($M = 5.16$) than Asian Canadians ($M = 4.72$; $t(68) = 2.41$, $p < .02$).

In addition, we conducted a pretest of our threat manipulation. Caucasian Canadians ($n = 39$) and Asian Canadians ($n = 36$) read either a threat or a no-threat manipulation (described in the next paragraph). Results revealed only a main effect for threat, such that significantly greater threat was experienced in the threat ($M = 4.71$) condition as opposed to the no-threat ($M = 2.04$) condition ($F(1, 71) = 39.60, p < .001$). The main effect for subcultural background ($F(1, 71) = 1.39, p > .24$) and the interaction ($F(1, 71) = .09$, NS) did not reach significance. Thus, our manipulation of threat appears to be effective. Notably, no differences in the experience of threat occurred for independents versus independents, suggesting that it is not differences in perceptions of threat magnitude that drive our effects.

Finally, we have argued that, among interdependents, group activation will occur because of a similarity between social rejection (Knowles and Gardner 2008) and social identity threat; that is, both of these constitute a similar threat to the self. We conducted a test in order to find evidence for such similarity. Participants ($n = 58$) read the article that threatened their university (identity threat condition [study 1]), or wrote about a time when they felt socially rejected (social rejection condition; Knowles and Gardner 2008), or did not read or write anything (control condition). They were then asked to indicate the extent to which they felt "threatened," "attacked," "challenged," "impugned," "maligned," and "unhappy" using 7-point scales ($1 = $ not all, $7 = $ very; social threat index, $\alpha = .91$). A one-way ANOVA revealed that type of threat (identity vs. rejection vs. control) significantly affected ratings of social threat ($F(2, 55) = 49.49, p < .001$). Results revealed that those in the identity threat ($M = 4.74$) and the rejection ($M = 4.84$) conditions did not differ from one another ($p > .70$), but both significantly differed from the control condition ($M = 2.42$; both $p < .001$).

Procedure. Participants were told that they would be taking part in two unrelated studies. In the first study they read an article that contained the social identity threat manipulation. The article reported findings from a well-known magazine that rates Canadian universities. In the *university-threat condition*, participants learned that their own university was ranked very poorly compared to others. In the *no-threat* condition, participants read neutral information regarding their university (see White and Argo [2009] for a similar manipulation).

The social identity threat manipulation was followed by a measure of the activation of multiple group identities (Knowles and Gardner 2008; Kuhn and McPartland 1954). Labeled the "Twenty Statements Test" (TST), this measure requires participants to complete 20 statements, each of which begins with the phrase "I am _____." Responses were later coded for the number of thoughts participants had about distinct social group memberships (e.g., "I am a student," "I am a soccer player," "I am a woman"), and the total number of such thoughts constituted the multiple identity activation index. For example, a response of "Canadian" would be coded as one thought, whereas a response of "Asian Canadian female" would be coded as three thoughts. The responses to the statements were also coded for the number of thoughts specifically related to the threatened (university) identity (e.g., "I am a University of X student") to create a single identity activation index. We also coded this measure such that if participants identified themselves as being a "marketing student at the University of X" this would be counted as two thoughts, to reflect the identity in marketing more specifically, but also as a student of the university more generally.

Following their responses to the TST, participants indicated their evaluations of three different pairs of products. The instructions indicated that the two products within each pair were matched on price; in each case, one of the products had been pretested as being linked to their university, while the other

was university neutral (i.e., university highlighters vs. shampoo; a gift certificate to the university book store vs. a gift certificate to a restaurant; a university T-shirt vs. a movie pass). Each option was evaluated on 9-point scales (unfavorable/favorable, dislike/like, and bad/good; White and Dahl 2006), and we created an average score for university products ($\alpha = .78$) and for neutral products ($\alpha = .83$). Note that since products were presented pairwise (and products within the pair were explicitly equated on price), respondents were placed in a choice mindset when evaluating the two products within each pair. Because of this, as well as the related possibility that simultaneous pairwise presentation might lead participants to contrast the neutral product away from the university product, association (dissociation) could be reflected either in terms of increased (decreased) evaluations of the university product and/or a decreased (increased) evaluation of the neutral products within a pair (e.g., Dhar and Simonson 1992). Accordingly, instead of simply examining attitudes toward the university-related products, we followed past work on association/dissociation by analyzing the difference score obtained by subtracting the evaluations of the neutral product from the evaluations of the university-related product within each pair (White and Dahl 2006, 2007). Association (dissociation) was thus manifested in a higher (lower) score on this measure of relative preferences.

Next, in order to tap into group-specific self-esteem (also labeled collective self-esteem [CSE]; Luhtanen and Crocker 1992), participants completed an individual difference measure of how much they valued their identity as university students. Specifically, they were asked to think of their university group membership and to answer items such as "I am a worthy member of this social group" and "In general, belonging to this social group is an important part of my self-image" (16 items; $\alpha = .84$). It was important to rule out the possibility that group-specific self-esteem was the key driver of the predicted preference effects since past research has found that it can moderate the impact of a social identity threat (White and Argo 2009). At the end of the survey, participants reported their cultural background. Responses to this question were coded for whether they were from East Asian or Caucasian backgrounds (e.g., White and Lehman 2005a, 2005b). Participants also reported their gender and responded to a suspicion probe. Gender did not interact with any of the independent variables to predict variance in the dependent variable, and no participants reported suspicion of the two portions of the study being linked or awareness of the hypotheses. These findings were true across all of the experiments and are not discussed further.

Results

University Product Preferences. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal: independent vs. interdependent) analysis of variance (ANOVA), using the relative preference for university products as the dependent measure, revealed the predicted significant two-way interaction ($F(1, 78) = 8.08$, $p < .01$). As anticipated, Caucasian Canadians (i.e., independents) showed a greater avoidance of

university products when threatened versus not threatened ($M_{\text{threat}} = -1.62$; $M_{\text{no threat}} = -.81$; $t(78) = 2.09$, $p < .05$; see table 1 for the separate raw evaluations of university and neutral products). On the other hand, Asian Canadians (i.e., interdependents) demonstrated a greater preference for university products when their university was threatened ($M = -.37$) versus not threatened ($M = -1.19$); $t(78) = 2.00$, $p < .05$). The main effects for cultural background ($F(1, 78) = 2.29$, $p > .13$) and identity threat ($F(1, 78) = .01$, NS) did not reach significance. Finally, the two-way interaction between social identity threat and cultural background remained significant when including CSE as a covariate in the analysis ($F(1, 77) = 7.98$, $p < .01$), arguing against the possibility that the obtained preference effects were driven by collective self-esteem related to the specific threatened identity.

Mediational Role of the Activation of Multiple Identities. Our conceptualization posits that the pattern of product preferences is driven by a differential pattern of multiple identity activation for independents versus interdependents. To test for this, we first conducted a social identity threat × self-construal ANOVA on the multiple identity activation index. The results revealed a significant interaction ($F(1, 78) = 9.59$, $p < .01$). Consistent with theorizing, while interdependents reported more group identities under threat ($M = 2.25$) as opposed to not under threat ($M = 0.72$; $t(78) = 3.64$, $p < .001$), independents did not demonstrate this difference ($M_{\text{threat}} = .96$; $M_{\text{no threat}} = 1.55$; $t(78) = 1.24$, $p > .22$). The bootstrapping methodology was used based on the recommendations of Preacher and Hayes (2008) and Shrout and Bolger (2002). We included the interaction term as the key predictor (while also entering the main effects into the model), the multiple identity activation index as the mediator, and university product preferences as the dependent variable. The results show that when multiple identity activation is examined as the mediating factor, the 95% BCa (bias-corrected and accelerated) bootstrap CI of .0443 to .2480 was obtained. Because zero was not included in the

TABLE 1

DIFFERENCE SCORES AND RAW SCORES FOR STUDY 1

	No threat (Mean)	Threat (Mean)
Independent (Caucasian Canadians):		
Difference score	-0.81_a	-1.62_b
University product	6.16_a	6.20_a
Neutral product	6.97_a	7.82_b
Interdependent (Asian Canadians):		
Difference score	-1.19_a	-0.37_b
University product	6.00_a	7.07_b
Neutral product	7.19_a	7.44_a

NOTE.—The difference score reflects university product preferences minus neutral product preferences. When examining the university products, the interaction between social identity threat and self-construal was significant ($F(1, 78) = 3.97$, $p = .05$). However, when examining the neutral products, the interaction between social identity threat and self-construal was not significant ($F(1, 78) = 1.79$, $p < .18$). Within rows, means with differing subscripts differ at the $p < .05$ level.

lower and upper bounds of this confidence interval, this was an indication that the activation of multiple identities had a significant indirect effect in the relationship between the interaction and product preferences. Thus, multiple identity activation mediated our effects.

To provide a more robust test of our results, we also examined the meditational role of the alternative identities only (multiple identity index minus the single identity activation index). The results revealed that this index mediated the effects (CI: .0076 to .2329). Finally, we also examined whether the number of thoughts relating to the threatened university identity itself (i.e., the single identity activation index) mediated our effects. Bootstrapping analysis revealed that the single activation index did not mediate the results (CI: $-.0117$ to .2389). That thoughts about the university identity did not influence the results may be due to a measurement issue in that people can only activate so many thoughts about any single identity. Accordingly, there is low variability in the number of thoughts about the university identity, leading to a null result. Also contributing to the low variability on this item, it should be noted that all participants completed the study in a university context and all had their university identity primed via the threat/no-threat task.

Discussion

Study 1 finds that when university identity is threatened, those who are relatively independent (i.e., Caucasian Canadians) demonstrate an increased avoidance of identity-linked products relative to neutral products. By contrast, those who are relatively interdependent (i.e., Asian Canadians) demonstrate more positive evaluations of university products when social identity threat is present rather than absent. The effects were mediated by the tendency of interdependents to activate multiple social identities in response to threat.

Of note, we also replicated the findings of study 1 in another experiment where self-construal was measured via a validated scale (Singelis 1994). Briefly, this experiment used the same manipulation of social identity threat and examined the same dependent variable (product evaluations). The only two changes were (a) self-construal was assessed on the basis of scale measurement (Singelis 1994); (b) for greater generalizability, we measured the second step in our proposed process of the activating and feeling a sense of belonging to multiple social identities. We did so by assessing positive feelings of connectedness to multiple group identities. Adapting a procedure from Mussweiler, Gabriel, and Bodenhausen (2000), participants indicated the extent to which they felt a sense of belonging and social connectedness (e.g., "To what degree do you have a strong sense of belonging with _____?") to each of several different identities (i.e., gender, university, nationality, and ethnic identity, a total of 16 items). As in study 1, this experiment found that social identity threat caused independents (interdependents) to dissociate (associate) from identity-linked products. Further, the associative effect led interdependents (but not independents) to increase positive feelings of connectedness to multiple salient groups.

A final issue in study 1 merits discussion. Closer examination of the raw product evaluations (table 1) reveals that, among independents, the dissociation effect was largely driven by differences in the evaluations of the neutral products. That is, threat caused neutral products to be evaluated better, not university products to be evaluated worse. This finding does not necessarily present a problem for our dissociation account. As noted earlier, given the choice-like tendency created by the pairwise presentation of university and neutral products, association (dissociation) could be reflected either in terms of increased (decreased) evaluations of the university product and/or decreased (increased) evaluations of the neutral products within a pair.

However, to empirically demonstrate that association/dissociation effects can be localized in evaluations of the target products alone, a follow-up study was conducted in which university and neutral products were presented in a between-subjects format rather than in a within-subjects form. Social identity threat was manipulated as in study 1, while self-construal was manipulated using a priming technique described in study 2. Participants either reported ratings of willingness to purchase a series of neutral items (including shampoo, a sweatshirt, and a coffee mug; $\alpha = .73$) or a series of university items (including a university highlighter set, a university sweatshirt, and a university coffee mug; $\alpha = .86$); as in study 1, items were matched for price. Those who rated the university products only ($n = 77$) showed the anticipated interaction between self-construal and threat ($F(1, 74) = 8.20, p < .01$). Replicating the results of study 1, those with an independent self-construal demonstrated a dissociative effect, showing decreased preferences for the university-linked products when threatened ($M = 4.64$) as opposed to not threatened ($M = 5.62$; $t(74) = 2.23, p < .05$). Conversely, those with an interdependent self-construal manifested an associative effect, demonstrating increased preferences for the university-linked products when threatened ($M = 5.68$) as opposed to not threatened ($M = 4.78$; $t(74) = 2.05, p < .05$). Finally, among those who rated the neutral products only ($n = 86$), the interaction between self-construal and threat was nonsignificant ($F(1, 83) = .75, p > .38$; for independents, $M_{\text{threat}} = 4.88$ vs. $M_{\text{no threat}} = 4.55$; and for interdependents, $M_{\text{threat}} = 5.09$ vs. $M_{\text{no threat}} = 4.50$). Thus, when participants were exposed to only university products or only neutral products, associative and dissociative effects were restricted to the former, as our theorizing would predict. It is only when identity-related products are presented along with neutral products that effects can manifest on the latter as well.

STUDY 2

Study 2 extends our investigation in three important ways. First, study 1 measured self-construal via subcultural differences. It is possible, therefore, that the effects were driven by constructs other than self-construal that were correlated with the measured variable. Study 2 addresses this concern by examining the impact of manipulated self-construal. Although individuals differ in the extent to which an inde-

pendent or interdependent construal of the self is more chronically accessible (Singelis 1994; Triandis 1989), prior research shows that situational priming can also influence which self-construal is more salient at a given time (Aaker and Lee 2001; Brewer and Gardner 1996; Gardner, Gabriel, and Lee 1999; Mandel 2003). We thus utilized a priming approach in this study. Second, we extend the scope of our investigation by introducing a new dependent variable—ratings of the enjoyment of leisure activities that are either associated with university identity or neutral. Consistent with our earlier findings, we propose that those primed with an independent (interdependent) self-construal will exhibit a dissociative (associative) response to university-related activities when university identity is threatened.

Third, and most important, study 2 examines a key implication of our conceptualization regarding the associative mechanism for interdependents. If, as our framework suggests, interdependents react to threat by activating and connecting to multiple social identities, this should lead them to not only exhibit more positive evaluations of activities linked with the threatened identity but also activities linked with other salient identities. To test this thesis, participants were asked to evaluate activities related to a different aspect of social identity—gender. We chose gender because this is an aspect of identity that is important for the university population under study (White and Argo 2009); accordingly, it is likely to feature in a response to threat that involves the activation of multiple group identities. We argue, therefore, that those primed with interdependence should manifest greater preference for activities related both to the threatened group identity (i.e., university identity) and to other group identities as well (i.e., gender identity) when under threat (vs. no threat). Independents are predicted to only dissociate the individual self from the specific threatened identity, as it is this particular identity that can have negative associations for the self. Therefore, we predict that independents will only show an avoidance of activities specifically related to the threatened identity, not to activities related to an alternative, nonthreatened identity.

Method

Participants and Design. Seventy-four undergraduates (49 females and 25 males) from a large North American university participated in this study in exchange for course credit. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal priming: independent vs. interdependent) between-subjects experimental design was used. We note that gender did not interact with threat ($F < .03$), with priming ($F < .10$), or with threat and priming ($F < 1.84$) to predict variance in the dependent measures.

Procedure. Upon arrival, participants were informed that they would be completing multiple tasks during the study session. The first task they were presented with was the manipulation for self-construal. Following past research (e.g., Agrawal and Maheswaran 2009; Brewer and Gardner 1996; White and Argo 2011; White et al. 2006), participants were told that we were interested in obtaining a measure of verbal competence; accordingly, they were asked to read a short story about which they would later answer some questions. They were also told that to determine whether people are able to comprehend the story when distracted, they would be asked to circle pronouns appearing in the text of the short story. The texts in the two conditions differed with regard to the extent to which different pronouns were used: in the *independent* condition, *I* and *me* were used frequently, whereas in the *interdependent* condition, *we* and *us* were frequently used.

In the second portion of the experiment, participants were told that we were interested in student reactions to some research findings regarding different universities. They completed the same social identity threat manipulation used in study 1. Finally, in what was ostensibly a third task, participants completed a questionnaire that asked them to evaluate their enjoyment of various leisure and entertainment activities, which served as the dependent measures. Some of these activities were pretested as being linked to university identity (e.g., "How much do you enjoy writing a paper for school?" "How much do you enjoy studying?" "How much do you enjoy taking classes at university?"; $\alpha = .67$); others were associated with female identity (e.g., "How much do you enjoy scrapbooking?" "How much do you enjoy shopping?"; $\alpha = .76$) or male identity (e.g., "How much do you enjoy watching sports?" "How much do you enjoy drinking beer with your friends?"; $\alpha = .70$). There were also some activities that were neutral with regard to both university and gender identity (e.g., "How much do you enjoy watching movies?" "How much do you enjoy eating in restaurants?"; $\alpha = .66$). Consistent with our other studies, we analyzed relative preference indices (university preference index = evaluations of university activities – evaluation of neutral activities; gender preference index = evaluations of participant's own gender-related activities – evaluations of neutral activities).

Results

Consumer Preferences for University Identity Activities. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal priming: independent vs. interdependent) ANOVA, using the university preference index as the dependent measure, revealed the anticipated two-way interaction ($F(1, 70) = 7.37$, $p < .01$; see table 2). Those primed with independence demonstrated an avoidance of university activities under conditions of social identity threat ($M = -.99$) versus no threat ($M = -.18$; $t(70) = 3.07$, $p < .01$). Also as anticipated, those primed with interdependence significantly preferred university activities when under conditions of social identity threat ($M = -.43$) rather than no threat ($M = -1.15$; $t(70) = 4.20$, $p < .001$). The main effects for priming ($F(1, 70) = .53$, NS) and social identity threat ($F(1, 70) = .04$, NS) did not reach significance.

Consumer Preferences for Gender Identity Activities. An ANOVA using the gender preference index as the dependent

TABLE 2

DIFFERENCE SCORES AND RAW SCORES FOR STUDY 2
(UNIVERSITY-LINKED ACTIVITIES)

	No threat (Mean)	Threat (Mean)
Independent prime:		
Difference score	$-.18_a$	$-.99_b$
University activities	4.80_a	4.20_b
Neutral activities	4.98_a	5.19_a
Interdependent prime:		
Difference score	-1.15_a	$-.43_b$
University activities	4.03_a	4.64_b
Neutral activities	5.18_a	5.07_a

NOTE.—The difference score reflects university activities minus neutral activities. When examining the university activity ratings, the interaction between social identity threat and self-construal was significant ($F(1, 70) = 5.73$, $p < .05$). However, when examining the neutral activities, the interaction between social identity threat and self-construal was not significant ($F(1, 70) = .83$, NS). Within rows, means with differing subscripts differ at the $p < .05$ level.

measure revealed a significant two-way interaction ($F(1, 69) = 4.90$, $p < .05$; see table 3). As predicted, those primed with interdependence preferred gender-identity-related activities under conditions of threat ($M = .26$) rather than no threat ($M = -.62$; $t(69) = 2.35$, $p < .05$), while no differences emerged in evaluations of gender-identity related activities for those primed with independence regardless of whether there was a threat ($M = -.69$) or no threat ($M = -.40$) present ($t(69) = .73$, NS).

Discussion

The results of study 2 provide additional support for our conceptualization. Replicating our earlier findings (but with self-construal manipulated rather than measured), interdependents (independents) showed an increased (decreased) preference for activities related to their university identity when this identity was threatened rather than not threatened. Of importance, for interdependents, but not independents, this effect carried over into another identity domain (i.e., gender). This finding provides further evidence that interdependents activate and embrace multiple social groups in response to identity threat. For independents, the dissociation effects did not carry over into another identity domain, suggesting that this avoidance response is specific to the threatened identity.

STUDY 3

In study 3, we replicate the dissociative and associative product evaluation effects observed in the previous studies and seek to further elucidate the mechanism underlying these observed patterns. Our conceptualization posits that the reactions of independents and interdependents are both compensatory responses to social identity threat but in ways that resolve distinct motivational concerns. In particular, the dissociative effect for independents is held to serve the purpose of restoring positive

TABLE 3

DIFFERENCE SCORES AND RAW SCORES FOR STUDY 2
(GENDER-LINKED ACTIVITIES)

	No threat (Mean)	Threat (Mean)
Independent prime:		
Difference score	$-.40_a$	$-.69_a$
Gender activities	4.58_a	4.50_a
Neutral activities	4.98_a	5.19_a
Interdependent prime:		
Difference score	$-.62_a$	$.26_b$
Gender activities	4.56_a	5.33_b
Neutral activities	$.18_a$	5.07_a

NOTE.—The difference score reflects gender activities minus neutral activities. Within rows, means with differing subscripts differ at the $p < .05$ level.

self-worth, whereas the associative effect for interdependents is held to fulfill belongingness needs. To provide evidence for these arguments, we once again prime self-construal and manipulate threat, but then we provide participants with the opportunity to evaluate identity-linked products either before or after reporting current concerns with (a) self-worth and (b) the need to belong. If independents indeed engage in dissociation because of a desire to maintain positive self-worth, having the opportunity to engage in dissociation should resolve self-worth concerns. Therefore, such concerns should be lower when independents have already had the opportunity to rate (and dissociate from) products linked with the threatened identity as compared to when they have not yet rated the identity-linked products. A similar logic prevails for interdependents with regard to the belongingness concerns. Because the act of associating with identity-linked products is itself a way of satisfying the need to belong, this need should be lower for interdependents who are first given the opportunity to rate products linked with the threatened identity (as compared to those who have not rated the identity-linked products). In sum, we predict a three-way interaction between threat, self-construal, and order of measurement for each of the two concerns: self-worth and belongingness.

Method

Participants and Design. Two hundred and seven undergraduates (112 females and 95 males) from a large North American university participated in this study in exchange for course credit. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal priming: independent vs. interdependent) × 2 (measurement order: state ratings first vs. product ratings first) between-subjects experimental design was used.

Procedure. Threat and self-construal priming were manipulated as described in study 2. The key dependent measure was the difference score between ratings of university ($\alpha = .87$) and neutral products ($\alpha = .87$), as in study 1. In addition, we manipulated whether participants completed the product ratings first (and state measures of self-worth

and belongingness concerns second) or completed the state measures first (and product ratings second). Participants read: "The following items are designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Answer these questions as they are true for you RIGHT NOW." They then completed items to assess self-worth concerns (i.e., "I am worried about whether I am regarded as a success or failure," "I am worried about what other people think of me," "I feel inferior to others at this moment," "I feel like I am not doing well," "I feel concerned about the impression I am making," and "I am worried about looking foolish" [$\alpha = .75$; adapted from Heatherton and Polivy 1991]) and need to belong (i.e., "I want other people to accept me," "I have a strong 'need to belong'," and "I need to feel that there are people I can turn to in times of need" [$\alpha = .77$; adapted from Leary et al. 2012]). Finally, participants completed a check for threat ("How threatening was the article to your university?") on a 7-point scale (not at all threatening/very threatening).

Results

Extent of Threat. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal priming: independent vs. interdependent) × 2 (measurement order: state ratings first vs. product ratings first) on the threat item revealed a main effect for social identity threat ($F(1, 202) = 44.01$, $p < .001$). Participants reported greater threat in the university-threat ($M = 4.32$) versus the no-threat ($M = 2.47$) condition. No other main effects or interactions were significant. Thus, any differences observed between independents' versus interdependents' reactions to threat are unlikely to be driven by differences in perceptions of the extent of threat.

Consumer Preferences for University Products. A social identity threat × self-construal priming ANOVA, using the university preference index as the dependent measure, revealed the anticipated two-way interaction ($F(1, 203) = 15.44$, $p < .001$; see table 4). Those primed with interdependence preferred university products significantly more under conditions of identity threat ($M = -1.16$) rather than no threat ($M = -2.14$; $t(202) = 2.98$, $p < .01$). Also as anticipated, those primed with independence demonstrated a relative avoidance of university products under conditions of threat ($M = -2.15$) versus no threat ($M = -1.22$; $t(203) = 2.61$, $p < .01$). The main effects for priming ($F(1, 202) = .00$, NS) and social identity threat ($F(1, 202) = .004$, NS) did not reach significance. We also note that the three-way interaction between social identity threat, self-construal priming, and measurement order did not reach significance ($F(1, 199) = 1.51$, $p > .22$) but that, as would be anticipated, when products were rated first, a significant two-way interaction between threat and priming emerged ($F(1, 95) = 12.75$, $p < .01$). The absence of a three-way interaction on product evaluations is consistent with our theorizing. While we expect measurement order (state ratings first vs. product

TABLE 4

DIFFERENCE SCORES AND RAW SCORES FOR STUDY 3

	No threat (Mean)	Threat (Mean)
Independent prime:		
Difference score	-1.22_a	-2.15_b
University product	6.61_a	5.67_b
Neutral product	7.78_a	7.82_a
Interdependent prime:		
Difference score	-2.14_a	-1.16_b
University product	5.98_a	6.65_b
Neutral product	8.12_a	7.81_a

NOTE.—The difference score reflects university products minus neutral products. When examining the university products ratings, the interaction between social identity threat and self-construal was significant ($F(1, 203) = 5.73$, $p < .05$). However, when examining the neutral products, the interaction between social identity threat and self-construal was not significant ($F(1, 203) = .02$, NS). Within rows, means with differing subscripts differ at the $p < .05$ level.

ratings first) to interact with self-construal and identity threat on the state measures as described below, such a pattern was not expected for the product ratings themselves. This is because the state measures, which assess self-worth concerns and belongingness concerns, simply reflect participants' current needs. Note that completing these measures does not fulfill these needs. Thus, regardless of measurement order, independents should still display a dissociative effect in order to satisfy self-worth concerns, just as interdependents should display an associative effect in order to satisfy belongingness concerns.

State Measures: Self-Worth and Belongingness Concerns. A social identity threat × self-construal priming × measurement order ANOVA on self-worth concerns revealed a significant three-way interaction ($F(1, 199) = 8.87$, $p < .01$). Similarly, analyses of the need-to-belong concern also revealed a significant three-way interaction ($F(1, 199) = 5.23$, $p < .05$).

To further examine the three-way interaction, we first selected independents only and examined the interaction between social identity threat and measurement order with self-worth included as the dependent variable. The results revealed a significant two-way interaction ($F(1, 91) = 6.60$, $p < .05$). As predicted, when independents were under threat, they manifested greater self-worth concerns when completing the state measures first ($M = 3.13$) rather than when they rated the products first ($M = 2.39$; $t(91) = 3.47$, $p < .001$). However, when independents were not under threat, self-worth concerns did not differ regardless of whether the state measures ($M = 2.60$) or the product ratings ($M = 2.64$) were completed first ($t(95) = 0.20$, NS). Finally, consistent with the idea that belongingness is not a salient concern for independents, the interaction between social identity threat and measurement order did not influence need to belong for them ($F(1, 95) = .76$, NS).

Next, we selected for interdependents only and examined the interaction between social identity threat and measurement

order, with belongingness concerns as the dependent variable. The results revealed a significant two-way interaction ($F(1, 108) = 19.39$, $p < .001$). When interdependents were under threat, they reported greater belongingness concerns when completing the state measures first ($M = 3.84$) rather than when they rated the products first ($M = 2.85$; $t(108) = 4.41$, $p < .001$). However, when interdependents were not under threat, ratings of need to belong did not differ regardless of whether the state measures ($M = 3.24$) or the product ratings ($M = 3.64$) were completed first ($t(108) = 1.73$, $p < .09$). Finally, consistent with the idea that, when under threat, self-worth concerns are not activated for interdependents, the interaction between social identity threat and measurement order did not influence self-worth concerns for this group ($F(1, 108) = 2.48$, $p > .12$).

Discussion. Once again, those primed with independence (interdependence) showed a decreased (increased) preference for university products when university identity was threatened rather than not threatened. While these product evaluation findings thus replicated our earlier results, the findings on the state measures (i.e., self-worth and belongingness concerns) provided insights into the underlying mechanisms. Consistent with the conceptual argument that the dissociative effect of social identity threat stems from a need to protect individual self-worth, self-worth concerns were lower for independents after (vs. before) they had a chance to rate the university products; that is, the act of dissociation allowed independents to restore self-worth. No such effect was obtained for interdependents, as expected. Rather, the pattern of findings for these individuals was consistent with the argument that the associative effect following social identity threat is driven by the need to belong. Accordingly, the belongingness needs of interdependents were lower after (vs. before) they had a chance to rate the university products; that is, the act of association allowed interdependents to satisfy belongingness needs. No such effect was obtained for independents. Taken together, these findings support the proposition that even though independents and interdependents are both affected by a threat to social identity (thus perceptions of the extent of threat did not differ for these two groups), such a threat induces different motivations and, accordingly, different compensatory strategies for the two groups. Whereas the strategy for independents centers on restoring self-worth, the strategy for interdependents focuses on satisfying the need to belong.

STUDY 4

Study 4 extends our investigation in two important ways. First, to further generalize our findings, we examine the effects of a social identity threat using a different proxy for self-construal, one based on cross-national differences (i.e., Canada vs. Hong Kong). Second, we seek to reinforce the evidence for the processes underlying dissociative and associative effects. We do so by employing a manipulation that allows individuals to engage in self-affirmation or group affirmation after experiencing the social identity threat.

The results of study 3 suggest that the dissociative effect

for independents occurs because threat activates a need to protect the self; independents satisfy this need—they reaffirm their self-worth—by engaging in dissociation. This reasoning suggests that if individual self-worth is restored via other means after the experience of threat, the dissociative response of independents should be attenuated. Such a prediction is consistent with self-affirmation theory, which proposes that people wish to protect and maintain self-integrity or self-worth (Steele 1988). If self-worth is threatened in some way, and the individual is given the opportunity to restore feelings of self-worth in another way (e.g., through affirming important self-values), self-protective reactions to threatening circumstances should be mitigated (Steele 1988; see also Tesser 2000; Tesser and Cornell 1991). Thus, we propose that when independents are given the opportunity to affirm the individual self following threat, the tendency to protect the self via dissociation will be attenuated.

Affirming the individual self should not, however, moderate the associative effect that threat induces in interdependents. For these individuals, rather than evoking a need to protect the individual self, threat evokes group-level belongingness needs. As the studies thus far demonstrate, one way in which independents can satisfy this need is by increasing their connectedness with salient groups (i.e., via the associative effect). This reasoning therefore suggests that if interdependents can be provided with an alternate way of assuaging the belongingness needs evoked by social identity threat, the associative effect should now be attenuated (just like the dissociative effect in independents should be attenuated by engaging in alternate means of self-affirmation). Building on this logic, we examine the effect of a group-affirmation task that requires participants to think about their different group memberships along with the core values they share with these groups. This task involves the activation of multiple salient groups while also strengthening participants' sense of connectedness with these groups (Hoshino-Browne et al. 2005). Engaging in this task should help satisfy the belongingness concerns that otherwise have to be met via the product associative effect—accordingly, the latter effect should be diluted. Such group affirmation should not, however, have any influence on the dissociative effect for independents, who are not motivated by group-level needs. Study 4 tests these predictions by providing participants from Canada (independents) and Hong Kong (interdependents) the opportunity to engage in self-affirmation, group affirmation, or no affirmation following a social identity threat but before assessing product preferences.

Method

Pretest. To confirm that cultural background was indeed related to self-construal in the predicted ways, a pretest was conducted. Forty Caucasian Canadians and 40 Asians from Hong Kong completed the self-construal scale, as in the study 1 pretest (independence $\alpha = .75$; interdependence $\alpha = 71$; Singelis 1994). Caucasian Canadians were more independent ($M = 5.23$) than Asians from Hong Kong ($M = 4.87$; $t(78) = 2.27$, $p < .05$), while those from Hong Kong were more

TABLE 5

DIFFERENCE SCORES AND RAW SCORES FOR STUDY 4

	No-affirmation (Mean)		Self-affirmation (Mean)		Group-affirmation (Mean)	
	No threat	Threat	No threat	Threat	No threat	Threat
Independent (Canada):						
Difference score	.57$_{a,c}$	−1.38$_b$	−.86$_{b,c}$	.30$_c$	−.66$_{a,b}$	1.33$_b$
University product	6.86	6.38	6.74	7.14	6.55	6.48
Neutral product	7.43	7.50	7.64	7.37	7.21	7.81
Interdependent (Hong Kong):						
Difference score	−1.20$_a$	−.12$_b$	−.78$_a$	−.05$_b$	−.81$_{a,b}$	−.80$_{a,b}$
University product	5.95	6.61	5.91	6.12	5.90	5.78
Neutral product	7.15	6.72	6.69	6.17	6.90	6.58

NOTE.—The difference score reflects university products minus neutral products. When examining the university products ratings, the interaction between social identity threat, affirmation type, and self-construal was significant ($F(2, 327) = 3.30$, $p < .05$). However, when examining the neutral products, the interaction between social identity threat, affirmation type, and self-construal was not significant ($F(1, 327) = .02$, NS). Within rows, means with differing subscripts differ at the $p < .05$ level.

interdependent ($M = 5.25$) than those from Canada ($M = 4.75$; $t(78) = 3.58$, $p < .01$).

Participants and Design. Three hundred and thirty-eight undergraduates participated in this study, which utilized a 2 (social identity threat: university threat vs. no threat) × 2 (self-construal: independent vs. interdependent) × 3 (affirmation type: self-affirmation vs. group affirmation vs. no affirmation) between-subjects experimental design. Self-construal was operationalized by using samples from two different countries. In particular, 182 Caucasian business undergraduates (56% female; average age = 20.82 years) living in Canada served as a proxy for independent construal, while 156 Asian business undergraduates (62% female, average age = 20.28 years) living in Hong Kong served as a proxy for interdependent construal.

Upon arrival, participants were informed that they would be completing multiple tasks during the study session. In the first task, all participants were presented with the social identity threat manipulation used in the earlier studies. The content of the article was the same as previously reported except that the source of the threatening versus neutral article was an academic journal (*Journal of Higher Education*). In addition, to ensure that the information would be threatening to each sample, the information was customized to indicate that the participant's own school had performed worse than comparable schools in its class with respect to course instruction, quality of students, and perceptions in the corporate community. The second task involved our manipulation of affirmation. In the *self-affirmation* condition, participants were asked to describe in writing who they were as an individual and then report values that were important to them. They were then asked to "select the one value that is most important to you as an individual" and "write a paragraph explaining why you hold this value." In the *group-affirmation* condition, participants were asked to describe in writing what groups they belong to and then report values that were important to these groups. They were then asked to "select the one value that is most important to the groups you belong to" and "write

a paragraph explaining why you and the groups you belong to hold this value." In the *no-affirmation* condition, participants were asked to think of values that were unimportant to them and to write down these values. They were then asked to "select the one value that is least important to you as an individual" and "write a paragraph explaining why this value might be important to a typical university student" (see Steele and Liu [1983] and White and Lehman [2005b] for similar procedures).

In the third part of the study, participants completed a consumer questionnaire. As in study 1, they indicated their evaluations for pairs of products such that in each pair, one product was linked to the university and one product was university neutral (products in a pair were matched for price). In addition to the products in study 1, two new pairs of products were included: mechanical pencil versus nail clippers and correction fluid versus lip balm (in each of these new pairs, pretesting revealed the former product to be university linked and the latter to be identity neutral). Once again, a difference score was conducted by subtracting neutral products from the university-identity products.

Results

Preferences for University Products. A 2 (social identity threat: university threat vs. no threat) × 2 (self-construal: independent vs. interdependent) × 3 (affirmation type: self-affirmation vs. group-affirmation vs. no affirmation) ANOVA, using the university preference score as the dependent variable, revealed the predicted significant three-way interaction ($F(2, 327) = 4.15$, $p < .02$; refer to table 5). This interaction qualified a main effect for affirmation type ($F(2, 327) = 3.60$, $p < .05$), a significant interaction between self-construal and social identity threat ($F(1, 327) = 10.93$, $p < .01$), and a significant interaction between social identity threat and affirmation ($F(2, 327) = 5.08$, $p < .01$).

To reiterate our predictions, we expected that the dissociative effect (lower product ratings for threat vs. no threat) should

manifest for independents who are not self-affirmed; however, this effect should be attenuated in the self-affirmation condition. Consistent with this prediction, independents (participants from Canada) exhibited more negative evaluations of university products under threat ($M = -1.38$) as opposed to no threat ($M = -0.57$; $t(327) = 2.53$, $p < .05$) in the no-affirmation condition. A similar pattern arose in the group-affirmation condition ($M_{threat} = -1.33$ vs. $M_{no\ threat} = -0.66$; $t(327) = 2.09$, $p < .05$). Importantly, however, when independents were self-affirmed, no significant difference in product ratings emerged under threat ($M = -.33$) versus no threat ($M = -.86$; $t(327) = 1.71$, $p > .09$).

For interdependents, we anticipated that the previously observed associative effects (greater product liking under threat vs. no threat) should emerge under conditions of no affirmation or self-affirmation, but this effect should be attenuated in the group-affirmation condition. In support, we found that among interdependents (i.e., participants from Hong Kong), university product ratings in the no-affirmation condition were more positive under threat ($M = -0.12$) as compared to no threat ($M = -1.20$; $t(327) = 3.36$, $p < .05$). A similar pattern emerged among those in the self-affirmation condition ($M_{threat} = -0.05$ vs. $M_{no\ threat} = -0.78$; $t(327) = 2.27$, $p < .05$). Importantly, however, differences between the threat ($M = -0.80$) and no-threat ($M = -0.81$) conditions were eliminated under conditions of group affirmation ($t(327) = .03$, NS).

Discussion

Using a different (cross-national) operationalization of self-construal, study 4 again shows that independents demonstrate a dissociative response under threat, whereas interdependents tend to engage in an associative response. Of more importance, the findings also provide further supportive evidence for the mechanisms underlying these effects. Consistent with our premise that independents engage in dissociation in order to protect the individual self, we find that offering independents an alternate route to affirming individual self-worth following threat attenuates the dissociative effect. Similarly, supporting the argument that interdependents exhibit an associative response in order to satisfy group belongingness concerns, we find that a task that allows for them to reinforce a strong sense of belonging and connectedness with important groups mitigates the associative effect. Of importance, the effects of each type of affirmation are specific to the two groups: self-affirmation does not influence interdependents' product evaluations, just as group-affirmation does not affect independents' product evaluations. Taken together, this contrasting pattern of results further emphasizes an interesting distinction between independents and interdependents that runs through the current set of studies: faced with a social identity threat, independents avoid identity-linked products in a way that restores individual self-worth, while interdependents activate and reinforce their sense of belonging and connectedness to their group identities in a way that allows them to view identity-linked products positively.

GENERAL DISCUSSION

The results of four empirical studies demonstrate that the impact of a threat to one aspect of social identity on consumer preferences is moderated by self-construal. Taken together, the studies show that when an aspect of social identity is threatened, those higher in independence demonstrate a dissociative response to identity-linked products, while those higher in interdependence exhibit an associative response. These findings emerged when self-construal was operationalized in multiple ways, including examining subcultural differences in ethnic background (study 1), priming self-construal (studies 2 and 3), and testing cross-national differences in cultural background (study 4).

The results converge on an account suggesting that the dissociative response of independents is driven by self-worth concerns, while the associative response of interdependents is driven by belongingness concerns. In study 1, the effects were statistically mediated by the activation of multiple social identities. Further, in study 2 we found evidence that while independents only dissociated from the threatened identity, those primed with interdependence demonstrated an associative response to the threatened identity as well as to an alternative aspect of identity. This suggests that, for those higher in interdependence, additional identities besides the threatened identity were activated and embraced in response to the social identity threat. The proposed mechanism underlying this associative effect is novel, as it involves the activation and utilization of multiple social identities in response to threat. In study 3, we show that while the dissociative response of independents is driven by the need to see the self in a positive light, the associative response of interdependents is driven by a need to belong. Finally, in study 4, we demonstrate that restoring self-worth via a self-affirmation reduces the identity-avoidance responses among those who are more independent, whereas enhancing belongingness with a group-affirmation manipulation reduces the identity-associating responses among those who are more interdependent.

Theoretical Contributions of the Research

The key contribution of the current research is that we provide an integration of perspectives from social identity theory, self-construal theory, and the social rejection literature to predict when more dissociative versus associative responses to social identity threat will emerge. In doing so, we not only apply insights to the domain of consumer preferences but also uniquely contribute to each stream of research. In terms of social identity research, we demonstrate a novel downstream consequence of social identity threat. While past work demonstrates that consumers can exhibit dissociative or neutral responses to social identity threat (White and Argo 2009), the current research shows that an associative effect can also emerge. We do so by identifying an important moderator of reactions to social identity threat—self-construal. In particular, under conditions of social identity threat, while independents exhibit a dissociative response, interdependents demonstrate an

associative response. We suggest that for independents, the dissociative response to social identity threat is driven by the desire to maintain positive self-worth. In contrast, for interdependents, the associative response to social identity threat is driven by the social motive to belong.

We demonstrate these differential mechanisms for independents and interdependents by using two novel methodological approaches in this domain. First, we use a methodology that allows us to assess the strength of consumers' evaluations of self-worth and belonging needs at varying time points. When threatened, independents report greater self-worth concerns before (vs. after) they have the opportunity to rate the university products. This suggests that through their dissociation response to the university products under threat, independents are able to resolve their self-worth concerns and feel more positively about the self. When threatened, interdependents report a greater need to belong before (vs. after) they have the opportunity to evaluate the university products. This suggests that the act of evaluating (and associating with) the university products fulfills the need to belong for them. Second, we use an affirmation manipulation, in which we not only include a condition that provides the opportunity to affirm the individual self but also include a condition that provides the opportunity to affirm one's belongingness to multiple groups (and compare these to a control condition). Our findings show that while only a *self-affirmation* task decreases the dissociative effect for independents, only a *group-affirmation* task decreases the associative effect for interdependents. This provides evidence that while the reactions of independents are driven by a desire to maintain and restore positive self-worth, the reactions of interdependents are related to a fulfillment of belonging needs.

We further make a contribution to self-construal theory by merging a self-construal perspective with that of social identity theory. Although past work has shown self-construal differences in response to a threat to the individual level of the self (e.g., in the form of negative individual performance feedback [Brockner and Chen 1996] or failure at a difficult task [Heine et al. 2001]), to the best of our knowledge, this is the first research to empirically demonstrate self-construal differences in responses to threat at the social level of the self. In particular, we highlight an important and previously unidentified distinction between the ways in which independents and interdependents react to threat, with the former focusing on protecting the individual self and the latter activating and embracing their belonging to multiple groups. Further, we contribute to research on responses to social rejection (e.g., Knowles and Gardner 2008). We apply the notion that a social threat may be responded to by activating and connecting with a repertoire of group identities (similar to how individuals respond to social rejection), and we extend this work by identifying a theoretically-derived moderator: self-construal. In particular, we demonstrate that the associative effect for interdependents is related to the activation of and connection to multiple group identities when an aspect of social identity is threatened.

One additional theoretical implication of the current re-

search lies in our findings with regard to the mediator in study 1 (the activation of multiple social identities, as measured by the Twenty Statements Test). In past research the TST (Kuhn and McPartland 1954) has been used as a measure of self-construal (e.g., Bond and Cheung 1983; Trafimow et al. 1991). For example, the number of group-related statements is often used to index interdependence. Given this, the current data suggest that social identity threat leads those who are interdependent to behave in a manner that makes them more interdependent. Our data suggest that threat activates a need to belong for interdependents, which results in them activating their various group identities (i.e., they become more interdependent). By contrast, threat activates a desire to restore positive self-worth among independents (i.e., a strategy that helps them focus on enhancing the individual self).

Practical Implications and Directions for Future Research

The findings of this research have important practical implications for marketers. Social identity threats commonly occur in real life—from reading a newspaper article that casts one's university in a negative light, to hearing negative information about one's country's foreign policy, to being teased by peers for belonging to a particular social group. One question of importance is what happens when marketers link their product with an aspect of social identity and this identity is subsequently threatened in some way. Past research suggests that marketers' identity-based strategies may backfire under such conditions: consumers will tend to dissociate from products linked to the threatened identity (White and Argo 2009). In contrast, our findings offer a more optimistic view for marketers: a social identity threat may actually lead certain consumers to embrace identity-linked products (i.e., display an associative rather than a dissociative effect). Specifically, if marketers are able to activate an interdependent self-construal in the context of their product offering, consumers may have positive evaluations of the brand linked to an identity even when that social identity is threatened. Importantly, recent research does suggest that marketers can manipulate self-construal through the wording of the marketing communication itself (White and Simpson 2012). Further, for target markets that are more independent, affirming self-relevant values may be the best defense against an identity threat.

The current work points to several possible directions for future research. One question is whether there are other conditions under which associative responses to identity threat can occur. One possible direction for future research is to examine the nature of the setting in which social identity threat occurs. When a threat occurs in a public (vs. private) setting, consumers might be particularly motivated to bolster their own identity and avoid negative reflected appraisals from others (e.g., Laverie, Kleine, and Kleine 2002). Furthermore, future research might explore in greater depth the mechanism for the dissociative response among independents when the group identity is threatened. For example, when independents

avoid products linked with the group identity, do they concurrently favor products that are associated with the individual level of the self? Perhaps independent individuals will show a preference for products that allow them to display their own individual identity—products that are unique, that are customizable to one's own preferences, or that reflect their individual values—when an aspect of social identity is threatened.

The findings of the current research converge on an account that the associative response of interdependents is driven by belongingness needs. This account implicitly assumes that such belongingness needs refer to connections that are formed with important, valued group identities (e.g., one's gender identity or university identity). The question may be raised as to whether interdependents might even be able to cope with social identity threat by increasing their sense of connectedness with other types of groups, for example, neutral or even disparaged groups. Our speculation is that this would not be an effective coping strategy, but the current research does not directly examine this issue, which would be very interesting to pursue in further work in the area.

Given that research finds that brands can be an extension of the self (Belk 1988), future work might also explore the implications of a threat occurring at a brand or product level (rather than at a social identity level). In particular, in light of the Toyota's mass product recall, it would be interesting to investigate how consumers who identify with a specific product/brand respond to threatening information about that brand (e.g., that the products are faulty). Do interdependent (independents) in a threatened brand context also demonstrate an associative (dissociative) effect by evaluating the brand more (less) favorably?

One interesting pattern arose in some of the studies whereby, under conditions of no threat, independents showed a greater preference for the identity-linked products than did interdependents. One possibility is that the identity-linked products are more "fun" than the neutral products and this may be why independents like them more on a baseline level. Indeed, research suggests that independents might be more concerned with hedonic enjoyment for the individual self as compared to their more interdependent counterparts (Zhang and Shrum 2009). While our theorizing focuses on the relative shift in preferences for identity-linked products across the no-threat and threat conditions (rather than on the independent-interdependent comparison within no threat), one possibility might be to examine this further in future research.

Finally, in the present research we focused on how consumers who differ in self-construal respond to a threat to their social identity. An interesting avenue for future research might be to consider how interdependents and independents respond to receiving positive information about their social identity. On the one hand, it could be expected that the same pattern of effects for interdependents would be realized when positive information is presented as when a threat is implemented (i.e., an associative response to identity-linked products when threatened), whereas preference differences for independents

would be attenuated as they no longer have a need to protect the self. On the other hand, it is possible that a "threat" is special in the sense that without it interdependents may not activate their repertoire of social identities—in which case the associative effect that was realized in the present research may not arise. Although many promising avenues for future research exist, the current research represents an important first step toward highlighting conditions under which dissociative and associative responses to social identity threat can occur.

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