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A Unified Theory of Consumer Response to Self-Concept Threat

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Abstract

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This dissertation comprises three chapters. Chapter one is designed to stand alone as a conceptual framework and literature review prepared for submission to an edited volume. This chapter presents a unifying model of self-concept threat. Through the integration of extant literature and the adaptation of a novel theoretical perspective, chapter one makes the critical proposal that self-concept threats are best understood when defined by the specific associations they target. Using Greenwald and colleagues' Unified Theory of Implicit Social Cognition (2002) as a starting point, this chapter introduces two specific threat types: identity valence threat and identity strength threat, and hypothesizes the distinct mechanisms involved in response to either type of threat. Chapter two is a brief empirical investigation of the framework outlined in chapter one and presents a single pilot experiment. Chapter three is designed as stand alone document prepared for submission to a peer-reviewed journal. This chapter focuses on identity strength threats, specifically threats that target the self-brand association. Three experiments demonstrate that threats to self-brand association lead to heightened preference for the focal brand, particularly for those most strongly identified with the brand, and that the pursuit of the brand is an anxiety-mediated act of self-verification. The key implication of this research is that creating uncertainty in brand relationships can be an effective strategy for increasing brand preference, a tactic contrary to marketing convention.

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Chapter I: When Does Identity Salience Prime Approach and Avoidance?

A Balance-Congruity Model

Identity salience is defined as the activation of a particular identity dimension within an individual's social self-schema and typically heightens sensitivity to identity-relevant stimuli. For example, being at work (home) might increase the salience of one's organizational (family) identity. In addition, being consciously or non-consciously exposed to symbols, words, pictures, ideas, brands or people can increase the salience of any identity related to these cues. Indeed, identity salience generally follows consumer evaluation of relative similarity or dissimilarity (Eiser, Pahl, & Prins, 2001; Forehand, Deshpande, & Reed, 2002). Interestingly, some instances of this self-categorization process may undermine one's basis for identification (e.g., if one's ethnic identity salience is increased by exposure to a threatening stereotype prime). Consider Oprah Winfrey, for instance. Oprah could categorize herself as a woman, as an African-American, as a celebrity, as an actress, as an athlete, or as a businessperson. She could also possess multiple salient identities simultaneously (e.g. businesswoman).

Oprah has likely experienced countless situations in which she is the only woman, the only celebrity, the only African-American, or the only billionaire in the room. Accordingly, social context is a key determinant of identity salience. In addition, stimulus cues could heighten the salience of any one of these identities. For example, simply seeing another famous person could increase the salience of Oprah's celebrity identity. Such situational and cue based activations are often temporary, however. More stable traits, such as strength of association with a particular identity, often determine a more chronic state of identity salience. Whatever the determinant of the salience, these

activations, whether chronic or temporary, have implications for Oprah's behavior. In certain situations Oprah will think or act in ways congruent with the salient identity. For example, if she finds herself as the only famous person in a particular setting, her celebrity identity is likely to become salient and she might present a more guarded, public version of herself. On the other hand, identity-incongruent behavior is also possible. As the lone celebrity, Oprah might feel threatened and try to downplay that identity in her interactions, attempting to behave as just a "regular" person.

Although self-categorization can be threatening, it is not clear whether the threat will move individuals closer to the salient identity or further from it. Published research shows that both identity approach behaviors, such as seeking high status products when power identity is threatened (Rucker & Galinsky, 2008) and identity avoidance behaviors, such as shunning gender-associated products after gender identity is threatened (White & Argo, 2009; White, Argo, & Sengupta, 2012), are possible. Given these mixed findings, the extant literature would greatly benefit from a theoretical exploration of when identity salience is threatening and what factors determine whether such threats prompt approach or avoidance.

To illuminate these issues, this chapter presents a model of identity salience and threat that intentionally defines threats in terms of specific associations. For example, when a man hears a statement like "*all men are pigs*" the association of his gender with positive valence is threatened. On the other hand, when he is told "*you are a poor excuse for a man*" his association of self with male is challenged without saying anything positive or negative about being a man. Conceptually, analyzing the threat in terms of specific associations enables more refined theoretical predictions for when and why

threatening salient identities can produce identity approach or identity avoidance. In addition, the proposed model identifies important mediating mechanisms yet to be examined.

Identity Salience Precursors and Outcomes

The self-concept is a collection of self-attribute associations. Some of these associations are chronically salient, while others can be temporarily activated by a variety of factors. It includes both associations of the self with particular attributes or valence (self-view or self-esteem) and the association of the self with various social groups (social identity) through actual or perceived membership. Social Identity Theory proposes that various aspects of the self – referred to as identities – can be activated by situational variables, and this activation will influence thoughts, feeling, and behavior (Tajfel & Turner, 1986). Furthermore, research has shown a consistent motivation for individuals to maintain positive self-worth and to avoid anything with negative implications for the self (e.g. Steele, 1988). The self-concept also has important implications for consumer behavior (Oyserman, 2009; Reed & Forehand, 2012). Consumer choices often reflect chronically held self-views (Sirgy, 1982), or are shaped by social identities made temporarily salient (Forehand, et al., 2002).

Identity salience has deep roots in social psychology. The concept was first introduced by Hoelter (1983) and studied as a dependent measure. Specifically, domain-specific identity salience increased with increased commitment to a particular role (Hoelter, 1983). Soon, however, scholars began to focus on identity salience as a state or

condition that could lead to important differences in perception and/or behavior. The concept of ethnic self-awareness was introduced by Stayman and Deshpande (1989), referring to a temporary state during which an individual is more aware and/or sensitive to information relevant to his or her ethnicity. The intuition behind ethnic self-awareness is straightforward and draws from distinctiveness theory (McGuire, McGuire, Child, & Fujioka, 1978) – individuals in the minority group are more sensitive to the trait that defines them as the minority than are individuals in the majority group. Identities can become salient in other ways. Forehand and colleagues (2002) propose that any process of self-categorization on an identity dimension will lead to identity salience. Self-categorization can be either conscious or non-conscious and involves the comparison of one's self with a particular group and an assessment of relative similarity or dissimilarity (cf. Eiser, et al., 2001).

Identity salience can be stimulated by a variety of factors, including stable individual traits, stimulus cues, and social context (Forehand, et al., 2002). Individuals vary in how strongly they associate themselves with an identity. Stimulus cues and social context also often produce increases in identity salience, albeit more temporarily. Simply seeing a member of a particular group (Marques, Yzerbyt, & Rijsman, 1988; Torres, 2007) or encountering identity-related images or words (Forehand & Deshpandé, 2001; Mastin, Andsager, Choi, & Lee, 2007; Reed & Aquino, 2003) can heighten identity salience. One's social context can also increase identity salience by making one feel more distinctive or unusual (McGuire, et al., 1978) or by highlighting one's inclusion in the statistical majority (Yip, 2005). These triggers can function singularly or interact with other situational variables to produce behaviors that either reinforce an identity or create

distance from it.

Identity Salience Can Produce Approach. A salient identity shapes the perspective with which consumers view the world and influences the perceived relevance of new information (Maitner, Mackie, Claypool, & Crisp, 2010; Turner, 1988). In many cases, heightening awareness of a particular identity leads consumers to think, feel, or behave in an identity-consistent fashion (Reed, 2004). For example, those with chronically salient moral identities are more apt to donate to charity (Reed, Aquino, & Levy, 2007). Similarly, individuals who scored higher on global (versus local) identity, preferred products tailored to the global (versus local) marketplace (Zhang & Khare, 2009), and bicultural subjects primed with cultural symbols increased their preference for objects associated with the primed culture (Chattaraman, Lennon, & Rudd, 2010; Chattaraman, Rudd, & Lennon, 2009; Hong, Morris, Chiu, & Benet-Martinez, 2000; LeBoeuf, Shafir, & Bayuk, 2010; Zou, Morris, & Benet-Martinez, 2008). Furthermore, consumers tend to favor products endorsed by spokespeople of shared ethnicity (Forehand & Deshpandé, 2001), and minority consumers prefer service encounters in which more customers of the same race are present (Baker, Meyer, & Johnson, 2008). In the educational domain, students primed with education-dependent future selves (doctor, lawyer, etc.) were more likely to take on extra credit assignments (Destin & Oyserman, 2010).

Identity Salience Can Produce Avoidance. It should not be assumed, however, that identity salience uniformly results in enhanced evaluation of identity-related objects (Wheeler & Petty, 2001). For example, exposure to Spanish language advertisements made Hispanic participants less likely to spontaneously acknowledge their ethnicity

(Dimofte, Forehand, & Deshpandé, 2003), and minority workers in Southeast Asia placed lower dollar values on their own work after being asked to identify their ethnicity on a demographic questionnaire (Cheung & Hardin, 2010). Furthermore, informing consumers that a salient identity is non-diagnostic can turn identity approach into avoidance (Zhang & Khare, 2009). In general, consumers tend to avoid a salient identity when that self-association has negative consequences for the self (Steele & Berkowitz, 1988) or if the self-association triggers a feeling of loss of freedom to express an identity (Bhattacharjee, Berger, & Menon, 2011).

Given that these findings indicate that identity salience can produce both approach and avoidance, a comprehensive model that identifies the moderators and key mediators of identity-based consumer behavior would be very useful.

Identity Salience and Threat

The studies mentioned thus far typically employ stable individual differences, contextual variables, or stimulus primes to make salient a particular identity. These sorts of activations can be either threatening or non-threatening. A self-concept threat is anything that presents potential negative consequences for the self, and simply making a particular identity salient can constitute a threat, as demonstrated by social-distinctiveness theory (McGuire, et al., 1978; McGuire, McGuire, & Winton, 1979). Steele and Aronson's (1995) seminal work on stereotype threat illustrates this perfectly, as the activation of a stereotyped identity can be threatening enough to impede cognitive function and lead to ironic and unintentional confirmation of the stereotype. Such threats

can be overcome by making salient in-group members highly competent in the negatively stereotyped dimension (Marx & Roman, 2002).

Self-concept threats, however, are not driven solely by stereotypes. Simply casting a salient group identity in a negative light or manipulating its status is enough to constitute a threat. For instance, high status group members tend to feel threatened when they perceive group boundaries to be unstable (Grier & Deshpandé, 2001; Scheepers, 2009). Alternatively, identity is threatened when group membership is challenged, leading highly identified group members to exert greater effort on the group's behalf (Ouwkerk, de Gilder, & de Vries, 2000). Such demonstrations are consistent with Social Identity Theory (Tajfel & Turner, 1979, 1986).

Threatening salient identities also impacts self-esteem, but it is not clear that the effects are uniformly negative. For example, many studies have demonstrated decreased explicit self-esteem in response to social rejection (for a review, see Leary & Baumeister, 2000) or performance feedback (Williams, Cheung, & Choi, 2000), yet increases in implicit self-esteem have been observed in the face of similar threats (Rudman, Dohn, & Fairchild, 2007). Finally, more recent work shows that messages that restrict the ways in which a consumer can express an identity can sometimes backfire because they threaten the sense of freedom and personal agency in identity expression (Bhattacharjee, et al., 2011).

Self-threats can also dramatically shape consumer preference, although the mediating mechanisms involved are not well understood. For example, threatening a consumer's salient identity with negative information about that identity leads to

avoidance of identity-related products (White & Argo, 2009; White, et al., 2012). Specifically, women confronted with negative information about female intelligence avoided low-intellect female products such as biographies of Britney Spears and Whitney Houston (White & Argo, 2009). This avoidance of identity-related products is a form of self-protection. On the other hand, this self-protection strategy can also produce identity approach effects. Challenging the strength of association between the self and a salient identity will lead individuals take action to restore threatened associations (Tetlock, Kristel, Elson, Green, & Lerner, 2000; Zhong & Liljenquist, 2006). When Gao, Wheeler and Shiv (Gao, Wheeler, & Shiv, 2009) threatened health identity, their subjects responded by choosing an apple over a package of M&Ms, most likely in a effort to reaffirm the pressured identity.

Although all of the findings to date are motivated by self-protection, the actual threats involved are fundamentally different. It follows that self-concept threats are perhaps best understood in terms of the precise associations they target. Specifically, does the threat target the association of a group with positive valence, or the association of the self with the group? Conceptualizing salient identity threat along associational lines leads to a better understanding of when to expect identity approach or avoidance.

To parsimoniously model when identity threats lead to approach versus avoidance, this chapter presents a single theoretical framework that can explain the current findings and offer predictions for consumer behavior in the face of a variety of self-threat situations. Using the Unified Theory of Implicit Social Cognition (Greenwald et al., 2002) as an organizational lens, the proposed framework explains identity salience and threat response in terms of three types of associations: self-valence, self-group, and

group-valence. Conceptualizing identity salience and threat in this fashion leads directly into a comprehensive model of threat that provides predictions for both identity approach and avoidance behaviors and the mediating mechanisms that drive them. Furthermore, this framework illuminates key potential moderators of threat response.

The Unified Theory was born out of pioneering work on implicit social cognition. Greenwald and Banaji defined an implicit cognition as an “introspectively unidentified or inaccurately identified trace of past experience that mediates” judgment or attitude (1995, Page 5). The subsequent proliferation of implicit association and attitude measures, such as the Implicit Association Test, was motivated by the notion that self-report measures of certain cognitions are often insufficient. In addition, evidence quickly emerged to support the conclusion that implicit attitudes have distinct construct and predictive validity (for a comprehensive review, see Greenwald, Poehlman, Uhlmann, & Banaji, 2009). In addition, since implicit cognitions are often unavailable to introspection, implicit measures are often more predictive of behavior than self-report measures, particularly for constructs susceptible to self-presentation bias (Greenwald & Nosek, 2008). The study of implicit social cognition was quickly brought into consumer research, with the Implicit Association Test (IAT) being used to measure such constructs as brand attitude (Maison, Greenwald, & Bruin, 2004), attitude toward celebrity endorsers (Forehand & Perkins, 2005), and implicit brand partisanship (Pinter & Greenwald, 2004).

The concept of balance is a fundamental component of the Unified Theory. The *balance-congruity principle* states that self-object relationships can develop non-consciously via the formation of balanced triads of associations through a mechanism similar to *cognitive consistency theory* (Festinger, 1957; Greenwald, et al., 2002; Heider,

1958; Osgood & Tannenbaum, 1955). A balanced triad consists of the *self*, any *object* (e.g., social group) associated with the self, and a mental conception of *valence*, ranging from positive to negative. Implicit self-esteem is defined as the measured association between self and valence (Farnham, Greenwald, & Banaji, 1999; Greenwald & Farnham, 2000), an attitude is a measured association between a group and valence (Greenwald, McGhee, & Schwartz, 1998), and an implicit identity is the measured association between a group and the self (Rudman, Greenwald, & McGhee, 2001). Balanced triads form when any two associations share a common association with a third concept. For example, if self is associated with both male and positive valence, an association of male with positive will develop, completing the triad. A balanced triad can be thought of as an equilibrium state and a threat to any single association in the triad leads to predictable and specific strategies for restoring balance. A visual depiction of the balanced triad appears in figure A1.

Unified Theory of Threat Response: Theoretical Predictions

Applying the concept of *balance-congruity* to the different operationalizations of self-threat reviewed in this chapter intimates key distinctions in how threats to salient identities operate and the responses they produce. For example, telling an American citizen, “*all Americans are bad*,” may weaken the association between the group and positive valence and thereby throw the triad of associations between the self, the group and valence out of balance. Restoring balance requires either some form of

counterargument that will re-establish the association of the group with positive valence or a weakening of the self-group association (in unusual circumstances, this could also lead to changes self-valence association, but this final association is comparatively resistant to change). If the threat to group-valence association proves too strong to move via counter arguing (Eisenstadt, Hicks, McIntyre, Rivers, & Cahill, 2006) or source derogation (Dechesne, Janssen, & van Knippenberg, 2000), the self-group association is likely to weaken. As White & Argo found, one expression of this weakened association is the avoidance of products related to threatened group (White & Argo, 2009). We refer to threats of this sort as *identity valence threats*.

Alternatively, self-group association can be threatened with the statement, “*you are un-American.*” This threat could be met with a variety of responses, including acceptance of the message and the resultant detachment from the American identity, a motivation to restore balance and actively rebuild the self-American association, or a desire reaffirm the self-concept in an unrelated domain (Shrira & Martin, 2005). Gao et al. (2009) utilized threats of this type and observed that consumers faced with such threats sought products that would restore the threatened self-group association. We refer to threats of this sort as *identity strength threats*.

A third possibility is presenting that American with information or an experience that says, “*you are bad.*” This targets the self-valence leg of the triad and the response process likely operates through changes in self-esteem. Again, a variety of responses could occur. The participant might accept the threatening information as true and experience a decrease in self-esteem (Leary & Baumeister, 2000). Alternatively, the participant might combat the threat through a process of “fluid compensation” as outlined

Steele and Berkowitz (1988, p. 267) by attempting to recover from the threat in an unrelated domain. Another potential response is self-esteem compensation. As Rudman et al. reported (2007), threats of this sort can be met with an *increase* in implicit self-esteem, but to date it is unclear how such changes in self-concept would manifest in the consumer domain. These *self-esteem threats* are an interesting and important area for research, but for the purposes of this chapter and the subsequent experiments, self-esteem is thought to be a relatively stable trait and thus modeled as a critical predictor of threat response.

Using this framework we can predict approach and avoidance behaviors based on threat type and the expected shifts in *implicit* associations that the threat produces. Implicit, rather than explicit, associations drive this model for two critical reasons. First, they have greater predictive validity of social behavior in sensitive domains (Greenwald, et al., 2009). Since salient identities and threats to them often involve social categories with the potential for stigmatization, the focus on implicit associations can lead to more meaningful insights. Second, their measurement via the Implicit Association Test offers a straightforward methodological mechanism for observing the associational changes driving threat response.

Identity Valence Threat Mechanism.

Identity valence threats pressure the association of a salient social group with positive valence. If there is no opportunity to counter argue the threat or derogate the source of the threat, a weakening of the group-valence association should be observed. Evidence of this weakening should be detectable by a group-valence Implicit Association

Test or other similar implicit measure. When this weakening occurs, the triad becomes unbalanced and the primary path to restoring balance is to dissociate the self from the group, observable through an implicit measure of self-group association. This self-group disassociation should motivate specific consumer behaviors, such as the avoidance of products associated with the threatened group.

Identity Strength Threat Mechanism

Identity strength threats also involve shifts within the balanced triad, but the process focuses solely on the self-group association. For example, a college student's school spirit could be threatened if he learns he is the only one not attending an important school. If the threat is credible, a weakening of the self-group (university) association is expected. This threat, however, says nothing about the positivity of the group, and therefore, the group-valence association remains unchanged. The self-valence association (self-esteem) is also expected to remain unchanged. To restore balance, the only possibility in this instance is for the student to do something that reaffirms the threatened association. Behaviors that exhibit school spirit, such as attending future games, wearing university branded clothing, or purchasing university-branded products, would be expected expressions of the self-group association. These sorts of approach responses reaffirm the association of the self with the group.

Implicit self-esteem predicts strength of threat response

Investigations of identity salience and self-concept threat have largely ignored the role of implicit self-esteem. Implicit self-esteem is integral to identity salience and self-threat because it may function as a monitoring system that determines which identities

within a social self-schema become salient (Reed & Forehand, 2012). In addition, implicit self-esteem is a central component of *balance-congruity*, and it should play an important role in moderating threat response. Prediction 1 of The Unified Theory of Implicit Social Cognition states that the strength of any single association in the balanced triad is a multiplicative function of the strength of the other two associations (Greenwald, et al., 2002). For example, in a balanced triad of self-gender, self-valence, and gender-valence associations, the strength of the self-gender association can be calculated by multiplying the self-valence (implicit self-esteem) and gender-valence associations. It therefore follows that initial implicit self-esteem can be used to predict strength of response to both identity strength and identity valence threats.

In the case of identity valence threat, the avoidance response operates through a weakening of the group-valence association, which manifests in avoidance of products related to that group. As a consumer's self-esteem increases, his or her motivation to protect the self through this avoidance strategy also increases, resulting in more vigorous response. Implicit self-esteem should similarly predict strength of response to identity strength threats. These threats weaken the self-group association yet do not affect the group-valence association. In the resultant state of imbalance, higher implicit self-esteem yields stronger threat response because the multiplication of the unchanged group-valence association with a higher self-valence association indicates that a stronger self-group association is required to respite balance. Consumers with high implicit self-esteem will thus engage in more forceful effort to re-associate with the group through group-related product choices.

Conclusions and Future Directions

This chapter presents a unifying theoretical framework for understanding threats to salient identities. Although other threat taxonomies have been presented (Branscombe, Ellemers, Spears, & Doosje, 1999; vanDellen, Campbell, Hoyle, & Bradfield, 2011), they have bucketed threats in terms of situational variables or outcome behaviors. This chapter argues it is more constructive to classify threats according to the specific associations they target as this generates specific predictions for consumer threat response and illuminates mediating mechanisms as well as potential moderators. *Balance-congruity* provides the structure for this conceptualization in a single, parsimonious model. Self-threats can be conceived as attacking one of three associations in a balanced triad: self-group, self-valence, or group-valence. Whichever association is targeted will determine the predicted path to restore balance. These paths, in turn, can inform predictions for consumer behavior. This conceptualization offers a more flexible model and one that can be used to guide research projects aimed at gaining a deeper understanding of the mechanisms involved when a salient identity is threatened.

In addition to illuminating the associational processes involved in both identity valence and identity strength threat, the proposed model opens the door to two particularly interesting and important research areas. First, if identity is defined in terms of component associations, what happens to the self-concept when a brand closely associated with the self is threatened? Is the brand simply an extension of the self? If so, will threats to brands function the same as threats to groups? Preliminary evidence suggests this is indeed the case. Consumers are more responsive to corporate-social responsibility campaigns when self-brand identities are made salient (Marin, Ruiz, & Rubio, 2009). In addition, threats to brands closely linked to the self can produce patterns

of approach and avoid response similar to those observed with direct threats to the self (Angle & Forehand, 2012). More research is needed to fully understand the processes driving these effects.

Another fruitful area for future research involves the processes by which threats shape identity over time. Repeated exposure to threats may not only reinforce or weaken the salience of an identity, but may also influence the relationship between multiple identities. One way to model these interrelationships using the proposed framework is based on the notion of *pressured concepts*. A *pressured concept* is any identity object that comes under consistent pressure to associate with two concepts that are bi-polar opposed (Greenwald, et al., 2002). For example, what happens when Nike, a brand often associated with both the self and positive valence, becomes associated with something negative, such as sweatshops? Nike becomes a pressured concept and the consumer's mental representation of the brand could split into two concepts – one piece of Nike associated with the self, and a distinct piece of Nike associated with sweatshops (Greenwald, et al., 2002). From an attitude standpoint, the consumer would develop two distinct attitudes toward Nike (Cohen & Reed, 2006). To date, this process of differentiation has not been empirically observed, but in practice, situations like this come up time and time again. The balanced-congruity perspective provides an excellent starting point for research projects aimed at clarifying this process.

Chapter II: Implicit Brand Pursuit: A Preliminary Test of the Unified Theory of Self-Concept Threat.

Consumer's associations with identity groups and brands are constantly updated as new information about these concepts is encountered. When new information threatens a consumer's existing associations, the range of potential reactions include everything from behaviors that strongly reinforce the threatened concept to behaviors that signal distancing from the concept. Consider two possible threats to gender identity. Confront a man with the message, "*all men are pigs,*" and that man might respond by downplaying his maleness. Alternatively, tell him "*you are a poor excuse for a man,*" and that same man might respond in the opposite fashion, actively seeking opportunities to express his gender. Such reactions are also possible when a consumer's associations with a brand are threatened. Although new negative information about an identity or a brand may cause consumers to avoid that brand (White & Argo, 2009), threats to the consumer's personal association with the brand may trigger approach, an effect that will be referred to as *implicit brand pursuit*.

The majority of consumer research on identity threat response has demonstrated that consumers exposed to negative information about a personal identity will subsequently avoid products associated with that identity (White & Argo, 2009; White, et al., 2012). This follows a series of findings demonstrating the tendency of consumers to avoid threatening social comparisons (Argo, White, & Dahl, 2006) and distance themselves from products related to dissociative out-groups (White & Dahl, 2006, 2007). The dominant process at work in these effects is the strong motivation of individuals to

avoid anything with negative consequences for the self. Avoiding products associated with a threatened identity is a form of self-protection.

On the other hand, when a consumer's confidence in a particular self-view is threatened, an approach response may occur if the consumer seeks to restore that self association (Gao, et al., 2009). Specifically, Gao et al. (2009) had their participants write about a particular self-view (e.g. health consciousness) with their non-dominant hands. The difficulty experienced in this task reduced confidence in the focal attribute, and to restore this shaken confidence, participants chose products associated with that threatened attribute. This finding suggests that threatening consumers' association with groups or brands may produce similar identity-consistent preferences and behaviors.

Given that the aforementioned approach and avoid behaviors have both been conceptualized as examples of identity threat response, it is clear that a more precise typology of threat is needed. Further, research to date has focused primarily on threat outcomes, but has offered little advancement in understanding of how specific threat characteristics drive these different outcomes, particularly in the case of identity approach behaviors. Shifting the research focus to key differences in threat stimuli could shed important theoretical light on the processes that drive implicit brand pursuit in response to threats.

The pilot experiment presented here is a preliminary test of the theory proposed in chapter one. The following experiment demonstrates this conceptualization, using threats to self-group and group-valence associations to produce identity approach and avoidance behaviors, respectively.

PILOT STUDY

The purpose of this pilot study was to demonstrate that shifting the target association of a self-concept threat can product both identity pursuit and identity avoidance within the same experiment. To do this, an identity susceptible to both types of threats was utilized – university affiliation. University affiliation is both salient and important to the undergraduate students constituting the participant pool. In addition, it is an identity that can be threatened on multiple dimensions. Students can encounter negative information about their university (identity valence threat) or information challenging their sense of connection to that university (identity strength threat). Identity avoidance is expected in the former, while identity approach is predicted in the latter.

H1: Threat and threat-type will interact such that participants in the high identity strength threat condition will exhibit heightened preference for an identity-related product, while participants in the high identity valence threat condition will have reduced preference for an identity-related product. No preference differences are expected across the two low-threat conditions.

A second goal of this experiment was to document the associational changes that underlie the threat response process. According to the framework outlined in chapter one, identity valence threats should weaken the implicit association of the identity concept

with positive valence. When this weakening occurs, the triad of associations becomes unbalanced and the primary path (assuming stable implicit self-esteem) to restoring balance is to dissociate the self from the identity concept, observable through an implicit measure of self-group association. It is this dissociation that is hypothesized to drive the avoidance of products linked to that identity concept. On the other hand, identity strength threats are expected to weaken the implicit association of self with the focal identity concept. To restore balance, the only possibility in this instance is to do something that reaffirms the threatened association, such as increasing preference for product affiliated with the threatened association.

H2: Identity valence threat will weaken the association of the threatened identity with positive valence. The resulting consumer avoidance behavior will be mediated by a weakening of the self-group association.

H3: Identity strength threat will weaken the association of the self with the threatened identity. This weakening will mediate the observed consumer approach response.

Method

Participants. One hundred twenty-two undergraduate business students participated in exchange for course credit.

Procedure. Participants began the experimental session with a cover story informing them the research was designed to investigate various associations with their university. Following this cover story, participants were randomly assigned to one of four experimental conditions of a 2 (Threat Type: Valence threat vs. Identity strength threat) x 2 (Threat: No threat vs. Threat) design. In the valence threat conditions, participants were exposed to a series of ten recent headlines from the university's daily student newspaper. In the threat condition, these headlines were negative, while in the no-threat condition, the headlines were neutral or positive (see Appendix A2 for sample headlines). This manipulation follows similar procedures successfully utilized in previous research (Dietz-Uhler & Murrell, 1998; White & Argo, 2009) and incorporated no deception as all of the headlines used were sourced from actual newspaper articles. A pretest confirmed the differences in positivity ratings across these groups of headlines (4.64 vs. 8.17; $t(26) = 9.53, p < .01$). Although these headlines differed in positivity as desired, a second pretest using the mood items of the Mano and Oliver Consumption Emotion scale (1993) confirmed that the headline manipulation did not significantly influence either positive or negative affect (1.46 vs. 1.80; $t(61) = 1.28, p > .20$).

In the identity strength threat conditions, participants were asked to list either four or twelve behaviors they have engaged in that demonstrate their university spirit. This thought listing task was modeled after an ease-of-recall manipulation developed by Schwartz and colleagues (1991). Recalling twelve behavioral examples is presumed to be difficult for the participant, and that experienced difficulty constitutes a threat to the attribute or identity in question. On the other hand, recalling just four behaviors is relatively easy and presumed to be not at all threatening. A pretest using the mood items

of the Mano and Oliver Consumption Emotion scale (1993) was again conducted, and also confirmed that this identity strength threat manipulation did not significantly influence either positive or negative affect (1.47 vs. 1.50; $t(61) = .10, p > .20$).

Following the threat manipulation, participants completed two Brief Implicit Association Tests (BIAT) (Sriram & Greenwald, 2009). The BIAT is an abbreviated version of the original Implicit Association Test (IAT) developed by Greenwald, McGhee, and Schwartz (1998). The IAT procedure is a series of timed matching tasks in which participants match stimuli from four concepts into two categories. The speed and accuracy with which participants complete the matching measures the strength of associations held in memory (Greenwald, et al., 1998). The BIAT procedure has been shown to provide strength of association measures with similar psychometric properties as the full IAT, but in significantly less time (Sriram & Greenwald, 2009). Specifically, each BIAT used in this study used 80 trials, compared to the 180-200 trials typical for standard IATs. The BIAT procedure consists of two blocks of trials with similar two-category and two-attribute structure as the standard IAT. Unlike the standard IAT, subjects taking a BIAT see only one focal category and one focal attribute. The opposing category and attribute are implied, but not visible (for a detailed description of the BIAT procedure, see Sriram & Greenwald, 2009).

One BIAT measured the association strength of self with university and the other measured strength of association between university and valence (positive). In these BIATs participants' home university was represented with the words *Husky*, *Washington*, *Seattle*, and *Purple*, while the alternative university category was represented with *Bulldog*, *Georgia*, *Athens*, and *Red*. To represent valence four pleasant terms (rainbow,

diamond, gift, sunrise) and four unpleasant terms (filth, cancer, vomit, stink) were selected from Bellezza, Greenwald, & Banaji (1986). The other BIAT measured the strength of association of self with university. It used the same university terms as the university-valence BIAT and relied on four self-associated terms (me, mine, my, self) and four other-associated terms (they, theirs, them, other) used successfully in previous IAT research. (e.g. Greenwald et al., 2002). The sequence of these two BIATs was counterbalanced to eliminate possible order effects.

Following the BIAT administration, participants completed a series of unrelated product rating tasks. After these ratings, the critical dependent variable was administered. As compensation for completing the survey, participants were given the opportunity enter into one of two lotteries—one for a \$100 gift card to the university book store, the other for a \$100 gift card to American Apparel. Since a university's bookstore is a popular vendor of university-branded apparel and school-related products, the bookstore gift card is a product with clear relevance to university identity. American Apparel, on the other hand, has similar appeal to our participants yet has no affiliation with the university. A pre-test confirmed that these two gift cards were equally desirable. Following the lottery choice, participants were debriefed, thanked, and dismissed. A hold-out sample of an additional 80 participants completed only this gift card lottery choice measure to provide a baseline measure of lottery preference. This baseline was used to demonstrate whether potential differences between paired conditions constituted identity approach or identity avoid behavior.

Results

Lottery Choice. We expected participants in the high valence threat condition to exhibit reduced preference for the identity-related lottery, while participants in the high identity strength threat condition to show increased preference for the identity-related lottery. To test this hypothesized interaction a binary logistic regression was performed on the dichotomous lottery-choice variable with threat and threat type entered as categorical predictor variables. Results confirm a significant threat x threat type interaction ($\beta = 2.70, p < .01$).

In the valence threat conditions, exposure to negative information about university identity led participants to choose the university bookstore gift card lottery at a rate of 55.2% versus 79.3% for those exposed to non-threatening information ($\chi^2 (1) = 3.84, p < .05$). Note that the hold-out sample showed baseline preference for the university bookstore lottery was 75.00% ($n = 80$). As such, the relatively low preference for the bookstore gift card for those encountering threat to university identity signals identity avoidance. This result replicates and advances previous findings of identity-avoidance by demonstrating the effect on actual product-choice behavior.

In the identity-strength threat conditions, significant identity pursuit was observed. After experiencing a threat to strength of university identification, participants chose the university related lottery at a rate of 90.9%. When no threat was present, however, only 67.7% of participants chose the university-related lottery. Chi-square analysis confirmed the significance of this identity-approach effect ($\chi^2 (1) = 5.30, p <$

.05). When compared to the 75% baseline preference for the university bookstore gift card, the increased preference expressed by those under identity strength threat demonstrates identity pursuit. See Appendix A3 for full results.

Implicit Measures. Both BIAT measures were scored using the d-score, an effect size-like measure ranging from -2 to +2. The BIATs were scored such that a positive score indicated a stronger association of self with university or university with positive valence.

Focusing first of identity valence threats, exposure to the threat was expected to weaken the implicit association of participants' university with positive valence. Results from the university-valence BIAT confirmed this expectation ($M_{threat} = .15$, $M_{no\ threat} = .42$, $p < .05$). This predicted shift in valence association could be viewed as a successful check of the identity valence threat manipulation. With the triad now out of balance, the self-university BIAT showed the expected weakening of the self-university implicit association ($M_{threat} = .58$, $M_{no\ threat} = .86$, $p < .01$). See Appendix A4 for complete results. Although the predicted shifts in implicit associations were observed, bootstrapping analysis revealed that the change in self-university association did not mediate the relationship between threat and lottery preference.

Results in the identity strength threat conditions were mixed. As expected the threat to self-university association had no effect on the university-valence implicit association ($M_{threat} = .43$, $M_{no\ threat} = .48$, $p > .10$). The threat manipulation did not, however, produce the expected decline in the self-university implicit association ($M_{threat} =$

.64, $M_{no\ threat} = .76, p > .10$). See Appendix A5 for full results. Since no significant movement in the self-university association was observed, no mediation analyses were conducted.

Discussion

The pilot study produced a pattern of identity approach and avoidance consistent with a balance-congruity based theoretical conceptualization of self-concept threat. When threats to identity targeted the association of group with positive valence, consumers reacted by distancing themselves from the threatened identity. On the other hand, when the threat was aimed at the association of the self with a particular identity, consumers sought to reaffirm the pressured association by choosing a product that expressed the identity.

Results from this pilot study are in line with previous observations of identity-avoid responses in the face of threats to identity valence (White & Argo, 2009; White & Dahl, 2007). Where the study advances our understanding of threat, however, lies in the identity strength threat findings. Although Gao et al. (2009) observed self-view consistent threat response, the current experiment produced consumer behavior aimed at restoring the association of self with a specific social group. In addition, the non-dominant handwriting task employed by Gao et al. (2009) was an indirect threat with little external validity. In this experiment, university affiliation was threatened through direct means

and those threatened made subsequent product choices demonstrating a desire to re-establish the pressured identity.

Overall the results to this pilot study provide mixed support for the conceptual framework outlined in chapter one. The study does empirically demonstrate that defining and operationalizing self-concept threats according to the specific associations they target can lead to predictable consumer responses aimed at coping with the threatened associations. The pattern of avoidance in response to identity valence threat and approach in response to identity strength threat is encouraging, however, the failure to observe the full set of predicted shifts in implicit associations or the mediating effects of these shifts indicate that further research is needed to better illuminate the psychological mechanisms driving threat response.

Chapter III: Self-Verification Through Brand Pursuit: The Effect of Threatening Self-Brand Association

Marketers go to great lengths to cultivate brand relationships. Brand personalities are carefully crafted to appeal to target consumers, advertising user imagery is developed to create aspiration, and social media is utilized to reinforce brand affiliation. All of these tactics highlight the value of brand identification, the direct connection of the brand to the consumer's sense of self. Although such tactics clearly have value, this research proposes that brand identification ironically also increases when those affiliations are threatened, not reaffirmed. Imagine attending a game featuring your favorite sports team and being confronted by a fellow fan who says: "Hey, you call yourself a fan? Where's your jersey?" If you consider yourself a dedicated fan, this exchange would be unsettling. It is a threat to your team identity and it is very likely you would consider wearing a team jersey to the next game you attend. Reactions of this sort are plausible with a wide variety of brand threats since brands are often critical components of consumer self-concept (Bolton & Reed, 2004). In this article, we consider a special case of identity threat, one in which consumer's association strength with a brand is threatened, and show that such threats can actually drive preference in favor of the brand.

The majority of extant consumer research on identity threat has focused on the effects of new negative information that threatens a brand or the consumer. For example, research on brand relationships has shown that service failure often encourages consumers to distance themselves from the failing brand (J. Aaker, Fournier, & Brasel, 2004). Similarly, considerable research has demonstrated that consumers exposed to negative information about a personal identity will subsequently avoid products

associated with that identity (White & Argo, 2009; White, et al., 2012). This follows a series of findings demonstrating the tendency of consumers to avoid threatening social comparisons (Argo, et al., 2006) and distance themselves from products related to dissociative out-groups (White & Dahl, 2006, 2007). The dominant process at work in these effects is the strong motivation of individuals to avoid anything with negative consequences for the self. Avoiding products associated with a threatened identity is thus a form of self-protection.

What is far less understood is how consumers will respond when their sense of identification with a brand is threatened. For insight into how such threats will influence consumer behavior, we look to self-verification theory, which holds that people want to be seen by others in the way they see themselves (W. B. Swann, Jr., 1983, 1997; W. B. Swann, Jr., Chang-Schneider, & Larsen McClarty, 2007). When self-views are threatened, consumers experience anxiety and become motivated to verify the self and thereby reduce this anxiety (North & Swann, 2009; W. B. Swann, Jr. & Chang-Schneider, 2007). Building from this theoretical base, we propose that threats to self-brand affiliation are unsettling and motivate consumers to restore the challenged brand association. Recent research has shown that casting doubt on how consumers view themselves on various attribute dimensions can lead to choices that reinforce the challenged attributes (Gao, et al., 2009; Mead, Baumeister, Stillman, Rawn, & Vohs, 2011; Rucker & Galinsky, 2008). These findings suggest that threatening consumers' association with other components of self-concept, such as groups or brands, may produce similar identity-consistent preferences and behaviors. In the case of brands, we propose that threats to self-brand association will increase preference for the brand, a

phenomenon we call *brand pursuit*. This effect should be of great interest to both marketers and scholars because it suggests that making customers less secure in their brand relationships can actually drive preference toward the brand, a proposition counter to marketing convention.

Four key insights arise from the studies conducted in this research. First, all three studies demonstrate that challenging the association of the self with a brand can increase preference for the brand, a novel effect. Second, we demonstrate that threat-based brand pursuit increases as the participant's identification strength with the brand increases. This pattern of moderation by prior strength of brand identification implies that those most connected to the brand are most anxious when that aspect of the self-conception is threatened. Third, studies 2 and 3 further confirm that brand pursuit is an anxiety-mediated process and demonstrate that brand pursuit can be eliminated by external manipulations that reduce anxiety. Finally, experiment 3 provides evidence that brand pursuit is an act of self-verification by demonstrating that the behavior is eliminated when threatened consumers are given an opportunity to verify themselves in a self-domain unrelated to the threat. Taken together, these three experiments reveal that threatening consumer association with a brand can ironically increase brand patronage, a tactic seldom utilized by marketers, and that this brand pursuit occurs through an anxiety-driven self-verification process.

CONCEPTUAL DEVELOPMENT

Since consumers often choose products that express aspects of the self (J. L. Aaker, Brumbaugh, & Grier, 1999; Dolich, 1969; Sirgy, 1982), threats to the self can dramatically shape consumer preference. Across the extant research, an identity or self-concept threat is loosely defined as anything with negative implications for the self. Under this rather broad umbrella, a wealth of consumer research has investigated threats targeting the valence of a particular identity concept, often in the form of negative feedback about a particular social category (e.g. gender, nationality). In these investigations the predominant response involves avoidance of products associated with the threatened identity (White & Argo, 2009; White, et al., 2012; White & Dahl, 2006, 2007). This tendency to avoid products associated with a threatened identity is particularly prevalent in those who least value the identity association (White & Argo, 2009).

Although the aforementioned research paints a fairly clear picture of consumer response to threats to an identity's valence, response to threats that instead challenge the consumer's strength of association with the identity are far less understood. Such threats to association strength could be met with a variety of responses, including an acceptance of the threat and a resultant dissociation from the threatened identity (Greenwald, et al., 2002), a desire to reaffirm the self-concept in an unrelated domain (Shrira & Martin, 2005), or a motivation to actively seek out behaviors that will re-establish the threatened identity (Tetlock, et al., 2000; Zhong & Liljenquist, 2006). In a notable investigation of a similar type of self-association threat, Gao and colleagues found that experimentally weakening consumers' confidence in their health consciousness increased the rate at which consumers chose an apple over a package of M&Ms, presumably because this

choice helps re-establish self-perceived health consciousness (2009, Exp. 2). These findings demonstrate that consumers can use product choice to bolster attribute associations that have been shaken. But what if the threatened self-aspect is an important group or brand association? Threatening self-brand association could produce reactive effects such that consumers feel spurned by the brand and no longer prefer it. Alternatively, challenging self-brand association may motivate increased desire for the brand as the consumer seeks to verify that aspect of his or her identity. It is clear that challenging self-brand associations should affect consumer behavior, but the direction of this influence and the mechanisms underlying it are not yet understood.

In general, consumers respond to threat as a means of protecting the self (Steele & Berkowitz, 1988) and to cope with the affectively charged arousal generated by the threats (Nummenmaa & Niemi, 2004). This affective arousal takes the form of anxiety, a feeling of uncertainty, tension, and apprehension brought on by some sort of threat (Arkin & Ruck, 2007; Raghunathan, Pham, & Corfman, 2006). Threats to identity or brand association strength generate anxiety because they introduce uncertainty to an association the consumer considered secure. When a consumer's self-conception is called into question in this fashion, the resultant uncertainty is unsettling and this encourages action to reduce the anxiety. This perspective is consistent with self-verification theory which holds that people want their peers to view them in the same manner they view themselves, for better or for worse (W. B. Swann, Jr., 1983, 1997; W. B. Swann, Jr., et al., 2007).

Self-verification is borne out of the tradition of self-consistency theories (Festinger, 1957) and posits that the reason people seek self-confirmatory information is

because it bolsters predictability and control (W. B. Swann, Jr., Stein-Seroussi, & Giesler, 1992). Swann and colleagues (2007) propose that views of the self, including self-esteem and self-concept, are shaped by three critical factors: our own behavior, how that behavior relates to the behavior of others, and how others react to that behavior. The ensuing self-views present a lens for making sense of reality and are central to shaping future behavior. As a result, people seek to preserve self-views because of the security and stability they provide (W. B. Swann, Jr., et al., 2007). Threatening this stability naturally leads to anxiety and the more invested an individual is in a particular view of the self, the greater the resultant anxiety when that view is challenged.

When experiencing a self-concept threat, self-verification is an effective coping strategy because it can reaffirm the threatened aspect of self. A particularly poignant expression of self-verification is the choice of relationship partners. Swann and colleagues (1992) found that people prefer partners who evaluate them similarly to how they evaluate themselves. Subsequent research has shown that the stronger someone feels about a particular aspect of self, the more vigorously they seek out a relationship partner who will verify those feelings (W. Swann & Pelham, 2002). Other strategies of self-verification include seeking feedback that is consistent with self-assessment, regardless of if that feedback is positive or negative (W. B. Swann, Jr., Griffin, Predmore, & Gaines, 1987). Although self-verification can appear similar to self-enhancement, the key distinction is the preference for accuracy over positivity (Robinson & Smith-Lovin, 1992; W. Swann & Pelham, 2002; W. B. Swann, Jr., 1983; W. B. Swann, Jr., et al., 1987; W. B. Swann, Jr., et al., 1992).

In positive domains, it can be difficult to distinguish between self-enhancing and self-verifying behaviors. Since people tend to view themselves positively in general, this overlap exists in a majority of instances. Where key differences emerge, however, are in situations in which people with negative self-views actively seek confirmation of those views. For example, Swann et al. (1992) documented this critical distinction when they found that college students with negative self-views actually preferred interaction partners who also viewed them negatively. When it comes to self-concept maintenance preferences, the desire for accuracy appears to trump the desire for positivity.

The consumption of particular brands can become a part of this self-verification process since brand choice is an expression of the personality and attributes embodied by a brand (J. L. Aaker, 1997; Bolton & Reed, 2004). Threatening a brand affiliation can thus be tremendously unsettling because it upsets the a consumer's vision of his or her own reality. Self-verification theory also predicts that the more important that brand affiliation is to the consumer, the more anxiety inducing threats to it become.

A review of the extant literature suggests that many consumer coping strategies for threat-induced anxiety may be driven by self-verification motives. Recently, Mead and colleagues (2011) demonstrated that social exclusion can drive consumers to choose products that demonstrate affiliation or reflect belongingness needs. Somewhat similarly, Rucker and Galinsky (2008) observed a connection between threats to power and consumption of status oriented products. Specifically, they argue that the impetus to compensate for powerlessness via consumption of high-status products is driven by a "specific inclination to reestablish power" (Rucker & Galinsky, 2008, pg 257). These findings are similar to the consumption patterns observed by Gao et al. (2009) in that they

demonstrate a consistent tendency of consumers to use product choice as a means of reestablishing some threatened aspect of self concept. Although all of these investigations are grounded in different theoretical bases, the consumption behaviors observed are all arguably acts of self-verification and self-verification theory offers a unifying conceptual perspective. In each the aforementioned investigations, challenging a self associated concept led to a consumer behavior aimed at verifying the questioned association. The present research extends this notion by proposing and demonstrating that consumption of a particular brand can also be a form of self-verification. If consumer's strength of identification with a brand is threatened, and that brand relationship is important to the consumer, the consumer will experience anxiety. This anxiety motivates the need to verify the self through a heightened commitment to consuming the brand. The intensified preference for the focal brand, or *brand pursuit*, is a novel effect in consumer research and following are three studies that document the conditions under which brand pursuit occurs and the mediating mechanisms through which it operates.

Experiment 1 demonstrates threat-induced brand pursuit and illuminates the moderating effect of prior strength of identification with the focal brand. Although there is some reason to suspect that brand identification strength could serve as a buffer against threat, with those highest in identification most resistant to threat effects (Correll & Park, 2005; Knowles & Gardner, 2008; White & Argo, 2009), self-verification suggests a reverse identification effect. Specifically, people who see themselves as more connected to the brand should be particularly sensitive to threats to brand association (W. Swann & Pelham, 2002; W. B. Swann, Jr. & Chang-Schneider, 2007) and should exert more effort to combat threats to that identity (Branscombe, et al., 1999; Doosje, Ellemers, & Spears,

1999; Giguere & Lalonde, 2009). For example, Ouwerkerk et al. (2000) found that when students' views of their intelligence were threatened with poor test scores, individuals who valued this identity more worked harder to restore it. Although the role of anxiety has not been explicitly demonstrated in the aforementioned effects, self-verification theory postulates that it may play a critical role. Applied to the domain at hand, this suggests that threats to the association of the self and a brand should have their greatest effects on consumers who strongly identify with the brand, since these consumers are more likely to experience anxiety in response to the threat.

H1: Prior brand identification strength will moderate response to brand association threat such that those high in brand identification will be more likely to verify the self via heightened preference for the threatened brand.

EXPERIMENT 1

Method

Participants. 117 undergraduate business school students participated in exchange for course credit.

Procedure. To explore the moderating role of identification strength in a brand context, a brand with which many strongly identify was needed. Apple Computer was

selected as the focal brand as it was presumed that a sizeable portion of the sample would strongly identify with the brand.

The experimental session began with a cover story explaining that the research was interested in how participants' past consumer experiences influenced their attitudes toward various technology brands. Participants then answered several questions that assessed their strength of identification with the Apple Computer brand, an "Apple Brand Identification Assessment." This survey included scale items such as "*How strongly do you identify with the Apple brand?*" (0-100 sliding scale), as well as several open-ended items, such as "*In a few brief sentences, please describe your personal connection to the Apple Brand.*" These measures served the dual purpose of adding legitimacy to the cover story, while also providing a baseline measure of self-Apple identification strength prior to the threat manipulation. A complete list of the Apple Brand Identification Assessment measures is available in Appendix A6.

Following these items, participants were then randomly assigned to either the threat or no threat condition. This resulted in a 2 (Threat: Threat vs. No threat) x Brand Identification Strength (measured variable) design. Threat was manipulated through false-feedback. Following the Apple Brand Identification Assessment, participants were thanked for their responses and informed that the system was now compiling an Apple brand identification score and ranking their responses against others who had completed the survey. In the threat condition, participants were told they scored in the 23rd percentile, meaning that out of every 100 people who completed the survey, 77 identified with Apple more strongly than did the participant. Participants in the no threat condition were told their score placed them in the 77th percentile, meaning out of every 100 people

who completed the survey, only 23 showed stronger identification with the Apple brand. Appendix A7 provides a visual representation of the threat manipulation.

Following the threat manipulation, participants completed a series of unrelated product rating measures, followed by a lottery choice opportunity. Participants were informed that they would be entered into a lottery as compensation for completing the survey and were asked to select from two potential prizes should they win the lottery—either a \$100 gift card to the Apple Store (identity related) or a \$100 gift card to Best Buy (identity neutral). This item served as the critical dependent measure. A hold-out sample of an additional 33 participants completed only this gift card lottery choice measure to provide a baseline measure of lottery reward preference. This baseline was used to demonstrate whether potential differences between paired conditions constituted brand pursuit.

Results

Following the proposed conceptualization of brand association threat, it was predicted that those participants most strongly identified with the threatened brand would react more emphatically to the threat. We first submitted the data to a binary logistic regression with lottery choice as the dependent variable and threat and Apple identification strength as predictor variables. As predicted, a significant threat x Apple identification strength interaction was found ($\beta = -.03, p < .05$). Since our data include a dichotomous dependent measure and a continuous predictor variable (Apple brand

identification strength), the nature of this interaction was examined using a spotlight analysis according to guidelines established by Aiken et al. (1991) and outlined more recently by Fitzimmons (2008). Across threat conditions, lottery choice was analyzed at plus or minus one standard deviation from the mean of prior identification with Apple. When participants strongly identified with Apple prior to the threat, the slope of the threat variable was positive and significant ($\beta = .40, p < .01$). High Apple identifiers responded to a threat to Apple brand association by increasing their preference for the brand and seizing the opportunity to choose Apple over Best Buy. On the other hand, when Apple identification was low, the slope of the threat variable did not differ significantly from zero ($\beta = .02, p > .10$). Thus, low Apple identifiers exhibited no change in preference in the face of the threat. This result supports hypothesis 1, and sheds valuable light on the threat response process, illustrating that those individuals most closely aligned with the brand are most motivated to verify the self and use product choice as a means to reestablish the threatened brand association.

After conducting the above spotlight analyses using the full range of the continuous Apple identification strength variable, we then categorized participants as either high or low identifiers using a median split in order to more clearly explain the pattern of results. This reporting and analysis method is similar to techniques used in previous research (White & Argo, 2009). Median level of Apple brand identification was 65; thus, participants scoring lower than 65 were classified as low identifiers and participants reporting scores 65 or greater were classified as high identifiers. Chi-square analysis confirmed the interactive effect of threat and level of Apple brand identification on lottery choice ($\chi^2(1) = 4.53, p < .05$). Specifically, threatened high Apple identifiers

chose Apple at a rate of 75% while those unthreatened chose Apple 45% of the time ($\chi^2(1) = 5.43, p < .05$). For low Apple identifiers, the threat had no effect on brand preference (25.0% vs. 36.7%, $\chi^2(1) = .92, p > .10$). The hold-out sample established that baseline preference for the Apple store gift care was 36.4%. Comparison with the hold-out sample revealed that across the four primary experimental conditions, only high Apple identifiers experiencing threat chose Apple at an above average rate ($\chi^2(1) = 9.12, p < .01$). None of the other conditions differed significantly from the baseline rate. The choice percentages for all four conditions created by the median split are presented in Appendix A8.

As a supplemental investigation, we also ran a separate set of participants (sampled from the same population) through the same procedure, but these participants were asked to rate the credibility of the Apple Brand Identification Assessment scores that constituted the threat manipulation. The purpose of this test was to insure that the threat manipulation was equally credible for all participants. Data were submitted to a 2 (Threat: threat vs. no threat) x 2 (Apple identification strength: high vs. low) factorial ANOVA with the credibility ratings as the dependent variable. As expected, the interaction was not significant ($p > .05$), but a main effect of Apple identification strength was found. High Apple identifiers found the Apple Brand Identification Assessment scores to be more credible than low identifiers (55.46 vs. 37.03, $p < .05$). More importantly, however, were the simple contrasts within each Apple identification strength condition. For both high and low identifiers, the Assessment score feedback was considered equally credible regardless of threat condition ($p > .05$).

Discussion

When threatening information targeted self-brand association, highly identified consumers were most responsive and dramatically increased their preference for the threatened brand. Low identifiers, however, were unaffected by such threats. Although it was not specifically measured, this pattern of response supports the notion that anxiety and self-verification play a fundamental role in the threat response process. People take action to remedy threats that challenge the way they see themselves (DeMarree, Petty, & Briñol, 2007; W. B. Swann, Jr., et al., 1992; Tetlock, et al., 2000) most likely because such threats cause anxiety (Ouwerkerk, et al., 2000; Steele & Aronson, 1995). The more important that association, or in this case, the stronger the brand identification, the more anxiety is expected. Higher levels of anxiety occur because of the greater discrepancy between what the consumer believes to be true and the identification score received during the threat manipulation. Action is then taken to verify the self and the greater the threat, the more vigorous the self-verification response. The dramatically heightened preference for Apple exhibited by high brand identifiers in experiment 1 is evidence of self-verification as an attempt to reduce anxiety.

It is also important to note that the lottery choice dependent measure used in experiment 1 is a particularly conservative test of the brand pursuit hypothesis. Since Apple products are available at both the Apple Store and at Best Buy, the gift card for Best Buy is the dominant choice, similar to how cash is dominant to a gift certificate of

equal value. The fact that the vast majority of threatened high brand identifiers chose the Apple Store gift card despite its sub-optimality speaks to the robustness of the brand pursuit effect.

Previous research has shown that those with low levels of collective self-esteem are most sensitive to identity threats, presumably because the threatened identity association is of lower importance to these consumers (White & Argo, 2009). The pattern of moderation observed in experiment 1 is the opposite – those most strongly identified with the brand were the most sensitive to the threat. This highlights a critical distinction in threat type. While White and Argo (2009) threatened the valence of a particular identity, the threat in experiment 1 targeted consumers' strength of association with an identity object. The former produced an avoidance response, presumably driven by self-protection, but the latter produced an approach response that is arguably an act of anxiety-mediated self-verification.

Experiments 2 and 3 will further investigate this process. Specifically, experiment 2 will directly measure anxiety to see if it does indeed mediate the effects of threat on brand pursuit and to assess whether attempts to reduce anxiety eliminate this behavior. If our anxiety-based account is accurate, then felt anxiety should mediate the relationship between threat and brand pursuit. Furthermore, removing the anxiety associated with the threat should also remove the inclination to seek out the threatened brand.

H2: Brand association strength threat and anxiety reduction interact such that participants exposed to a brand identification strength threat will exhibit increased

preference for the threatened brand, but this brand pursuit will attenuate when felt anxiety is blocked.

H3: Anxiety mediates the relationship between threat and brand pursuit. Anxiety-blocking moderates this mediation.

EXPERIMENT 2

Method

Participants. One hundred eighty-one undergraduate business school students participated in exchange for course credit.

Procedure. Experiment 2 followed an identical procedure to experiment 1 with two key modifications. First, an anxiety blocking manipulation was added to the design. To reduce anxiety, the scent of vanilla was introduced into the experiment in the anxiety blocking condition (Bosman, 2006; Lee et al. 2011). Vanilla has been associated with reduced stress and anxiety in several domains, including child psychology, patient-doctor interactions, and consumer shopping experiences (Lee, Kim, & Vohs, 2011; Mennella & Beauchamp, 2002; Redd, Manne, Peters, Jacobsen, & Schmidt, 1994; Vlahos, 2007). Recently, Lee et al. (2011) successfully reduced the anxiety experienced in a customer

service encounter by infusing the laboratory environment with the scent of vanilla. For participants in the anxiety-blocking conditions, their consent forms, which had to be signed at the beginning of the procedure and left at their workstations, were infused with a perfume made of vanilla essential oil. The forms were prepared each day, three hours prior to the experimental session and stored in a sealed container until distributed to participants. Participants in the no anxiety-blocking conditions completed the same consent form without the vanilla infusion. To ensure there was no overlap between these two experimental conditions, vanilla and non-vanilla forms were used on alternating days, such that on one day all participants received the vanilla manipulation, while subjects on the next day did not. This meant a full twenty-three hours between laboratory sessions, allowing the scent to fully clear the facility. An open-ended measure at the end of the experiment asked participants if they noticed any scent in the room. Although some participants in the vanilla condition noticed the scent, of critical importance was the fact that zero participants in the no vanilla condition reported any scent in the room. Combined with the threat manipulation, this anxiety blocking manipulation produced a 2 (Identity strength threat: Threat vs. No threat) x 2 (Anxiety reduction: Yes-Vanilla vs. No-No vanilla) x Brand Identification Strength (measured variable) design.

The second important modification of the experiment 2 procedure was the addition of an anxiety measure collected after the threat manipulation and before the lottery choice dependent measure. The anxiety measure was modeled after a scale developed by Rudman et al. (2007) for research investigating threats to self-esteem. Participants were asked to rate how they were currently feeling on eight dimensions including anxious, nervous, defensive, calm, confident, happy, joyful, and depressed.

Each response item had 11 response levels anchored at 1 by “*not at all*” and at 10 by “*very much*”. The critical items used to assess anxiety were anxious, nervous, defensive, and calm (reverse-coded). The remaining four items were included to reduce demand concerns as outlined by Rudman et al. (2007) and were excluded from all analyses.

Following the anxiety scale measure, participants completed a series of unrelated product ratings, followed by the critical lottery choice task. Again, participants were informed that they would be entered into a lottery as compensation for completing the survey and asked to select from two potential prizes should they win the lottery—either a \$100 gift card to the Apple Store or a \$100 gift card to Best Buy.

Results

Brand Pursuit. Data were submitted to binary logistic regression analysis with threat (threat vs. no threat) and anxiety blocking (yes vs. no) as categorical predictor variables, brand identification strength as a continuous predictor, and lottery choice as the dependent variable. Although the threat x anxiety blocking x brand identification strength three-way interaction did not reach significance ($\beta = .02, p > .10$), a significant threat x anxiety-blocking interaction was found ($\beta = -2.93, p < .05$) in addition to a significant main effect of brand identification strength ($\beta = .02, p < .05$). Although the brand identification strength variable is a continuous measure and we used the full range of the measure in the logistic regression, to better explain and understand the full pattern of effects we conducted a median split on this variables to create a 2 (Identity strength

threat: threat vs. no threat) x 2 (Anxiety reduction: yes-vanilla vs. no–no vanilla) x 2 (Brand identification strength: high versus low) factorial design. This allows for the construction of cell-means and use of chi-squares analysis. Our expectation was that high brand identifiers would be particularly sensitive to the threat manipulation and more likely to choose Apple (over Best Buy) and that this boost of preference would be attenuated in those experiencing the anxiety-relieving vanilla scent. Considering first the high brand identifiers, when no intervention was made to reduce anxiety, the predicted brand pursuit behavior was observed, with threatened participants choosing the Apple Store gift card at a rate of 71.9%, compared to only 38.2% of those not threatened ($\chi^2 (1) = 7.52, p < .01$). This heightened preference for Apple mirrors the effects observed in experiment 1.

On the other hand, when high brand identifiers experienced the anxiety-blocking intervention, no difference in preference for the Apple Store was found ($M_{threat} = 43.8\%$, $M_{no\ threat} = 41.2\%$, $p > .10$). Thus, when the scent of vanilla was used to reduce anxiety, the brand pursuit threat response was completely eliminated. Furthermore, the rate at which high brand identifiers in the no threat/no anxiety blocking condition chose the Apple Store (38.2%) was not significantly different from participants in either of the two anxiety blocking conditions mentioned above ($p > .10$). This is noteworthy because it suggests that when anxiety is taken out of the threat response mechanism, participants behaved no differently than those encountering no threat at all.

As a supplemental analysis, we compared lottery preferences of high brand identifiers to our previously collected hold-out sample. Although these hold-out data were collected outside of this experiment, such a comparison is instructive because the

procedures are identical and the participants were drawn from the same population. As predicted, the only experimental condition to significantly differ from baseline preference was threat/no anxiety blocking (71.9% vs 36.4%, $\chi^2(1) = 8.24, p < .01$). The preference for Apple in all of the other high brand identifier conditions did not differ from baseline. The choice percentages for all eight conditions created by the median split of brand identification are presented in Appendix A9.

Next we examined the low brand identifiers. Overall, low brand identifiers were less likely to choose the Apple store than high brand identifiers (29.3% vs 50.5%, $\chi^2(1) = 8.34, p < .01$). Although our theory and hypotheses did not predict any specific effects amongst low brand identifiers, some noteworthy differences did emerge. Specifically, when an anxiety-blocking agent was not present, the presence of a brand-identity threat increased preference for the Apple store from 8.0% to 56% ($\chi^2(1) = 13.24, p < .01$). When the anxiety-blocking vanilla scent was present, however, low brand identifiers showed no difference in preference for Apple across the threat conditions ($M_{threat} = 21.4\%$ vs. $M_{no\ threat} = 27.8\%$; $\chi^2(1) = .17, p > .10$). This represents a replication of the threat-induced brand pursuit effect for the low Apple identifiers.

Moderated Mediation Analysis. To further investigate the role of anxiety in threat response, a moderated mediation analysis was conducted. According to Muller et al. (2005), moderated mediation occurs “if the mediating process that is responsible for the effect of the treatment on the outcome depends on the value of a moderator variable.” We hypothesized that felt anxiety would mediate the relationship between threat and lottery choice and that the presence or absence anxiety blocking (vanilla) would moderate this mediation. Specifically, the anxiety blocking moderator was expected to interrupt the

effect of threat on the anxiety mediator. Following Rudman et al. (2007), the four focal anxiety scale items (anxious, nervous, defensive, and reverse-coded calm) were condensed into to a single anxiety index ($\alpha = .73$). This anxiety index was then used to test our moderated mediation hypothesis using the guidelines and methods described in Preacher, Rucker, and Hayes (2007, Model 2) and Hayes (2012, Model 7). Since the role of anxiety was expected to differ based on the presence or absence of vanilla, the appropriate analysis strategy is to assess the mediating effect of anxiety at the two possible levels of this moderator. When the anxiety blocking agent was not present (no vanilla) the path coefficients for the total and direct effects of threat on lottery choice were 1.70 ($p < .01$) and 1.31 ($p < .01$), respectively. Normal theory tests are not appropriate with a dichotomous outcome variable, so bootstrapping analysis was used to assess the indirect relationship (mediated through anxiety) between threat and lottery choice conditioned on the absence of anxiety blocking. With 5,000 resamples a bootstrap 95% confidence interval of .01 to .89 was found. Since this confidence interval did not include zero, we can conclude that this conditional indirect effect differed significantly from zero. Next, we modeled the indirect effect of threat (mediated by anxiety) on lottery choice when anxiety blocking was present. In this model, the path estimates for the total and direct effects of threat on lottery choice were .14 ($p > .10$) and .02 ($p > .10$), respectively. Similarly, bootstrap analysis with 5,000 resamples and anxiety blocking present yielded a 95% confidence interval of -.03 to .50. Because this interval contained zero, the conditional indirect effect when anxiety blocking was present was not significantly different from zero. When anxiety blocking was present, there was no

evidence of mediation. Taken together, these analyses provides support for our moderated mediation hypothesis (H3).

Discussion

Results from experiment 2 replicate the brand pursuit effect observed in experiment 1 and support our moderated mediation hypothesis (H3). Threats to brand association strength produced anxiety and participants chose to cope with that anxiety by pursuing the threatened brand. However, if anxiety was dampened, as it was with the vanilla infusion, the threat to brand association strength produced no change in subsequent brand preference. This finding is consistent with a self-verification account of threat response.

One unexpected result in experiment 2 was the observation of brand pursuit among both high and low identifiers with over 50% of low identifiers in the threat/no anxiety-blocking condition choosing Apple. One potential explanation for the existence of brand pursuit amongst low identifiers is a high baseline rate of Apple identification in the participant sample of experiment 2; the median level of self-reported Apple identification was 70 on the 0-100 sliding-scale. This implies that even those participants categorized as “low identifiers” in experiment 2 were low in a relative, but not absolute, sense and that most of the low identifiers were not dis-identified with Apple. As a result, when a low identifier’s Apple affiliation is threatened, anxiety is still plausible and as we observed, this anxiety can motivate a brand pursuit response. Moreover, the fact that the

brand pursuit effect for low identifiers was also mediated by anxiety provides further evidence that brand pursuit is an anxiety-driven process.

Another unexpected result was the mere 8% preference for the Apple gift card among low identifiers in the no-threat/no anxiety-blocking condition. This preference rate is considerably lower than that observed for low identifiers whose anxiety was blocked with vanilla scent (21-28%). Although not hypothesized, this unusually low preference rate may also be attributable to a self-verification process. Since this cell contained participants who self-reported relatively low levels of identification with Apple, it is possible that they felt anxiety when they were informed that they scored in the 73rd percentile in Apple identification. Faced with information suggesting they were more strongly aligned with Apple than their self-conception would indicate, these participants may have attempted to self-verify their non-Apple identification by avoiding Apple in the gift card choice. . We had no a priori prediction that these participants would differ from baseline Apple preference, but the fact that they were much less interested in Apple does not contradict the proposed self-verification process.

The purpose of experiment 3 was to provide more direct support for this self-verification account by providing participants the opportunity to self-verify in an alternative domain. In this experiment, we again threaten the strength of Apple identification and expect those with stronger brand association to experience more anxiety and thus pursue the brand more vigorously. Rather than block the experienced anxiety with a global manipulation, experiment 3 used a more specific approach, giving some participants the chance to verify the self on other, unrelated dimensions. If the self-

verification account is accurate, participants given the opportunity to self-verify on other dimensions should not demonstrate threat-based brand pursuit.

H4: Prior brand identification strength, threat, and opportunity to self-verify will interact such that for threatened high brand identifiers, those not given the opportunity to self-verify will exhibit heightened preference for the focal brand.

H5: When participants are not given the opportunity to self-verify, anxiety will mediate the relationship between threat and subsequent brand preference.

EXPERIMENT 3

Method

Participants. 145 undergraduate business school students participated in exchange for course credit.

Procedure. Participants began the experimental session by completing the same Apple Brand Identification assessment used in Studies 1 and 2. Following these measures, students were then randomly assigned into various conditions of a 2 (Threat: Yes vs. No) x 2 (Opportunity to Self-Verify: Yes vs. No) x Apple Brand Identification (measured variable) design. The threat manipulation administered was identical to the

one used in studies 1 and 2, with participants in the threat condition being told they scored in the 23rd percentile of Apple Brand identification and participants in the no threat condition being told they scored in the 77th percentile. Immediately following this false feedback, participants completed the same anxiety scale measures used in experiment 2, although in this experiment 0-100 sliding scale response measures were used in order to keep the format of the measures consistent with other items in the experiment. This sliding scale utilized the same anchor descriptions (0 = “not at all” and 100 = “very much”) as the 11-point scale used in experiment 2.

Following the anxiety scale, participants encountered the self-verification manipulation. Those given the opportunity to self-verify were asked to complete a modified version of the Self-Attributes Questionnaire (Pelham and Swann 1989). Using a 0-100th-percentile sliding scale, participants were asked to rate themselves relative to other college students on five attributes: intellectual/academic ability, social skills/social competence, artistic and/or musical ability, competence or skill at sports, and physical attractiveness. Next, participants used a 0-100 sliding scale to rate the certainty of their attribute ratings, followed by ratings of the personal importance of each attribute. The full version of the Self-Attributes Questionnaire includes a fourth series of items in which participants rate their “ideal self” on each dimension (1989). This series of items was dropped from this manipulation as we were interested only in offering participants the opportunity to verify what they thought to be true about themselves, rather than giving them the chance to enhance the self in any way. Participants not given the opportunity to self-verify completed a series of items identical to the Self-Attributes Questionnaire, but rather than focusing on the self, these items were focused on dolphins (“Please rate

dolphins relative to other animals on the following dimensions”). Thus, participants completed a task virtually identical in length and structure with a focus completely unrelated to the self.

Following the self-verification manipulation, participants completed a series of unrelated product ratings, followed by the critical lottery choice task. Again, participants were informed that they would be entered into a lottery as compensation for completing the survey and asked to select from two potential prizes should they win the lottery—either a \$100 gift card to the Apple Store or a \$100 gift card to Best Buy. Finally, to test the robustness of the brand pursuit effect an additional dependent measure was added that asked participants their level of interest in an Apple Customer Rewards Club. Benefits of membership included access to Apple products before prior to release to the general public for an annual membership fee of \$50. The item asked participants to rate how likely they would be to apply for membership on a 0-100% sliding scale. Following these measures, participants were debriefed, thanked and dismissed.

Results

Lottery Choice. The data were submitted to a binary logistic regression with lottery choice as the focal dependent measure and threat (dichotomous), self-verification (dichotomous), and Apple identification strength (continuous) as predictor variables. In line with our prediction, a significant threat x self-verification x Apple identification strength was found ($\beta = -.07, p < .05$). This logistic regression utilizes the full variation

in the continuous Apple identification strength measure and the significant interaction coefficient establishes initial support for our predicted pattern of effects. To clearly explicate the nature of this interaction, however, it is useful to block on the Apple brand identification variable and examine the threat x self-verification interactions for both high and low brand identifiers. The median level of Apple identification strength was 51, so high Apple identifiers are defined as those scoring above 51 and low Apple identifiers are those scoring below 51.

Focusing on high Apple identifiers, analyses revealed a significant threat x self-verification interaction ($\chi^2(1) = 5.42, p < .05$). When threatened participants were not given the opportunity to self-verify, they chose Apple at a rate of 85.0%, versus 33.3% in the no threat condition ($\chi^2(1) = 10.56, p < .01$). This replicates the core brand pursuit effect documented in studies 1 and 2. When given the chance to verify the self in an alternative domain, however, no brand pursuit behavior was observed, as Apple preferences were the same across the threat and no threat conditions (33.0% vs. 37.5%; $\chi^2(1) = .06, p > .10$). When considering only low Apple identifiers, however, analyses revealed no differences in Apple preference across the four experimental conditions ($\chi^2(1) = .19, p > .70$; see Appendix A10 for the choice percentages in each condition). Taken together, this pattern of results supports Hypothesis 4: only high brand identifiers who were threatened and not given the opportunity to self-verify pursued Apple at an above-average rate.

Rewards Club. The second focal dependent measure was likelihood of applying for membership in an Apple Customer Rewards Club. Data were submitted to a 2 (threat: threat vs. no threat) x 2 (opportunity to self-verify: yes vs. no) x Apple Identification

strength (measured variable) ANOVA with rewards club application likelihood as the dependent measure. Results confirmed the expected three-way interaction ($F(2, 145) = 3.93, p < .05$). To investigate the nature of this interaction, separate analyses blocked on level of Apple brand identification were conducted. Looking at only high brand identifiers, a significant interaction between threat and opportunity to self-verify was found ($F(1, 69) = 6.41, p < .05$). When high Apple identifiers did not have the opportunity to self-verify, the threat significantly increased interest in the rewards program ($M_{threat} = 61.05\%, M_{no\ threat} = 31.89\%; F(1, 69) = 12.02, p < .01$). The opportunity to self-verify, however, eliminated the effect of threat on high Apple identifiers' interest in the rewards program ($M_{threat} = 22.50\%, M_{no\ threat} = 25.10\%; F(1, 69) = .08, p > .10$). Additionally, focusing on low identifiers reveals no differences in interest in the rewards program across all four threat x opportunity to self-verify conditions ($F(1, 76) = .003, p > .10$, for detailed cell means, refer to Appendix A11). Together, these analyses demonstrate the same pattern of results observed for the lottery choice dependent measure and provide corroborating evidence in support of Hypothesis 4.

Moderated Mediation Analysis. Felt anxiety was hypothesized to mediate the relationship between threat and brand pursuit. Experiment 2 utilized a moderated mediation design with the presence or absence of vanilla as the moderating the effect of the threat manipulation on the anxiety mediator. Experiment 3 was critically different in that the moderation occurred along the path from the mediator to the dependent measure. Specifically, the opportunity to self-verify was expected to moderate the effect of anxiety on brand pursuit. Using the guidelines proscribed by Hayes (2012, Model 14), mediation is modeled at two levels of the dichotomous opportunity to self-verify variable. The

analysis produced path coefficients for the total and direct effect of threat on lottery choice of 10.41 ($p < .05$) and .39 ($p > .10$), respectively. Bootstrapping analysis with 5,000 resamples confirmed the expected moderated mediation. When participants did not have the opportunity to self-verify, the 95% confidence interval for the indirect effect of threat (mediated through anxiety) on brand pursuit ranged from .10 to .89. Since this interval does not contain zero we can conclude that the coefficient for the indirect effect differed significantly from zero, meaning mediation was observed. When participants were given the chance to self-verify, however, the 95% confidence interval for the indirect effect was -.45 to .22, indicating that mediation did not occur in this instance. Taken together, these results indicate that moderated mediation was achieved.

A similar mediation analysis was conducted using interest in Apple customer rewards program as the focal dependent measure. With no opportunity to self-verify, the bootstrap 95% confidence interval in this case was 2.00 to 13.24, meaning the coefficient for the indirect effect of threat on interest in the loyalty program, through anxiety, differed significantly from zero. When there was an opportunity to self-verify, however, the bootstrap 95% confidence interval was -1.14 to 3.97, indicating mediation did not exist. The observation of moderated mediation with the customer rewards program variable confirms the finding using lottery choice and further demonstrates the role of self-verification and anxiety in the brand pursuit process.

Self-Attributes Questionnaire Analysis. To help distinguish between self-verification and self-enhancement in experiment 3, we investigated whether threats increased participant self-enhancement on the Self-Attributes Questionnaire (SAQ). This analysis revealed no effect of threat on participant self-ratings on any of the SAQ items

($p > .10$). The absence of any threat-driven differences SAQ evaluation strongly suggests that the moderation of the brand pursuit by completion of the SAQ was indeed driven by its effects on self-verification and not by differential self-enhancement.

GENERAL DISCUSSION

Across three studies, a consistent and robust brand pursuit effect emerged. When consumers encountered a threat to their sense of identification with a brand, they responded by increasing preference for that brand. Experiment 1 established this basic and novel effect and showed that that brand pursuit is particularly strong in those consumers who most strongly identify with the brand. To illuminate the psychological motivation underlying brand pursuit, experiment 2 focused on the anxiety generated by brand identification strength threats. In addition to replicating the brand pursuit effect observed in experiment 1, experiment 2 advanced our understanding of the effect by establishing anxiety as a key mediator driving the threat response process. When a consumer is highly identified with a brand, threatening that identification arouses anxiety, presumably because the threat contradicts the consumer's conception of self. In response, the consumer feels compelled to verify the threatened association through pursuit of the brand. Further strengthening this anxiety account, Experiment 2 also demonstrated that when threat-induced anxiety was dampened through an external manipulation, brand pursuit was fully attenuated.

Although experiment 2 strongly suggested that brand pursuit is a form of self-verification, experiment 3 offered more conclusive evidence that the desire for self-verification is central to this anxiety-based threat response process. If a consumer is highly identified with a brand, threatening that association runs counter to the consumer's self-conception. The resultant uncertainty is stressful and the consumer feels the need to take some sort of action to verify the self and relieve the anxiety. Although brand pursuit is one effective way to do this, experiment 3 demonstrated that another possible coping strategy is self-verification in an alternative domain. When threatened participants were given the opportunity to self-verify other aspects of the self-concept, they did not feel the need to verify the self with pursuit of the brand. Although previous investigations have argued that self-enhancement is an effective coping strategy in the face of a threat, our findings suggest that self-verification is the more likely account. Specifically, investigation of the individual Self-Attributes Questionnaire items in experiment 3 revealed that threatened participants were no more likely to self-enhance than those unthreatened.

Although the absence of differential self-enhancement on the SAQ items in experiment 3 supports a self-verification process, we cannot unequivocally rule out self-enhancement as an influence in the observed brand pursuit behavior. As discussed earlier, it is often difficult to discriminate self-verification from self-enhancement when the verification occurs on a positive dimension. As a result, the act of self-verification in experiment 3 could simultaneously produce self-enhancement if the participants viewed the verified self-attribute positively. Despite this limitation, self-verification provides a much more parsimonious account of the full set of experimental results than does self-

enhancement. In experiments 1 and 3, brand pursuit was most pronounced among high brand identifiers. Combined with the clear evidence that felt anxiety mediated the effect of threat on brand pursuit, this suggests that threats encourage brand pursuit not because they motivate a general desire to self-enhance, but rather because they motivate a specific desire to re-establish a dimension of the self.

One interesting implication of this proposed self-verification process is a potential explanation for research on materialism that reports increased materialistic behavior when consumer self-esteem is threatened. Our results suggest that when one's strongly held associations are threatened, "retail therapy" might be an effective coping strategy because it allows the consumer to confirm identification with a variety of brands, and not just the one that has been threatened. Future research should investigate the generalizability and transference brand pursuit to other self-associated brands.

Collectively, these three studies advance our understanding of consumer behavior in three important ways. First, by defining self-concept threats in terms of the specific associations they target, we highlight important differences in threat types and consider a special case of identity threat in which consumers' strength of identification with specific brands are challenged. Second, we demonstrate that these threats arouse anxiety because they call into question the way in which consumers view themselves. In the face of a challenge to an important brand association consumers are compelled to actively re-establish their connection to the brand and they do this by choosing the brand at the next opportunity, even when that choice is economically inferior. These are self-verifying behaviors. Finally, in uncovering this novel brand pursuit effect, we demonstrate that it is indeed possible to drive preference in favor of a brand by threatening consumers'

association with it. This runs counter to conventional marketing wisdom and suggests that a strategy based only on reinforcing brand relationships might not be as optimal as previously believed.

The theoretical advancements made by this research open the door to other fruitful areas of investigation, such as the exploration of other antecedents to and consequences of threat response. While the research presented here utilizes overt threats to self-brand associations, other projects have used ostensibly unrelated manipulations to generate uncertainty in self-associations (Gao, et al., 2009). Although some of these investigations have found identity-consistent threat responses, it is unclear if the observed behaviors are acts of self-verification or if they follow an anxiety-mediated path. Boundary conditions of brand pursuit behavior also merit exploration. Are there conditions under which threatening self-brand association strength can backfire such that they reduce preference for the brand? On the consequence side of the ledger, additional research should also focus on the internal outcomes of threat response. The present research clearly identifies anxiety as the internal driver of threat response. However, it is unclear whether these threat responses actually reduce anxiety in a meaningful way.

These findings have important implications for marketers. Perhaps most interesting of these is the prospect that a brand can drive patronage to its product by challenging customer loyalty. The identity strength manipulations used in this research attacked participants' sense of identification with the Apple brand and essentially informed them that their connection to Apple was inadequate when measured against other customers. Our findings reveal that the most sensitive audience to this sort of tactic appears to be the brand's most closely identified and presumably best customers.

Threatening a brand's most loyal customers might appear to be a risky move, but this research shows that it can be a powerful strategy to drive preference in the brand's favor.

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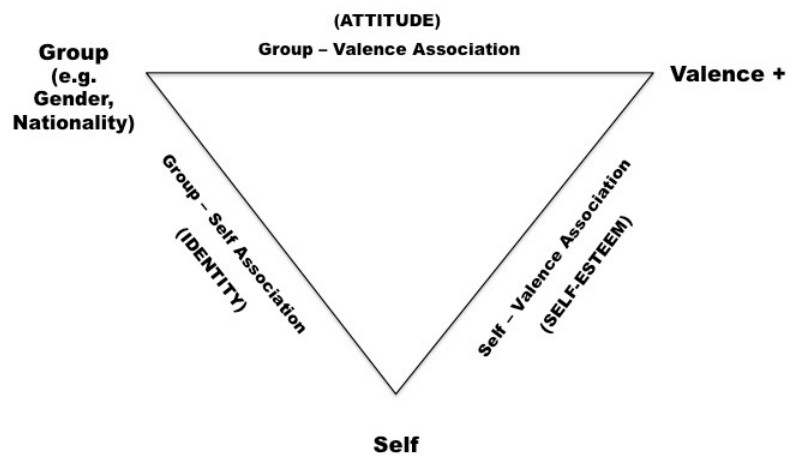
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APPENDIX

A1. Balanced Triad, adapted from Greenwald, et al (2002)



A2: Sample Pilot Test Threat Stimuli:

Threatening Headlines (Note: university identifiers have been removed for this draft):

news | lifestyles | opinion | sports | weekender | specials | blog | videos | photos

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Is ██████████ too dangerous for incoming freshmen?

By ██
January 7, 2010

[View this day's paper in PDF](#)
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It was all over the cable news networks and broadcast across the nation: last November, four ██████████ police officers were shot and killed in a coffee shop in ██. The deaths of these police officers marked the high point of an uncharacteristically violent year for ██ and have lead many people to question the safety of the region and, by association, ██████████.

news | lifestyles | opinion | sports | weekender | specials

LOGIN


Downed in the desert

By ██
January 11, 2010

Did you hear it? That explosion in Tucson yesterday?

It was more of an implosion, really, the ██ men's basketball team's season continuing to collapse on top of itself after another pitiful performance in the desert.


Non-threatening headlines:





news | lifestyles | opinion | sports | weekender | specials | blog | videos | photos

LOGIN ARCHIVES SUBSCRIBE ALUMNI CONTACT JOB BOARD ADVERTISE CLASSIFIEDS

Business School receives \$18 million donation for new building

By 
February 8, 2008


The  School of Business has a stated goal of becoming the best public business school in the country — an ambitious endeavor considering that the school's facilities date back to 1962.



news | lifestyles | opinion | sports | weekender | specials | blog | videos | photos

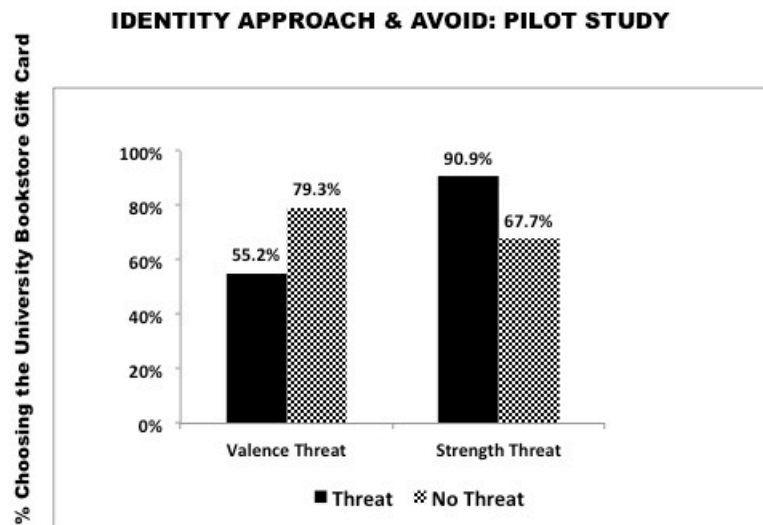
LOGIN ARCHIVES SUBSCRIBE ALUMNI CONTACT JOB BOARD

New smart-grid initiative puts on sustainability map

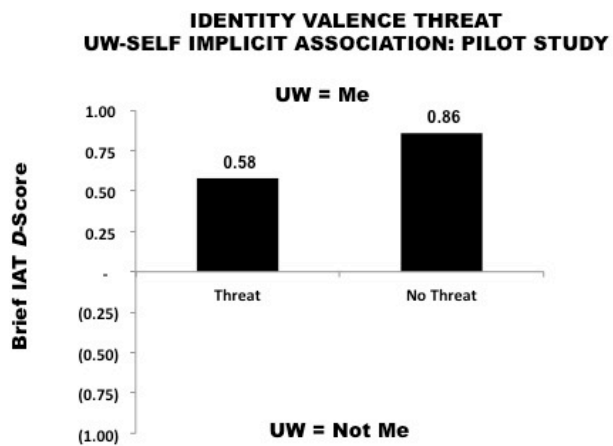
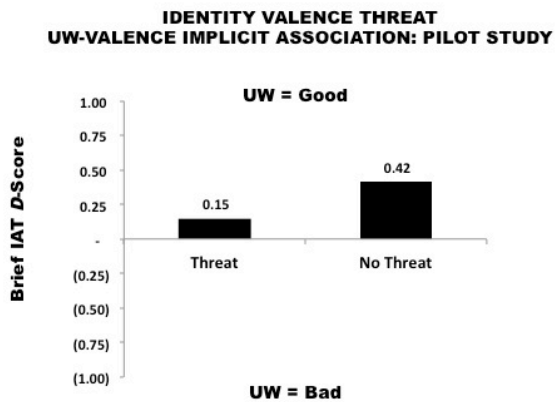
By 
November 30, 2009

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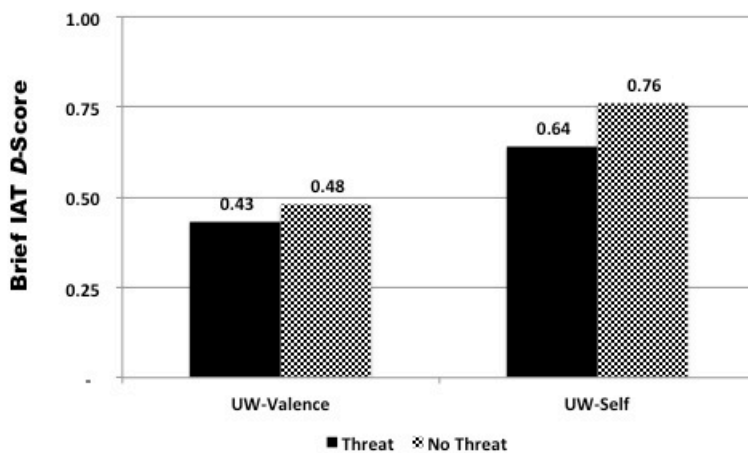
A3: Chapter II: % of Participants Choosing Identity Related Product



A4: Chapter II: Brief IAT results – Identity Valence Threat



A5: Chapter II: Brief IAT Results: Identity Strength Threat

**IDENTITY STRENGTH THREAT
UW-VALENCE & UW-SELF IMPLICIT ASSOCIATIONS: PILOT STUDY**

A6: Chapter III: Studies 1-3 Apple Brand Identification Assessment

1. How strongly do you identify with Apple? (1-100 sliding scale)
2. Please tell us when, if ever, you purchased your first Apple product.
3. Please check all of the Apple products you currently own. (iMac, MacBook, iPod Classic, iPod Nano, iPod Shuffle, iPhone, iPod Touch, iPad, Mac Mini, None)
4. When Apple releases a new product how eager are you to purchase these products? (1-100 sliding scale)
5. When Apple releases a new product, how willing are you to wait in line to be one of the first to get your hands on it? (0-100 sliding scale)
6. How many pieces of Apple logo gear do you currently own?
7. In two or three brief sentences, please describe your level of connection to the Apple brand.

A7: Chapter III: Studies 1-3 Threat Manipulation

High Threat:

Again, thank you for your participation in this research. We have tabulated your score and ranked you versus other respondents to the survey.

Your answers to the questions place you in the:

27th Percentile

This means that out of every 100 survey respondents,

73

demonstrate higher levels of connection to Apple than you.

Your exact percentile score may change slightly as this research continues and more respondents complete the survey. Once data collection is complete, you will be notified of your exact score.

Low Threat:

Again, thank you for your participation in this research. We have tabulated your score and ranked you versus other respondents to the survey.

Your answers to the questions place you in the:

73rd Percentile

This means that out of every 100 survey respondents,

27

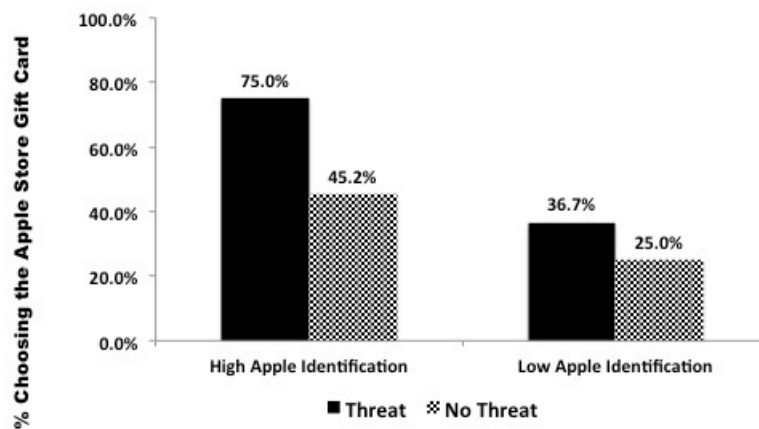
demonstrate higher levels of connection to Apple than you.

Your exact percentile score may change slightly as this research continues and more respondents complete the survey. Once data collection is complete, you will be notified of your exact score.

A8: Chapter III: Study 1 Results – Lottery Choice

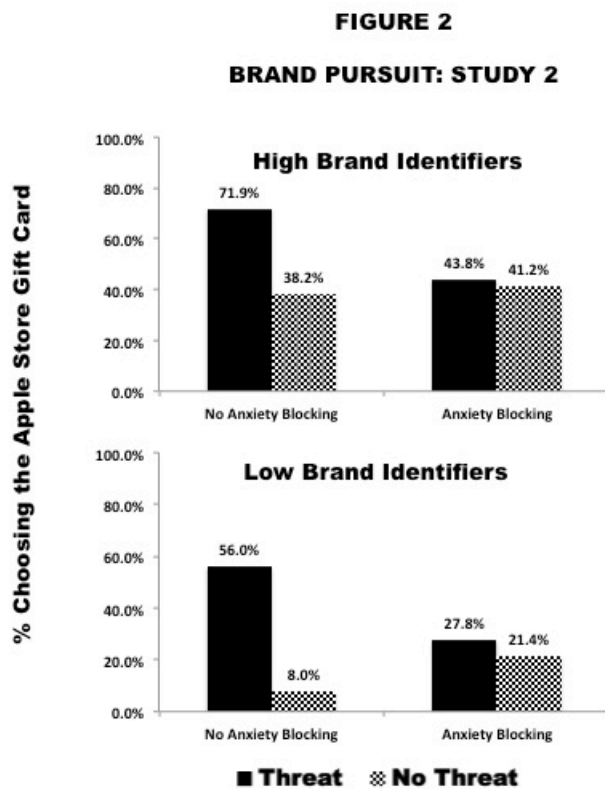
% of Participants Choosing the Apple Store gift card lottery versus Best Buy

FIGURE 1
BRAND PURSUIT: STUDY 1



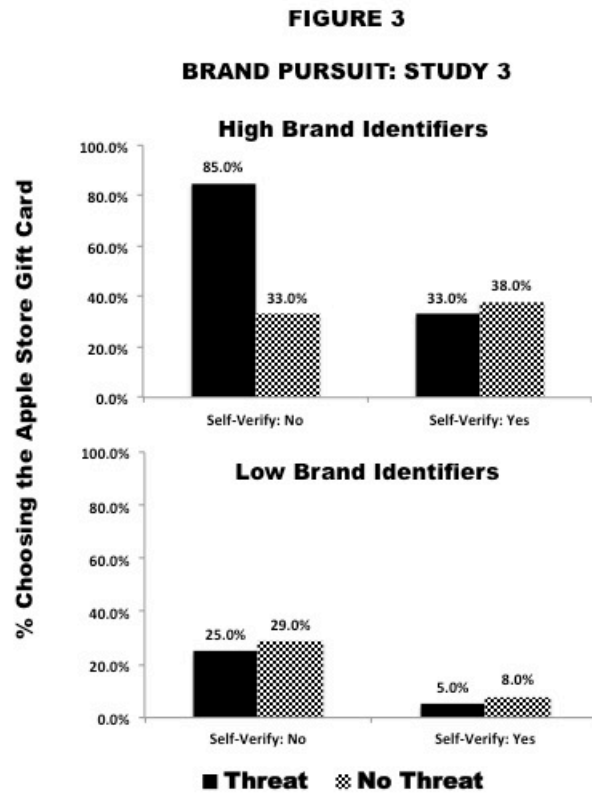
A9: Chapter III: Study 2 Results – Lottery Choice

% of Participants Choosing the Apple Store gift card lottery versus Best Buy



A9: Chapter III: Study 3 Results – Lottery Choice

% of Participants Choosing the Apple Store gift card lottery versus Best Buy



A10: Chapter III: Study 3 Results – Loyalty Program

% Likelihood of applying to an Apple Customer Rewards Club

TABLE 1
BRAND PURSUIT: STUDY 3

	High Brand Identification		Low Brand Identification	
	Self-Verify: No	Self-Verify: Yes	Self-Verify: No	Self-Verify: Yes
Threat	61.05%	22.50%	10.75%	9.73%
No Threat	31.89%	25.10%	12.83%	12.31%

% Likelihood of Applying to Apple Customer Rewards Club