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It's Not the Load That Breaks You Down, It's the Way You Carry It: An Examination of the Relationship between Negative Identity and Consumer Behavior

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It's Not the Load That Breaks You Down, It's the Way You Carry It: An Examination of the Relationship between Negative Identity and Consumer Behavior

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration

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ABSTRACT

Research examining social identity and consumer behavior often centers on groups with positive social identities, exploring the influence of similar identities (i.e., shared values, shared gender, shared political affiliations, shared ethnicity…etc.) or desired identities (e.g., sports celebrities, actors, and actresses). For example, research has shown that people display an increased attention to identity-based stimuli following the activation of a socially distinct identity (Forehand, Deshpandé, and Reed 2002) and that heightening the self-importance of a consumer social identity leads to a preference for identity-related brands (Reed 2004). An important but often overlooked aspect of the influence of social identity on consumption, however, is the link between negative social identity and consumer behavior.

This dissertation aims to address this gap in the literature by examining how social stigmas influence the consumption outcomes of consumers who possess the negative identity (targets) and consumers who fear obtaining the negative identity (nontargets). Using weight status as the research context, I bridge social identity (Tajfel and Turner 1979) and stigma (e.g., Goffman (1963) literatures to provide a framework for understanding how the objective and subjective aspects of socially stigmatized identities affect consumers’ self evaluations and appraisals of identity-related products. In particular, I examine how an individual’s weight status coupled with the importance they ascribe to their weight identity, coincide to affect self-evaluation and identity-relevant consumption outcomes. In particular, I posit and find support for the assertion that following activation of the weight concept, target group members (i.e., overweight consumers) low in weight identity self-importance will express greater dieting self-efficacy and identity-incongruent
evaluations of high calorie food items. I also experimentally manipulate weight identity self-importance to demonstrate that these effects can be generalized to members of a particular weight status group and examine the psychological processes associated with these effects. More specifically, I show that for overweight consumers, lowering weight identity self-importance boosts dieting self-efficacy perceptions and negatively impacts evaluations of unhealthy food products, but that this effect is attenuated under high cognitive load. I also show that for normal weight individuals, heightening weight identity self-importance leads to lower levels of dieting self-efficacy and less favorable evaluations of unhealthy food and that avoidance coping is the underlying mechanism driving these effects. Taken together, this research offers theoretical and practical implications for marketers, public policy makers, and consumer welfare advocates and provides direction for further research concerning consumer psychology and food-related judgments and consumption decisions.
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CHAPTER 1

INTRODUCTION AND OVERVIEW
Incidental exposure to a negative stereotype has been shown to positively influence stereotype-conducive behaviors (McFerran et al. 2010, Campbell and Mohr 2011). For example, being served by an overweight waitress (McFerran et al. 2010) or exposure to a picture of an overweight person (Campbell and Mohr 2011) may lead to less healthful consumption decisions. In addition, one can presume that certain aspects of a consumer’s appearance, such as weight, are made explicitly salient several times throughout the day. For example, a poll of women in the U.K. found that 70% of women report thinking about their weight three times a day (Mosier 2012) and research conducted by Glamour magazine found that women average nearly 13 negative thoughts about their body each day (Dreisbach 2011). Furthermore, research continues to point out the frequency and impact of weight-related media and advertising. Taken together, these findings suggest that consumers are often faced with conscious weight-related thoughts.

Despite the frequency with which weight is made salient in the minds of consumers, there is a limited amount of research examining how the conscious activation of weight salience affects consumer evaluations and behaviors. In addition, research examining incidental exposure to weight stereotypes has hinted at, but not explicitly tested, the idea that social identity or the social categories to which individuals belong, may influence susceptibility to weight-related primes. For example, McFerran et al. (2010) find that the presence of an overweight waitress may have an adverse effect on dieters but no effect on nondieters. The authors offer an identification-based explanation; that is, dieters identify more and assimilate to the overweight waitress and thus exhibit stereotype-conducive behaviors. In addition, McFerran and colleagues also note that the effects of incidental exposure to an overweight stereotype may be affected by the consumer’s weight status and/or weight-related psychological variables (e.g., weight self-importance) and suggest that experimental research has not adequately disentangled how each
factor affects consumer behavior. I propose, however, that the physiological and psychological aspects of weight are fundamentally intertwined and jointly affect stereotype activation, particularly for stereotypes associated with stigmatized nondeterministic groups (e.g., groups, like the overweight, whose stigmatized status is seen as controllable).

The purpose of this research is to advance our understanding of the relationship between negative identities and consumer outcomes. In particular, I examine the cognitive, affective, and behavioral outcomes associated with the blatant activation of a negative identity for in-group and out-group members who differ in identity self-importance. Prior literature examining the effects of stereotype activation suggests that when specific social identities become salient, self-perception and behavior become in-group stereotypical (Hogg, Terry, and White 1995). I, however, examine and explicitly test how, when, and for whom the activation of negative identities engenders non-stereotypical outcomes.

**OVERVIEW OF RESEARCH CONTEXT**

Obesity is a genuine threat to national health in the United States and around the world. More than two thirds of adults and 31% of children and adolescents in the U.S. are overweight or obese (National Institute of Health 2014). Globally, obesity rates have increased 82% in the last 2 decades, with rates increasing in every country except those in sub-Saharan Africa (Dellorto 2012). To combat rising obesity rates, marketers, policy makers, and health advocates have promoted information availability (e.g., nutrition labeling, restaurant menus featuring caloric information) and campaigns to encourage healthy eating and physical activity (e.g., the National Football League’s Play 60 campaign, Campaign for Healthy Kids, Michelle Obama’s Let’s Move! Campaign…etc.). The proliferation of nutrition information availability and healthy eating and physical activity campaigns, however, has not slowed the increase in obesity rates,
nor has it prompted obesity rate declines in the U.S. or abroad (National Institute of Health 2014; Dellorto 2012).

Implicit in many anti-obesity efforts is the idea that all consumers respond in a similar manner to weight-based cues. My dissertation, however, puts forth the notion that negative social identities and the affective associations consumers have with their identity, may play a role in shaping their responses to identity-relevant stimuli. With this in mind, I present evidence that weight identity and the affective component attached to the consumer’s weight may play a role in how they respond to weight-based cues. Further, understanding the role that an individual’s objective group membership and subjective evaluations of an individual’s weight (i.e., their weight status and the importance they attach to their weight) may prove beneficial in developing persuasive anti-obesity appeals.

OVERVIEW OF CONCEPTUAL FRAMEWORK

This research extends Social Identity Theory (SIT; Tajfel and Turner 1979) to examine how in-groups and out-groups respond to the activation of a negative identity. SIT proposes that consumers seek positive identities and also that consumers who maintain negative identities engage in activities that either (1) dissociate themselves from their negative identity or (2) transform the negative taint associated with their identity. The theory also suggests that the activation of a social identity will lead consumers to adopt identity-congruent attitudes and behaviors.

Research examining social identity and consumer behavior often centers on groups with positive social identities, exploring the influence of similar identities (i.e., shared values, shared gender, shared political affiliations, shared ethnicity…etc.) or desired identities (e.g., sports celebrities, actors and actresses). For example, research has shown that people display an
increased attention to identity-based stimuli, preference for identity-related brands, and spokespersons who maintain a desired identity. Forehand, Deshpandé, and Reed (2002) suggest, and find supporting evidence, that identity salience, one’s heightened sensitivity to identity-relevant stimuli, may explain the positive influence of shared identity on consumer behavior outcomes. More recently, research has begun to examine the influence of dissociate groups, groups an individual wishes to avoid being associated (Turner 1991; White and Dahl 2006). For example, work by White and Dahl (2006) shows that consumers have negative evaluations and are less likely to choose products associated with a dissociative group.

An important but often overlooked aspect of the influence of social identity on consumption, however, is the link between negative social identity and consumer behavior. In particular, few studies have examined how to limit the impact of identity activation on subsequent consumer behavior. To address this issue, I bridge SIT and literature regarding self-schemas (Markus 1977; Markus, Hamill, and Sentis 1987) to explore the relationship between negative identity and evaluations of identity related products (e.g., weight identity and attitudes and purchase intentions for unhealthy products). I also bring together literatures regarding identity self-importance and cognitive load to address a potential moderator and the mechanism underlying the effects of negative identity for targets (consumers who maintain the negative identity). I also draw on several relevant literatures to explore the association between negative identity and consumer outcomes for nontargets (consumers who do not maintain the negative identity). In particular, I continue to draw on SIT and schema theories to explore the effects of negative identity activation on nontargets while also tying in literature on emotion-focused coping to identify the mechanism that explains the effects of negative identity activation on nontargets.
OVERVIEW OF METHODOLOGY

To address the research questions and hypothesized outcomes concerning negative social identity, this dissertation first examines the relationship between the activation of the negative weight identity, weight status, and weight self-importance. In the first two experiments, the activation of the weight construct was manipulated and weight self-importance information was measured to determine how objective status and subjective evaluations of weight identity affect instrumental evaluations and behaviors. These studies used a 2 (weight concept: blatant activation vs. subtle activation) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) x 4 (menu items) mixed model ANOVA with prime, weight status and weight self-importance as between-subjects factors and the menu items presented as a within-subjects factor. In studies 1 and 2, the weight activation manipulation was an anagram task (adopted from Petty et al. 2008) that varied the proportion of weight related primes (80% = blatant and 30% = nonblatant). Study 3, which examines the effects of weight activation via social comparison with an overweight ‘other,’ utilizes a present vs. absent manipulation. In addition, the W-ISI measure consisted of nine scale items that tapped into weight salience and weight schema (e.g., “I really don’t have clear feelings about my weight” and “My weight is an important reflection of who I am.”).

Additionally, the inclusion of a menu item in the study allowed me to collect measures of food attitudes, purchase intentions, and anticipated consumption pleasure, measures directly related identity-congruent consumption (i.e., the consumption of unhealthy food following exposure to the weight prime). I also collected measures of esteem, self-efficacy, and health-related beliefs. Together, these three studies generally support my hypotheses that normal weight consumers high in identity self-importance and overweight consumers low in weight self-
importance are more likely to exhibit identity-incongruent evaluations and behaviors following blatant weight activation. Studies 4 and 5 manipulate, rather than measure, weight self-importance using a 2 (prime: W-ISI vs. control) x 3 (weight status: normal weight/overweight/obese) ANOVA.

CONTRIBUTION

Theoretical Contribution

This research makes several contributions. First, I provide an empirical investigation of the activation of negative identity with stereotyped nondeterministic groups and examine the subsequent effects on stereotype-relevant evaluations and behaviors. I also provide a framework for understanding how the objective and subjective aspects of social identity affect consumer outcomes for both targets and nontargets. In particular, I posit and find support for the assertion that target group members low in weight identity self-importance (W-ISI) and nontargets high in W-ISI both demonstrate identity-incongruent product evaluations and choices following stereotype activation. Second, I show that these effects are the result of identity activation and not the effect of stereotype priming because the effects are not dependent on the valence of the stereotype under consideration. Lastly, I experimentally manipulate identity self-importance and show the underlying mechanisms for these effects. Specifically, I show that lowering identity self-importance allows target members to employ cognitive resources to objectively consider stereotype-relevant stimuli which, in turn, lead to stereotype-incongruent consumer outcomes. Alternatively, I show that coping strategies mediate the relationship between high ISI and stereotype-inconducive for nontargets. In addition to establishing the causal relationship between ISI and consumer outcomes, and strengthening the conceptual framework I put forth,
manipulating ISI allows me to demonstrate that these effects can be generalized to all members of a social group.

**Substantive Contribution**

This research also makes a number of potentially substantive contributions regarding consumer well-being. First, I provide empirical support for the notion that an individual’s objective weight status and subjective feelings regarding their weight play an important role in determining how consumers make weight-related decisions. In particular, this research shows that interventions aimed at encouraging healthy behaviors may need to adopt a more targeted approach for each weight status group. For example, I show that objective and subjective evaluations of weight status differently affect consumption outcomes among normal and overweight consumers. I also show that subjective evaluations of W-ISI can be influenced to discourage unhealthy consumption practices. Specifically, I demonstrate that weakening (strengthening) W-ISI among overweight (normal weight) consumers lead to higher (lower) levels of dieting self-efficacy and less favorable evaluations of unhealthy food products.

The remainder of this paper is organized as follows. Chapter 2 provides a literary review of the theoretical, empirical, and practical underpinnings of the theoretical framework and hypotheses presented in this dissertation. Next, in Chapter 3, I show that weight salience and negative affect evoke different evaluations of food items and efficacy perceptions. These results provide some evidence that weight salience is not confounded with negative affect. In chapters 4, 5, and 6, I draw on previous literature to develop the conceptual framework for my predictions and state and test a series of hypotheses concerning how weight salience, weight status, and W-ISI impact food evaluations and efficacy perceptions. More specifically, in chapters 4 and 5, I provide evidence for the proposed phenomenon by showing that increased weight salience leads
overweight consumers low in W-ISI and normal weight consumers high in W-ISI to negatively evaluate unhealthy food and express differential efficacy perceptions. However, in chapters 4 and 5, weight salience is operationalized as ‘overweight’ and ‘thin’ weight salience, respectively. Chapter 6 extends the idea of overweight weight salience by adding a social comparison component to the manipulation. Specifically, the weight salience manipulation requires that participants identify with an overweight target. In chapters 7, 8, and 9, I continue to test the proposed hypotheses by manipulating rather than measuring high (chapters 7 and 8) and low (Chapter 9) W-ISI. Lastly, Chapter 10 summarizes the key findings of this dissertation and provides a more detailed discussion of the theoretical and substantive implications of this research. I also provide an agenda for future research.
CHAPTER 2
LITERATURE REVIEW
SOCIAL IDENTITY

Derived from the minimal group’s paradigm, Social Identity Theory (SIT, Tajfel and Turner 1979) was developed as an approach to understanding intergroup and intragroup processes and relations. The theory is based on the principle that individuals maintain a social self, a self that is guided by one’s membership in certain social groups. Accordingly, an individual’s membership in a meaningful social category provides a definition of who one is in terms of the defining characteristics of the category, a definition that becomes a part of one’s beliefs and knowledge of one’s self-concept. SIT posits that when a specific social identity becomes salient or situationally accessible, self-perception, beliefs, attitudes, and behaviors reflect the activated social identity, becoming in-group normative. Prior literature suggests that social identities provide awareness for who one is (Tajfel 1981), reduce uncertainty (Hogg and Abrams 1993), fulfill the needs to belong (Baumeister and Leary 1995) and be socially distinct (Brewer 1991), and influence self-representation (Brewer and Gardner 1996).

The theory also posits that cognitive and motivational processes underlie social identity phenomena. In particular, Social-Categorization Theory (SCT, Turner 1985), an extension of the original theory, posits that individuals cognitively assimilate the self to the in-group prototype. Accordingly, SCT posits that social identity salience engenders depersonalization, a process where an individual’s unique characteristics are depressed in favor of stereotypical group characteristics. Social comparisons between groups are thought to determine the prototypical attitudes and behaviors of groups, and these prototypes maximize metacontrasts or intergroup differences between groups. Turner (1985) also advances that the social context governs which categorization is used to classify social stimuli and activate a particular social identity.

According to Tajfel and Turner, “Social categorizations are conceived here as cognitive tools
that segment, classify, and order the social environment, and thus enable the individual to undertake many forms of social action. But they do not merely systematize the social world; they also provide a system of orientation for self-reference and create and define the individual’s place in society. Social groups, understood in this sense, provide their members with an identification of themselves in social terms” (Tajfel and Turner 1986, p. 15).

Because consumers are members of several social groups, the self maintains a number of social identities (Tajfel and Turner 1979). Work by Lickel et al. (2000) suggests that consumers perceive their group memberships as having at least four distinct properties. In particular, consumers perceived groups based on intimacy (e.g., family), task-orientation (e.g., work-groups), social categories (e.g., women), and weak social categories (e.g., neighbors). As noted by Roccas and Brewer (2002), however, memberships in large, symbolic groups engage collective identities that are likely to result in depersonalization or social categorization. For example, “white,” “Christian,” and “woman” are more likely to result in collective or social identities. Roccas and Brewer (2002) coined the term “social identity complexity” to describe the overlap between simultaneous social identities (e.g., “woman” and “white”). Consumers who differ in the complexity of their subjective representations of their social identities are better able to handle threats to their identity as well as less likely to show in-group bias. In this regard, social identity complexity may buffer individuals from negative evaluations stemming from their social identity and minimize the prejudice and favoritism that often stem from in-group affiliation.

SIT also posits that intergroup prejudice, stereotypes, and discrimination stemming from a socially dominant in-group and socially inferior out-group, are motivated by the desire to maintain positive distinction and esteem (Tajfel and Turner 1979). The idea that the need for
positive self-esteem motivates social identity and identity-driven-effects has led to the so-called “self-esteem hypothesis” that (a) self-esteem results from different forms of intergroup behavior (e.g., discrimination) and that (b) threatened self-esteem promotes discrimination (Hogg and Abrams 1990). Accordingly, self-esteem may be considered a dependent and independent variable. Research regarding the self-esteem hypothesis reveals inconsistent findings and results which suggest that other variables may moderate the relationship between self-esteem and social identity (see Hogg and Abrams 1990; Rubin and Hewstone 1998). Yet the basic premise that individuals feel connected to and strive to maintain a positive evaluation of his or her in-group has been shown consistently in the literature. For example, social identities may boost feelings of self-worth through the positive appraisal of valued groups (Tajfel and Turner, 1979) and validate belief systems (Hogg and Abrams, 1993) and that in-group identification generally boosts self-esteem (Oakes and Turner 1980).

Taken together, SIT and SCT suggest that group membership acts as a framework for interpreting the social self and as a formative guide for the self’s thoughts, feelings, and behaviors. However, the effects of group membership on identity-related evaluations and behaviors depend on both the salience and the importance of an identity. In addition, SIT and SCT highlight social validation and self-esteem as being important elements of social life and suggest that the need for positive social and self-evaluation are key factors driving social identity effects.

**Negative Identity and Stigma**

Research concerning groups with a negative identity often reverts to the examination of low-status groups. Yet, these two classifications of group membership maintain an understated but significant difference - low status groups are those whose status is perceived to be lower in
the social hierarchy while groups with negative identities maintain a stigmatized or devalued identity. Thus, low status groups are not necessarily groups with a negative identity, but groups with a negative identity do maintain a low status in the social hierarchy. For example, Berger and Rand (2008) show that undergraduates are more likely to perceive graduate students as maintaining a lower social status and that the desire to be socially distinct influences consumers to pursue healthier outcomes. Similarly, White and Dhal (2007) show that Canadians are more likely to negatively evaluate products associated with Americans, a dissociative group. Yet, graduate students and Americans are not assumed to maintain a devalued social identity; these groups are not generally stigmatized and individuals do not sustain prejudicial attitudes, negative stereotypes or beliefs, or discriminatory behaviors toward these groups as is often the case with socially devalued groups.

SIT posits that persons who maintain negative identities are compelled to rid themselves of their devalued identity by pursuing strategies to achieve a positive social identity. Specifically, negative identity group members may engage in (1) individual mobility – physically or psychologically disengaging from the devalued, (2) social creativity – creating a positive identity for the current outgroup by creating social distinctiveness between the current outgroup and ingroup and/or finding new favorable dimensions for comparison between the outgroup and the ingroup, or (3) social competition – directly competing with the out-group to produce real changes in the relative status of the two groups.

Regardless of which strategy individuals who maintain a negative identity pursue, it is relatively clear that these strategies may be considered long-term attempts to change an individual’s status (i.e., individual mobility) or the status of the group (i.e., social creativity or social competition). Thus, SIT does little to describe how individuals living with negative social
identities navigate social relationships with others and the psychological costs and experiences that result from maintaining a persistent negative social identity. To answer these types of questions requires theoretical contributions beyond that of SIT’s cognitive focus on identity. SIT does provide (1) a useful framework for understanding why negative social identity occurs, a typology of strategies used to abandon or change an individual’s negative identity status, and an understanding of how persons with a negative social identity react when a negative social identity has been activated (i.e., persons behave in an identity congruent manner). Social Identity Theory’s focus on the cognitive components of negative social identity, however, fails to fully explicate the social and personal ramifications of negative social identity, ramifications that move beyond cognition and involve the affective consequences of negative social identity.

The effects of maintaining a negative identity are quite complex and must take into consideration a number of factors related both to the acceptance and maintenance of a negative identity possession and to the lived experiences of individuals with negative identities. For example, social hierarchies are not always secure. As such, negative identity holders may perceive “cognitive alternatives”, such as perceiving the dominant group’s superiority as illegitimate or the desire for equitable social categories (Turner 1975). In addition, such beliefs regarding the stability and superiority of the in-group may affect out-group members’ views regarding their inferior status and may impact which, if any, strategies out-group members pursue to achieve a positive social identity. Research has also shown that positive outcomes may be associated with negative identity membership. For example, research has consistently shown that African Americans maintain greater levels of self-esteem than their counterparts (Twenge and Crocker 2002). Taken together, these findings suggest that SIT fails to provide a comprehensive account of the workings and possible effects of negative social identity.
Stigma research fills in many of the unanswered questions regarding negative social identity not directly addressed by SIT. Stigma research may be considered an extension of social identity research that focuses almost exclusively on negative social identity, and while research examining stigma has explored the cognitive components of stigma and the motives or causes of stigma, the primary aim of stigma research appears that of providing a more nuanced view of how negative social identities affect individuals.

Goffman (1963) and Crocker, Major, and Steele (1998) note that stigmatized individuals possess (or are believed to possess) a mark, attribute, or characteristic that conveys a devalued social identity in a particular social context or society. The authors also advance the notion that stigmas are the root cause of negative identity. Stigma research suggests that stigmatizing conditions, attributes, or identities vary in the extent to which they elicit stigmatization. As such, there is a range in the degree of devaluation elicited by stigmatizing conditions and a range in the settings or contexts which elicit devaluation. This signifies that there is no one size fits all approach to understanding when and how stigmatized individuals are devalued and, thus, how stigmatization affects the individual.

Major and O’Brien (2005) also suggest that stigma-induced threat is affected by the individuals’ collective representations or prior experiences in society and situational cues. Crocker, Cornwell, and Steele (1998) further suggest that stigmatization, the characterization of stigma, is a situational threat that arises when individuals are placed in an environment where one’s stigma may influence how the individual is judged and treated. That is, individuals may maintain a negative social identity but may not suffer from the negative identity unless or until situational factors activate the individual’s perception of how he or she is treated or judged. Research suggests, for example, that physically unattractive individuals, persons with physical
handicaps, and persons with facial disfigurements all maintain self-esteem levels on par with those of nonstigmatized individuals (Crocker, Cornwell, and Major 1993) but self-esteem may decline when individuals are placed in positions that allow for judgment.

The notion that persons maintain an affective reaction in the face a situational context that incites stigmatization is complicated by the fact that individuals with a negative social identity maintain differential views on what constitutes a stigmatizing situational context. For example, for some individuals the threat of being stigmatized remains “in the air” at all times while this is less so for other individuals with negative identities (Crocker 1999). In particular, Pinel (1999) suggests that the differential extent to which individuals expect to be stereotyped by others is a matter of stigma consciousness. Similarly, Corrigan, Larson, and Rüsch (2009) have coined the term “the why try effect” to refer to the fact that some stigmatized individuals internalize stereotypes about their group which lead to low self-esteem and perceptions of self-efficacy and, ultimately, lower behavioral efforts to obtain goals.

There is also evidence that suggests that the visibility and controllability of stigmas play a role in determining the extent to which individuals are devalued and that visibility and controllability affect the thoughts, feelings, and behaviors of the stigmatized. In particular, stigma scholars suggest that visible stigmas, those that can readily be seen by others (e.g., race, weight, physical handicap, etc.) may act as the primary lens through which stigmatized individuals are viewed by others (Crocker, Major, and Steele 1998). Research also suggests that the controllability of the stigma may moderate self-perceptions and the perceptions of others toward the stigmatized. In particular, research suggests that persons whose stigma is considered to be controllable (e.g., weight, HIV status) are more disliked, rejected, and poorly treated by others than those whose stigma is uncontrollable like the disfigured or handicapped (Weiner,
Perry, and Magnusson 1998). Research also suggests that persons who maintain controllable stigmas may be more likely to maintain a negative view of the self (Crocker, Cornwell, and Major 1993).

A review of the above literature suggests that negative identity and stigma research go hand in hand. To this end, SIT provides insight into the ‘whys’ or explanations on the emergence and degeneration of a negative identity while research on stigma provides insight into the ‘hows’ or the ways consumers deal with negative, stigmatized identities. Both theoretical frameworks note the difficulty of maintaining such identities and note the need to eradicate the identity (i.e., SIT), and/or achieve a positive self view despite the identity (i.e., stigma research). One notable difference between the two frameworks, however, is that SIT treat negative identities in a relatively uniform manner whereas stigma research notes that stigmatized identities vary in their level of ‘otherness’ or devaluation. Regardless, the ability of both frameworks to provide complimentary insight into negative identity, leaves me to refer to weight-based negative identity as a negative, stigmatized identity.

**Weight as a Stigmatized, Negative Identity**

Overweight and obese consumers maintain a visible and arguably controllable stigma. Taken together, these two facts help explain the intense stigmatization associated with an overweight status. For example, the overweight are stereotyped as unattractive, unlikeable, weak-willed, morally and emotionally lacking, self-indulgent, and less active, less intelligent, less successful, and less outgoing (Allon 1982; Harris, Harris, and Bochner 1982). Weight stigma research suggests that the overweight are one of the last acceptable targets of prejudice and discrimination (Puhl and Brownell 2001) and that weight discrimination has increased by 66% in recent years (Puhl and Heuer 2009). Moreover, findings show that that consumers hold
both implicit and explicit prejudices and stereotypes against the overweight (Brochu and Morrison 2007) and that overweight individuals are viewed more negatively than any other stigmatized group (Allon 1982). As an example, Richardson and colleagues (1961) asked 10-11 year olds to rank six drawings of children based on how much they liked the pictured child. Results show that children rank the nonstigmatized child first, followed by a child in a leg brace, a child in a wheelchair, an amputee, a facially disfigured child, and lastly, an obese child. These findings were consistent across participants’ race and socioeconomic status. Likewise, a study of children by Staffieri (1967) shows that 6-year-old children describe silhouettes of overweight children as “lazy,” “stupid,” and “ugly”. These findings suggest that prejudice concerning the overweight starts at a young age and, as noted by Sigelman, Miller, and Whitworth (1986), stigmatization of the overweight is positively correlated with age. That is, overweight stigmatization increases as we grow older. These results suggest that anti-fat attitudes are established at an early age and are a pervasive societal norm.

Weight bias and its subsequent stereotypes and discriminatory practices have led to an acute aversion to the fat identity. For example, in a study that included both men and women, Schwartz and colleagues (2006) find that 46% of consumers would be willing to give up at least one year of their life, 15% would be willing to give up 10 years or more of their life, 30% of consumers would rather be divorced, 25% would rather be childless, 15% would rather be severely depressed, and 5% of consumers would rather lose a limb than be fat. In addition, recent research suggest that the aversion to the overweight body often advocated by Western and certain Asian cultures, has now been exported to traditionally “fat friendly” cultures like Fiji (Brewis et al. 2011). Somewhat paradoxically, however, is that despite a fervent aversion for being fat and an increasing number of individuals who subscribe to anti-fat attitudes, obesity
rates in the United States and worldwide continue to increase, According to the World Health Organization (WHO), 52% of adults are overweight or obese globally, a figure that has more than doubled since 1980 (WHO 2015). The question, then, is how and why anti-fat attitudes and the aversive reaction to the fat identity continue to intensify despite the increasing number of people who maintain a fat identity and how do such attitudes affect the overweight.

The foundations of weight bias are complex and multifaceted. The most common reason offered for the existence of weight bias is that one’s weight is controllable and an overweight status is in direct opposition to the Protestant Work Ethic of self-control, self-discipline, and hard work (Crandall 1994). Thus, the lack of control inferred from an overweight body breeds anger which manifests itself as weight bias. Despite evidence that overweight bodies are ecological phenomena influenced by biological and environmental factors (Egger and Swinburn 1997), the perceived lack of self-control and laziness attributed to the overweight manifests itself in weight bias. Interestingly enough, the increase in anti-fat attitudes among non-Western cultures and the negative reactions to overweight bodies in Western cultures have each been traced to the prevalence of anti-fat attitudes perpetuated by the media. In particular, the media often influences and perpetuates the idea that the perfect body is thin with its almost exclusive emphasis on thin models, actors, and performers, all of whom are meant to embody the “ideal” man or woman. What’s more, a recent review of weight bias in the media suggests that anti-fat attitudes are reinforced in shows catering to children, adolescents and adults (Ata and Thompson 2010). As noted by Ata and Thompson (2010), overweight women and men account for roughly 13% and 24% of characters on television, respectively, but account for over more than 50% of the American population. Moreover, the overweight characters that appear in the media are often the brunt of fat humor and negative commentary and are less likely to date or maintain normal
sexual relationships, perpetuating the notion that overweight bodies are synonymous with social exclusion. The authors also note that the media often pairs overweight men with thin female mates but that the reverse mating is seldom, if ever, done. The takeaway being that overweight women are devalued to a greater degree than overweight men and that overweight women are devalued by men who share the same stigma.

The experience of living with an overweight body has been found to have a profound effect on psychological and physical health as well as weight-related attitudes and behaviors. For example, research has shown that overweight and obese individuals are more likely to experience depression than non-overweight individuals (Zhao et al. 2009) and anxiety (Petry et al. 2008). Findings also show that the obese are more likely to report mood, anxiety, and alcohol use disorders (Petry et al. 2008). Research supports the notion that the overweight and obese are more likely to report body dissatisfaction, and lower levels of weight and self-esteem. The overweight and obese are also likely to believe that their weight is controllable and exhibit self-blame for their overweight status (Crocker, Cornwell, and Major 1993). Feelings of self-blame engender weight bias internalization and feelings of undeservedness for weight based stereotypes, prejudice, and discrimination. Such feelings are likely reinforced by the negative bias experienced by the overweight in their interpersonal relationships, and in work, school and healthcare settings (Puhl and Heuer 2009). These feelings, along with negative social interactions, contribute to the lack of protective in-group favoritism adopted by other stigmatized groups (Crandall 1994).

Research has shown a significant relationship between weight stigma and the attitudes and behaviors associated with weight management. For example, research suggests that weight bias is positively associated with binge eating (Puhl and Heuer 2009) and work by Major et al.
(2014) shows that women who perceive themselves to be overweight are more likely to snack after weight stigmatizing messages. Moreover, work by Puhl and Brownell (2003) suggests that weight stigma may increase overeating and sedentary behavior. Accordingly, research shows that weight stigma is associated with exercise avoidance and increased eating as a means for coping with weight stigma (Puhl and Brownell 2006). Perhaps more troubling, work by Carels et al. (2009) shows that internalized weight bias negatively influenced self-monitoring and exercise activities and increased caloric intake among overweight and obese individuals seeking to lose weight.

**Identity Activation, Stereotype Activation and Stereotype Threat**

As noted earlier, SCT suggests that the social context directs the appropriate categorization of the self and activates a particular social identity. For example, viewing a Pampers commercial or standing in the middle of the aisle at a baby center will likely elicit a ‘mother’ social identity among women with children. Literature concerning *identity driven effects* (Reed et al. 2012), the cognitions, attitudes, and behaviors derived from an activated social identity, however, suggests that social identities may be activated by a variety of different means. For example, Oyserman, Fryberg, and Yoder (2007) activate social identity by having individuals self-identify with a particular racial category prior to posing racial identity-related inquiries. In contrast, McFerran et al. (2010) introduce an overweight waitress in the social environment by having the waitress serve food, thereby activating the weight identity among dieters. Alternatively, Petty et al. (2008) activate social identities using word completion tasks. Work by Swan and Wyer (1997) suggests that social identities are activated when individuals are placed in situations where their identity is socially distinctive. Taken together, these methods of
activation suggest that cues related to a particular social category will activate that particular identity.

Research also suggests that identity driven effects may also be activated by presenting individuals with identity-related stereotypes. In particular, it is assumed that people are aware of the traits associated with their social identity (whether they acknowledge them or not) and that the presentation of such stereotypes will activate attributes that are then used as a basis for self-judgments. For example, Levy (1996) found that priming the elderly with negative elderly stereotypes negatively influenced performance on a memory task. When individuals are placed in situations that allow for the confirmation of negative stereotypes about one’s social group, participants experience stereotype threat (Steele and Aronson 1995). Research examining stereotype threat suggests that the situational threat hinders performance in the stereotype domain. For example, research has shown that stereotype threat hinders the performance of African Americans’ performance on standardized tests (Steele and Aronson 1995), women’s performance in math (Brown and Josephs 1999; Spencer, Steele, and Quinn 1999), White male’s athletic performance (Stone et al. 1999), and low socioeconomic status consumers’ performance on standardized tests (Croizet and Claire 1998). Although there is no consensus regarding the mechanism or mechanisms underlying stereotype threat, a number of explanations have been proposed including: anxiety (Bosson, Haymovitz, and Pinel 2004), arousal (Ben-Zeev, Fein, and Inzlicht 2005), motivation (Jamieson and Harkins 2007), and cognitive load (Croizet et al. 2004).

It should be noted, however, that literature concerning stereotype priming and stereotype threat suggest that these are two distinctly different processes. In particular, stereotype priming can presumably affect anyone through prime-to-behavior effects in which knowledge structures concerning the stereotype guide behavior in a stereotype congruent manner. Such priming would
explain research which suggests priming individuals with the stereotype of ‘professor’ leads to better performance on a general knowledge task while priming individuals with the stereotype of ‘soccer hooligan’ reduces knowledge task performance (Dijksterhuis and van Knippenberg 1998). In contrast, stereotype threat only affects consumers for whom the stereotypes is self-relevant and when the individual’s social identity is threatened (Marx 2012).

**Social Identity in Consumer Research**

Research examining social identity and consumer behavior often centers on groups with positive social identities, exploring the influence of similar identities (e.g., shared values, shared gender, shared political affiliations, shared ethnicity, etc.) or desired identities (e.g., sports celebrities, actors and actresses) on consumer outcomes. For example, research has shown that ethnic minorities are more likely to experience ethnicity salience (Deshpandé and Stayman 1984), positively evaluate brands represented by an ethically similar spokesperson (e.g., Deshpande and Stayman 1984 and Forhande and Deshpandé 2001) and utilize ethnic-centered media (e.g., Deshpandé, Hoyer, and Donthu 1986). Research has found that shared identities influence charitable giving (Shang, Reed, and Croson 2008), that identities can influence product preference (Zhang and Khare 2009), organization loyalty (Bhattacharya, Rao, and Glynn 1995), and advertising response (Forehand, Deshpandé, and Reed 2002). Moreover, research suggests that identity salience may influence purchase intentions (Reed 2004), identity-linked promotions (Dalton and Huang 2014), consumer engagement and consumption convergence with in-groups (Kettle and Häubl 2011).

More recently, identity-related consumer research has identified instances when identity salience and/or dissociative identities (i.e., unwanted identities) negatively influence consumption. For example, research by Puntoni, Sweldens, and Tavassoli (2011) suggests that
gender salience triggers defense mechanisms that lower perceived vulnerability to breast cancer and negatively affect processing and memory for breast cancer advertisements. In a similar vein, research suggests that identity threat negatively influences product preference (White and Argo 2009) and memory for identity-linked promotions (Dalton and Huang 2014) and that identity appeals that reference “dirty laundry” negatively impact advertising response (Thomas, Trump, and Price 2015). Research has shown that unhealthy behaviors associated with dissociative groups may lead to more positive health behaviors among target groups (Berger and Rand 2008). Research also suggests that consumers may reject certain products associated with dissociative groups (White and Dahl 2006, 2007) but are motivated to purchase high status products associated with low status dissociative groups (Shalev and Morwitz 2012). And as previously mentioned, previous research by McFerran and colleagues (2010) and Campbell and Mohr (2011) have begun to examine how social identities associated with weight may encourage unhealthy consumption.
CHAPTER 3

PILOT STUDY 1:

THE DIFFERENTIAL EFFECTS OF WEIGHT SALIENCE
PURPOSE AND PREDICTIONS

A pilot test was administered prior to our experiments to address the potential confounding influence of negative affect on the blatant priming of the overweight stereotype for overweight and obese consumers. Prior research suggests that overweight and obese individuals internalize weight stigma and that such stigmatization may increase levels of negative affect (e.g., Zhao et al. 2009; Corrigan, Larson, and Rüsüch 2009). However, as noted by Crocker (1999) stigma may be situational and primarily emerge in instances in which individuals are subject to judgments based on their stigmatized identity. As such, I predict that activating weight salience should engender food-related outcomes that are different from negative affect salience. In particular, I posit that when weight is activated outside of social judgment, weight and negative salience will produce distinct weight-related effects. To test this idea, I compared the activation of an overweight identity vs. the activation of feelings of sadness. Sadness was chosen as the affective target because prior research has shown that feelings of sadness may reduce hedonic consumption (Salerno, Laran, and Janiszewski 2014). This being the case, activating sadness would prove a stringent test of the differential effects of negative affect and weight salience since feelings of sadness may mirror the effects of weight salience (i.e., reduce consumption).

METHODOLOGY

Participants, Design, and Procedure

Participants were 141 (M<sub>age</sub> = 36, SD = 10.5) overweight and obese women recruited from an online consumer panel. The design was a 3 (prime: overweight vs. negative vs. control) x 2 (entrée: Angus cheeseburger = high calorie item, César salad = low calorie item) x 2 (BMI: overweight vs. obese) mixed ANOVA. In the control condition, participants were asked to write
about a typical Saturday while participants in the experimental conditions received the following instructed to “describe, in as much detail as possible, a time in life when you felt overweight/sad. Describe the circumstances, how you felt, and what you did,” (Bless et al. 1990; Desteno et al 2000, study 4). See Appendix E for details on the three primes. Participants were then given a short filler task and a second task to review a restaurant menu, evaluate two food items (Angus Cheeseburger = high calorie, César salad = low calorie), and answer a few menu-related questions. At the end of the questionnaire, participants answered the demographic questions.

The dependent variables of interest included attitude (unfavorable-favorable, bad-good, and negative-positive, $\alpha > .95$) and purchase intentions (e.g., “Assuming you were going to buy an entree from the menu shown, would you be more likely or less likely to purchase this item?”) toward the menu items as well as health fluency. Health fluency was assessed with two 7-point items anchored by strongly disagree/strongly agree (”It is easy to determine which foods are the more healthy options” and “I can easily tell which foods are more healthy and which ones are less healthy,” $r = .87$).

Results

Attitude toward the Menu Item. Results indicate a significant direct effect of the prime (F(2, 135) = 4.84, $p < .01$). Contrasts show that the overweight prime lessened attitudes for the food products compared to the control and negative affect conditions ($M_{\text{overweight}} = 4.88$ vs. $M_{\text{control}} = 5.64$, F(2, 135) = 8.60, $p < .01$; and vs. $M_{\text{negafect}} = 5.39$, F(2, 135) = 5.0, $p < .05$). Results also indicate a significant prime – food item interaction (F(2, 135) = 4.88, $p < .01$). Follow-up contrasts indicate a significant difference between the effects of the primes on the high calorie food item (F(2, 135) = 7.49, $p < .01$). In particular, results show that the overweight prime decreased attitudes toward the Angus cheese burger compared to the control and negative
affect conditions ($M_{\text{overweight}} = 4.00$ vs. $M_{\text{control}} = 5.45$, $F(2, 135) = 12.71, p < .01$; and vs. $M_{\text{negaffect}} = 5.06$, $F(2, 135) = 8.64, p < .01$). Results were nonsignificant across the low calorie food item ($F(2, 135) = .05, p = .95$). As expected, results were moderately significant for the prime-weight status–food type interaction ($F(2, 135) = 2.45, p < .09$). Follow-up contrasts indicate a significant difference between the effects of the primes on the high calorie food item for overweight participants ($F(2, 135) = 7.29, p < .01$). As shown in Figure 1a, results indicate that overweight participants expressed a decline in attitudes toward the high calorie food item after exposure to the overweight prime compared to the control and negative affect conditions ($M_{\text{overweight}} = 3.47$ vs. $M_{\text{control}} = 6.0$, $F(2, 135) = 10.75, p < .001$; and vs. $M_{\text{negaffect}} = 4.87$, $F(2, 135) = 6.31, p < .01$). Follow-up contrasts were nonsignificant for the low calorie food item ($F(2, 135) = .35, p > .70$), indicating that overweight consumers expressed no significant differences in attitude towards the César salad after exposure to each of the primes. Follow-up contrasts were also nonsignificant for obese consumers across the high calorie food item ($F(2, 135) = 1.25, p > .29$) and the low calorie food item ($F(2, 135) = .21, p > .81$).

**Purchase Intentions.** Results show a moderately significant direct effect of the prime ($F(2, 135) = 2.66, p < .07$). Contrasts show that the overweight prime lessened attitudes for the food products compared to the control and negative affect conditions ($M_{\text{overweight}} = 4.20$ vs. $M_{\text{control}} = 4.76$, $F(2, 135) = 4.23, p < .05$; and vs. $M_{\text{negaffect}} = 4.64$, $F(2, 135) = 3.42, p < .07$). Results also indicate a significant prime–food item interaction ($F(2, 135) = 5.23, p < .01$). Follow-up contrasts indicate a significant difference between the effects of the primes on the high calorie food item ($F(2, 135) = 6.43, p < .01$). Results show that the overweight prime lessened attitudes toward the Angus cheese burger compared to the control and negative affect conditions ($M_{\text{overweight}} = 3.31$ vs. $M_{\text{control}} = 4.98$, $F(2, 135) = 10.55, p < .001$; and vs. $M_{\text{negaffect}} = 4.86$, $F(2, 135) = 3.29, p < .07$).
4.58, F(2, 135) = 7.91, p < .01). Results were nonsignificant across the low calorie food item (F(2, 135) = 1.07, p = .34). As expected, results were also moderately significant for the prime-weight status-food type interaction (F(2, 135) = 2.45, p < .09). Follow-up contrasts indicate a significant difference between the effects of the primes on the high calorie food item for overweight participants (F(2, 135) = 5.61, p < .01). Results indicate that overweight participants expressed a decline in attitudes toward the high calorie food item after exposure to the overweight prime compared to the control and negative affect conditions (M_{overweight} = 2.95 vs. M_{control} = 5.70, F(2, 135) = 10.22, p < .01; and vs. M_{negaffect} = 4.52, F(2, 135) = 5.10, p < .05).

Although not predicted, follow-up contrasts suggest that overweight consumers expressed moderately greater purchase intentions for the low calorie food item after exposure to the overweight prime compared to the neutral prime (F(2, 135) = 2.65, p = .10). For obese consumers, follow-up contrasts show no significant differences in purchase intentions after exposure to the overweight prime compared to the control condition (F(2, 135) = 1.07, p = .30).

However, results show that the overweight prime led to a decrease in purchase intentions compared to the negative affect prime (M_{overweight} = 3.68 vs. M_{negaffect} = 4.64, F(2, 135) = 2.83, p = .09). Results, however, indicate no significant differences between the primes for the low calorie food item (F values < 1). These results are presented in Figure 1b.

Health Fluency. Results indicate a nonsignificant direct effect of the prime (F(2, 135) = 1.72, p = .18) and a nonsignificant prime-weight status interaction on health fluency (F(2, 135) = 1.30, p = .28). However, follow-up contrasts show that overweight consumers express an increase in healthy fluency after exposure to the overweight prime compared to the control condition (M_{overweight} = 6.21 vs. M_{control} = 5.15, F(2, 135) = 3.45, p = .06). In addition, while the differences in health fluency between the overweight and negative affect prime were
nonsignificant, means generally show that overweight consumers express greater levels of health fluency after exposure to the overweight prime ($M_{\text{overweight}} = 6.21$ vs. $M_{\text{control}} = 5.55$, $F(2, 135) = 2.05, p = .15$). Follow-up contrasts show no significance in healthy fluency perceptions after exposure to the primes for obese consumers ($F$ values > .35).

**Discussion**

Results generally support the notion that weight salience and negative affect produce distinct food-related outcomes. In particular, results show that the overweight manipulation led to less favorable attitudes and purchase intentions of the unhealthy food item for overweight but not obese consumers. These findings suggest two notable points that I expect to carry over into the other studies presented here. First, the effects of weight salience differentially impacted overweight and obese consumers. The overweight manipulation led overweight but not obese consumers to display less favorable attitudes and purchase intentions of unhealthy foods. Second, the results suggest that weight salience only impacted consumer evaluations of the unhealthy food item. Since weight, particularly overweight, is associated with unhealthy food, this finding seems to fit the idea that identity salience affects consumer evaluations of identity-related stimuli. In addition, although results were weaker, findings support the notion that weight salience may increase feelings of health fluency among overweight but not obese consumers. These results suggest that the weight prime led overweight consumers to perceive a greater ease of processing the menu.
CHAPTER 4

THE CONCOMITANT RELATIONSHIP BETWEEN WEIGHT SALIENCE
THEORETICAL BACKGROUND

A substantial body of literature has examined the relationship between stereotype activation and subsequent judgments and behaviors. In general, results indicate that the activation of a negative stereotype increases stereotype-consistent outcomes. However, as noted by Campbell and Mohr (2011), most of these studies have focused on stereotypes associated with deterministic group membership (e.g., women and minorities). Thus, while we may know that the activation of the elderly stereotype influences both young and older consumers to exhibit behaviors associated with old age (Levy 1996; Bargh, Chen, and Burrows 1996), less is known about how the activation of stereotypes associated with nondeterministic groups affect stereotype-conducive evaluations and behaviors (i.e., evaluations and behaviors that are associated with obtaining or maintaining group membership in the stereotyped group). There are a handful of studies that shed light on the effects of activating stereotypes associated with nondeterministic groups and their effects on consumption behaviors (McFerran et al. 2010; Campbell and Mohr 2011). For example, Campbell and Mohr (2011) find that incidental exposure to a picture of an overweight person leads to consumers to eat more and make less healthful food choices. Similarly, McFerran et al. (2010) provide evidence that exposure to an overweight waitress positively influences unhealthful food choices for dieters. Taken together, this body of research suggests that the incidental activation of stereotypes linked with nondeterministic groups leads to stereotype-conducive behaviors and suggests that this effect may be affected by the consumer’s social identity. In contrast to prior literature, however, I focus on the consumer outcomes associated with the conscious activation of stereotypes associated with nondeterministic groups and examine how the objective and subjective aspects of social identity (group membership and identity self-importance) affect subsequent evaluations.
Research in this vein is particularly important for at least two reasons. The first reason is that explicit weight cues and minders are a normal and exceedingly frequent part of life. The paradox is that as Americans and the global population continues to gain weight, our cultures have become infatuated with the “thin ideal” and methods to achieve such “perfection”. This has led to a preoccupation with weight everywhere we look, from the media (Ata and Thompson 2010), to retail outlets (Meidierks-Lenham 2007), and among consumers in the form of “fat talk,” a social norm in which women speak negatively about their shape and size (Nichter and Vuckovich 1994).

Second, research suggests that the overweight are frequently stigmatized or made to feel inferior because of their weight status (Puhl and Brownell 2006) and that such stigmatization negatively influences their weight-related attitudes and behaviors (Carels et al. 2009). Taken together, these two points suggest that as society continues to show disdain for the overweight, explicit weight cues and disparagements regarding one’s own weight or the weight of others, may influence unhealthy behaviors among the overweight. Thus, examining the relationship between blatant weight cues and approaches that result in identity-incongruent behavior may prove beneficial in combatting obesity.

**Blatant Stereotype Priming**

Prior research suggests that the activation of a negative stereotype is likely to produce assimilative effects for nontarget group members and that this effect may hold under instances of more blatant priming (Shih et al. 2002). Shih et al. (2002) suggest that nontargets are less likely to fear stereotype conformity, they are less likely to exhibit a “choking under pressure” effect and are more likely to exhibit stereotype-congruent attitudes and behaviors following the blatant activation of a stereotype. Research concerning the effects of blatant priming on targets,
however, has shown that such priming produces a variety of effects. For example, a large body of research suggests that the subtle activation of negative stereotypes engenders stereotype assimilation while blatant activation leads to contrast effects for individuals for whom the stereotype is relevant. The a general consensus is that the overt connection between the prime and the dependent variable(s) leads consumers to engage in effortful, motivated thinking to correct for any judgment biases (e.g., Lombardi, Higgins, and Bargh 1987; Martin 1986; Wegener and Petty 1995).

However, research has also shown instances where blatant priming leads to assimilation with the primed stereotype (e.g., Moskowitz and Roman 1992; Cheryan and Bodenhausen 2000; Shih et al. 2002). It is important to note, however, that the judgment-correction process is less likely to occur under instances of stereotype threat, a situational fear that one will confirm or be judged on the basis of membership in a negatively stereotyped group (Steele and Aronson 1995). For example, research has shown that women are more likely to perform poorly on math tests following the activation of the gender stereotype (Spencer, Steele, and Quinn 1999). Similarly, research has shown that the blatant activation of an overweight status leads overweight consumers to report lower intentions to engage in healthy behaviors (Seacat and Mickelson 2009). In particular, Seacat and Mickelson (2009), linked weight status to poor exercise and dietary habits and found that increasing the salience of weight-related stereotypes led both overweight and obese women to exhibit lower diet and exercise-related intentions.

**Social Identity and Identity Self-Importance**

Social identity is deemed “that part of an individual’s self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value or emotional significance attached to that membership” (Tajfel, 1978, p.63). Research examining the link
between social identity and consumption often centers on groups with positive social identities and explores the influence of social similarity (e.g., shared values, shared gender, shared political affiliations, and shared ethnicity) or desired similarity (e.g., athleticism, beauty). Recent consumer research, however, has begun to explore social identity as a means to improve consumer well-being. For example, research by Oyserman (2009) highlights the role that social identity plays in motivating well-being while work by Berger and Rand (2008), show that linking risky behaviors to unwanted social identities may reduce unhealthy consumption. Despite the increased attention paid to identity driven consumption, few studies have examined the joint effects of group membership and identity self-importance (ISI; the depth or strength of an individual’s attachment to a particular social identity\(^1\)) on consumer well-being. The lack of attention paid to the explicit examination of both the objective and subjective aspects of social identity presents a gap in literature that has the potential to shed light on identity driven effects by explaining the boundary and/or moderating effects of social identity activation.

Prior literature concerning ISI suggests that the self-importance of a social identity affects the cognitive, affective, and behavioral responses engendered by identity-relevant stimuli. For example, research suggests that the importance of a given identity will ease the processing of identity-relevant information (Markus 1977; Markus, Hamill, and Sentis 1987), positively influence purchase intentions (Reed 2004) and brand loyalty (Deshpandé, Hoyer, and Donthu 1986) toward identity relevant products, and influence the frequency of identity-relevant behaviors (Kleine, Kleine, and Kernan 1993). Few studies, however, have concentrated their

\(^{1}\) The depth or strength of an individual’s attachment to a particular social identity has been referred to as role importance (Kleine et al. 1993), strength of identification (Deshpandé, Hoyer, and Donthu 1986), schematicity (Markus 1977) and self-importance (Reed 2004). However, I use the latter to emphasize how identities differ in their significance among individual’s who hold a specific identity.
efforts on understanding the role of weak identification and its impact on consumer evaluations and behaviors. Yet research in this area may prove beneficial for mitigating unhealthy consumption practices. In particular, the implicit assumption in the few empirical studies that have examined ISI within a consumption context, is that weak identification will engender an average or weakened evaluation of identity-relevant stimuli. For example, Deshpandé et al. (1986) show that Hispanic consumers who maintain weak Hispanic identity are less likely to be frequent users of Spanish language media and advertising and are less likely to purchase products advertised to their ethnic group than strong Hispanic identifiers. In contrast, Markus and colleagues (1987) explicitly test this notion and demonstrate that negatively stereotyped aschematics, individuals who maintain low levels of ISI, display a weakened response toward identity-relevant stimuli. If this is true, then it becomes an empirical question as to whether (a) negatively stereotyped individuals low in ISI exhibit less favorable responses to identity-relevant consumer products and (b) ISI can be manipulated so that this effect may be generalized to out-group members. An objective of the present research is to test these propositions. In particular, I propose that consumers who maintain a negatively stereotyped nondeterministic identity and low ISI will respond in an identity-incongruent manner when the identity is consciously activated. I further propose that ISI may be weakened among negatively stereotyped consumers and that doing so increases deliberate and effortful thinking, which in turn, leads to identity-incongruent consumer outcomes.

Research examining the relationship between stereotype activation and subsequent behavioral outcomes has also concentrated considerable effort into understanding the role that group membership plays in prime-to-behavior effects. However, empirical support concerning stereotype self-relevance as a necessity of group membership has been mixed, with several
studies showing that stereotype primes may lead to stereotype-congruent effects among nontarget consumers (i.e., consumers who do not maintain a particular identity) (e.g., Bargh, Chen, M., and Burrows 1996). My research makes no attempt to directly challenge the notion of group membership and its role in prime-to-behavior effects. Rather, I adopt the proposition put forth by Markus et al. (1987) that certain identities may be both particularistic and universalistic. This view carries that universalistic identities are those that derive from obvious and apparent social categories and are acquired, to one degree or another, by all consumers. Particularistic identities, however, are identities that are maintained by certain individuals. Markus and colleagues use the universalistic and particularistic framework to suggest that gender, age, physical appearance, and weight status are identities that may be labeled both universalistic and particularistic. This would imply that all consumers have the potential to view universalistic identities as important, regardless of their particularistic identity. Thus, all consumers may view their weight as personally relevant, regardless of their status as in-group (i.e., normal weight) or out-group (i.e., overweight and obese) members.

Based on the assumption that universalistic identities have the potential to be perceived as self-important to all consumers, I suggest that nontargets of negatively stereotyped universalistic identities may also respond to identity-relevant stimuli (e.g., normal weight consumers’ responses to unhealthy foods). Importantly, I suggest that nontargets who maintain high levels of ISI will respond in an identity-incongruent manner following blatant stereotype activation. Specifically, I submit that nontargets who maintain high ISI (a) are motivated to maintain their high status group membership and (b) that stereotype activation signals a potential threat to these consumers which engenders stereotype-incongruent consumer outcomes (e.g., less favorable evaluations of unhealthy food items).
Stereotype Activation and Stereotype-Incongruent Outcomes

Target Members

Prior literature reveals that weight stigmatization increases eating behaviors (Puhl and Heuer 2009; Carels et al. 2009) and decreases the desire to diet (Seacat and Mickelson 2009). For example, research by (Seacat and Mickelson 2009) shows that presenting overweight and obese consumers with stereotypes regarding their overweight status led to lower perceptions of dieting and health self-efficacy and diminished health and exercise intentions. However, I posit that for low level identifiers, the blatant activation of stereotypes associated with group membership leads to deliberative and effortful processing of identity-relevant stimuli which leads consumers to respond less favorably to identity-relevant stimuli and increases perceptions of self-efficacy. This proposition is based, in part, on previous research which suggests that when identity self-relevance is high, either because of individual differences or because of experimental manipulation, consumers rely on previously formed knowledge structures that result in an almost automatic identity-congruent manner (Markus et al. 1987; Bolton and Reed 2004). Consumers who maintain little or no self-relevance concerning the focal identity, however, are expected to analyze the stimuli without regard to their self-concept and/or analyze the stimuli with respect to ‘some other self-structure’ (Markus et al. 1987, pg. 53). I submit that low identifiers will process blatantly activated identity-relevant stimuli from a universalistic frame of reference and, because the negative stereotypes associated with nondeterministic groups are universally undesirable, these consumers will respond in an identity-incongruent manner by adopting greater efficacy perceptions and less favorable perceptions of items associated with the negative identity. In this sense, low identifiers respond rationally (vs. emotionally) to identity-relevant stimuli.
There is, however, a notable exception to this effect. In particular, boundary permeability,
individual movement between social hierarchy structures (e.g., movement from the out-group to
the in-group; Tajfel and Turner 1979), may moderate the effects of low identification. For
example, work examining boundary permeability has shown that when group boundaries are
more permeable, negatively distinctive consumers are more likely to pursue upward mobility
strategies that support positive identity attainment (i.e., an in-group status, Jackson et al. 1996;
Ellemers, Spears, and Doosje 1997). As such, target members whose status is more permeable
(i.e., high status out-group members), should be more likely to demonstrate stereotype-
incongruent outcomes under conditions of low ISI. Extending the concept of boundary
permeability to the weight status would mean that because overweight consumers are nearer to
achieving a normal weight status than obese consumers, the overweight are more likely to
perceive the in-group/out-group boundary as more permeable than obese consumers. As such,
overweight but not obese consumers are more likely to pursue upward mobility strategies to
attain a normal weight status. This would suggest that overweight consumers are also more likely
to respond to the activation of the weight identity by exhibiting identity-incongruent outcomes
after the conscious activation of their weight identity.

If my predictions hold, one would expect overweight (but not obese) consumers low in
weight identity self-importance (the level of self-importance attached to the weight identity; W-
ISI) to exhibit higher levels of dieting self-efficacy and more favorable attitudes and intentions
toward exercise.

In addition, recent research concerning the consumer eating choices suggests that
circumventing the unhealthy = tasty intuition (UTI), consumer’s beliefs that unhealthy food is
tasty (Raghunathan, Naylor, and Hoyer 2006) may play a key role in combatting the obesity
epidemic. For example, work by Mai and Hoffman (2015) find that this intuition may be lessened by increasing health consciousness while Kidwell, Hasford, and Hardesty (2015) find that emotional ability training works towards diminishing the UTI. In particular, Mai and Hoffman (2015) find that health consciousness significantly reduces belief in UTI and Kidwell et al. (2015) find that consumers not trained in Emotional Ability (EA) are more likely to engage in the UTI. However, I contend that because overweight consumers low in W-ISI are more likely to respond to the weight stereotype with increased motivation to reduce their overweight status, they should be less inclined to subscribe to the intuition that unhealthy food is tastier. Thus, overweight consumers low in W-ISI should express less belief in the UTI after weight is made salient.

Moreover, because activation of the weight stereotype should lead overweight consumers low in W-ISI to express less favorable impressions of identity-relevant stimuli, one can expect these consumers to express less favorable choices and evaluations of unhealthy food products.

**Nontarget Members**

Although previous research has fixated on identity threat relating to low status groups, a small stream of literature has considered the possibility of identity threat involving high status groups. Evidence from this research suggests that for high status group members, identity threat arises when evaluating a possible change of status quo (Scheepers and Ellemers 2005; Scheepers et al. 2009). As noted by Scheepers and Ellemers (2005), however, identity threat among high status members is more difficult to assess because group members are more likely to exhibit confidence in their ability, even in the face of status loss. However, it seems reasonable to assume that individuals who maintain a high level of identity-importance will display more vigilant and forceful monitoring of identity threat and, as such, will display greater reactance to
identity threats. This is consistent with research which suggests that threat primarily influences the perceptions and evaluations of high identifiers (e.g., Doosje, Spears, and Ellemers 2002).

Previous research also suggests that situational cues may engender identity threat among members of deterministic stereotyped groups. The lack of attention paid to nondeterministic groups, however, means that less is known about how both members and nonmembers of nondeterministic groups respond to identity-relevant stimuli. As previously mentioned, however, I posit that high status target members who maintain low ISI will respond in an identity-incongruent manner to identity-relevant stimuli. However, I also suggest that nontargets may respond in a similar fashion. Specifically, I suggest that when the underlying identity is universalistic, blatant stereotype priming will engender a threat response among nontargets high in ISI. In keeping with research concerning high status groups, I suggest that stereotype activation will lead to apprehensions concerning status quo maintenance (i.e., status loss based identity threat; (Scheepers and Ellemers 2005; Scheepers et al. 2009).

I submit that the identity threat experienced by nontargets high in ISI in this instance will lead to lower feelings of self-efficacy. I base this prediction, in part, on previous research which suggests that identity threat engenders lower levels of self-efficacy (e.g., Seacat and Mickelson 2009). In contrast to research concerning self-efficacy and negatively stereotyped deterministic groups, however, I suggest that in the face of possible status loss, nontargets will display stereotype-incongruent consumer outcomes. In particular, I suggest that nontargets high in ISI will cope with the stress associated with possible status loss but will also engage in activities to minimize the threat. This means that lower feelings of self-efficacy brought about by status loss based identity threat will motivate nontargets to expend more effort to avoid this loss. In keeping with this idea, Pettit, Yong, and Spataro (2010) show that losing status is an aversive
psychological state that individuals seek to avoid and that consumers are willing to expend great effort to maintain their current status level. Taken together, I predict that the blatant activation of a negative stereotype associated with a universalistic identity will lead nontargets high in W-ISI to exhibit lower dieting self-efficacy and greater agreement with the UTI. However, normal weight consumers high in W-ISI should also express more favorable attitudes towards exercise and less favorable evaluations of unhealthy food products due to their association with the weight identity.

Based on previous discussion concerning weight identity and weight identity salience, I offer the following hypotheses:

**H1**: When weight is made salient via blatant (vs. muted) activation, overweight consumers with low W-ISI (normal weight consumers high in W-ISI) are likely to exhibit higher (lower) (a) levels of dieting self-efficacy and (b) weight-loss confidence.

**H2**: When weight is made salient via blatant (vs. muted), overweight consumers low in W-ISI and normal weight consumers high in W-ISI are likely to exhibit (a) a greater desire to lose weight (b) greater exercise intentions and (c) more favorable attitudes towards exercise.

**H3**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI (normal weight consumers high in W-ISI) are likely to exhibit less (greater) belief in the unhealthy = tasty intuition.

**H4**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI and normal weight consumers high in W-ISI are less likely to choose the unhealthiest food option.
H5: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI and normal weight consumers high in W-ISI are likely to exhibit less favorable (a) attitudes, (b) purchase intentions, and (c) anticipated consumption pleasure for the unhealthiest food option.

METHODOLOGY

Pretests: Experimental Stimuli

Two pretests were executed to inform stimuli selection for the main experiment. The first pretest (n = 27, M_{age} = 35, SD = 11) was performed to identify a series of solvable anagrams and to ensure that the blatant prime made weight more salient than the non-blatant prime. The anagrams consisted of scrambled words that could be unscrambled to form proper words (e.g., ftyeh = hefty, wghtiovree = overweight). For the main experiment I chose words that were perceived as low to moderately difficult to unscramble and that participants reported as more likely to evoke the weight concept. The final lists of words chosen for the experiment are listed in Appendix F.

Participants were then asked to indicate whether completing the anagram task made them think about weight (e.g., “After participating in the anagram task, to what extent was weight foremost in your thoughts?”) and if the task made them think about their own weight (e.g. “After participating in the anagram task, to what extent were you assessing your own weight?”). Both manipulation checks were anchored by “not at all” to “quite a lot”. Results show that participants in the blatant prime condition were more focused on weight than those in the non-blatant condition (M_{blatant} = 4.13 vs. M_{muted}= 2.05, F(1,25) = 8.92, p < .01). Participants in the blatant prime condition were also more focused on their own weight (M_{blatant} = 3.78 vs. M_{muted} = 1.91, F(1,25) = 6.32, p < .02).
The second pretest (n = 31, M_{age} = 28, SD = 9) was undertaken to select the menu items to be used in study 1. Participants were asked to examine several possible menu items and evaluate the perceived taste of each item (unfavorable/favorable; bad/good, r values > .97). I also examined consumer perceptions of the healthfulness of each item (1 - not healthy at all vs. 7 - very healthy) as well as calorie estimates for each item (5-point scale: 1 = less than 500 calories, 2 = 501 to 1000 calories, 3 = 1001 to 1500 calories, 4 = 1501 to 2000 calories, 5 = more than 2000 calories). Results indicate that there is no significant difference in perceived taste between the cheeseburger, grilled chicken salad, salmon, and flatbread pizza (F(3, 84) = .24, p = .87). Results also show a nonsignificant food item-weight status interaction (F(6, 84) = 1.31, p = .26), indicating that weight status did not moderate taste perceptions. Results also reveal that consumers perceive significant differences in the healthfulness of the food items (F(3, 84) = 89.01, p < .001). Follow-up contrasts show that participants perceive the burger (M_{burger} = 2.56) as least healthful in comparison to the flatbread pizza (M_{pizza} = 3.12, F(1, 28) = 4.96, p < .05), salmon (M_{salmon} = 5.92, F(1, 28) = 114.71, p < .001), and the grilled chicken (M_{chicken} = 6.32, F(1, 28) = 108.66, p < .001). Additionally, consumer estimates of calorie counts varied depending on the food item under consideration (F(3, 84) = 40.34, p < .001). Follow-up contrasts show that calorie estimates for the burger were (M_{burger} = 2.91) were higher than the flatbread pizza (M_{pizza} = 2.36, F(1, 28) = 9.65, p < .01), salmon (M_{salmon} = 1.51, F(1, 28) = 71.99, p < .001), and the grilled chicken (M_{chicken} = 1.44, F(1, 28) = 50.57, p < .001).

Based on these results, the cheeseburger, flatbread pizza, grilled chicken, and salmon were chosen for use in Study 1. Refer to Appendix G for a copy of the menu.

Main Study
Participants. I restricted the sample to women because of their heightened susceptibility to body type social comparisons and overall weight concerns (McFerren et al. 2010). I recruited 236 female participants (M_{age} = 33, SD = 9) from an online consumer panel for this experiment. Participants were identified using a separate questionnaire that covered a range of demographic and attitudinal questions (e.g., hair color, weight, W-ISI, protestant work ethic, etc.). After completing the questionnaire, participants were asked if they would be willing to participate in future studies and those whose self-identified height, weight, and W-ISI matched the criteria for study were then contacted approximately two months later (response rate: 47%).

Procedure. Adapting a priming technique utilized by (Petty et al. 2008), blatant primes were operationalized as the ratio of prime to nonprime words in a word scramble anagram task. Prior to completing the manipulation, participants were given three practice anagrams and were instructed to skip anagrams that they could not solve. During the manipulation, a total of 10 anagrams were randomized and appeared on the screen, one at a time without repeat. For participants exposed to the blatant prime manipulation, approximately 80% of the words that could be formed were related to the overweight concept while words referencing the overweight concept made up 30% of the anagrams for participants exposed to the non-blatant prime manipulation. See Appendix F for a full list of anagrams.

Participants were then presented with a distraction task. After completing the distraction task, participants were asked to view a restaurant menu containing the 4 entrée items selected from the pilot study and asked evaluative questions concerning the menu and the entrée items. The complete menu is shown in Appendix G. Lastly, participants were asked attitudinal and demographic questions.
Independent Measures. In addition to the weight prime, the body mass index (BMI) of each participant as well as the participant’s W-ISI were included as independent variables. BMI was configured using self-reported height and weight information for each participant (for an overview of BMI see Hall and Cole 2006). Previous research has shown that actual and self-reported weight maintain an average discrepancy of 2.07% lbs (Nawaz et al. 2001). Based on BMI guidelines, participants were then identified as normal weight (BMI ≤ 24.9, coded as ‘0’), overweight (24.9 < BMI ≤ 29.9, coded as ‘1’), and obese (BMI > 30, coded as ‘2’).

Weight Identity Self-importance (W-ISI) was measured using a nine item scale anchored by “strongly disagree” and “strongly agree” (α = .90). Items included in the W-ISI scale were adopted from established scales and measured the self-relevance of the weight identity (e.g., “My weight is something I rarely think about” and “My weight is an important reflection of who I am”). Participants were classified as “low” (less than 1 SD from the mean), “moderate” (mean), or “high” (greater than 1 SD from the mean).

Cell sizes ranged from 11 to 15 for the 2 (prime: blatant vs. non-blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) x 4 (menu items) mixed model ANOVA. Statistical power and effect size analysis were completed apriori to ensure that the total sample size was adequate.

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2 Four of the identity importance items were adopted from the identity sub-scale of the Collective Self-Esteem Scale (Luhtanen and Crocker 1992) and a few of the identification items were adopted from Callero’s Role Identity Salience Scale (Callero 1985). All items are shown in Appendix B.

3 Prior to testing our predictions, principal components (PC) and a confirmatory factor analyses (CFA) confirmed the internal consistency and discriminant validity of the W-ISI scale. Using a Varimax rotation, the PC factor analysis of the level of weight identification and weight importance items resulted in a two factor solution that explained 72% of total variance.
Non-Menu Related Dependent Measures. Prior research suggests that a person’s weight and/or internalization of weight stigma may lower self-esteem and/or body esteem (Allon 1982; Pearl and Puhl 2014). However, research examining the relationship between weight-related identity threats and self-esteem center on instances of social judgment or comparison (e.g. Crocker 1999, Crocker, Cornwell, and Major 1993). Thus, while upward social comparisons may damage self and weight-esteem, there is some ambiguity as to whether such effects will occur in the absence of social comparison. That said, to account for these (potential) effects, we included 7-point scale items to measure self-esteem, weight-esteem, and appearance esteem. Self-esteem was measured using the Rosenberg Self-esteem Scale (α = .83; Rosenberg 1965). Weight (α = .95) and appearance (α = .93) esteem were measured using well established subscales of the Body Esteem Scale (Mendelson, Mendelson, and White 2001).

To determine the effect of our manipulation on feelings of efficacy, I included measures of dieting self-efficacy (α = .81, Nordgren, Joop van der Pligt, and van Harreveld 2008) and weight loss confidence (“How confident are you in your ability to lose weight?” 1 = very unconfident, 9 = very confident). A complete list of the self, appearance, and weight esteem items is shown in Appendices C and D. The desire for weight loss measure was captured by asking participants to respond to the following: “Considering my current weight, I'd like to…”, 1 = lose more than 20 lbs, 2 = lose 11-20 lbs, 3 = lose 1-10 lbs, 4 = maintain my current weight, 5 = gain 1-10 lbs, 6 = gain 11-20 lbs, 7 = gain more than 20 lbs. In addition, I utilized four 7-point scale items to assess exercise attitudes (e.g. “For me, exercising regularly is: 1 = useless, 7 = useful; α = .78, Ajzen and Madden 1986) and intentions (In the next two weeks, my goal is to

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4 Research has shown that the difference between actual and ideal weight for U.S. adults is 15 lbs (13 lbs for men and 18 lbs for women (Brown 2013).
exercise: 1 = not at all, 7 = every day). Lastly, adopting single item measure from Raghunathan, Naylor, and Hoyer (2006), beliefs in the relationship between taste and healthfulness was assessed by asking participants the following question “On a scale of one to nine, how much would you agree with the following statement: food that is unhealthy generally tastes better” (1 = strongly disagree, 9 = strongly agree).

Menu-Related Dependent Measures. For our choice measure, participants were asked to choose a menu option and answered questions regarding each entrée item using scales anchored by “strongly disagree” and “strongly agree”. Two items measured attitude toward the food items (7-point scales: unfavorable/favorable; bad/good, r values > .89). Two items measured purchase intentions (7-point scales: less likely/more likely; not at all probable/very probable, r values > .95). Adopting items from (Kahn and Wansink 2004), anticipated consumer pleasure was measured by asking participants how happy/positive/satisfied they would be as they ate the entrée (α > .90).

Results\textsuperscript{5}

Attention and Manipulation Check. Given that this was an online study, an attention check was included (Oppenheimer et al. 2009). A total of 27 participants were excluded from the analysis. (A full description of the attention check can be found in Appendix A). The manipulation check for weight cognizance was a self-rating of awareness. Subjects responded to the questions “After completing the anagram task, how much were you thinking about weight” and “After completing the anagram task, what extent was weight foremost in your thoughts?” (1 = Not at all, 7 = Quite a lot). Analyses indicate that participants in the blatant prime condition

\textsuperscript{5}I do not report main effects or nonfocal interactions because they do not yield results central to the aims of this paper. However, results are presented in the Table 1.
were more focused on weight than those in the non-blatant condition (M_{blatant} = 4.84 vs. M_{muted} = 3.05, F(1,215) = 27.30, p < .001).

Dieting Self Efficacy and Weight Loss Confidence. Results of the 2 (prime: blatant vs. non-blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) ANOVA indicate that the weight prime-weight status-W-ISI interaction was significant for the dieting self-efficacy measure (F(4,215) = 3.51, p < .01). The results are displayed in Table 1 while the means for each cell is presented in Table 2. As illustrated in Figure 2, overweight consumers low in W-ISI exhibited significantly more dieting self-efficacy after exposure to the blatant prime (M_{blatant} = 4.24 vs. M_{muted} = 1.62, F(1,215) = 5.23, p < .02) while normal weight consumers high in W-ISI exhibited significantly less dieting self-efficacy after exposure to the blatant prime (M_{blatant} = 2.10 vs. M_{muted} = 5.20, F(1,215) = 9.41, p < .01). Results were nonsignificant across all levels of W-ISI for obese consumers (all F values < 1). The 3-way interaction was also significant for the weight loss confidence measure (F(4,215) = 3.74, p < 01). Results show that the blatant prime led overweight consumers low in W-ISI to express higher levels of weight loss confidence (M_{blatant} = 6.82 vs. M_{muted} = 2.65, F(1,215) = 8.41, p < .01) but reduced confidence among normal weight consumers high in W-ISI (M_{blatant} = 3.47 vs. M_{muted} = 6.85, F(1,215) = 7.11, p < .01). Thus, results support H1.

Weight Loss Desire, Exercise Intentions, and Attitudes. Results show that the 3-way interaction was nonsignificant for the weight loss desire measure (F(4,215) = .53, p > .05). However, follow-up contrasts show that normal weight consumers high in W-ISI express a marginally significant increase in their desire to lose weight after exposure to the blatant prime (M_{blatant} = 1.61 vs. M_{muted} = 2.64, F(1,215) = 3.04, p < .08). Findings were nonsignificant for

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6 The correlation between the exercise attitude and exercise intentions measure is -.55.
overweight consumers low in W-ISI (F < 1). Thus, H2a was partially supported. Results indicate that the 3-way interaction was nonsignificant for the exercise intentions measure (F(4,215) = 1.47, p > .05). However, contrasts show that overweight consumers low in W-ISI expressed greater intentions to exercise after exposure to the blatant prime (M_{blatant} = 4.40 vs. M_{muted} = 1.61, F(1,215) = 6.12, p < .01). Results were nonsignificant for all other groups (p > .05). Findings indicate that the 3-way interaction was significant for exercise attitudes (F(4,215) = 2.58, p < .04). Contrasts show that overweight consumers low in W-ISI exhibited more favorable attitudes toward exercise following exposure to the blatant prime (M_{blatant} = 5.73 vs. M_{muted} = 3.26, F(1,215) = 8.11, p < .01). Similar to the exercise intention measure, normal weight consumers high in W-ISI did not display higher intentions to exercise following the blatant prime. It should be noted, however, that obese consumers low and moderate in W-ISI displayed moderately less favorable attitudes towards exercise following the blatant prime (low: M_{blatant} = 6.28 vs. M_{muted} = 4.35, F(1,215) = 6.12, p < .07; moderate: M_{blatant} = 6.22 vs. M_{muted} = 5.45, F(1,215) = 6.12, p < .06). H2b-c were partially supported as results show that the prime significantly influenced exercise attitudes and intentions for overweight consumers low in W-ISI but did not influence normal weight consumers.

**Unhealthy = Tasty Intuition.** Results indicate that the weight prime-weight status-W-ISI interaction was significant for the UTI measure (F(4,215) = 4.92, p < .001). As shown in Figure 3, normal weight consumers high in W-ISI were more likely to agree with the UTI following exposure to the blatant prime (M_{blatant} = 7.64 vs. M_{muted} = 4.13, F(1,215) = 6.29, p < .01). Contrasts were moderately significant for overweight consumers low in W-ISI (M_{blatant} = 4.77 vs. M_{muted} = 6.83, F(1,215) = 1.68, p < .07). It should be noted that exposure to the blatant prime
significantly increased UTI agreement among obese consumers low in W-ISI ($M_{blatant} = 7.02$ vs. $M_{muted} = 2.82$, $F(1,215) = 4.75$, $p < .03$). These results support H3.

**Menu Choice.** Chi-square analysis were performed on cross-tabulations of the weight activation condition with the weight status and W-ISI condition. In keeping with the results from the pilot study which showed that weight salience primarily affects the highest calorie food item, our analysis focused on how the blatant prime affected participant’s choice of the highest calorie menu option. Results show that 100% of overweight consumers low in W-ISI chose the cheeseburger in the non-blatant prime condition while 0% of overweight consumers low in W-ISI chose the cheeseburger after exposure to the blatant prime ($\chi^2(3) = 8.00$, $p < .05$). Results were nonsignificant in across all other groups ($p > .10$). H4 was partially supported as results show that the prime significantly influenced the choice of food items for overweight consumers low in W-ISI but did not significantly affect normal weight consumers high in W-ISI.

**Attitudes, Purchase Intentions, and Anticipated Consumption Pleasure toward the Entrée Items.** Because each participant made ratings of each of the food items, they were analyzed as a within-subjects measure. The 2 (prime: blatant vs. non-blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) x 4 (menu items) mixed model ANOVA did not reveal a significant 4-way interaction for our attitude measure ($F(12, 645) = 1.28$, $p > .05$). As shown in Figure 4, overweight consumers low in W-ISI displayed less favorable attitudes for our high calorie food item (i.e., the cheeseburger) after exposure to the blatant prime ($M_{blatant} = 3.40$ vs. $M_{muted} = 6.85$, $F(1,215) = 6.71$, $p < .01$). Similar results were found for normal weight consumers high in W-ISI ($M_{blatant} = 3.12$ vs. $M_{muted} = 5.88$, $F(1,215) = 5.51$, $p < .02$). Results were nonsignificant for all other groups and all other food items. Similar to the attitude measure, the 4-way interaction for the purchase intentions was nonsignificant.
(F(12, 645) = 1.25, p > .05) but results were significant for anticipated consumption pleasure (F(12, 645) = 1.84, p < .05). Contrasts show that overweight consumers low in W-ISI expressed lower purchase intentions (M_{blatant} = 3.67 vs. M_{muted} = 6.99, F(1,215) = 5.24, p < .02) and anticipated consumption pleasure (M_{blatant} = 3.97 vs. M_{muted} = 8.42, F(1,215) = 8.47, p < .01) for the high calorie food item following exposure to the blatant prime. The effects for anticipated consumption pleasure is shown in Figure 5. Results for normal weight consumers high in W-ISI, but did not reach significance for the purchase intention (M_{blatant} = 2.76 vs. M_{muted} = 4.17, F(1,215) = 1.21, p = .27) and anticipated consumption pleasure (M_{blatant} = 3.13 vs. M_{muted} = 4.99, F(1,215) = 1.89, p = .17) measures. Results were nonsignificant among all other groups. Thus, H5a-c was partially supported.

Additional Analysis

*Esteem Measures.* Results of the 2 (prime: blatant vs. non-blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) ANOVA indicate that the weight prime-weight status-W-ISI interaction was nonsignificant for self (F(4,215) = .52, p > .10), weight (F(4,215) = .95, p > .10), and appearance-esteem (F(4,215) = .79, p > .10). In addition, follow-up contrasts were nonsignificant for all groups for the self-esteem measure. However, moderately significant results suggest that normal weight consumers high in W-ISI expressed lower weight-esteem (M_{blatant} = 1.37 vs. M_{muted} = 2.71, F(1,215) = 3.63, p < .06) and that overweight moderate in W-ISI express higher appearance-esteem (M_{blatant} = 4.15 vs. M_{muted} = 3.26, F(1,215) = 3.40, p < .07) following the blatant weight activation prime.

Discussion

This study provides initial evidence that weight self-importance plays a role in determining how consumers respond to blatant weight stereotypes. Specifically, overweight consumers low in
W-ISI and normal weight consumers high in W-ISI exhibited stereotype-incongruent evaluations of unhealthy food items and overweight consumers low in W-ISI were less likely to choose the unhealthiest food option after exposure to the blatant overweight prime. Results also show that overweight consumers low in W-ISI displayed increased levels of weight loss confidence, dieting and exercise self-efficacy, and attitudes towards exercise, as well as a reduction in UTI following exposure to the blatant weight stereotype. However, these consumers did not express a desire to lose weight following exposure to the blatant overweight prime. This result, coupled with the lack of esteem-related effects, suggests that the blatant overweight prime is not leading overweight consumers low in W-ISI to necessarily view their own weight as ‘bad’. Rather, the lack of effects suggest that these consumers are responding to the universal belief that weight is bad. This small, but significant finding adds credibility to the idea that overweight consumers low in W-ISI are (1) able to cognitively divorce the self from the typical weight schema generated by societal norms but are not immune to weight cues and universal standards concerning weight.

In contrast, the blatant weight prime led normal weight consumers high in W-ISI to exhibit lower levels of weight loss confidence and dieting self-efficacy, and increased their belief in the UTI. However, results indicated that the blatant weight stereotype led normal weight consumers high in W-ISI to express a greater desire to lose weight but did not significantly influence menu choice or exercise attitudes and intentions. One reason that the choice measure did not reach significance may be that these consumers, unlike overweight consumers low in W-ISI, are less likely to choose a high calorie food option to begin with. Evidence for this claim comes from our muted condition where only 10% of normal weight consumers high in W-ISI chose the unhealthiest food option.
Chapter 5

THE VALENCE OF THE WEIGHT STEREOTYPE:

“THIN” WEIGHT SALIENCE
The following experiment was conducted with two objectives. First, I wanted to replicate the results of Experiment 1 by showing that normal weight consumers high in W-ISI and overweight consumers low in W-ISI are primarily affected by weight-related blatant stereotype primes. Second, I wanted to show that these effects occur regardless of the valence of the activated stereotype (i.e., the attractiveness (positive valence) or aversiveness (negative valence) of the stereotype).

**THEORETICAL BACKGROUND**

**Stereotype Boost**

According to Levy’s self-stereotyping process (1996), negative and positive stereotypes are internalized and reinforced throughout life. When activated, these stereotypes influence an individual’s situational self and performance in a stereotype-relevant domain. For example, Levy (1996) found that priming the elderly with positive stereotypes led to an improvement in memory and views of memory self-efficacy.

The notion that consumers whose identities maintain negative and positive stereotypes (e.g., the elderly: senility and wisdom) may receive a boost from the activation of positive stereotypes signifies (a) the powerful nature of social identities and (b) a circumstance that may be used to positively affect consumer well-being. For example, research has shown that activating the “Asian” identity increased math scores among female participants relative to individuals whose “female” identity was activated (Shih, Pittinsky, and Ambady 1999). It should be noted, however, that a replication study in which identity was blatantly (versus subtly) activated found that the blatant activation of the Asian identity led to diminished performance (Cheryan and Bodenhausen 2000). The authors suggest that such effects occur because salient positive stereotypes lead targets to choke under pressure.
Shih et al. (2002) also examined the effects of the blatant vs. subtle activation of identity-relevant stereotypes of Asian females. Similar to Shih et al. (1999), their findings indicate that targets, individuals for whom the stereotype is personally relevant, exhibit a performance boost after exposure to subtle activation. However, the authors also found that the blatant activation of the positive stereotype led nontargets, individuals for whom the stereotype is nonrelevant, to exhibit greater performance in the identity-relevant domain. The authors suggest that targets are more sensitive to subtly presented identity-relevant stimuli and more likely to process subtly related stimuli. By contrast, blatantly activated constructs may activate motivational processes such as impression management that counter the blatantly activated construct. The authors also note that nontargets are less likely to carefully process subtly presented non-self relevant stimuli and less likely to experience the countervailing motivational processes that affect targets. As such, nontargets are less likely to respond to subtly activated positive stereotypes but more likely to exhibit assimilation effects for the blatantly activated, positive construct.

**Positive Weight Stereotypes**

Prior literature suggests that consumers maintain a pro-slim (Roddy, Stewart, and Barnes-Holmes 2010, 2011) but anti-fat (Allon 1982; Crandall 1994) outlook regarding weight. The idea that consumers favor slimmer bodies (i.e., pro-slim) and are biased against larger bodies (i.e., anti-fat) falls in line with literature showing that Western cultures idealize thin bodies. However, some researcher have even gone so far as to call skinny ‘positive’ and fat ‘negative’. This interpretation is based on findings that consumers maintain an implicit preference for thin relative to fat people (e.g., Schwartz et al. 2003; Schwartz et al. 2006). However, a handful of researchers have argued that the categorization of positive (versus negative) stimuli with thin relative to fat people is evidence of a pro-thin bias rather than anti-fat sentiments (Roddy et al.
Research by Roddy, Stewart, and Barnes-Holmes (2011) adds support to this view with facial electromyography (EMG) and the Implicit Relational Assessment Procedure (IRAP) data that suggest that the presentation of normal weight individuals elicits positive affect while participants showed no significant affective reactions when presented with overweight individuals.

While results concerning implicit measures of pro-slim and anti-fat attitudes have been mixed, research has often found that consumers maintain an explicit, positive bias towards thin individuals (e.g., Schwartz et al. 2006). Taken together, implicit and explicit beliefs that thin is positive and fat is negative bring up an interesting possibility regarding positive versus negative weight stereotypes. In particular, if skinny is positive and fat is negative, is it possible to replicate Shih et al.’s (1999) findings that blatantly primed non-self-relevant stimuli will boost performance among nontargets? The issue with the universal weight schema, however, is that it is difficult to define nontargets.

I suggest that two separate but related issues will impede the beneficial effects of the “skinny stereotype”. First, Shih et al.’s (1999) work presumes that nontargets will not face motivational concerns of confirming the primed stereotype after exposure to the blatant stereotype. Yet, the weight concept is infused with a host of motivational concerns from impression management (e.g., Vartanian, Herman, and Polivy 2007) to thin internalization (e.g., Dittmar, Halliwell, Stirling 2009) and the fear of gaining weight (Schwartz et al. 2006) among all weight status groups. Moreover, research suggests that the activation of the ‘skinny’ weight construct via direct social comparison and non-direct social comparisons lower body-esteem. For example, Dittmar, Halliwell, and Stirling (2009) show that exposure to ultra-thin models (i.e., direct social comparison) evokes weight-related self discrepancy and, ultimately, results in
feelings of body-focused negative affect. Interestingly enough, Kaminski and Magee (2013) also find that reading a narrative with a skinny protagonist (a non-direct social comparison with a skinny ‘other) reduced consumers’ views of their sexual attractiveness, appearance-esteem, and weight concern. Thus, it is likely that non-skinny consumers will also encounter the detrimental effect of blatantly activating the skinny prime. Second, the skinny construct is personally relevant to non-skinny consumers. As argued in Chapter 4, weight is a universal construct and just as the overweight construct is relevant to normal weight consumers, the skinny construct is relevant to non-skinny consumers.

This is not to suggest that the blatant skinny prime will have no effect. Rather, I suggest that overweight consumers low in W-ISI and normal weight consumers high in W-ISI will respond in a manner similar to when overweight stereotypes are activated. In particular, I argue that because overweight consumers low in W-ISI do not have a particularistic weight schema, they are more likely to respond to all weight constructs in a similar manner. That is, when weight is made salient, these participants will respond to the universal idea that weight is bad and, as such, they should respond to the activation of overweight and skinny stereotypes in a similar manner and exhibit higher levels of dieting and exercise efficacy and favorable attitudes as well as less favorable evaluations of high calorie food products.

Conversely, normal weight consumers high in W-ISI are concerned with attaining a skinny body or, at the very least, not gaining weight. As such, these consumers should respond to the activation of the skinny prime with the motivation to lose weight but low levels of confidence that this goal is attainable. Thus, normal weight consumers high in W-ISI should demonstrate lower levels of dieting and exercise efficacy as well as less favorable evaluations of high calorie food products.
In sum, I suggest that a pattern of results similar to study 1 should emerge following more weight activation framed as ‘thin’. As such, the hypotheses from Chapter 4 should extend to this study. More formally:

**H1**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI (normal weight consumers high in W-ISI) are likely to exhibit higher (lower) (a) levels of dieting self-efficacy and (b) weight-loss confidence.

**H2**: When weight is made salient via blatant (vs. muted), overweight consumers low in W-ISI and normal weight consumers high in W-ISI are likely to exhibit (a) a greater desire to lose weight (b) greater exercise intentions and (c) more favorable attitudes towards exercise.

**H3**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI (normal weight consumers high in W-ISI) are likely to exhibit less (greater) belief in the unhealthy = tasty intuition.

**H4**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI and normal weight consumers high in W-ISI are less likely to choose the unhealthiest food option.

**H5**: When weight is made salient via blatant (vs. muted) activation, overweight consumers low in W-ISI and normal weight consumers high in W-ISI are likely to exhibit less favorable (a) attitudes, (b) purchase intentions, and (c) anticipated consumption pleasure for the unhealthiest food option.

**METHODOLOGY**

I used the same procedure and stimuli to examine whether the effects of blatantly priming weight extends to positively valenced weight primes (e.g., thin, and skinny). Participants were
223 (M_{age} = 35, SD = 11) women recruited using an online consumer panel. Cell sizes ranged from 11 to 16. As with Study 1, participants were pre-screened for the purpose of the study (response rate: 51%). The procedures in this study were similar to that of Study 1, except that the experimental anagrams contained words related to the thin concept (e.g., thin, skinny…etc.). The list of anagrams used in this study are shown in Appendix H. All dependent measures remained the same (correlations and reliabilities ranged from .70 to .93).

Results

Attention and Manipulation Check. A total of 3 participants were excluded from the analysis for failing to pass the attention check. In addition, analyses indicate that participants in the blatant prime condition were more focused on weight than those in the non-blatant condition (M_{blatant} = 3.89 vs. M_{muted} = 2.01, F(1, 202) = 24.53, p < .001).

Dieting Self Efficacy and Weight Loss Confidence. Results indicate that the three-way interaction was significant for the dieting self-efficacy measure (F(4, 202) = 3.50, p < .01) and approached significance for the weight loss confidence measure (F(4, 202) = 1.91, p = .11). The results are displayed in Table 3 while the means for each cell is presented in Table 4. As illustrated in Figure 6, contrasts indicate that overweight consumers low in W-ISI express higher levels of dieting self-efficacy after exposure to the blatant prime (M_{blatant} = 6.56 vs. M_{muted} = 3.22, F(1, 202) = 12.91, p < .001) while overweight consumers high in W-ISI express lower levels of dieting self-efficacy after exposure to the blatant prime (M_{blatant} = 3.64 vs. M_{muted} = 5.87, F(1, 202) = 6.12, p < .02). In addition, means suggest that normal weight consumers high in W-ISI express lower levels of dieting self-efficacy after exposure to the blatant prime (M_{blatant} = 4.12 vs. M_{muted} = 2.93, F(1, 202) = 1.36, p = .13). Contrast results for weight loss confidence were nonsignificant for normal weight consumers high in W-ISI and overweight consumers low in W-
ISI (p values > .65). However, results from the 9-point weight loss confidence scale item show that both overweight consumers high in W-ISI (M_{blatant} = 3.70 vs. M_{muted} = 7.71, F(1, 202) = 6.45, p < .01) and obese consumers low in W-ISI (M_{blatant} = 3.09 vs. M_{muted} = 6.41, F(1, 202) = 4.67, p < .03) express lower levels of weight loss confidence following the exposure to the blatant prime. Results partially support H1a but do not support H1b.

**Weight Loss Desire, Exercise Intentions and Attitudes.** Results show that the 3-way interaction was significant for the weight loss desire measure (F(4, 202) = 5.58, p < .001). Follow-up contrasts show that overweight consumers low in W-ISI expressed a greater desire to lose weight following the blatant prime (M_{blatant} = 1.31 vs. M_{muted} = 2.77, F(1, 202) = 12.20, p < .01). Results were nonsignificant for normal weight consumers high in W-ISI (p > .05). Results also indicate that the 3-way interaction was nonsignificant for the exercise intentions and attitudes measures (F(4, 202) = .93 and .33, p values > .05, respectively). Similar to the results for study 1, contrast results show that blatant prime did not significantly influence exercise intentions and attitudes among normal weight consumers high in W-ISI (p values > .05). However, results for both measures were also nonsignificant for overweight consumers low in W-ISI (p values > .05). Results show that the weight prime had a significant impact on the weight loss desires of overweight consumers low in W-ISI, partially supporting H2a. However, H2b-c were unsupported.

*Unhealthy = Tasty Intuition.* Results reveal a moderately significant 3-way interaction for the UTI measure (F(4, 202) = 1.98, p = .10). As shown in Figure 7, contrasts show that overweight consumers low in W-ISI are less likely to agree with the unhealthy = tasty intuition (M_{blatant} = 5.60 vs. M_{muted} = 3.88, F(1, 202) = 2.60, p = .11) but that normal weight consumers low in WSI were more likely to agree with the intuition (M_{blatant} = 6.57 vs. M_{muted} = 4.97,
F(1,220) = 3.31, p < .07). Results were nonsignificant across all other groups (p > .10). These findings support H3.

**Menu Choice.** Chi-square analysis were performed on cross-tabulations of the weight activation condition with the weight status and W-ISI condition. In keeping with the results from Study 1, results show an 83% decrease in the number of consumers who chose a cheeseburger in the blatant prime in comparison to the more muted prime (χ²(3) = 11.56, p < .01). Results were nonsignificant in across all weight status groups, including overweight consumers low in W-ISI and normal weight consumers high in W-ISI (p > .10). Thus, H4 was not supported.

**Attitudes, Purchase Intentions, and Anticipated Consumption Pleasure toward the Entrée Items.** As expected, a 2 (prime: control vs. blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) x 4 (menu items) mixed model ANOVA revealed the predicted 4-way interaction for our attitude measure (F(12, 606) = 1.76, p < .05). Contrast results show that normal weight consumers high in W-ISI (M_{blatant} = 4.98 vs. M_{muted} = 6.46, F(1, 202) = 5.07, p < .03) and overweight consumers low in W-ISI (M_{blatant} = 4.11 vs. M_{muted} = 6.19, F(1, 202) = 6.99, p < .01) display less favorable attitudes for the high calorie food item (i.e., the cheeseburger) after exposure to the blatant prime. These results support H5a. Similar results were found for obese consumers low in W-ISI (M_{blatant} = 4.85 vs. M_{muted} = 6.30, F(1, 202) = 2.99, p < .08). Contrarily, results also show that overweight (M_{blatant} = 6.32 vs. M_{muted} = 4.01, F(1, 202) = 3.82, p < .05) and obese (M_{blatant} = 6.35 vs. M_{muted} = 3.80, F(1, 202) = 4.77, p < .03) consumers high in W-ISI were more likely to express positive attitudes towards the high calorie food item following exposure to the blatant prime. A plot of means for the product attitude measure is shown in Figure 8.
Additionally, results indicate a nonsignificant 4-way interaction for the purchase intention (F(12, 606) = 1.21, p = .27) and anticipated consumption pleasure (F(12, 606) = .67, p > .50) measures. However, contrasts show that normal weight consumers high in W-ISI exhibit lower anticipated consumption pleasure (M_{blatant} = 4.68 vs. M_{muted} = 6.47, F(1, 202) = 7.02, p < .01) and less desire to purchase (M_{blatant} = 4.02 vs. M_{muted} = 5.73, F(1, 202) = 4.61, p < .03) the high calorie food item following exposure to the blatant prime. For overweight consumers low in W-ISI, results show a decrease in purchase intentions (M_{blatant} = 3.73 vs. M_{muted} = 5.91, F(1, 202) = 5.24, p < .01). For the anticipated consumption pleasure, means were directionally correct but do not reach significance (M_{blatant} = 4.60 vs. M_{muted} = 5.81, F(1, 202) = 7.02, p < .01). The anticipated consumption pleasure measure is presented in Figure 9. Thus, results fully support H5b and partially support H5c.

**Additional Analysis**

_Esteem Measures._ The three-way interaction was statistically significant for the self-esteem (F(4, 202) = 11.07, p < .001) and appearance-esteem (F(4, 202) = 2.52, p < .05) measures and moderately significant for the weight-esteem measure (F(4, 202) = 2.22, p < .07). Follow-up tests show that the blatant prime led normal weight (M_{blatant} = 4.96 vs. M_{muted} = 6.59, F(1, 202) = 10.37, p < .01) and overweight (M_{blatant} = 2.59 vs. M_{muted} = 6.98, F(1, 202) = 20.37, p < .001) consumers high in W-ISI to express lower levels of self-esteem. However, overweight consumers low in W-ISI (M_{blatant} = 6.84 vs. M_{muted} = 3.93, F(1, 202) = 16.01, p < .001) and obese consumers high in W-ISI (M_{blatant} = 5.45 vs. M_{muted} = 1.89, F(1, 202) = 10.09, p < .01) expressed higher levels of self-esteem following the prime. Similar results were found for the appearance-esteem measure, with normal weight (M_{blatant} = 3.26 vs. M_{muted} = 4.40, F(1, 202) = 3.93, p < .05) and overweight (M_{blatant} = 1.84 vs. M_{muted} = 5.09, F(1, 202) = 10.08, p < .01) consumers high in
W-ISI expressing lower levels of appearance-esteeem and overweight consumers low in W-ISI (M_{blatant} = 4.78 vs. M_{muted} = 2.70, F(1, 202) = 9.18, p < .01) expressing higher levels of appearance-esteeem following the blatant prime. However, the overweight consumers high in W-ISI appear to be the only group who expressed a statistically significant difference in weight-esteeem following exposure to the blatant prime (M_{blatant} = 1.30 vs. M_{muted} = 3.76, F(1, 202) = 7.22, p < .01).

**Discussion**

Similar to study 1, the activation of the skinny weight concept led to overweight consumers low in W-ISI to express higher levels of dieting self-efficacy while leading normal weight consumers high in W-ISI to express lower levels of self-efficacy. However, in contrast to study 1 which indicated that the overweight concept led normal weight consumers high in W-ISI and overweight consumers low in W-ISI to express a greater confidence in their ability to lose weight, activation of the skinny weight did not significantly impact the weight loss confidence of either group. Results also indicate that the activation of the skinny weight concept did not significantly affect exercise attitudes and intentions among either group. In contrasts, results from study 1 indicate that the activation of the overweight weight concept led overweight consumers low in W-ISI to express more favorable attitudes and intentions toward exercise. Additionally, results from the 2 studies suggest that the activation of the skinny weight concept leads overweight consumers low in W-ISI to express a greater desire to lose weight while the overweight concept leads normal weight consumers high in W-ISI to express a greater desire to lose weight.

However, results for the UTI measure and the menu-related measures were similar in both studies. More specifically, results from both studies suggest that activation of the skinny and
overweight weight concepts lead normal weight consumers high in W-ISI to express greater belief in the UTI while lessening belief in the UTI among overweight consumers low in W-ISI. Additionally, results suggest that the activation of the two weight concepts led both groups to express less favorable attitudes, purchase intentions, and anticipated consumption pleasure for the highest calorie menu item.

Lastly, it is important to note that the activation of the skinny weight concept had a significant effect on self-esteem and body-esteem measures. In particular, results suggest that the skinny prime led to a decrease in self-esteem and appearance-esteem among normal weight and overweight consumers high in W-ISI. Results also show that the prime led to a decrease in weight esteem for overweight consumers high in W-ISI.

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7 It is important to note that unlike the overweight prime, which did not adversely affect the esteem measures, the skinny prime influenced the esteem of several different groups.
CHAPTER 6

ONE OF THESE THINGS IS NOT LIKE THE ‘OTHER’

THE RELATIONSHIP BETWEEN SOCIAL COMPARISON AND WEIGHT IDENTITY
**Introduction**

It is somewhat ironic that as U.S. consumers grow heavier, aspirational figures like the models portrayed in advertisements and magazines, television actors, and beauty pageant contestants have decreased in body size (CNN 2006; Dittmar and Howard 2004; Wiseman et al. 1992). Not only are women in the media thinner than the average U.S. woman, research suggests that many models and television actors are thinner than the criteria for anorexia (Wiseman et al. 1992). As previously noted, literature concerning the thin ideal suggests that exposure to unrealistic, unattainable illustrations of beauty may have detrimental effects on self-esteem and body-dissatisfaction. And, in line with expectations, research examining the impact of exposure to thin models has shown that such exposure negatively affects self-esteem, body image, and eating-related concerns (Richins 1991; Grabe, Ward, and Hyde 2008; Polivy and Herman 2002). In addition, research suggests that exposure to thin models also affects physical well-being and is positively related to eating disorders such as bulimia and obesity (Polivy and Herman 2002; Grabe, Ward, and Hyde 2008).

Many of the studies examining the effects of thin models on eating patterns have been correlational in nature (Grabe, Ward, and Hyde 2008). Nevertheless, a small number of recent studies have begun to causally examine the effects of model size on eating behaviors. For example, Strahan, Spencer, and Zanna (2007) find that women exposed to commercials containing thin models eat less than women exposed to neutral commercials or commercials featuring heavier models. Alternatively, Anschutz et al. (2009) find that participants eat more after exposure to a commercial featuring a thin model than a commercial featuring a heavier model. Strahan and colleagues (2007) suggest that exposure to thin models activates an association between weight and rejection which, in turn, lowers food consumption. Conversely,
Anschutz et al. (2009) hypothesize that ads that feature overweight models and explicitly refer to the thin ideal, heighten awareness of the failure to live up to the thin ideal and that this drives lower food consumption. Thus, Strahan et al. (2007) suggest that the activation of the thin ideal engenders less food consumption while Anschutz et al. (2009) argue that exposure to overweight models combined with exposure to the thin ideal concept may also lower food consumption. However, Anschutz and colleagues confound heavier models and thin ideal activation so it is difficult to determine the basic effect of exposure to heavier models.

The majority of studies examining the effect of idealized images on eating behavior have focused on restrained eating as a moderator of these effects. For example, research by Anschutz et al. 2008 and Krahé and Krause (2010) suggests that exposure to idealized images leads restrained eaters to eat less or choose diet food options while work by Strauss, Doyle, and Kreipe (1994) and Mills et al. (2002) suggests that restrained eaters eat significantly more than nonrestrained eaters after exposure to idealized images.

In total, these studies show mixed support regarding the causal relationship between exposure to the thin ideal and subsequent eating behaviors. Results also hint at the idea that exposure to overweight persons may also affect consumption outcomes (e.g., Strahan, Spencer, and Zanna 2007; Anschutz 2009).

The potential effects of social comparisons with overweight ‘others’ are also relevant and should be examined. Research in this vein is important as overweight bodies continue to be the norm among the population and because individuals are likely to engage in social comparisons among similar others Festinger (1954) and people in our inner social circle (e.g., friends) (Mussweiler and Rüter 2003). In addition, a number of consumer advocates and companies have begun to push back against the idea that thin equals beautiful by advocating for more realistic
models. As a result, corporations and advertisers have begun to include normal and overweight women in ad campaigns along with more traditional models and/or focus entirely on normal and overweight women. For example, the Dove brand has garnered a lot of attention through the use of its “real beauty” campaign which featured normal sized and overweight women. More recently, Lane Bryant, a plus-size clothing store has begun an extensive lingerie campaign that features a number of overweight women alongside the slogan ‘we’re no angels’. In addition, some fashion designers have begun including normal weight and overweight women on the fashion runway. Taken together, the actions of these companies and fashion designers imply a growing movement to include overweight women in the social sphere. What is less known, however, is how social comparison with an overweight ‘other’ affects consumer outcomes.

Four articles, one theoretical and three experimental, suggest that social integration of the overweight body via exposure to overweight ‘others’ may lead to increased body size among the general population. In particular, Dragone and Savorelli (2012) suggest that increasing the ideal body weight may decrease social pressure to conform and achieve the ideal body, causing people to diverge even further away from a healthy weight. In addition, Lin and McFerran (2015) find that normalizing an overweight status by showing consumers a clothing ad featuring an overweight woman along with the tagline “For Normal Women” or “For Real Women” leads to an increase in eating among study participants. Lastly, work by Campbell and Mohr (2011) and McFerran et al. (2010) suggest that exposure to overweight others increases food consumption.

The aforementioned studies do not explicitly examine the link between direct social comparison with an overweight ‘other’, the kind of comparison likely to occur during exposure to a plus-size model on a fashion runway or in an ad campaign. In addition, similar to studies concentrating on the effects of thin idealized images, it is likely that individual difference
variables play a role in determining the consumption outcomes associated with explicit social comparisons with an overweight ‘other’.

The purpose of Study 3 is to address these questions. In particular, Study 3 aims to understand what effects, if any, direct social comparisons with an overweight ‘other’ may have on food decision making outcomes as well as psychological well-being. This research differs from Lin and McFerran’s (2016) work because I do not make explicit attempts to normalize the overweight body and differs from work by McFerran et al. (2010) and Campbell and Mohr (2011) because exposure (and potential comparison) with the overweight other is explicit rather than implicit. This research also differs from previous research because I continue to explore the role of weight status and W-ISI and their effects on weight-related priming.

**Theoretical Background**

According to social-comparison theory (Festinger 1954), comparisons between the self and others serve as a benchmark for self-evaluation and ultimately influence consumer attitudes and behaviors. In general, the bulk of social comparison research suggests that upward social comparisons (comparing the self to someone who is superior) impairs one’s ego and self-esteem, engenders negative affect (e.g., Kleine 1997), and leads to body dissatisfaction and unhealthy consumer behaviors (Richins 1991; Grabe, Ward, and Hyde 2008; Polivy and Herman 2002). On the other hand, research suggests that downward social comparison engenders positive feelings about the self (Morse and Gergen 1970; Wills 1981).

Mussweiler (2003) posits that the consequences of social comparison depend on the knowledge that is triggered during the comparison process. In particular, Mussweiler’s (2003) selective accessibility model suggests that consumers engage in quick holistic assessments of the comparison target on a small number of variables (such as category membership) to determine
one’s similarity or dissimilarity to the comparison target. In instances where similarity is perceived to be high, individuals engage in similarity testing—which ultimately leads to assimilation effects with the similar target. On the other hand, when similarity is perceived to be low, individuals engage in dissimilarity testing—which ultimately leads to a contrast effects.

Research examining the effects of similarity versus dissimilarity assessments and exposure to idealized thin models, suggests that body satisfaction varies as a function of similarity and dissimilarity perceptions. For example, Brown et al. (1992) and Häfner (2004), find that individuals perceive themselves as more (less) attractive after similarity (dissimilarity) priming. Moreover, Häfner (2004) finds that participants who contrast with the idealized thin standard are more likely to express a greater motivation to change their appearance. Häfner (2004) suggests that such effects may be because (a) consumers who assimilate with the idealized thin model experience an increase in self-esteem and feel no need to change or (b) consumers who contrast with the idealized thin standard experience a decrease in self-esteem and feel the need to change. However, other studies suggest that exposure to an overweight model, individuals with whom one assumes the average woman will assimilate with, either produce no discernable effects in terms of body dissatisfaction or eating behaviors (e.g., Lin and Kulik 2002; Strahan et al. 2007) or increase self-evaluation (Trottier, Polivy, and Herman 2007; Papies and Nicolaïje 2012)

Taken together, these studies suggest that assimilation to a thin or overweight woman is less likely to engender body dissatisfaction and motivation to change. Considering the obsession with idealized bodies, it makes sense that assimilation to thin models would result in positive body satisfaction. However, one might assume that assimilation to an overweight ‘other’ would engender less body satisfaction and greater motivation to change a consumer’s appearance.
Unless (a) consumers feel less threatened or are less likely to respond to overweight bodies—which would explain the null effects associated with overweight social comparisons, or (b) overweight social targets engender downward social comparisons—which would explain findings that suggest social comparison with an overweight ‘other’ engenders positive self-evaluations and decreased motivation to change. I suggest that these two elements, the lack of threat and/or downward comparisons engendered by direct social comparison with an overweight ‘other’ might explain previous findings and submit that weight status and W-ISI play an important role in determining the outcome of social comparisons with an overweight target.

First, I suggest that most women will not respond to social comparisons to overweight targets because consumers are not socialized to compare their bodies with overweight bodies and feel inferior. Evidence for this notion is demonstrated by Smeesters and Mandel (2006) who show that exposure to a thin model leads consumers to experience lower levels of appearance-esteem than exposure to an overweight model and by Peck and Loken (2004) who show that women engage in more positive thoughts following exposure to an overweight model.

Thus, while most consumers might assimilate to an overweight target, there is very little evidence that such assimilation will threaten the self enough to motivate a greater desire to lose weight or engage in healthier evaluations and behaviors. As such, I would expect that identifying with an overweight ‘other’ will have no discernable effect on most consumers.

However, I also submit that direct exposure to an overweight ‘other’ will lead overweight consumers low in W-ISI to express lower levels of dieting self-efficacy, greater belief in UTI, and weight-related confidence while expressing greater desire to lose weight and less favorable evaluations of unhealthy food items. I base this notion on the idea that while overweight consumers low in W-ISI are generally disengaged from the weight identity, direct comparison
with an overweight other will lead to heighten the salience of their overweight identity. In this sense, the identification prime should lead overweight consumers low in W-ISI to identify as members of the weight related out-group (i.e., to identify as overweight). The expectation that overweight consumers low in W-ISI will express lower levels of dieting efficacy and weight loss related beliefs in ability while at the same time expressing a greater desire to lose weight and less favorable evaluations of unhealthy products is based on several streams of research. First, research on out-group membership has shown that awareness of an out-group identity negatively influences self-efficacy perceptions (e.g., Corrigan, Larson, and Ruesch 2009; Stone et al., 1999; Aronson & Inzlicht, 2004) and negatively influence identity-related competency perceptions (Oyserman, Fryberg, and Yoder 2007) as well as fatalistic beliefs (Oyserman, Fryberg, and Yoder 2007). Thus, acknowledging their overweight status may lead to a drop in efficacy perceptions, weight loss confidence, and stronger beliefs in the UTI. Second, prior research suggests that overweight consumers low in W-ISI do not confront their weight status on a regular basis (Markus et al. 1987). Thus, I submit that overweight consumers low in W-ISI should respond to the activation of the overweight concept by dedicating more by expressing an increased desire to lose weight, directing more cognitive resources to weight-related decisions, and eschewing food items associated with an overweight body. Thus,

**H1:** Following identification with an overweight other, overweight consumers with lower levels of W-ISI are likely to exhibit lower (a) levels of dieting self-efficacy and (b) weight-loss confidence.

**H2:** Following identification with an overweight other, overweight consumers with lower levels of W-ISI are likely to exhibit a greater desire to lose weight.
**H3:** Following identification with an overweight other, overweight consumers with lower levels of W-ISI are more likely to (a) accurately perceive themselves as overweight and (b) exhibit greater beliefs in the unhealthy = tasty intuition.

**H4:** Following identification with an overweight other, overweight consumers with lower levels of W-ISI are likely to express greater (a) menu attention, (b) menu involvement, and (c) perceived menu fluency.

**H5:** Following identification with an overweight other, overweight consumers with lower levels of W-ISI will be less likely to choose the unhealthiest food option.

**H6:** Following assimilation with an overweight other, overweight consumers with lower levels of W-ISI are less likely to choose the unhealthiest food option and likely to express less favorable (a) attitudes, (b) purchase intentions, and (c) anticipated consumption pleasure for the unhealthiest food option.

In addition to the above hypotheses, I also measure perceived healthiness and psychological resistance. I included perceived healthiness because there is a chance that an changes in an individual’s weight perception may also lead to changes in an individual’s health perceptions. Thus, it is possible that the prime may lead overweight consumers low in W-ISI to more accurately perceive their weight and to perceive themselves as less healthy. In addition, prior research suggests psychological reactance may occur when individuals are threatened with a self-categorization and that consumers may choose to distance themselves from the imposed social category and reconfirm their preferred identity (Ellemers, Spears, and Doosje 2002; Barreto and Ellemers 2002). If this is indeed the case, it may be that some consumers express greater levels of psychological reactance following forced identification with an overweight other.
METHODOLOGY

Pretests: Experimental Stimuli

Two pretests were performed to inform stimuli selection. In the first pretest, 39 participants (M_{age} = 32, SD = 9) evaluated menu items for use. Participants were asked to examine several possible menu items and evaluate the perceived taste of each item (unfavorable/favorable; bad/good, r values > .97). I also examined consumer perceptions of the healthfulness of each item (1 - not healthy at all vs. 7 - very healthy) as well as calorie estimates for each item (5 - point scale: 1 = less than 500 calories, 2 = 501 to 1000 calories, 3 = 1001 to 1500 calories, 4 = 1501 to 2000 calories, 5 = more than 2000 calories).

Results indicate nonsignificant differences in perceived taste between the Angus cheeseburger, crispy chicken sandwich, BBQ chicken wrap, hamburger, and chicken César salad (F(4, 144) = 1.48, p = .21). Results also show a nonsignificant food item-weight status interaction (F(8, 144) = .72, p = .67), indicating that weight status did not moderate taste perceptions. Results also reveal that consumers perceive significant differences in the healthfulness of the food items (F(4, 144) = 131.67, p < .001). In general, results show statistically significant differences in perceived healthfulness between all of the food items with the order of perceived healthfulness as follows from least to best: Angus burger, hamburger, chicken sandwich, BBQ chicken wrap, and the salad. Follow-up contrasts show that participants perceive the Angus burger (M_{angusburger} = 1.65) as least healthful in comparison to the hamburger (M_{hamburger} = 2.11, F(1, 36) = 13.16, p < .01), chicken sandwich (M_{sandwich} = 2.62, F(1, 36) = 20.16, p < .001), BBQ wrap (M_{wrap} = 4.68, F(1, 36) = 186.29, p < .001), and the salad (M_{salad} = 5.42, F(1,36) = 480.68, p < .001). Further, results indicate that consumer calorie estimates varied depending on the food item under consideration (F(4, 144) = 29.94, p < .001). Follow-up
contrasts show that calorie estimates for the Angus burger were statistically higher than each of the other four food items ($p$ values $< .01$). Thus, in keeping with our other studies, I expect that the manipulation will primarily affect participant evaluations of the Angus burger.

The second pretest ($n = 62$, $M_{age} = 39$, $SD = 14$) was undertaken to select the model to be used in study 1. Participants were asked to view photographs of female models who varied in size. Participants were then asked to list their first three thoughts when viewing each photo and were asked to evaluate the woman’s weight ($1 =$ slender, $2 =$ normal weight, $3 =$ overweight, $4 =$ obese) as well as the quality, color, and realism of each picture. The woman used in the main study was perceived as overweight ($M_{weightpict} = 3.06$) and more than 80% of the participants listed the woman’s weight in the free thought task. Perceptions of the model’s weight did not vary as a function of the participant’s weight status ($p > .21$). Quality, color, and realism results were also sufficient and did not vary between photos ($M_{ratings} > 5$).

**Main Study**

*Participants and Procedure.* One hundred and eighty eight female participants ($M_{age} = 33$, $SD = 7$) were recruited using the same screening techniques outlined in Studies 1 and 2. Cell sizes ranged from 9 to 14. Adapting a priming technique utilized by Campbell and Mohr (2011)\(^8\), participants first read that the study was intended to identify a potential spokesperson for a nationally recognized consumer product. They were then shown a picture of either an overweight woman or a robot (the control condition) and asked to list the first three thoughts that came to mind (see Appendix I for the pictorial stimuli). After listing their thoughts, participants were then

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\(^8\) In the overweight condition, Campbell and Mohr (2011) had participants view two overweight persons and a tree (a neutral picture). However, in the control condition participants viewed a tree, a lake, and a fishbowl. Because this study asks participants to identify with the ‘other’ in the picture, I chose to use a robot which ensured consistency between the two conditions without eliciting other comparative frames (e.g., gender, race).
provided a distraction task. Following this task, participants were asked to view a restaurant menu containing 5 entrée items: an Angus bacon cheeseburger, a crispy chicken sandwich, a BBQ chicken wrap, a plain hamburger, and a chicken César salad. Participants were then asked their level on involvement and attention to the menu and asked evaluative questions concerning the food items shown in the menu. Refer to Appendix J for a copy of the menu.

**Independent Variables and Dependent Measures.** As with previous studies, I included non-menu and menu-related dependent measures. Several measures mirrored those used in studies 1 and 2 with a few notable exceptions. Namely, I excluded exercise self-efficacy since results were null in studies 1 and 2. I also included several measures using 7-point rating scales: menu attention (how much attention did you pay to the menu; how much thought did you put into evaluation the menu: 1 = none, 7 = a lot, r = .67), perceived menu fluency (e.g., “when looking at the menu I can easily tell which foods are more healthy and which ones are less healthy” and “When looking at the menu it is easy to determine which foods are the more healthy options”; r = .84), and menu involvement (“not at all involved/very involved” and “not at all interested/very interested”, r = .63). I also included a measure of weight status perception (do you consider yourself: 1 = skinny, 2 = normal weight, 3 = overweight, and 4 = obese)). In addition, I continued to use product attitude (r values ≥ .93), purchase intentions (r values ≥ .94), and anticipated consumption pleasure (r values ≥ .90) for the menu-related measures.

**Results**

**Attention and Manipulation Check.** A total of 9 participants failed to correctly answer the instructional attention check and were excluded from the study. Analysis show that participants exposed to the picture of the overweight women were more likely to generate weight-related
thoughts in the free-thought portion of the experiment \( (M_{model} = 88\% \text{ vs. } M_{control} = 4\%; \chi^2(2) = 275.88, p < .001) \).

**Dieting Self-Efficacy, Weight Loss Confidence, and Weight Loss Desire.** The 3-way interaction was nonsignificant for the dieting self-efficacy \( (F(4, 167) = .55, p > .10) \), weight loss confidence \( (F(4, 167) = 1.45, p > .10) \), and weight loss desire \( (F(4, 167) = 1.48, p > .10) \) measures. As shown in Figure 10, identifying with an overweight ‘other’ led overweight consumers low in W-ISI to express lower dieting self-efficacy \( (M_{overweight\text{other}} = 2.92 \text{ vs. } M_{control} = 5.82, F(1, 167) = 3.86, p = .05) \) and weight loss confidence \( (M_{overweight\text{other}} = 4.79 \text{ vs. } M_{control} = 8.53, F(1, 167) = 5.27, p < .05) \). These results support H1a-b. Results also support H2 by showing that the prime led overweight consumers low in W-ISI to express greater desire to lose weight \( (M_{overweight\text{other}} = 1.71 \text{ vs. } M_{control} = 4.28, F(1, 167) = 9.36, p < .01) \). The weight loss desire results are presented in Figure 11.

**Weight Status Perception.** As noted above, following the manipulation, participants were also asked to indicate how they perceive their own weight \( (1 = \text{skinny}, 2 = \text{normal weight}, 3 = \text{overweight}, \text{and } 4 = \text{obese}) \). Results from the 3-way interaction were nonsignificant \( (F(4, 167) = .35, p > .10) \). Chi-square analysis were performed on cross-tabulations of each of the weight status-W-ISI-prime groups and results indicate that the manipulation led several groups to assign themselves a higher weight status group. More specifically, results show a 58% increase in normal weight low W-ISI consumers who identified as normal weight \( (\text{vs. skinny}) \) following identification with an overweight other \( (\chi^2(2) = 5.63, p < .06) \). Similarly, results show that overweight consumers low in W-ISI \( (\chi^2(1) = 8.0, p < .01) \) and moderate in W-ISI \( (\chi^2(1) = 3.29, p < .07) \) were more likely to self-identify as overweight. These results support H3a.
Unhealthy = Tasty Intuition. As shown in Figure 12, the 3-way interaction was significant for the UTI measure \( F(4, 167) = 2.62, p < .05 \). Results indicate that overweight consumers low in W-ISI expressed greater belief in the unhealthy = tasty intuition following exposure to the overweight ‘other’ \( (M_{\text{overweightother}} = 8.28 \text{ vs. } M_{\text{control}} = 5.30, F(1, 167) = 3.18, p < .08) \). These results support H3b. Interestingly enough, results also show that overweight \( (M_{\text{overweightother}} = 5.93 \text{ vs. } M_{\text{control}} = 1.96, F(1, 167) = 6.58, p < .01) \) and obese \( (M_{\text{overweightother}} = 7.67 \text{ vs. } M_{\text{control}} = 5.54, F(1, 167) = 3.66, p < .06) \) consumers high in W-ISI also express greater belief in the unhealthy = tasty intuition while overweight consumers moderate in W-ISI \( (M_{\text{overweightother}} = 5.99 \text{ vs. } M_{\text{control}} = 7.21, F(1, 167) = 4.24, p < .05) \) express lowers levels of belief following exposure to the overweight ‘other’.

Menu Attention, Involvement, and Fluency. Results indicate a significant 3-way interaction for menu attention \( F(4, 167) = 2.27, p < .06 \) and menu involvement \( F(4, 167) = 3.99, p < .01 \). The 3-way interaction approached significance for menu fluency \( F(4, 167) = 1.89, p = .11 \). Contrary to expectations, follow-up results were nonsignificant for overweight consumers low in W-ISI across all three measures \( (p \text{ values } > .10) \). However, contrasts do show that overweight consumers high in W-ISI expressed greater menu attention \( (M_{\text{overweightother}} = 6.84 \text{ vs. } M_{\text{control}} = 5.40, F(1, 167) = 6.69, p < .01) \) and involvement \( (M_{\text{overweightother}} = 6.95 \text{ vs. } M_{\text{control}} = 4.79, F(1, 167) = 9.95, p < .01) \) following exposure to the overweight other. Results also show that identification with an overweight other led normal weight consumers high in W-ISI to express lower menu fluency \( (M_{\text{overweightother}} = 4.36 \text{ vs. } M_{\text{control}} = 6.57, F(1, 167) = 7.75, p < .01) \) and their results approached significance for the involvement measure \( (M_{\text{overweightother}} = 5.64 \text{ vs. } M_{\text{control}} = 6.49, F(1, 167) = 2.24, p = .14) \). These findings fail to support H4.
Menu Choice. Chi-square analysis was used to examine menu choice. Results show a significant difference in the menu choices of overweight consumers low in W-ISI ($\chi^2(2) = 8.00, p < .05$) and that viewing the overweight other led to a 80% reduction in the number of overweight consumers low in W-ISI. This finding supports H5. Similar results were found for overweight consumers high in W-ISI ($\chi^2(2) = 4.28, p < .05$).

Attitudes, Purchase Intentions, and Anticipated Consumption Pleasure toward the Entrée Items. Because each participant made ratings of each of the food items, they were analyzed as a within-subjects measure. The 2 (prime: model vs. control) x 3 (weight status: normal weight/overweight/obese) x 3 (W-ISI: low/moderate/high) x 5 (menu items) mixed model ANOVA did not reveal a significant 4-way interaction for product attitude ($F(16, 668) = 1.14, p > .10$), purchase intentions ($F(16, 668) = .93, p > .10$), and anticipated consumption pleasure ($F(16, 668) = .80, p > .10$). However, Overweight consumers low in W-ISI displayed lower purchase intentions ($M_{\text{overweight other}} = 2.45$ vs. $M_{\text{control}} = 6.48$, $F(1, 167) = 5.93, p < .05$) and anticipated consumption pleasure ($M_{\text{overweight other}} = 3.73$ vs. $M_{\text{control}} = 8.83$, $F(1, 167) = 7.13, p < .01$) for the high calorie food item (i.e., the Angus Burger) after exposure to the overweight other. Results also show that overweight consumers moderate in W-ISI express lower purchase intentions ($M_{\text{overweight other}} = 3.89$ vs. $M_{\text{control}} = 5.27$, $F(1, 167) = 5.50, p < .05$) and anticipated consumption pleasure ($M_{\text{overweight other}} = 4.30$ vs. $M_{\text{control}} = 6.08$, $F(1, 167) = 6.84, p < .01$). Figures 13 and 14 shown results for the product attitude and anticipated consumption pleasure measures.

Taken together, results that identification with an overweight other led overweight consumers low in W-ISI to express low purchase intentions and anticipated consumption pleasure for the high calorie food item offer support for H6b-c. No support was found for the product attitude measure ($p > .10$). Thus, H6 was partially supported.
Additional Analysis

**Esteem Measures.** The three-way interaction was statistically significant for the self-esteem \( F(4, 167) = 3.47, p < .01 \) and appearance-esteem \( F(4, 167) = 3.73, p < .01 \) measures but nonsignificant for the weight-esteem measure \( F(4, 167) = 1.31, p > .10 \). Follow up contrasts show that identification with the overweight other led normal consumers high in W-ISI \( M_{\text{overweightother}} = 4.96 \) vs. \( M_{\text{control}} = 6.18 \), \( F(1, 167) = 2.64, p = .11 \), overweight consumers low in W-ISI \( M_{\text{overweightother}} = 4.48 \) vs. \( M_{\text{control}} = 6.11 \), \( F(1, 167) = 2.77, p < .10 \), and obese consumers high in W-ISI \( M_{\text{overweightother}} = 3.82 \) vs. \( M_{\text{control}} = 5.02 \), \( F(1, 167) = 3.41, p < .10 \) to express lower levels of self-esteem. Exposure to the overweight other also led overweight consumers high in W-ISI \( M_{\text{overweightother}} = 6.49 \) vs. \( M_{\text{control}} = 4.58 \), \( F(1, 167) = 4.24, p < .05 \) and normal weight consumers low in W-ISI \( M_{\text{overweightother}} = 6.08 \) vs. \( M_{\text{control}} = 4.97 \), \( F(1, 167) = 3.31, p < .10 \) to express higher levels of self-esteem. Results also show that the manipulation led overweight \( M_{\text{overweightother}} = 3.97 \) vs. \( M_{\text{control}} = 5.63 \), \( F(1, 167) = 2.75, p < .10 \) and obese \( M_{\text{overweightother}} = 4.37 \) vs. \( M_{\text{control}} = 6.02 \), \( F(1, 167) = 3.67, p < .10 \) consumers low in W-ISI to express lower appearance-esteem but the reverse was true for normal weight consumer low in W-ISI \( M_{\text{overweightother}} = 5.71 \) vs. \( M_{\text{control}} = 4.19 \), \( F(1, 167) = 6.03, p < .05 \). Similarly, overweight \( M_{\text{overweightother}} = 3.98 \) vs. \( M_{\text{control}} = 5.67 \), \( F(1, 167) = 2.75, p < .10 \) and obese \( M_{\text{overweightother}} = 3.44 \) vs. \( M_{\text{control}} = 5.73 \), \( F(1, 167) = 6.84, p < .10 \) consumers low in W-ISI express lower weight-esteem.

**Health Perceptions and Psychological Reactance.** The three-way interaction was nonsignificant for the health perceptions \( F(4, 167) = 1.46, p > .10 \) and psychological reactance \( F(4, 167) = .80, p > .10 \) measures. Follow-up contrasts were nonsignificant across all groups for the health perceptions measure \( p > .10 \). However, contrasts suggest that identification with
an overweight other led to an increase in psychological reactance for normal weight consumers low in W-ISI ($M_{overweight\ other} = 4.11$ vs. $M_{control} = 2.85$, $F(1, 167) = 3.53$, $p < .10$), normal weight consumers high in W-ISI ($M_{overweight\ other} = 3.56$ vs. $M_{control} = 1.95$, $F(1, 167) = 3.73$, $p = .05$), and obese consumers low in W-ISI ($M_{overweight\ other} = 4.51$ vs. $M_{control} = 2.97$, $F(1, 167) = 2.69$, $p < .10$).

**Discussion**

The research presented in this study was intended to consider the effects of identifying with an overweight other. It was hypothesized that this type of identification would strongly affect overweight consumers low in W-ISI but have a limited effect on other weight status groups. More specifically, this research suggested that overweight consumers low in W-ISI would be heavily influenced by identification with an overweight other because these consumers are aschematic about their weight and rarely confront their own overweight status. For other consumers, the identification prime was expected to be less impactful. As expected, results show that identification with an overweight ‘other’ led overweight consumers low in W-ISI to express lower dieting self-efficacy and weight loss confidence and that identification increased belief in the unhealthy = tasty intuition. Results also show that the identification prime increased these consumers’ desire to lose weight and increased self-categorization as an overweight person. For these consumers, identification also engendered lower purchase intentions, anticipated consumption pleasure, and menu choice for the unhealthiest food option. Interestingly enough, the prime did not affect cognitive evaluations of the menu nor did it impact consumers’ health perceptions. However, these effects may be impacted by the measurement error.

In addition, identification with an overweight other led several groups to more accurately classify their weight status. Specifically, results show that in the control condition, normal
weight consumers low in W-ISI, and overweight consumers low and moderate in W-ISI were less likely to classify themselves in an appropriate weight class. For example, overweight consumers as a whole were more likely to classify themselves as normal weight and obese consumers low in W-ISI were more likely to view themselves as normal weight or overweight. This finding is in line with research which suggests a difference actual and perceived weight status is common (Kuchler and Variyam 2003), particularly among overweight and obese consumers (Truesdale and Stevens 2008; Yaemsiri, Slining, and Agarwal 2011). Following identification with an overweight ‘other’, however, findings show that normal weight consumers low in W-ISI were more likely to self-identify as normal weight and overweight consumers low and moderate in W-ISI were more likely to self-identify as overweight, suggesting that the manipulation played a role in correcting consumers’ natural tendency to perceive themselves as normal weight.

Results also seem to suggest that identification with an overweight ‘other’ negatively impacted the self, appearance, and weight-esteem of several groups and led normal weight consumers low and high in W-ISI to express greater levels of psychological reactance. Taken together, the esteem and psychological reactance results suggest that forcing consumers to identify with an overweight other may engender unintended consequences.
CHAPTER 7

PILOT TEST 2: AN EXPLORATION OF TECHNIQUES

FOR LOWER WEIGHT IDENTITY SELF-IMPORTANCE
The intent of this chapter is to identify, discuss, and pretest techniques to reduce W-ISI for overweight consumers. While a variety of techniques may engender a reduction of W-ISI, I focus on techniques that are theoretically sound, empirically testable, and practically feasible. That said, after a thorough review of the literature, four practices were considered appropriate for inclusion in the pilot study: mindfulness, body positivity, social acceptance, and weight-self disassociation. In the following section I describe the theoretical and practical rationale for the supposition that each practice has the potential to reduce W-ISI. I then discuss a detailed pilot study used to examine how each of the four methods considered impact W-ISI and, ultimately, their effects on psychological outcomes and evaluations of unhealthy food items.

**PROPOSED MANIPULATIONS TO REDUCE W-ISI**

**Mindfulness**

Mindfulness is described as a cognitive state of awareness and alertness to internal and external cues and processes without judgments, reactivity, or a discursive mindset. Baer (2003) and Brown and colleagues (2008) posit that mindfulness reduces identity and ego investment so that events are processed with greater levels of objectivity and fewer self-centered biases. As such, mindfulness is believed to engender non-defensive processing of threatening experiences or stimuli. This non-defensive processing is thought to reduce emotional response and increase desensitization, tolerance, and worry about personal identity (Brown et al. 2008). All of this noted, it seems feasible that mindfulness may reduce the self-importance that one attaches to the weight identity and lessen the automatic response evoked by identity-relevant experiences and stimuli by engendering a more objective response to identity-relevant stimuli. More germane to this research, it seems reasonable that mindfulness may lessen the impact of W-ISI and allow consumers to respond to unhealthy food with a more objective response.
Empirical evidence regarding the effects of mindfulness on eating and weight-related attitudes and behaviors has been somewhat mixed, with some research showing mindfulness reduces eating disorders (e.g., Wanden-Berghe et al. 2010), while other findings suggesting mindfulness has a nonsignificant effect on emotional or uncontrolled eating (Kearney et al. 2012). Similarly, findings concerning the relationship between mindfulness interventions and weight-related outcomes among the consumers trying to lose weight have also been mixed. For example, Daubenmier and colleagues (2011) find that the effect of a mindfulness intervention on cortisol and abdominal fat in overweight and obese women was nonsignificant when compared to a treatment group. It should be noted that the authors did find that greater improvements in mindfulness were associated with greater reductions in abdominal fat and improved weight maintenance. In contrast, research by Lillis et al. (2009) finds that among consumers trying to lose weight, a one day mindfulness and acceptance intervention led to greater improvements in obesity-related stigma, quality of life, psychological distress, and body mass in comparison to consumers in the control condition. It should be noted that these studies all use differing mindfulness interventions which makes an explicit comparison of mindfulness studies difficult. For example, many studies examining the relationship between mindfulness and weight-related outcomes fail to utilize generic mindfulness interventions as opposed to interventions that specifically focus on body weight. Still, results seem to suggest that mindfulness may play some part in reducing one’s investment in weight (e.g., Lillis et al. 2009) among dieters and overweight consumers.

**Body Positivity**

Body image is a multidimensional construct that encompasses both cognitive and affective perceptions and attitudes toward one’s body. Research examining body image has often
examined negative body image, which is described as a consumer’s negative body-related thoughts and feelings as well as the social and psychological factors that influence negative body image and the individual and societal consequences of negative body image. A multitude of research on the subject suggests that body image dissatisfaction is prevalent among women of all sizes, so much so that some researchers have taken to labeling such dissatisfaction as a “normative discontent” (Rodin, Silberstein and Striegel-Moore 1984). In addition, research has shown that low self-esteem, depression, physical self-concept, the drive for thinness, and social self-esteem are factors that influence body dissatisfaction. However, it should be noted that a large body of work concerning body image has focused on the media and its ability to create, propagate, disseminate, and idolize increasingly thinner and unrealistic bodies. This focus on the effects of thin models on body image satisfaction among women is warranted considering that the typical model qualifies as anorexic (Dittmar et al. 2009).

A small but growing number of researchers have begun to focus on positive body image as a panacea for the discontent associated with the female body and as a means of promoting consumer well-being. Research in this vein has noted that positive body image is conceptually distinct from negative body image and that these two constructs do not belong on a “body image continuum” (Tylka and Wood-Barcalow 2015). Instead, Wood-Barcalow, Tylka (2015), and Augustus-Horvath (2010) offer a working definition of positive body image as “an overarching love and respect for the body that allows individuals to (a) appreciate the unique beauty of their body and the functions that it performs for them; (b) accept and even admire their body, including those aspects that are inconsistent with idealized images; (c) feel beautiful, comfortable, confident, and happy with their body, which is often reflected as an outer radiance, or a “glow;” (d) emphasize their body’s assets rather than dwell on their imperfections; and (f)
interpret incoming information in a body-protective manner whereby most positive information is internalized and most negative information is rejected or reframed. If, as the authors suggest, positive body image allows consumers to accept rather than loathe their body than it is possible that it may also reduce W-ISI.

**Weight-Self Disassociation**

Research concerning devalued identities posits that consumers may cope by psychologically disengaging from the identity domain. For example, Steele (1997) suggests that devalued consumers may engage in disidentification, a process where the individual divorces his or her self-evaluation from the domain. Additionally, Major and O'Brien (2005) suggests that devalued consumers may disengage self-esteem and effort from the domain, while Crocker and Major (1989) suggest that devalued consumers may also reduce the centrality of the domain from the self. Thus, inducing psychological disassociation between the self and weight identity may be an ideal method of decreasing W-ISI.

**Social Acceptance**

Puhl and Heuer (2009) submit that weight-based discrimination, negative behavior directed at consumers based solely on their weight status, has more than doubled in the U.S. in the last decade. The authors detail that weight-based discrimination leads to disadvantages in employment and educational settings, negatively impacts patient-provider relationships with healthcare workers and negatively impacts health care services by the overweight. Moreover, weight-based discrimination negatively affects interpersonal relationships with family, friends, and romantic partners of overweight consumers.

Like most consumers who maintain a stigmatized identity, the overweight are cognizant and sensitive to stereotypes and discriminatory behaviors caused by their weight. For example,
research by Wang, Brownell, and Wadden (2004) shows that some overweight consumers believe weight-based stereotypes related to eating pathologies, exercise avoidance, and negative affect. Taken together, the external stereotypes along with their subsequent internalization by overweight consumers, drive social rejection and/or social inferiority. It seems reasonable, then, to suggest that W-ISI is largely driven by the feelings emanating from social rejection. As such, I have included a manipulation that examines social acceptance as a potential method for reducing W-ISI.

Based on the above arguments, one might postulate that each of the methods mentioned above may reduce W-ISI. Hence, a pilot test was executed to determine which, if any, of the methods was appropriate for further study.

**METHODOLOGY**

**Participants, Design, and Procedure**

One hundred and fifty one female participants (M<sub>age</sub> = 34, SD = 11) recruited from an online consumer panel were randomly assigned to 1 of 5 experimental conditions (i.e., mindfulness, body positivity, weight-self disassociation, social acceptance, and control). The mindfulness induction condition consisted of a writing task meant to promote the basic tenets of mindfulness: self-awareness, acceptance, and non-judgment. Study participants were asked to actively think about four sets of words or statements and write about the words or statements relate and different from each other. Participants were then asked to make a grammatical four to ten word sentence using the words and write down the thoughts and feelings evoked by the sentence they created. Three magazine articles that reinforce positive body image were chosen and pre-tested for inclusion into the pilot study. Based on the pre-test results, the article selected highlights mantras that focus on embracing one’s current body weight. To address the idea of
psychologically disassociating the self from one’s weight, I modified a manipulation by Reed (2004) that asks consumers to write five sentences that describe one’s independence from their weight. The social acceptance condition asked participants to (a) “make a list of all the people in life who love you regardless of your weight” and (b) “write about the abilities and successes that you have had in life that have nothing to do with your weight”. The control condition consisted of a brief article about holiday gift cards. The stimuli for each of the manipulations are listed in Appendices K through O.

After completing the assigned experimental condition, participants were presented with two short and ostensibly unrelated studies. The first study was an unrelated filler task. After the filler task, participants were told they would be asked to evaluate a small series of new consumer packaged goods. The participants were then shown a total of five randomly presented packaged products, 3 unrelated products, 1 unhealthy food product (an ice cream shake), and 1 healthy product (a salad). Pictures of the unhealthy and healthy food item are found in Appendix P. For the food products, participants were asked questions regarding the product’s design, product attitudes, purchase intentions, and taste perceptions. The last three questions constituted the food-related dependent measures. Participants were then asked to complete a list of scale items and answer demographic questions.

Dependent Measures. Similar to the other studies, a number of dependent measures were evaluated. Participants were asked to indicate how optimistic, sad, self-critical, and happy they felt (1 = not at all, 7 = extremely). In addition, prior research suggests that consumers may experience temporal evaluations of body image (i.e., perceptions and attitudes regarding body weight). To account for this possibility, I included a shortened measure of the state body image scale (Cash et al. 2002). Participants were asked to respond to the following prompt, “Right now
I feel…extremely dissatisfied with my physical appearance/extremely satisfied with my physical appearance; extremely dissatisfied with my weight/extremely satisfied with my weight; extremely dissatisfied with my body size/extremely satisfied with my body size”, using a 7-point scale (α = .93). I also included self-esteem (α = .95), weight-esteem (r = .73), and appearance-esteem (α = .85) measures.

In keeping with results from the previous studies, I included 7-point scales to measure dieting self-efficacy and a 2-item measure of exercise self-efficacy (e.g., “I am confident that I can adjust my life to a physically active lifestyle” and “I am confident that I can be physically active at least once a week”, Sniehotta et al. 2005; r = .72).

Lastly, to examine the effect of the manipulations on evaluations of the unhealthy and healthy food items, I included single item measures of product attitude (what is your overall attitude towards this product: unfavorable/favorable), purchase intentions (assuming you were interested in purchasing this product, how likely are you to buy this product: very unlikely/very likely), and anticipated consumption pleasure (eating this product would make me feel: unhappy/happy) for each of our food items.

Results

Attention Check. A total of 6 participants failed to correctly answer the instructional attention check and were excluded from the analysis.

Manipulation Check. Participants were asked to indicate whether completing the weight manipulation made them think about weight (e.g., “how much were you thinking about weight?”) anchored by 1 (not at all) to 7 (quite a lot). Results indicate a significant direct effect of the weight manipulations (F(4, 151) = 49.27, p < .001). Follow-up tests indicate that each of the weight manipulations led to a significant increase in weight salience compared to the control
condition (M_{control} = 1.22 vs. M_{social acceptance} = 3.95, F(1, 134) = 6.03, p < .001; and vs. M_{mindfulness} = 5.87, F(1, 134) = 11.07, p < .001; and vs. M_{body positivity} = 5.55, F(1, 134) = 10.28, p < .001; and vs. M_{w-sdisassociation} = 5.58, F(1, 134) = 10.96, p < .001).

Mood States and Self Criticism. All data were analyzed using a 5 (weight-related manipulation: Social acceptance/mindfulness/body positivity/weight disengagement/control) x 3 (weight status: normal weight/overweight/obese) ANOVA. ANOVA results are shown in Table 7. As shown, results indicate nonsignificant interactions for each of the mood states (optimistic: (F(1, 134) = .41; happy (F(1, 134) = .78; sad: (F(1, 134) = .86, self-critical (F(1, 134) = 1.68, p values > .10). However, follow-up tests indicate that obese consumers described themselves as significantly less happy after the weight disassociation manipulation (M_{control} = 5.41 vs. M_{w-sdisassociation} = 4.02, F(1, 134) = 1.97, p = .05). In addition, compared to the control condition (M_{control} = 1.83), the obese describe themselves as significantly sadder after the mindfulness (M_{mindfulness} = 3.70, F(1, 134) = 2.77, p < .01), body positivity (M_{body positivity} = 3.76, F(1, 134) = 2.35, p < .05), and weight-self disassociation (M_{w-sdisassociation} = 3.45, F(1, 134) = 1.96, p < .07) primes. As shown in Figure 15, similar results were found for the self-criticism measure (M_{control} = 3.22 vs. M_{mindfulness} = 5.26, F(1, 134) = 2.42, p < .05, vs. M_{body positivity} = 5.05, F(1, 134) = 1.78, p < .08; vs. M_{w-sdisassociation} = 5.12, F(1, 134) = 1.96, p < .05). Results were nonsignificant across all other groups.

State Body Image, and Self, Weight, and Appearance-Esteem. Results indicate that the weight-related manipulation – weight status interaction was nonsignificant for the state body image (F(8, 134) = .90, p > .50), self-esteem (F(8, 134) = 1.08, p > .35), weight-esteem (F(8, 134) = 1.06, p > .35), and appearance-esteem (F(8, 134) = .64, p > .70) measures. However, contrasts show that overweight consumers expressed significantly higher levels of state body
image following the weight-self disassociation manipulation when compared to the control condition (M_{w-sdisassociation} = 4.45 vs. M_{control} = 2.96, F(1, 134) = 2.16, p < .05). Results also suggest that the weight-self disassociation manipulation led to lower levels of self-esteem among obese consumers when compared to the control condition (M_{w-sdisassociation} = 4.08 vs. M_{control} = 5.40, F(1, 134) = 1.86, p = .07). As shown in Figure 16, contrasts show that all four weight manipulations increased weight-esteem among overweight consumers when compared with the control condition (M_{control} = 2.36 vs. M_{socialacceptance} = 4.05, (F(1, 134) = 1.98, p < .05); vs. M_{mindfulness} = 3.94, (F(1, 134) = 1.74, p < .09); vs. M_{bodypositivity} = 4.44, (F(1, 134) = 2.30, p < .05); vs. M_{w-sdisassociation} = 4.59, (F(1, 134) = 2.74, p < .01)).

**Weight Identity Self-Importance.** Results from the weight-related manipulation – weight status manipulation were nonsignificant for the W-ISI measure (F(8, 134) = .91, p > .50). As shown in Figure 17, contrasts results show that the weight disassociation manipulation led overweight consumers to express lower levels of W-ISI when compared to the control condition (M_{weightdisassociation} = 4.91 vs. M_{control} = 6.47, (F(1,134) = 1.97, p < .05).

**Dieting and Exercise Self-Efficacy.** Results from the weight-related manipulation – weight status manipulation were nonsignificant for dieting self-efficacy (F(8, 134) = .60, p > .75) and moderately significant for the exercise self-efficacy (F(8, 134) = 1.74, p = .09) measure. As shown in Figure 18, contrast results show that the weight-self disengagement manipulation led overweight consumers to express higher levels of dieting self-efficacy when compared to the control condition (M_{w-sdisassociation} = 5.44 vs. M_{control} = 3.62, (F(1,134) = 2.06, p < .05). As shown in Figure 19, contrast results also indicate that when compared to the control condition (M_{control} = 3.93), the social acceptance (M_{socialacceptance} = 5.38, (F(1, 134) = 1.82, p < .07), body positivity (M_{bodypositivity} = 5.54, (F(1, 134) = 1.93, p < .06), and weight disassociation (M_{w-sdisassociation} = 5.72,
(F(1, 134) = 2.37, p < .02) manipulations led overweight consumers to express higher levels of exercise self-efficacy. Results were nonsignificant across all other groups.

*Product Attitude, Purchase Intentions, and Anticipated Consumption Pleasure.* Because participants rated both the unhealthy and healthy food items, I employed a 5 x 3 x 2 design with the weight-related manipulations and weight status serving as between-subjects factors and the food items as a within-subjects factor. Results show that the WSI manipulation-weight status-food item interaction was nonsignificant for product attitude (F(8, 134) = .64, p > .70), purchase intentions (F(8, 134) = 1.03, p > .40), and anticipated consumption pleasure (F(8, 134) = .75, p > .60). However, contrast results reveal an interesting pattern of effects. Results indicate that the weight disassociation manipulation led overweight consumers to display less favorable attitudes (M_{w-sdisassociation} = 2.53 vs. M_{control} = 4.63, F(1, 134) = 2.01, p < .05) and purchase intentions (M_{w-sdisassociation} = 3.10 vs. M_{control} = 5.23, F(1, 134) = 2.00, p < .05) when compared to the control condition. Means for the anticipated consumption pleasure measure were directionally correct but nonsignificant for the weight disassociation measure (M_{w-sdisassociation} = 3.54 vs. M_{control} = 4.93, F(1, 134) = 1.41, p > .10). In addition, it should be noted that the body positivity manipulation led overweight consumers to express less favorable evaluations of the unhealthy food product when compared to the control condition (M_{bodypositivity} = 2.49 vs. M_{control} = 4.93, F(1, 134) = 2.22, p < .05). Results for product attitude and anticipated consumption pleasure are shown in Figures 20 and 21.

For obese consumers, the weight-related manipulations had a nonsignificant effect on all measures for both the unhealthy and healthy food items. Interestingly enough, certain W-ISI manipulations led normal weight consumers to express more favorable evaluations of the healthy food item. Specifically results suggest that when compared to the control condition (M_{control} =
4.61), the social acceptance ($M_{social acceptance} = 5.74, F(1,134) = 2.09, p < .04$), body positivity ($M_{body positivity} = 5.68, F(1,134) = 2.14, p < .05$), and mindfulness ($M_{mindfulness} = 5.61, F(1,134) = 1.72, p < .09$) manipulations led to greater purchase intentions for the healthy food item. Means were directionally correct but nonsignificant for the weight-self disassociation ($M_{w-sdisassociation} = 5.32, F(1,134) = 1.36, p = .17$) manipulation. Results for normal weight consumers were nonsignificant for the healthy food item for both the product attitude and anticipated consumption pleasure manipulations.

**Additional Analysis**

While the interactions, specifically the contrast tests, are the focus of this experiment, it should be noted that the main effect of weight status had a significant effect on some of the measures under consideration. Specifically, results show that weight status had a significant effect on sadness ($F(2, 134) = 3.73, p < .05$), state body image ($F(2,134) = 31.42, p < .001$), appearance-esteem ($F(2,134) = 18.87, p < .001$), and weight-esteem ($F(2,134) = 26.84, p < .001$). Follow-up contrasts show that obese consumers expressed greater levels of sadness ($M = 3.07$) than normal weight consumers ($M = 2.14, F(1, 134) = 2.70, p < .01$) and overweight consumers ($M = 2.26, F(1,134) = 1.98, p = .05$). Sadness did not differ between normal weight and overweight consumers ($p > .10$). As one might predict, results also show that normal weight consumers expressed significantly higher levels of state body image ($M_{normal weight} = 5.12$, $M_{overweight} = 3.74$, $M_{obese} = 2.86$), appearance-esteem ($M_{normal weight} = 4.74$, $M_{overweight} = 3.87$, $M_{obese} = 2.92$), and weight esteem ($M_{normal weight} = 5.05$, $M_{overweight} = 3.87$, $M_{obese} = 2.49$) than overweight consumers ($F(1,134) = 4.66, 2.95, 3.39, p \text{ values } < .01$, respectively) and obese consumers ($F(1,134) = 7.44, 5.99, 7.17, p \text{ values } < .001$, respectively). Overweight consumers expressed significantly higher levels of state body image ($F(1,134) = 2.45, p < .05$), appearance-
esteem ($F(1,134) = 2.61, p < .05$), and weight esteem ($F(1,134) = 3.27, p < .01$) than obese consumers. Results also show that normal weight consumers expressed significantly lower levels of W-ISI ($M_{normal\ weight} = 5.01, M_{overweight} = 5.80, M_{obese} = 6.40$) than overweight consumers and obese consumers ($F(1,134) = 2.38, 4.05, p$ values $< .05$, respectively). Means did not significantly differ between overweight and obese consumers ($p > .10$).

**Discussion**

Findings support the notion that weight-self dissociation reduces W-ISI more than the other experimental manipulations under consideration. More specifically, results suggest that the mindfulness, social acceptance, and body positivity manipulations did not have a statistically significant impact on W-ISI for overweight consumers when compared to the control condition. Beyond W-ISI, findings suggest that the weight-self disassociation manipulation also improved state body image, weight-esteem, and dieting and exercise self efficacy perceptions. In addition, results suggest that the weight-self dissociation manipulation led overweight consumers to express less favorable attitudes, purchase intentions, and anticipated consumption pleasure for the unhealthy food item.

A few additional points should be noted for this study. First, it appears as though all four methods under examination in this study (weight-self disassociation, mindfulness, social acceptance, and body positivity) led to an increase in weight esteem among overweight participants. This finding is intriguing because it suggests that each of these approaches to counter weight stigma may prove useful in combatting weight-related self-stigma, a common and detrimental phenomenon among the overweight. Second, and somewhat alarming, results seem to suggest that while weight-self disassociation and, to a lesser extent, the other approaches examined, have a positive impact on overweight consumers, these same manipulations pose a
challenge to the well-being of obese consumers. In particular, results show that many of the approaches to counter weight stigma led obese consumers to express greater negative mood states, self-criticism, and lower levels of self-esteem. These findings suggest that efforts to counter weight stigma may be psychologically damaging to obese consumers. Lastly, findings suggest that certain approaches may lead normal weight consumers to prefer healthier food items. This finding is interesting because, thus far, most of the manipulations have had a limited effect on healthy food evaluations.

However, a word of caution is needed when interpreting these results due to the small sample sizes used in this study. However, results certainly provide initial evidence that approaches to counter weight stigma may have a profound impact on the psychological and physical well-being of consumers. Taken together, these results suggest that additional research may be needed to explore the exact nature of each of these practices.
CHAPTER 8

AN EXTENSION OF THE EFFECTS OF LOW WEIGHT IDENTITY SELF-INFRINGEMENT
This chapter examines the effect of low W-ISI on consumers’ self-evaluations and evaluations of food items. In particular, this chapter replicates the results found in Chapter 7 by further examining the effects of weight-self disassociation on overweight consumers’ psychological well-being and evaluations of unhealthy food. The second purpose of this chapter is to examine cognitive load as a moderator of this effect. Prior research suggests that cognitive impairment may reduce a consumer’s ability to sustain healthy behaviors, particularly food-related decision making (e.g., Ward and Mann 2000, Shiv and Fedorikhin 1999). As such, it is plausible that higher levels of cognitive load may attenuate the effect of weight-self disassociation on self and food evaluations for overweight consumers. To address these matters, I begin by reviewing literature regarding weight-self associate and disassociation as well as literature concerning cognitive load. Following the literature review, I supply a set of specific hypotheses and describe the study and results used to tests these hypotheses.

Weight-Self Association and Disassociation

As shown in the pilot study described in Chapter 7, encouraging overweight consumers to disassociate weight from their sense of self may lead these consumers to express higher levels of dieting and exercise self-efficacy and to evaluate unhealthy food less favorably. The questions these effects pose then, are (1) how the connection between weight and one’s sense of self affect psychological health and food decision making and (2) whether or not is it theoretically and pragmatically acceptable to suggest that weight-self disassociation leads consumers to express more favorable self-perceptions and less favorable evaluations of unhealthful food items.

Previous research suggests that a strong connection exists between weight internalization consumer well-being, particularly psychological health and food-decision making. This is not surprising since weight is central to one’s self-concept (Rodin, Silberstein, Striegel-Moore 1984).
Importantly, literature suggests that accepting and internalizing weight stigma may lead consumers to demonstrate poor psychological health and unhealthy food attitudes and behaviors. For example, Hunger and Tomiyama (2014) found that being labeled overweight influences the likelihood of weight gain later in life. Similarly, Cuypers et al. (2012) and Robinson, Hungry, and Daly (2015) found that self-perceptions of an overweight body lead to weight gain over time. In addition, research has also shown that perceptions of weight-based discrimination leads to weight gain (Jackson, Beeken, and Wardle 2014; Sutin and Terraciano 2013) and that among the overweight and consumers who perceive themselves as overweight, weight stigmatizing encounters lead to increased food consumption (e.g., Seacat and Mickelson 2009; Major et al. 2014; Schvey, Puhl, and Brownell 2011; Brochu and Dovidio 2014) and leads to less weight loss during a weight loss program (Wott and Carels 2010). Work by Schmalz (2010) and Vartanian and Shaprow (2008) also shows that weight stigma decreases efficacy perceptions and motivation to engage in healthy behaviors. Moreover, studies have shown that weight stigma positively affects negative psychological health outcomes such as stress, anxiety, and quality of life perceptions (Carr, Friedman, and Jaffe 2007; Hunger et al. 2015).

As noted by Hunger et al. (2015), the multitude of outcomes associated with an overweight body appears to be the result of internalizing weight stigma rather than body weight. The ability to disassociate one’s sense of self from weight (and therefore weight stigma) may inoculate consumers from the negative outcomes associated with weight stigma, as evidenced by results from the pilot test detailed in Chapter 7. That said, few studies have explicitly examined the relationship between weight-self disassociation and weight-related consumer outcomes. However, research has shown that consumers who do not internalize weight stigma are less likely to experience anxiety, depression and lower levels of self-efficacy (Hilbert, Braehler,
Haeuser, and Zenger 2014) as well as higher perceptions of self-worth and physical appearance (Davison et al. 2008) than consumers who internalize weight stigma. In addition, research has shown that these consumers display less favorable maladaptive eating attitudes (Davison et al. 2008). Research has also shown that individuals who do not internalize weight stigma are less likely to engage in binge eating (Puhl, Moss-Racusin, and Schwartz 2007) and maintain higher levels of physical and mental health impairment (Latner, Durso, and Mond 2013).

One can speculate that a significant hurdle in the examination of weight stigma and weight stigma internalization lies in the difficulty of actually reducing weight stigma and weight stigma internalization. As noted in previous chapters, negative attitudes regarding weight are so culturally and socially pervasive that weight stigmatization begins early in childhood and is continually reinforced by the media and in interpersonal and consumption domains. As such, it may be more expedient (and beneficial) to focus on changing how consumers identify with their weight than attempting to shift cultural and societal stances on weight. In this sense, changing how consumers identify with their weight may allow marketers, public health advocates, public policy makers, and health professionals to focus on (potentially) circumventing the effects of weight stigma.

The idea that disassociation from a stigmatized identity leads to a positive identity and/or allows consumers to forsake their stigmatized identity, is a central theme of SIT’s typology of reactions to negative identity. More specifically, SIT posits that consumers may engage in individual mobility, defined as leaving or disassociating oneself from the negative identity, to rid themselves of their negative identity and (potentially) reduce the cognitive and behavioral effects associated with the identity.
To date, stigma reduction has been proposed in a variety of stigmatized domains such as mental health, old age, and welfare (e.g., Crabtree et al. 2008; Weiss and Lang 2012; Rank 1994). However, the majority of stigma reduction interventions undertaken to date (a) focus on uncontrollable stigmas (e.g., depression, mental illness), (b) focus on shifting cultural and societal views regarding the stigma, or (c) involve lengthy treatments to support destigmatization. In addition, most efforts to support stigma reduction involve consumers who do not subscribe to the stereotypes associated with their group and/or distance themselves from the stereotypes associated with their membership group. This is typically untrue for overweight consumers, a group that typically maintains the same level of anti-fat bias as non-overweight consumers (Crandall 1994; Schwartz et al. 2006; Wang et al. 2004). Lastly, and perhaps most import, most research examining efforts reduce stigma do not involve efforts to reduce weight stigma.

**Existing Efforts to Promote Weight-Self Disassociation**

It should be noted that researchers, public health workers and advocates, and policy makers have called for efforts to reduce weight stigma (e.g. Bacon and Aphramor 2011) and that there are programs that currently incorporate weight destigmatization practices (for example Health At Every Size (HAES), Health in Every Respect, and Physical Activity At Every Size). The most prevalent example of a program that incorporates weight destigmatization is the HAES Movement, which is predicated on the premise that while health problems are correlated with an overweight body size, there is limited evidence that having an overweight body size causes health problems (Bacon 2010). HAES suggests that a consumer can be overweight and healthy and that regardless of weight, consumers should maintain a healthy lifestyle. As such, HAES promotes physical, emotional, and spiritual health by encouraging healthy habits and well-being.
rather than explicitly and singularly promoting weight loss. HAES also attempts to counter the thin ideal by promoting size acceptance, intuitive eating, and physical activity regardless of body size.

To date, research suggests that HAES is fairly effective in producing positive psychological well-being, adherence to healthy behaviors, and weight loss. For example, research has shown that HEAS interventions reduce weight, external hunger, and dieting related attitudes (e.g., susceptibility to hunger) compared to social support and control conditions (Provencher et al. 2007). In addition, research has shown that the weight loss and other positive effects of HAES interventions last long after the initial intervention (Provencher et al. 2009). Thus, HAES appears to be beneficial in promoting well-being and weight loss.

Criticisms of HAES often center on its basic premise that an individual can be healthy at any size and include accusations and stereotypes that revert back to the traditional paradigm of stigmatizing overweight bodies. Such criticisms offer few mechanisms to promote physical and emotional well-being and, as previously noted, are likely to have negative consequences concerning body weight and psychological well-being. Moreover, such criticisms don’t actually address any structural concerns regarding HAES. In particular, HAES is a relatively long process (normally 14 weeks of 3 hour treatments) and it is difficult to discern the efficacy (or lack thereof) of each particular aspect of HAES. One has to wonder, for example, if it is size acceptance, decreased importance of weight, intuitive eating training, or encouraging physical activity that drive the results of HAES. With this in mind, it is difficult to discern the individual effectiveness of each of these strategies for combatting unhealthy attitudes and behaviors.

Although HAES lends some level of credibility to the claim that reducing the self-importance of body weight will produce favorable results (i.e., positive psychological and weight
related outcomes), it is important to note additional findings that support this contention. For example, a small body of research suggests that consumers who display less weight importance (as defined by low levels of dietary restraint) are less likely to be engage in unhealthy eating attitudes and behaviors following weight salience cues (Strauss, Doyle, and Kreipe 1994; McFarlane, Polivy and Herman 1998; Mills et al. 2002; McFerran et al. 2010; Strimas and Dionne 2010). For example, findings from Strimas and Dionne (2010) show that daily weight monitoring leads unrestrained eaters to lose weight but causes restrained eaters to gain weight during the same time period. More specifically, daily self-weighing led nondieters to

Taken together, previous findings suggest that reducing the importance and salience of weight may allow consumers to avoid the detrimental effects of weight overconcern and/or weight stigma. Thus, it is reasonable to suggest that triggering weight-self disassociation may lead overweight consumers to exhibit greater psychological well-being and less favorable evaluations of unhealthy food.

Cognitive Load

Cognitive load is described as the amount of cognitive demands imposed on working memory. High levels of cognitive load negatively impact a consumer’s processing capacity and ability to engage in self-regulation (Ward and Mann 2000). Prior literature suggests that cognitive load can impede goal monitoring by reducing attention directed to the self, which in turn, negatively impacts a consumer’s ability to pursue self-goals. In the consumer behavior literature, high levels of cognitive load have been shown to affect self-goals such as healthy eating (Shiv and Fedorikhin 1999; Ward and Mann 2000; Boon et al. 2002). Importantly, high levels of cognitive load have been shown to negatively affect dieting and healthy eating behaviors. For example, Ward and Mann (2000) show that restrained eaters (i.e., chronic dieters)
consumer greater amounts of food under high levels of cognitive load. The authors posit that high load impedes dietary goal monitoring which leads to overconsumption. Somewhat similarly, Boon et al. (2002) show that restrain eaters under high levels of cognitive load overeat unhealthy food. In particular, the authors show that restrained eaters will overeat unhealthy food (e.g., ice cream) but only when the caloric value of the food is perceived to be high.

It should also be noted that the effects of cognitive load on overconsumption and/or unhealthy eating behaviors have been found to extend to non-restrained eaters (e.g., Zimmerman and Shimoga 2014; Shiv and Fedorikhin 1999). For example, Shiv and Fedorikhin (1999) show that when cognitive resources are limited, consumers prefer a more hedonic food product relative to a relatively healthy food product (chocolate cake vs. fruit salad). Taken together, previous literature suggests that cognitive load may lead to disinhibition of dietary goals. Thus, it seems reasonable to suggest that cognitive load will inhibit the effects of weight-self disassociation.

Based on the results of the pilot test as well as the literature review above, I posit the following:

**H1**: Weight-self disassociation (versus a control) will lead overweight consumers to express higher levels of (a) state body image, (b) self-kindness, (c) dieting self-efficacy, and (d) exercise self-efficacy. These effects will be attenuated for normal weight and obese consumers.

**H2**: For overweight consumers, the effects of weight-self disassociation on (a) state body image (b) self-kindness, (c) dieting self-efficacy, and (d) exercise self-efficacy will be will be attenuated under high cognitive load.

**H3**: Weight-self disassociation (versus a control) will lead overweight consumers to express less favorable (a) product attitudes, (b) purchase intentions, (c) anticipated
consumption pleasure, (d) taste perceptions, and (e) willingness to pay for unhealthy food products. These effects will be attenuated for normal weight and obese consumers.

**H4:** For overweight consumers, the effects of weight-self disassociation on (a) product attitudes, (b) purchase intentions, (c) anticipated consumption pleasure, (d) taste perceptions, and (e) willingness to pay will be attenuated under high cognitive load.

**The Current Research**

It is important to note that this chapter specifically addresses both of the criticisms offered for HAES. First, rather than using lengthy intervention treatments, this research examines the effects of cross-sectional attempts to engender weight-self disassociation. Second, rather than confounding a variety interventions, this research *only* examines the effects of weight-self disassociation as a means of promoting well-being.

Also note that I refrain from issuing hypotheses for normal weight and obese consumers because (a) they are not the central focus of this study are not theoretically nor empirically supported (by the pilot test). I also expand the hypotheses to include self-kindness. I do this to account for research which suggests that other methods of weight-self disassociation (e.g., mindfulness, HAES) may increase feelings of self-kindness. Lastly, it should be noted that I included measures for health goal commitment (Gould 1990) and weight loss performance motivation. According to Campbell and Mohr’s (2011) work, health goal systems may be involved in the relationship between weight salience and healthy consumption attitudes and behaviors, albeit the authors focus on health goal systems as a factor that negatively influences consumption. However, it is possible that weight-related motivations and goal commitment may positively influence healthy consumption attitudes and behaviors and that health goals may be
triggered by weight-self disassociation. As such, I include these measures but do not explicitly hypothesize effects.

Lastly, it is important to note that I expand my original hypotheses to include both taste perceptions and willingness to pay. Recent research suggests that taste perceptions of unhealthy foods are malleable and that unhealthy foods are negatively influenced by the presence of a mirror, a technique meant to induce self-awareness (Jami 2015). This research suggests that self-awareness will cause consumers to feel discomfort and that this discomfort leads to less favorable taste perceptions. I too believe that the taste of unhealthy food is malleable. However, I suggest that this effect will occur when overweight consumers feel less weight-related stress. In addition, I expect that the unfavorable evaluations of the unhealthy food product will reduce willingness to pay for the unhealthy food product.

**METHODOLOGY**

*Participants, Stimuli, Procedure and Dependent Measures.* Two hundred and ninety seven females (M<sub>age</sub> = 36, SD = 11) recruited from an online consumer panel participated in a 2 (x: low W-ISI versus control) x 3 (weight status: normal weight versus overweight versus obese) x 2 (cognitive load: high versus low) between-subject design. Cell sizes ranged from 15 to 24. The weight-self disassociation manipulation mirrored the task outlined in Chapter 7. Cognitive resources were manipulated using a memory task (Shiv and Fedorikhin 1999) where participants were given either a 7 (high cognitive load) or a 2 (low cognitive load) digit number and asked to spend a few moments memorizing it. Participants were told that they would be asked to report the number later in the survey. Next, participants completed an unrelated distraction task and the consumer packaged goods study detailed in Chapter 7. One notable exception concerning the consumer packaged goods survey should be mentioned; in the study detailed in Chapter 7, the
unhealthy food was an ice cream milkshake produced by a well-known candy brand (Twix). However, the unhealthy food item in this study is a chocolate ice cream with an unknown producer see Appendix P for details). After providing evaluations of the packaged goods, participants completed a series of questions concerning self-efficacy and esteem. Lastly, participants answered demographic questions and questions about the nature of the study.

Non-menu related dependent measures for this study included self, weight, and appearance-esteem (α = .94, .91, .89), state body image (α = .94), self-kindness (“I try to be understanding and patient towards those aspects of my personality I don’t like,” “When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people,” and “When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world,” anchored by strongly disagree and strongly agree, α = .64), dieting self-efficacy, and exercise self-efficacy (r = .61). I also included a measure of weight loss self-improvement motivation by adapting a single item measure used by (Derks, van Laar, and Ellemers 2009) to measure self-improvement motivation (i.e., “We are also recruiting participants for a study that involves coaching individuals to improve their health related decisions and lose weight. If you are recruited, how many minutes would you be willing to spend on a questionnaire that provides insight into losing weight?”). In addition, participants were asked a series of single item questions regarding the unhealthy and healthy food items (product attitude: what is your overall attitude towards this product: unfavorable/favorable; purchase intentions: assuming you were interested in purchasing this product, how likely are you to buy

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9 Due to the length of the experiment, both weight and appearance-esteem were measured using reduced versions of weight-esteem and appearance-esteem subscales of the Body-Esteem Scale. The appearance-esteem measure included 8 items while the weight-esteem scale included 5 items.
this product very unlikely/very likely; anticipated consumption pleasure: eating this product would make me feel unhappy/happy; taste perception: in general, I think the taste of this food item is unfavorable/favorable; willingness to pay: how much would you be willing to pay for this product (in dollars)).

Results

Attention Check. A total of 27 participants failed to correctly answer the instructional attention check and were excluded from the analysis.

Manipulation Check. Participants were asked to indicate whether completing the weight-self disassociation prime made them think about weight (e.g., “how much were you thinking about weight?”) anchored by 1 (not at all) to 7 (quite a lot). Results indicate a significant direct effect of the prime (F(1, 283) = 2160.27, p < .001). Results show that weight-self disassociation prime led to a significant increase in weight salience compared to the control condition (M_{w-sdisassociation} = 5.99 vs. M_{control} = 1.21). In addition, I asked a manipulation check question directly related to the concept of weight-self disassociation (“after completing the writing task (weight disassociation)/reading the article (control), did you feel as though your self worth is independent of your body weight.”). Results show a direct effect of the prime (M_{w-sdisassociation} = 5.11 vs. M_{control} = 3.73, (F(1, 283) = 46.61, p < .001), indicating that the weight-self disassociation manipulation was effective.

State Body Image and Self-Kindness. ANOVA results are shown in Table 8. Results indicate that the weight disassociation prime-weight status interaction for state body image and self-kindness were nonsignificant (Fs (2, 283) = .71, 1.01, all p values > .10). Follow-up contrasts suggest that overweight consumers experienced a higher level of state body image (M_{w-sdisassociation} = 4.08 vs. M_{control} = 3.40, (F(1,283) = 5.14, p < .05) and self-kindness (M_{w-sdisassociation} =
6.52 vs. $M_{\text{control}} = 5.76$, (F(1,283) = 4.83, $p < .05$) following the weight dissociation prime. Results were nonsignificant across all other groups. These results support H1a-b.

The weight dissociation prime-weight status-cognitive load interaction was also nonsignificant for state body image and self-kindness (Fs (2, 283) = .06, .27, all $p$ values > .10). Figures 22 and 23 show the results for state body image and self-kindness. As shown, contrasts overweight consumers expressed higher levels of state body image ($M_{w-sdisassociation} = 4.71$ vs. $M_{\text{control}} = 3.69$, (F(1,283) = 6.10, $p < .05$) and self-kindness ($M_{w-sdisassociation} = 7.02$ vs. $M_{\text{control}} = 5.90$, (F(1,283) = 5.40, $p < .05$) following the weight disassociation prime but that these effects were attenuated under high levels of cognitive load ($M_{w-sdisassociation} = 3.45$ vs. $M_{\text{control}} = 3.11$, (F(1,283) = .44, $p > .10$; $M_{w-sdisassociation} = 6.02$ vs. $M_{\text{control}} = 5.61$, (F(1,283) = .68, $p > .10$, respectively). These results support hypotheses H2a-b.

For normal weight consumers, findings show that state body image is greater after the weight disassociation prime under low cognitive load prime ($M_{w-sdisassociation} = 4.92$ vs. $M_{\text{control}} = 4.26$, (F(1,283) = 3.06, $p < .10$) but that this difference is lessened under high cognitive load ($M_{w-sdisassociation} = 4.73$ vs. $M_{\text{control}} = 4.98$, (F(1,283) = .40, $p > .10$). Similar effects were found for obese consumers for both state body image (low load: $M_{w-sdisassociation} = 2.89$ vs. $M_{\text{control}} = 2.21$, F(1,283) = 2.88, $p < .10$; high load: $M_{w-sdisassociation} = 2.87$ vs. $M_{\text{control}} = 2.84$, (F(1,283) = .01, $p > .10$) and self-kindness (low load: $M_{w-sdisassociation} = 6.04$ vs. $M_{\text{control}} = 4.93$, (F(1,283) = 5.77, $p < .05$; high load: $M_{w-sdisassociation} = 6.00$ vs. $M_{\text{control}} = 5.95$, (F(1,283) = .01, $p > .10$).

Dieting and Exercise Self-Efficacy. Results from the weight disassociation prime-weight status interaction was nonsignificant for dieting (F(2,283) = 2.18, $p = .11$) and exercise self-efficacy (F(2,283) = 1.30, $p > .10$). Follow-up tests show that overweight consumers expressed higher levels of dieting ($M_{w-sdisassociation} = 4.78$ vs. $M_{\text{control}} = 4.08$, (F(1,283) = 4.72, $p < .05$) and
exercise ($M_{w\text{-sdisassociation}} = 5.76$ vs. $M_{control} = 5.23$, ($F(1,283) = 3.81, p < .05$) self-efficacy following exposure to the weight dissociation manipulation. Results were nonsignificant across all other groups. These results support H1c-d.

The weight disassociation prime-weight status-cognitive load interaction was also nonsignificant for the efficacy measures ($Fs (2, 283) = .17, .21, p \text{ values} > .10$). As shown in Figure 24, overweight consumers express higher levels of dieting self-efficacy following the weight disassociation prime ($M_{w\text{-sdisassociation}} = 5.16$ vs. $M_{control} = 4.18$, ($F(1,283) = 4.83, p < .05$) but this effect is attenuated under higher levels of cognitive load ($M_{w\text{-sdisassociation}} = 4.40$ vs. $M_{control} = 3.97$, ($F(1,283) = .83, p > .10$). Results also indicate that overweight consumers expressed higher levels of exercise self-efficacy following the weight disassociation prime ($M_{w\text{-sdisassociation}} = 6.18$ vs. $M_{control} = 5.43$, ($F(1,283) = 3.96, p < .05$). As expected, this effect is reduced under high levels of cognitive load ($M_{w\text{-sdisassociation}} = 5.34$ vs. $M_{control} = 5.03$, ($F(1,283) = .64, p > .10$). These results support H2c-d.

Although results only approached significance, means suggest that for obese consumers under low cognitive load, the weight disassociation manipulation engendered higher levels of dieting self-efficacy compared to the control condition ($M_{w\text{-sdisassociation}} = 3.67$ vs. $M_{control} = 3.02$, ($F(1,283) = 2.29, p = .13$) and that this effect was weaker under high load ($M_{w\text{-sdisassociation}} = 3.79$ vs. $M_{control} = 4.04$, ($F(1,283) = .34, p > .10$). Interestingly, results also show that the weight disassociation prime led normal weight consumers under high cognitive load to express moderately lower levels of dieting self-efficacy ($M_{w\text{-sdisassociation}} = 4.02$ vs. $M_{control} = 4.75$, ($F(1,283) = 3.10, p < .10$), an effect that was not evident under low cognitive load ($M_{w\text{-sdisassociation}} = 5.33$ vs. $M_{control} = 5.00$, ($F(1,283) = .63, p > .10$).
Product Attitude, Purchase Intentions, Anticipated Consumption Pleasure, Taste Perception, and Willingness to Pay. Participants evaluated the healthy and unhealthy food items so the menu-related dependent measures were analyzed as a 2 (weight disassociation: present versus absent) x 3 (weight status: normal weight versus overweight versus obese) x 2 (cognitive load: low versus high) x 2 (food item: unhealthy versus healthy) design with weight disassociation, weight status, and cognitive load serving as between-subjects factors and the food items serving as within subjects factor. Results show that the weight disassociation-weight status-food item interaction was nonsignificant for product attitude, purchase intentions, anticipated consumption pleasure, and taste perception (Fs (2, 283) = .43, .41, .50, .27, all p values > .10). However, the interaction was at least moderately significant for the willingness to pay and product healthfulness measures (Fs (2, 283) = 2.81, 3.21, p values = .06 and .05, respectively).

Follow-up contrasts show that overweight consumers expressed less favorable attitudes for the unhealthy food item following exposure to the weight disassociation prime (M_{w-sdisassociation} = 4.98 vs. M_{control} = 5.76, (F(1,283) = 6.03, p < .05). Similar effects were found for the purchase intentions measure (M_{w-sdisassociation} = 4.36 vs. M_{control} = 5.15, (F(1,283) = 4.74, p < .05). In addition, while not statistically significant, means suggest that following weight disassociation prime, overweight consumers viewed both the unhealthy and healthy food as less tasty (M_{w-sdisassociation} = 5.39 vs. M_{control} = 5.78, (F(1,283) = 1.75, p < .20 and M_{w-sdisassociation} = 5.39 vs. M_{control} = 5.93, (F(1,283) = 3.37, p < .07, respectively). Also, for overweight consumers, the prime did not have a significant effect on anticipated consumption pleasure, willingness to pay, or product healthfulness perceptions (Fs (1, 283) = .95, .05, .38, all p values > .10). These results support H3a-b but fail to provide significant evidence for H3c-e.
For obese consumers, results indicate that the weight-self disassociation manipulation reduced purchase intentions ($M_{w-sdisassociation} = 4.89$ vs. $M_{control} = 5.53$, $(F(1,283) = 3.50, p < .10$), anticipated consumption pleasure ($M_{w-sdisassociation} = 4.72$ vs. $M_{control} = 5.54$, $(F(1,283) = 5.19, p < .05$), and willingness to pay for the unhealthy food item ($M_{w-sdisassociation} = 3.60$ vs. $M_{control} = 4.70$, $(F(1,283) = 3.14, p < .10$). For normal weight consumers, results suggest that the weight-self disassociation prime increased willingness to pay ($M_{w-sdisassociation} = 4.91$ vs. $M_{control} = 4.13$, $(F(1,283) = 4.01, p < .05$) of the unhealthy food item.

Findings also indicate that the weight disassociation-weight status-cognitive load-food item interaction was nonsignificant for product attitude ($F(2,283) = .51, p > .10$), purchase intentions ($F(2,283) = .26, p > .10$), anticipated consumption pleasure ($F(2,283) = .61, p > .10$), taste perceptions ($F(2,283) = .54, p > .10$), and willingness to pay ($F(2,283) = .50, p > .10$).

Figures 25 through 28 show these effects.

For overweight consumers, contrasts indicate that overweight consumers evaluated the unhealthy food less favorably ($M_{w-sdisassociation} = 4.73$ vs. $M_{control} = 5.71$, $(F(1,283) = 4.97, p < .05$) and expressed lower purchase intentions ($M_{w-sdisassociation} = 4.17$ vs. $M_{control} = 5.22$, $(F(1,283) = 4.42, p < .05$) but that these effects were attenuated under high cognitive load ($M_{w-sdisassociation} = 5.23$ vs. $M_{control} = 5.82$, $(F(1,283) = 4.61, p = .21$; $M_{w-sdisassociation} = 4.56$ vs. $M_{control} = 5.09$, $(F(1,283) = 1.01, p > .10$, respectively). Results also show that taste perceptions of unhealthy food moderately declines following the weight disassociation prime under conditions of low cognitive load (low load: $M_{w-sdisassociation} = 5.33$ vs. $M_{control} = 6.04$, $(F(1,283) = 2.92, p < .10$; high load: $M_{w-sdisassociation} = 5.44$ vs. $M_{control} = 5.53$, $(F(1,283) = .04, p > .10$). However, means also suggest that overweight consumers under high cognitive load express less favorable taste perceptions of the healthy food after the weight-self disassociation prime (high load: $M_{w-}}
sdisassociation = 5.22 vs. M_{control} = 5.87, (F(1,283) = 2.39, p = .12; low load: M_{w-sdisassociation} = 5.57 vs. M_{control} = 5.99, (F(1,283) = 1.09, p > .10). Results were nonsignificant for the anticipated consumption pleasure and willingness to pay measures. Thus, these results provide support for H4a, H4b, and H3d but fail to provide significant evidence for H4c and H4e.

For obese consumers, results show purchase intentions for the unhealthy food item was lower after exposure to the weight-self disassociation prime (M_{w-sdisassociation} = 4.77 vs. M_{control} = 5.87, (F(1,283) = 5.18, p < .05) but that this effect was attenuated under high cognitive load (M_{w-sdisassociation} = 5.01 vs. M_{control} = 5.20, (F(1,283) = .15, p > .10). Interestingly, results show that obese consumers expressed lower willingness to pay for both the unhealthy (M_{w-sdisassociation} = 3.47 vs. M_{control} = 4.92, (F(1,283) = 5.77, p < .05) and healthy (M_{w-sdisassociation} = 3.33 vs. M_{control} = 4.34, (F(1,283) = 2.51, p = .11) food items under low cognitive load and that this effect was also muted under high load (M_{w-sdisassociation} = 3.73 vs. M_{control} = 3.82, (F(1,283) = .89, p > .10; M_{w-sdisassociation} = 3.97 vs. M_{control} = 4.23, (F(1,283) = .18, p > .12, respectively). Perhaps more surprising, results show that obese consumers under high cognitive load express less anticipated consumption pleasure following the weight-self disassociation prime (high load: M_{w-sdisassociation} = 4.20 vs. M_{control} = 5.48, (F(1,283) = 6.12, p < .05; low load: M_{w-sdisassociation} = 5.24 vs. M_{control} = 5.60, (F(1,283) = .53, p > .05).

For normal weight consumers, results suggest that under high cognitive load, consumers display less favorable attitudes (M_{w-sdisassociation} = 4.96 vs. M_{control} = 5.90, (F(1,283) = 5.26, p < .05), purchase intentions (M_{w-sdisassociation} = 4.89 vs. M_{control} = 5.54, (F(1,283) = 1.92, p = .17), and anticipated consumption pleasure (M_{w-sdisassociation} = 4.23 vs. M_{control} = 5.29, (F(1,283) = 4.74, p < .05) for the unhealthy food item but that these effects are weaker under low cognitive load (M_{w-sdisassociation} = 5.66 vs. M_{control} = 5.43, (F(1,283) = .32, p > .10; M_{w-sdisassociation} = 4.85 vs. M_{control} =
4.64, (F(1,283) = .20, p > .10, M_w-sdisassociation = 5.14 vs. M_control = 4.47, (F(1,283) = 4.74, p = .17, respectively). Findings also indicate that taste perceptions *increase* for both the unhealthy (M_w-sdisassociation = 6.37 vs. M_control = 5.69, (F(1,283) = 3.24, p < .10) and healthy food (M_w-sdisassociation = 5.82 vs. M_control = 5.18, (F(1,283) = 2.99, p < .10) following exposure to the weight-self disassociation prime but that these results are weakened in under high cognitive load (M_w-sdisassociation = 5.69 vs. M_control = 6.01, (F(1,283) = .42, p > .10; M_w-sdisassociation = 5.38 vs. M_control = 5.49, (F(1,283) = .78, p > .10, respectively). Similar effects were found for the willingness to pay measure under low load (unhealthy: M_w-sdisassociation = 5.70 vs. M_control = 3.97, (F(1,283) = 9.13, p < .05; healthy: M_w-sdisassociation = 5.35 vs. M_control = 4.46, (F(1,283) = 2.20, p = .14) and high load (M_w-sdisassociation = 3.98 vs. M_control = 3.92, (F(1,283) = .01, p > .10; M_w-sdisassociation = 3.85 vs. M_control = 4.42, (F(1,283) = .85, p > .10, respectively).

**Additional Analysis**

*Weight Loss Performance Motivation.* Results show that the 2-way (F(2,283) = .55, p > .10) and 3-way (F(2,283) = .28, p > .10) interactions were nonsignificant for the performance motivation measure. In addition, contrast tests are not significant but means seem to suggest that the weight disassociation prime had a positive impact on the weight loss performance motivation of overweight individuals. In particular, results show that overweight consumers said that they would be willing to undergo more weight loss coaching after exposure to the weight disassociation prime (M_w-sdisassociation = 37.92 minutes vs. M_control = 29.38 minutes, (F(1,283) = 1.89, p = .17). In addition, when accounting for cognitive load, means again suggest that overweight consumers express greater levels of weight loss motivation (M_w-sdisassociation = 41.43 minutes vs. M_control = 30.30 minutes, (F(1,283) = 1.67, p = .20) but that cognitive load attenuates this effect (M_w-sdisassociation = 34.42 minutes vs. M_control = 28.42 minutes, (F(1,283) = .45, p = .51).
Health Goal Commitment. Results show that the weight disassociation prime-weight status ($F(2, 283) = .58, p > .10$) and the weight disassociation prime-weight status-cognitive load ($F(2, 283) = 1.03, p > .10$) interactions were nonsignificant for the performance motivation measure. As shown in Figure 29, follow-up contrasts were nonsignificant for all three weight groups ($p > .10$).

Self, Weight, and Appearance-Esteem. Results indicate that the weight disassociation prime-weight status interaction was nonsignificant for the self-esteem, weight-esteem, and appearance-esteem measures ($F$s $(2, 283) = .70, .43, .23$, all $p$ values > .10). Contrasts were nonsignificant across all three measures.

In addition, findings show that the weight disassociation prime-weight status-cognitive load interaction was nonsignificant for self-esteem, weight-esteem, and appearance-esteem ($F$s $(2, 283) = .85, .96, .30$; all $p$ values > .10). Contrasts show that for normal weight consumers under low cognitive load, a moderately significant difference exists between the control condition and the weight-self disassociation prime ($M_{W-sdisassociation} = 4.97$ vs. $M_{control} = 4.38$, $F(1, 283) = 2.70, p < .10$), however, this effect is weakened under high cognitive load ($M_{W-sdisassociation} = 4.75$ vs. $M_{control} = 5.13$, $F(1, 283) = 1.05, p > .10$). In addition, results suggest that under low cognitive load, obese consumers express higher levels of weight-esteem following the weight disassociation prime but that this effect is reversed under high levels of cognitive load (low load: $M_{W-sdisassociation} = 2.88$ vs. $M_{control} = 2.19$, $F(1, 283) = 3.27, p < .07$; high load: $M_{W-sdisassociation} = 2.21$ vs. $M_{control} = 2.83$, $F(1, 283) = 2.50, p = .12$). Lastly, results indicate that under high levels of cognitive load, obese consumers did not differ in appearance-esteem ($M_{W-sdisassociation} = 3.44$ vs. $M_{control} = 3.56$, $F(1, 283) = .09, p > .10$) but that appearance-esteem is higher when cognitive
resources are not impaired and weight-self disassociation is primed (M_{wsdisassociation} = 3.63 vs. M_{control} = 2.80, (F(1, 283) = 4.89, p < .05).

**Main Effect of Weight Status.** It should also be noted that several significant main effects emerged for weight status. Specifically, results show that weight status had a significant effect on state body image (F(2,283) = 51.56, p < .001), dieting (F(2,283) = 14.92, p < .001) and exercise (F(2,283) = 9.43, p < .01) self-efficacy, weight loss performance motivation (F(2,283) = 6.04, p < .01), self-esteem (F(2,283) = 5.42, p < .01), appearance-esteem (F(2,283) = 17.31, p < .001), and weight-esteem (F(2,283) = 72.65, p < .001). Results show that normal weight consumers expressed significantly higher levels of state body image (M_{normalweight} = 4.72, M_{overweight} = 3.74, M_{obese} = 2.70) and weight-esteem (M_{normalweight} = 4.81, M_{overweight} = 3.58, M_{obese} = 2.53) than overweight (Fs(1, 283) = 4.85, 6.30, p values < .001, respectively) and obese (Fs(1, 283) = 10.15, 12.06, p values < .05, respectively) consumers. Overweight consumers expressed significantly higher levels of state body image and weight esteem than obese consumers (Fs(1,283) = 5.00, 4.23, p < .001, respectively). Results also show that normal weight consumers and overweight consumers expressed greater levels of dieting self-efficacy (M_{normalweight} = 4.77, M_{overweight} = 4.43, M_{obese} = 3.63, Fs(1,283) = 5.35, 3.60, p < .001, respectively), exercise self-efficacy (M_{normalweight} = 5.76, M_{overweight} = 5.49, M_{obese} = 5.15, Fs(1,283) = 3.40, 1.84, p < .10, respectively), self-esteem (M_{normalweight} = 5.42, M_{overweight} = 5.49, M_{obese} = 4.92, Fs(1,283) = 2.70, 2.98, p < .001), and appearance-esteem (M_{normalweight} = 4.41, M_{overweight} = 4.17, M_{obese} = 3.36, Fs(1,283) = 5.67, 4.23, p < .001) than obese consumers. Means for these measures did not differ significantly between normal weight and overweight consumers (p > .10). Lastly, results show that normal weight consumers expressed less motivation to engage in weight loss coaching than overweight and obese consumers (M_{normalweight} = 24.40 minutes, M_{overweight} = 33.65 minutes,
M_{obese} = 38.40 minutes, Fs(1, 283) = 2.03, 3.41, \( p < .05 \). Means did not significantly differ for overweight and obese consumers (\( p > .10 \)).

**Discussion**

The primary contention of this research is that weight-self disassociation may positively impact how overweight consumers evaluate themselves and evaluate unhealthy food but that the effects of weight-self disassociation is attenuated when cognitive restraint is imposed. The direct effects of the weight-self disassociation manipulation provides some insight as to why cognitive load has a deleterious effect on the relationship between weight-self disassociation and psychological and food-related measures for overweight consumers. Specifically, results show that the priming manipulation increased feelings of weight disassociation when cognitive load was low (M_{w-sdisassociation} = 5.96 vs. M_{control} = 3.67, (F(1, 283) = 20.49, \( p < .001 \)) but had a less pronounced effect on overweight consumers under high cognitive load (M_{w-sdisassociation} = 4.46 vs. M_{control} = 3.74, (F(1, 283) = 1.09, \( p = .17 \)).

That said, results generally support the notion that under low cognitive load, overweight participants were more likely to express greater levels of state body image, self-kindness, dieting and exercise self-efficacy, and weight loss performance motivation. Moreover, when evaluating unhealthy foods, overweight consumers under low cognitive load expressed less favorable product attitudes, lower purchase intentions, less favorable taste perceptions, and lower health perceptions. These effects were attenuated under higher levels of cognitive load. It should also be noted that the effects of the weight disassociation prime did not significantly impact esteem measures for overweight consumers.

At first glance, several of the results for obese consumers seem similar to the effects observed for overweight consumers. In particular, the weight-self disassociation prime seems to
improve the psychological well-being of obese consumers. However, a deeper look at the data shows that the effects for overweight and obese consumers are significantly different. Specifically, for obese consumers, results show that psychological well-being is low in the low cognitive load/control condition and that the low cognitive load/weight disassociation prime and both high cognitive load conditions produce fairly similar effects. For example, in the low cognitive load/control condition the mean for state body image is 2.21 while the means for the low cognitive load/weight disassociation prime, high cognitive load/control, and high cognitive load/weight disassociation prime conditions are 2.89, 2.84, and 2.87, respectively. Similar results were found for self-kindness (M = 4.93 vs. Ms = 6.04, 5.95, and 6.00, respectively), dieting self-efficacy (M = 3.02 vs. Ms = 3.67, 4.04, and 3.79, respectively). In contrast, overweight consumers consistently display similar effects in the low cognitive load/control, high load/control, and high load/manipulation conditions but display greater psychological effects and less favorable evaluations of the unhealthy food in the low load/weight disassociation prime condition.

Taken together, these results seem to suggest that either (a) low cognitive load in and of itself engenders more negative self-evaluations for obese consumers or (b) the weight disassociation prime and high cognitive load seem to have the similar effect of boosting how obese consumers feel about themselves and their level of dieting self-efficacy. The former is more likely than the latter. That is, it seems more likely that the negative self-evaluations consistent with an obese body (e.g., low esteem, dieting self-efficacy perceptions) would be more pronounced during periods of low cognitive load. One kink in this argument, however, is the effect of weight disassociation and cognitive load on obese consumer’s body weight-esteem. Results indicate that under low load, body weight esteem is greater after the weight
disassociation prime but decreases after the prime under high cognitive load. This finding throws a wrench in the assumption that high cognitive load and weight disassociation both offer a panacea to the negative feelings experienced by obese consumers. One could argue, however, that weight-esteem is fundamentally different from the other psychological measures because of the considerable stigma surrounding weight. Or, as is more likely, the high cognitive load and weight disassociation engender different effects for obese consumers and these effects need follow-up studies to be teased apart. In line with this supposition, results show that the weight disassociation priming manipulation increased feelings of weight disassociation when cognitive load was low (M\text{w-sdisassociation} = 3.01 vs. M\text{control} = 5.06, (F(1, 283) = 17.75, p < .001) but had a less pronounced effect on obese consumers under high cognitive load (M\text{w-sdisassociation} = 4.21 vs. M\text{control} = 4.77, (F(1, 283) = 1.24, p = .27).

In terms of the menu-related dependent measures, results for purchase intention and willingness to pay for unhealthy foods seem to parallel the psychological measures for obese consumers. That is the means for the low cognitive load/control condition are higher than the low cognitive load/weight disassociation prime, high cognitive load/control, and high cognitive load/weight disassociation prime conditions (purchase intentions: M = 5.87 vs. Ms = 4.77, 5.20, and 5.01, respectively; willingness to pay: M = 4.92 vs. Ms = 3.47, 3.82, and 3.74).

The question engendered by this study is why do obese consumers differ so dramatically from overweight consumers? To answer this question I will again point to research which suggests that obese individuals face great stigmatization (Puhl and Heuer 2009) as well as literature which suggests that obese consumers have attention bias toward unhealthy food products (e.g. Scharmüller et al. 2012; Castellanos et al. 2009). More germane to this dissertation, however, is the notion that overweight individuals respond in a different manner
precisely because they are overweight and not obese. Put differently, as consumers who are on the fringe of a positive weight identity (i.e., a high status weight-based outgroup) overweight consumers maintain a different baseline view of themselves and their weight identity. This view is somewhat substantiated by the differences between the two groups in the baseline responses (i.e., low cognitive load/control condition figures) to state body image, dieting self-efficacy, and self-kindness ($M_{obese} = 2.21$ vs. $M_{overweight} = 3.69$; $M_{obese} = 3.02$ vs. $M_{overweight} = 4.18$; $M_{obese} = 4.93$ vs. $M_{overweight} = 5.90$, respectively. And, as has been argued throughout much of this dissertation, these groups should (and do) have a different motivational response to efforts to reduce the self-importance of weight.

For normal weight consumers, the first point of interest lies in the fact that normal weight consumers were the only group to experience greater levels of weight salience (as measured by the manipulation check) after experiencing the weight self disassociation measure under levels of low ($M_{w-sdisassociation} = 5.36$ vs. $M_{control} = 3.85$, ($F(1, 283) = 10.69$, $p < .001$) and high cognitive load ($M_{w-sdisassociation} = 5.03$ vs. $M_{control} = 3.89$, ($F(1, 283) = 5.89$, $p < .05$). Which may hint at a difference in how cognitive load affects normal weight consumers versus overweight and obese consumers, an idea that seems to be supported by the results presented in this study. The results also suggest that the results for body weight-esteem and state body image among normal weight consumers follow a pattern similar to obese consumers, with low levels of weight-esteem and state body image in the low cognitive load/control condition but similarly higher levels weight-esteem in the low load/weight disassociation prime conditions and the two high cognitive load conditions. However, results also show that normal weight consumers who undergo both the weight-self disassociation prime and high cognitive load expressed less dieting self-efficacy.
Lastly, results show that attitudes, purchase intentions, and anticipated consumption pleasure decline after exposure to the weight-self disassociation prime and high cognitive restraint. Thus, these results seem to hint that cognitive distraction and weight-self disassociation each elevate the esteem of normal weight consumers but that both are needed to lessen the evaluations of unhealthy food items.

Finally, it should be noted that some of these unexpected results for obese and normal weight consumers may be supported by a small stream of literature. Specifically, Van Dillen and Andrade (2016) show that consumers who are sensitive to hedonic food cues pay more attention to more palatable foods, exhibit stronger cravings, and choose unhealthy snacks following a craving induction. However, cognitive load minimizes these effects for both sensitive and non-sensitive consumers. If, as has been suggested by previous literature, obese consumers are more sensitive to hedonic food cues, then it makes sense that consumers in the high cognitive load conditions would show less favorable evaluations of unhealthy food items compared to the low cognitive load conditions. However, the results of this study extend previous research by suggesting that for obese consumers (a) high cognitive load also minimizes negative psychological outcomes and (b) that weight-self disassociation may be a powerful resource for minimizing negative psychological outcomes and evaluations of unhealthy food items under low cognitive load. Assuming that normal weight consumers are less sensitive to hedonic food cues, Van Dillen and Andrade’s (2016) work suggest that high cognitive load coupled with weight-self disassociation may reduce the temptation of unhealthy food items.

In total, however, the results of this study suggest that additional studies are needed to provide insight into how both normal weight and obese consumers respond to cognitive load and weight-self disassociation.
CHAPTER 9

THE EFFECTS OF HIGH WEIGHT IDENTITY SELF-IMPORTANCE
A central premise of this dissertation is that high weight identity self-importance is associated with lower levels of dieting self-efficacy and a diminished evaluation of unhealthy food items for normal weight consumers. The goal of this chapter is twofold. First, I examine whether or not manipulating (rather than measuring) high W-ISI engenders similar effects. In addition, this chapter explores avoidance coping as the mechanism underlying the relationships between high W-ISI and consumer outcomes for normal weight consumers. Because the rationale and theoretical underpinnings for the effects of high W-ISI for normal weight consumers were established in Chapter 2, this chapter will provide a brief literature review on avoidance coping, explain the rationale for the present study, designate the hypotheses to be tested, describe the study to test the hypotheses, and conclude by providing the results and final conclusions from the study.

**Avoidance Coping**

Coping is defined as both psychological and behavioral efforts used by consumers to manage external and/or internal stressors that tax or exceed the person’s resources (Folkman and Lazarus 1980). Research on coping has often adapted Lazarus and Folkman’s (1984) conceptualization that coping strategies fall within two broad categories: problem-focused and emotion focused. According to this typology, problem-focused coping is comprised of strategies aimed at “managing or altering the problem causing the distress” (p. 150) while emotion-focused coping is comprised of strategies aimed at “regulating emotional responses to the problem” (p. 150). Problem-focused coping’s focus on directly addressing the issue by removing or modifying environmental or personal obstacles has led to the generalization that problem-focused coping is adaptive. In contrast, emotion-focused coping’s emphasis on emotion regulation is considered maladaptive since this form of coping is presumed to not directly address the issue at hand.
However, the view that problem-focused coping is adaptive while emotion-focused coping is maladaptive may be too simplistic because it fails to consider research which suggests that problem and emotion-focused coping can co-occur. For example, Folkman and Lazarus (1980) show that middle-aged community residing consumers use both problem and emotion-focused coping in 98% of stressful encounters. Similarly, the authors show that during a college level midterm exam, participants used combinations of problem and emotion focused coping strategies during most stages of the exam (Folkman and Lazarus 1985). The generalization that coping strategies are adaptive or maladaptive may also be too simplistic considering the underlying assumptions of coping. According to Lazarus (2001) the effects of coping “depends on the type of person, the type of threat, the stage of the stressful encounter, and the outcome modality – that is, subjective wellbeing, social functioning, or somatic health” (p. 151). As an illustration, Lazarus uses the example of the coping strategy of denial used during the stressful encounter of a disease. To summarize his point, during the initial phase of the disease denial can be maladaptive if it leads the consumer to forgo medical attention. However, denial may be beneficial during hospitalization as it protects the patient from succumbing to inordinate fear of dying suddenly. Similarly, denial may be used throughout the recovery stage of the disease and produce maladaptive or adaptive results depending on the context at hand. The knowledge that avoidance strategies may co-occur and are not singularly adaptive or maladaptive, are important to acknowledge when considering avoidance coping since it is generally regarded as maladaptive and viewed as harmful to consumers within the context of food decision making.

Avoidance coping refers to efforts by consumers to mentally or physically avoid the source of the stressful encounter (Duhacheck 2005). The vast majority of research concerning stressful events or life circumstances and avoidance have centered on the notion that avoidance
as a coping strategy is maladaptive that perpetuates and/or exacerbates negative circumstances, particularly for stigmatized consumers and disordered eating behaviors. For example, research suggests that minorities utilize avoidance coping strategies to alleviate feelings of intellectual inadequacy (Utsey et al. 2000). Similarly, overweight and obese consumers may avoid identifying with overweight others, interactions with normal weight consumers and/or avoid activities that highlight their weight status such as the gym or the beach (Puhl and Brownell 2003). For minorities and the overweight, avoiding such interactions may provide short-term relief but may impede long-term success in the domains of education and healthy living, respectively. In terms of disordered eating, research suggests that avoidance coping is associated with binge eating, although the exact relationship between avoidance and binge eating is unclear (e.g., Henderson and Huon, 2002; Garner, Olmstead, and Polivy 1983). It has also been suggested that avoidance coping facilitates obesity in the long-term by reducing motivation to succeed in activities or domains that are associated with avoidance (e.g., identification with an overweight body, weight loss activities).

As suggested by the examples mentioned above, prior research suggests that the long-term use of avoidance coping negatively impacts consumer well-being. However, as noted by Mathur, Moschis, and Lee (1999), both the short-term and long-term consequences of coping strategies on consumer well-being need to be examined since the effectiveness of certain strategies may produce notable differences in well-being over time. According to Suls and Fletcher (1985), the effects of avoidance coping do indeed depend on the temporal dynamic of the coping response. More specifically, in a meta-analysis of 43 studies, Suls and Fletcher (1985) advance the notion that the long-term use of avoidance coping can be psychologically and physically debilitating but note that avoidance coping can be adaptive in the short-run for less
severe problems. For example, research has shown that in the short-term, avoidance coping may allow consumers to recover from stress (Sonnentag, Binnewies, and Mojza 2008), reduce conflict tendencies (Hecht and McCarthy 2010), and help with short-term stressors like pain, blood donation, and some medical procedures (Suls and Fletcher 1985). In addition, research has shown that avoidance helps consumers avoid feeling stigmatized and may restore self-perceptions and esteem (e.g., Puhl and Brownell 2003; Utsey et al. 2000).

The majority of research examining avoidance and its connection to weight gain suggests that avoidance coping limits the self-control needed to maintain healthy behaviors (Boals, vanDellen, and Banks 2011), encourages disinhibited eating (e.g., Lee, Greening, and Stoppelbein 2007), and inhibits weight loss (e.g., Burnette 2010). Yet little is known regarding if and when avoidance coping may be beneficial in the context of food-related attitudes and behaviors. To this end, I posit that when weight identity self-importance is heightened, avoidance coping may be helpful in the short-term by allowing consumers to avoid the stress associated with weight status (the discrepancy between the thin ideal and one’s current weight) and focus on the task at hand, namely avoiding unhealthy food items. However, I expect the short-term effects of avoidance coping to only extend to normal weight consumers since evidence suggests that overweight and obese consumers may be accustomed to relying on avoidance as well as other forms of coping as strategies to deal with their current weight status and feelings of weight-related stigma. Put differently, I expect that heightening W-ISI will cause normal weight consumers to temporarily engage in avoidance coping to deal with tension surrounding the instability of weight-related in-group status. Because the overweight and obese may engage in the long-term use of avoidance coping (Latner 2008, Geliebter and Aversa 2003, Puhl and Brownell 2003), these consumers are less likely to demonstrate a temporary spike in avoidance
coping when confronted with a heightened sense of W-ISI. This idea is based, at least in part, on prior research which suggests that that making weight salient lowers dieting self-efficacy perceptions (Seacat and Mickelson 2009), negatively impacts weight loss efforts (Hunger and Tomiyama 2014; Robinson, Hungry, and Daly 2015) as well as results from Studies 1 and 2 which show that weight salience in and of itself does not significantly affect overweight and obese consumers. Accordingly, these consumers should be less likely to demonstrate significant shifts in efficacy perceptions and food-related evaluations following the heightened weight salience manipulation. Further, research suggests that the coping mechanisms employed by overweight and obese consumers typically result in unhealthy behaviors and these mechanisms often center on removing themselves from unpleasant feelings associated with a heightened sense of W-ISI (Puhl and Brownell 2003).

That said, avoidance coping should mediate the relationship between heightened weight identity self-importance and the negative evaluation of unhealthy food for normal weight consumers. In this sense, one could suggest that these consumers engage in dual coping strategies: avoidance coping, which protects the consumer from the negative stressors associated with weight status and problem-focused coping which manifests in the unfavorable evaluation of unhealthy food items. If this is indeed the case, then this effect lines up with Lazarus’ notion (2001) of coping as neither inherently maladaptive or adaptive and research which suggests that consumers may engage in several coping strategies when faced with stress. It seems plausible, then, to suggest that short-term avoidance coping may be beneficial in the domain of food decision making. Thus, I make the predication that for normal weight consumers, heightening

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10 In the first Pilot Study (Chapter 3) also showed a nonsignificant difference between the neutral prime and the weight-related prime on attitudes and purchase intentions for both overweight and obese consumers (p > .05).
W-ISI will lead to less favorable evaluations of unhealthy foods and that this effect is explained, at least in part, by avoidance coping.

As noted in Chapter 4, I also suggest that heightening W-ISI will lead to lower perceptions of dieting and exercise self-efficacy among normal weight consumers. This supposition is, at least partially, based on the studies 1-3 of this dissertation which show that normal weight consumers high in W-ISI display lower levels of efficacy as well as research weight suggests that weight-related identity threat lowers efficacy perceptions (e.g., Seacat and Mickelson 2009).

Similarly, it seems plausible that heightening W-ISI will lead to lower evaluations of state body image and self-compassion among normal weight consumers. It is fairly well established that a positive relationship exists between weight importance and lower body image (e.g., Gingras, Fitzpatrick, and McCargar 2004; Lattimore and Hutchinson 2010) and lower self-compassion (e.g., Wasylkiw et al. 2012; Stapelton and Nikalje 2013). In addition to predicting that the high W-ISI manipulation will lower psychological well-being, I would also like to advance the notion that these effects will also be mediated by avoidance coping. In particular, I predict that high W-ISI will act as a type of status loss based identity threat that will lead normal weight consumers to engage in avoidance coping and will, ultimately, lead to greater weight-related psychological distress by way of lower state body image, feelings of self-compassion, and lower perceptions of self-efficacy. These hypotheses are based on the coping literature concerned with the relationship between avoidance coping and psychological distress (e.g., Myers and Rosen 1999) as well as the relationship between avoidance coping and self-efficacy (Burnett 2010). According to this literature consumers who engage in avoidance coping are more
likely to express self-criticism (Myers and Rosen 1999) and expectations regarding one’s ability to be successful in the domain of weight (Burnett 2010).

On the basis of the above, I posit the following:

**H1:** For normal weight consumers, high W-ISI (versus a control) will lead to lower levels of (a) state body image, (b) self-compassion, (c) dieting self-efficacy, and (d) exercise self-efficacy. These effects will be attenuated for overweight and obese consumers.

**H2:** For normal weight consumers, high W-ISI will lead to higher levels of avoidance coping.

**H3:** For normal weight consumers, high W-ISI (versus a control) will lead to will lead to less favorable (a) product attitudes, (b) purchase intentions, (c) anticipated consumption pleasure, (d) taste perceptions, and (e) willingness to pay for unhealthy food products. These effects will be attenuated for overweight and obese consumers.

**H4:** The influence of high W-ISI on (a) state body image, (b) self-compassion, (c) dieting self-efficacy, (d) exercise self-efficacy, and (e) product attitudes, (f) purchase intentions, (g) anticipated consumption pleasure, (h) taste perceptions, and (i) willingness to pay for unhealthy food products is mediated by avoidance coping. These effects will be attenuated for overweight and obese consumers.

**METHODODOLOGY**

*Participants, Stimuli, and Procedure.* A total of 266 participants (M<sub>age</sub> = 35, SD = 11.70) were randomly assigned to one of two experimental groups, high W-ISI or a control condition. Participants were first informed that they would complete several short unrelated studies. Next, participants were asked to read either a pretested article meant to heighten W-ISI or an article concerning a more neutral topic (See Appendices Q and R for details). Participants then
completed an unrelated distraction task. Upon completing the distraction task, participants were
told that they would be participating in a consumer packaged good study and asked to evaluate 5
randomly presented packaged products, 3 unrelated products, 1 unhealthy food product (an ice
cream shake), and 1 healthy product (a salad). Finally, participants were asked to complete a list
of scale items and answer demographic questions.

**Dependent Measures.** Non-menu related dependent measures for this study included state
body image, which was assessed using two 7-point items anchored by strongly disagree/strongly
agree (e.g., ‘feel good about your body,’ and ‘positive attitude toward your body’; r = .92),
self, weight, and appearance-esteem \(^ {11} \) (α = .89, .93, .89), dieting self-efficacy, exercise self-
efficacy (r = .80), self-compassion (α = .61), and weight loss performance motivation. In
addition, avoidance coping was measured using two items from the Ways of Coping
Questionnaire (Folkman and Lazarus 1980) (e.g., “I try to forget the whole thing”, r = .62) \(^ {12} \). See
Appendix S for a full description of the coping dependent measures. Participants were also asked
a series of single item questions regarding the unhealthy and healthy food items (product
attitude: what is your overall attitude towards this product: unfavorable/favorable; purchase
intentions: assuming you were interested in purchasing this product, how likely are you to buy
this product very unlikely/very likely; anticipated consumption pleasure: eating this product
would make me feel unhappy/happy; taste perception: in general, I think the taste of this food

\(^ {11} \) Due to the length of the experiment, the self, weight, and appearance-esteem were measured
using reduced versions of weight-esteem and appearance-esteem subscales of the Rosenberg
Self-Esteem Scale and the Body-Esteem Scale, respectively.

\(^ {12} \) To ensure that the avoidance coping was distinct from other forms of coping and the
underlying mechanism driving these effects, I also measured other possible forms of coping
(e.g., active coping, rational thinking, accept responsibility, planning, suppression of competing
activities, restraint coping, and seek social support). See Appendix S for a full description of the
avoidance coping measurement-wording and scale items.
item is unfavorable/favorable; willingness to pay: how much would you be willing to pay for this product (in dollars)).

**Results**

*Attention Check.* A total of 31 participants failed to correctly answer the instructional attention check and were excluded from the analysis.

*Manipulation Check.* Participants were asked to indicate whether completing the manipulation made them think about weight (e.g., “how much were you thinking about weight?”) anchored by 1 (not at all) to 7 (quite a lot). Results indicate a significant direct effect of the prime ($F(1, 257) = 582.92, p < .001$). Results show that W-ISI manipulation led to a significant increase in weight salience compared to the control condition ($M_{HWISI} = 5.43$ vs. $M_{control} = 1.38$).

*State Body Image and Self-compassion.* A table of the univariate results is shown in table 9. Results from the W-ISI manipulation-weight status interaction were nonsignificant for self-compassion ($F(2,257) = .21, p > .10$) and approached significance for state body image ($F(2,257) = 2.26, p = .11$). Follow-up contrasts were nonsignificant across all weight status groups for the self-compassion measure ($p > .10$). As shown in Figure 30, results indicate that normal weight consumers expressed greater levels of state body image following the high W-ISI manipulation ($M_{HWISI} = 4.34$ vs. $M_{control} = 3.84, F(1, 257) = 3.54, p < .06$). Results were nonsignificant for overweight and obese consumers ($p > .10$).

*Dieting and Exercise Self-Efficacy.* Results show that the W-ISI manipulation-weight status interaction was nonsignificant for both dieting and exercise self-efficacy ($Fs (2, 257) = 1.44$ and $1.18$, all $p$ values $> .10$). Follow-up contrasts were nonsignificant across all weight status groups for the exercise self-efficacy measure (all $p$ values $> .10$). However, contrasts for
the dieting self-efficacy measure show that obese consumers expressed higher levels of efficacy following the high W-ISI manipulation (\(M_{HWISI} = 3.74\) vs. \(M_{control} = 3.04\), \(F(1, 257) = 3.29, p < .07\)). Results were nonsignificant for normal weight and overweight consumers (all \(p\) values > .10). Dieting self-efficacy results are shown in Figure 31.

Taken together, these findings do not support H1a-d, or the notion that high W-ISI will have a negative impact on how normal weight consumers feel about their body, their ability to feel less judgmental about themselves, and perceptions of their efficacy. Contrary to expectations, results actually show that the high W-ISI manipulation lead normal weight consumers to express higher levels of state body image.

**Avoidance Coping.** Findings for the W-ISI manipulation-weight status interaction was significant for the avoidance coping measure (\(F(2, 257) = 3.28, p < .05\)). As shown in Figure 32, follow-up contrasts show that normal weight consumers expressed greater levels of avoidance coping following exposure to the W-ISI manipulation (\(M_{HWISI} = 3.62\) vs. \(M_{control} = 3.10\), \(F(1, 257) = 4.67, p < .05\)). Results were nonsignificant for overweight and obese consumers (\(p > .10\)). This finding supports H2.

**Menu-Related Dependent Measures.** Participants evaluated the healthy and unhealthy food items, so the menu-related dependent measures were analyzed as a 2 (high W-ISI: present versus absent) x 3 (weight status: normal weight versus overweight versus obese) x 2 (food item: unhealthy versus healthy) design with high W-ISI and weight status serving as between-subjects factors and the food items serving as a within subjects factor.

Results show that the W-ISI manipulation-weight status-food item interaction was nonsignificant for product attitude, purchase intentions, anticipated consumption pleasure, and
taste perception, willingness to pay, and health perception (Fs (2, 257) = .02, .11, .21, 1.57, 1.29, and .76, all p values > .10).

Follow-up contrasts show that normal weight consumers expressed less favorable attitudes for the milkshake following exposure to the high W-ISI manipulation (M_{HWISI} = 3.98 vs. M_{control} = 4.74, F(1, 257) = 4.57, p < .05). Similar effects were found for purchase intentions (M_{HWISI} = 3.73 vs. M_{control} = 4.54, F(1, 257) = 4.90, p < .05), and anticipated consumption pleasure (M_{HWISI} = 3.45 vs. M_{control} = 4.31, F(1, 257) = 5.01, p < .05). For the willingness to pay measure, means were directionally as expected but nonsignificant (M_{HWISI} = 2.08 vs. M_{control} = 2.35, F(1, 257) = 2.10, p = .15) and results were nonsignificant for the taste perception measure (p > .10). These results support H3a-c but fail to support H4-d-e. Results for product attitude and anticipated consumption pleasure are shown in Figures 33 and 34.

In addition, all follow-up contrasts were nonsignificant across all measures for overweight and obese consumers, except willingness to pay. Specifically, obese consumers expressed less willingness to pay for the unhealthy food item following exposure to the high W-ISI manipulation (M_{HWISI} = 1.83 vs. M_{control} = 2.36, F(1, 257) = 4.07, p < .05).

Avoidance Coping as a Mediator. To test whether the predicted relationship between high W-ISI and consumer outcomes under consideration are explained, at least in part, by avoidance coping, I conducted a mediation analysis using the SPSS Process Macro (Hayes 2012). The bias-corrected confidence interval for the tested mediator reflects the indirect effect (a x b path) for 5000 bootstrap samples. Confidence intervals (CI) are then derived for the

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13 Interestingly, results also show that normal weight consumers expressed moderately significant declines in anticipated consumption pleasure and taste perceptions of the healthier food option, the salad (ACP: M_{HWISI} = 5.44 vs. M_{control} = 5.88, F(1, 257) = 3.14, p < .08; taste: M_{HWISI} = 5.22 vs. M_{control} = 5.74, F(1, 257) = 3.32, p < .07).
distribution of indirect effect estimates and CI’s that do not contain zero suggest that the indirect effect is statistically significant.

Bootstrapping analyses revealed significant mediation for the dieting self-efficacy measure ($\beta = .18$, CI = .007, 53.41). Further probing of the results show that for normal weight consumers, the effect of high W-ISI, through the mediator of avoidance coping, was significant ($\beta = -.09$, CI = -.31, -.001) but that this effect was nonsignificant for overweight ($\beta = .09$, CI = -.01, .32) and obese ($\beta = .001$, CI = -.24, .19) consumers. Similar effects were found for exercise self-efficacy ($\beta = .30$, CI = .08, .65; $\beta_{\text{normal weight}} = -.15$, CI = -.36, -.02; $\beta_{\text{overweight}} = .15$, CI = -.06, .38; $\beta_{\text{obese}} = -.001$, CI = -.17, .17), and self-compassion ($\beta = .21$, CI = .03, .60; $\beta_{\text{normal weight}} = -.11$, CI = -.29, -.01; $\beta_{\text{overweight}} = .11$, CI = -.01, .37; $\beta_{\text{obese}} = -.0001$, CI = -.15, .16). Results were nonsignificant for state body image ($\beta = .13$, CI = -.01, .42; $\beta_{\text{normal weight}} = -.07$, CI = -.23, .01; $\beta_{\text{overweight}} = .07$, CI = -.01, .25; $\beta_{\text{obese}} = -.001$, CI = -.16, .14). Despite the lack of direct effects found for H1a-d, these results support the notion that avoidance coping mediates the relationship between high W-ISI and self-compassion (H4b), dieting self-efficacy (Hc), and exercise self-efficacy (H1d). H4a was not supported since mediation results for state body image were nonsignificant.

Similar effects were also found for product attitude ($\beta = .15$, CI = -.68, -.05; $\beta_{\text{normal weight}} = .15$, CI = .03, .43; $\beta_{\text{overweight}} = -.10$, CI = -.37, .05; $\beta_{\text{obese}} = -.03$, CI = -.04, .25) and purchase intentions ($\beta = -.26$, CI = -.67, -.05; $\beta_{\text{normal weight}} = .16$, CI = .03, .41; $\beta_{\text{overweight}} = -.10$, CI = -.38, .06; $\beta_{\text{obese}} = .02$, CI = -.03, .24). However, results were nonsignificant for anticipated consumption pleasure ($\beta = -.17$, CI = -.53, .01; $\beta_{\text{normal weight}} = .10$, CI = -.01, .33; $\beta_{\text{overweight}} = -.07$, CI = -.34, .03; $\beta_{\text{obese}} = -.001$, CI = -.13, .09), taste perceptions ($\beta = .11$, CI = -.43, .03; $\beta_{\text{normal weight}} = .07$, CI = -.02, .27; $\beta_{\text{overweight}} = -.04$, CI = -.28, .03; $\beta_{\text{obese}} = .01$, CI = -.05, .14), and willingness
to pay (β = .02, CI = -.08, .16; βnormalweight = -.01, CI = -.09, .05; βoverweight = .01, CI = -.03, .11; βobese = .002, CI = -.03, .07). These findings concerning avoidance coping as a mediator of menu-related outcomes, support H4e and H4f but fail to support Hg-i.

Additional Analysis

*Weight Loss Self-improvement Motivation.* Findings show that the W-ISI manipulation-weight status interaction was insignificant for the weight loss self-improvement motivation measure (F (2, 257) = 1.03, p > .10). Follow-up contrasts were all nonsignificant across all three weight status groups (p > .10).

*Self, Weight, Appearance-Esteem.* Results indicate that the W-ISI manipulation-weight status interaction was insignificant for the self-esteem, weight-esteem, and appearance-esteem measures (Fs (2, 257) = .07, .28, and 1.11, all p values > .10). Follow-up contrasts were nonsignificant across all three weight status groups for self and appearance-esteem. However, follow-up tests show that obese consumers expressed moderately higher levels of weight-esteem following the high W-ISI manipulation (MHWISI = 2.34 vs. Mcontrol = 1.77), F(1, 257) = 3.29, p = .07).

*Other Coping Measures.* As noted in the footnote, several coping measures were tested in addition to avoidance coping. Interestingly, results for the W-ISI manipulation-weight status interaction was moderately significant for the accept responsibility measure (F(2, 257) = 2.56, p < .08). Follow-up contrasts show that obese consumers were less likely to engage in accept responsibility coping following the high W-ISI manipulation (MHWISI = 4.98 vs. Mcontrol = 5.57, F(1, 257) = 3.94, p < .05). Results were nonsignificant for normal weight and overweight consumers.
Main Effect of Weight Status. Results show that weight status had a significant effect on state body image (F(2,257) = 15.00, p < .001), dieting self-efficacy (F(2,257) = 20.94, p < .001), exercise self-efficacy (F(2,257) = 11.69, p < .001), avoidance coping (F(2,257) = 12.77, p < .001), active coping (F(2,257) = 4.26, p < .05), weight loss performance motivation (F(2,257) = 5.29, p < .01), and self (F(2,257) = 10.14, p < .001), appearance (F(2,257) = 32.53, p < .001), and weight-esteem (F(2,257) = 104.16, p values < .001). Results show that normal weight consumers expressed significantly higher levels of state body image (M_{normalweight} = 4.09, M_{overweight} = 3.62, M_{obese} = 2.86), dieting self-efficacy (M_{normalweight} = 4.91, M_{overweight} = 4.08, M_{obese} = 3.39), exercise self-efficacy (M_{normalweight} = 5.72, M_{overweight} = 5.18, M_{obese} = 4.69) weight-esteem (M_{normalweight} = 4.83, M_{overweight} = 3.36, M_{obese} = 2.06), and appearance-esteem (M_{normalweight} = 4.54, M_{overweight} = 4.19, M_{obese} = 3.09) than overweight (Fs(1, 257) = 2.09, 3.46, 2.47, 7.52, 1.97, p values < .05, respectively) and obese (Fs(1, 257) = 5.47, 6.33, 4.75, 14.14, 8.04, p values < .001, respectively) consumers. In addition, overweight consumers expressed significantly higher levels of state body image, dieting self-efficacy, exercise self-efficacy, weight-esteem, and appearance-esteem than obese consumers (Fs(1,257) = 2.98, 2.54, 2.01, 5.85, 5.32, p values < .05, respectively).

Results for self-esteem (M_{normalweight} = 5.41, M_{overweight} = 5.47, M_{obese} = 4.61) show that normal weight and overweight consumers expressed higher levels of self-esteem than obese consumers (F (2,257) = 4.12, 3.87, p < .001, respectively). No significant difference was found for the self-esteem levels expressed by normal weight and overweight consumers (p > .10). For the weight loss performance measure, results indicate that normal weight consumers expressed the desire for lower amounts of weight loss coaching than overweight and obese consumers (M_{normalweight} = 23.12 minutes, M_{overweight} = 30.29 minutes, M_{obese} = 39.02 minutes). This
difference was significant between normal and obese consumers (F(1,257) = 3.23, \( p < .01 \)) but not statistically significant between normal and overweight consumers (\( p > .10 \)). Means were not significantly different between overweight and obese consumers (\( p > .10 \)).

Interestingly enough, results show that normal and overweight consumers express higher levels of active coping than obese consumers (\( M_{\text{normalweight}} = 5.26, M_{\text{overweight}} = 5.36, M_{\text{obese}} = 4.85 \), Fs (2,257) = 2.47, 2.70, \( p \) values < .01, respectively) No significant difference was found for the active coping levels expressed by normal weight and overweight consumers (\( p > .10 \)). Lastly, results show that normal weight consumers expressed significantly lower levels of avoidance coping (\( M_{\text{normalweight}} = 3.36, M_{\text{overweight}} = 3.73, M_{\text{obese}} = 4.39 \)) than overweight (F(2,257) = 1.82, \( p < .10 \)) and obese (F(2,257) = 5.05, \( p < .10 \)) consumers. Results also show a significant difference in the level of avoidance coping expressed by overweight and obese consumers (F(2,257) = 2.85, \( p < .01 \)).

**Discussion**

Contrary to the original hypotheses, results show that the high W-ISI manipulation did not have a direct negative effect on the dieting and exercise self-efficacy of normal weight consumers. The premise that heightening W-ISI will negatively affect normal weight consumers’ psychological well-being appears theoretically sound, stemming from research that suggests lower efficacy perceptions are associated with avoidant-focused coping (Duhachek 2005) and that emotion-focused coping such as avoidance may be adaptive in situations when self-efficacy is perceived to be low (e.g., Folkman 1984). The theoretical underpinnings of high W-ISI dieting and exercise self efficacy relationships coupled with the significant findings when high W-ISI was measured (as opposed to manipulated in studies 1 through 3, suggests that these effects may be spurious. Alternatively, the lack of significant results may be the result of anemic
manipulation for high W-ISI. To test this idea, additional attempts to identify methods to
heighten W-ISI are needed. On the other hand, since nonsignificant effects were found among all
three weight status groups, results may suggest that consumers employ self-protective
mechanisms in the face of blatant attempts to heighten W-ISI and that these mechanisms also
protect perceptions of dieting self-efficacy. This notion would also explain why the heightened
W-ISI manipulation did not lead to a significant decline in esteem for any of the three groups.
That said, additional studies are needed to consider if these results may be due to the lack of
upward social comparison or if they may be attributable to the blatant nature of the manipulation.

Results seem to suggest that heightening W-ISI did little to directly affect self, weight,
and appearance-esteem as well as the self-compassion of our female participants. It does not
stretch the imagination to presuppose that heightening W-ISI may negatively impact how
consumers feel about themselves, considering the vast amount of research covering the
damaging effects of weight-related matters (e.g., the thin ideal, weight status, weight
perceptions) on self evaluations and psychological well-being.

Based on the results of this study, one might conclude that heightening W-ISI does not
have a deleterious effect of self-compassion or personal esteem. It is quite possible, however,
that different explanations may be offered. First, it is possible that consumers respond differently
to heightened W-ISI, in and of itself, than they do to heightened W-ISI that emanates from
upward social comparison. A second explanation may be that following heightened W-ISI,
normal weight consumers do primarily feel tension to maintain or lose weight but are less likely
to express lower esteem or self-compassion since they are in-group instead of out-group
members. Alternatively, overweight and obese consumers may have ignored the manipulation or
engaged in self-protective strategies to protect esteem. This idea falls in line with research by
Puhl and Brownell (2003) as well as results from this study which show that obese consumers engaged in less accept responsibility coping following the high W-ISI manipulation.

Results do show support for the notion that a relationship exists between high W-ISI and avoidance coping among normal weight consumers. Specifically, this study provides evidence that heightened W-ISI leads normal weight consumers to express higher levels of avoidance coping. Results also provide evidence that avoidance coping mediates the relationship between heightened W-ISI and well-being and efficacy perceptions as well as negative perceptions of unhealthy food for normal weight consumers. Taken together, these outcomes provide additional support for the notion that short-term avoidance coping may be beneficial in the food decision-making domain. These results may also provide an important distinction between how normal weight and overweight and obese consumers utilize avoidance coping. Previous research suggests that overweight consumers use avoidance as a long-term coping mechanism and that this reliance on avoidance coping eventually leads to greater weight gain and/or makes weight loss more difficult (Puhl and Brownell 2003). These results suggest that (a) normal weight consumers may also use avoidance coping in the face of weight concerns, (b) that a key difference between normal weight and overweight consumers may be the ability to “turn off” avoidance coping or only use avoidance coping in the short-run, (c) that avoidance coping, when used correctly, may be beneficial in the food decision making domain and, as such, (d) training individuals on how to properly utilize avoidance coping may decrease the attractiveness of unhealthy foods.
CHAPTER 10

GENERAL DISCUSSION
Public policy makers, health advocates, and consumers have fought rising obesity trends for decades to little or no avail. For example, the federal government has introduced a number of initiatives (e.g., HealthierUS, nutrition labeling on packaged foods, and calorie labeling on restaurant menus) and spends millions of dollars each year on nutrition education initiatives (FNS 2010). Similarly, consumers spend approximately $60 billion dollars each year on weight loss services (Market Enterprises 2015), 77% of Americans are actively trying to eat healthier (Kell 2015), and 60% of adults say they track their weight, diet, and exercise levels (Pew Research Center 2013).

Despite these efforts, the U.S. continues to see increasing rates of weight gain and obesity in the general public, with current estimates suggesting that roughly 70% of the population is overweight or obese (Ogden et al. 2014). Outside the U.S., a similar pattern appears, with increasing rates of weight gain and obesity. For example, the WHO (2015) estimates that 39% of the world’s population is overweight or obese and, according to Ng et al. (2014), in the last 33 years, no country has successfully curbed obesity rates.

What’s surprising about the growing obesity trend in the U.S. is that consumers appear more health conscious and more willing to purchase healthy foods and exercise equipment than ever before, as evidenced by the ever growing organic food, dieting, and exercise industries in the United States. What is more, a report by the USDA suggests that consumers are eating at home more and consuming fewer calories (Todd 2014), two additional indicators that consumers are taking steps to be healthier. However, these consumer efforts to become healthier present a bit of a conundrum. On the one hand, it makes sense that as consumers grow more overweight and obese they become more eager to engage in healthier eating, dieting, and exercise. On the other hand, however, it is disconcerting that this eagerness has not translated into lower rates of
obesity and weight gain. The situation is even more disconcerting when one considers that consumers are showing efforts to follow the advice given to them by public policy makers, health advocates, and the consumer marketers, yet are still failing to lose weight.

Nevertheless, research by the USDA (Todd 2014) suggests that the aforementioned conundrum is overconsumption. More specifically, the USDA notes that despite a reduction of roughly 90 to 118 calories per day, Americans are still consuming about 2200 calories per day, about 200-400 calories more than needed for the average woman. Moreover, a significant portion of the 2200 calories come from food eaten away from home (roughly 30%) and from fast food (roughly 12%). Based on these statistics, the key question for researchers, policy makers, and health advocates, appears to be how to get consumers to consume even fewer calories.

The simplistic answer to getting consumers to consume fewer calories is to encourage fruit and vegetable consumption and discourage unhealthy food consumption. Messages with this advice are plastered across health organization websites and campaigns. Yet, for the average consumer, food and exercise decision making is as complex as most goal oriented tasks, meaning that psychological roadblocks may inhibit a consumer’s ability to consistently pursue health-related goals and goal striving. Moving beyond the assumption that weight loss and healthy eating are formulaic processes means that efforts should be made to identify barriers to healthy eating. To this end, researchers have noted a wide range of factors that may inhibit healthy eating (e.g., stereotype threat, negative affect, cognitive load, avoidance coping, minority status, choice selection). However, a number of these studies focus exclusively on the psychological consequences of an overweight body (a) without considering the relationship between psychological influences of an overweight body and food and exercise decision making, (b)
without considering weight status as an individual difference factor and/or (c) focusing their attention exclusively on overweight or obese consumers.

This dissertation aims to address a gap in the literature by examining weight identity as a psychological driver of food and exercise decision making among normal weight, overweight, and obese consumers. To this end, this dissertation builds on previous literature which suggests that social identity may play a role in determining responses to weight relevant stimuli. However, rather than examining dieting status (McFerren et al. 2010) or intimating at but not explicitly classifying and testing weight as a social identity (Hunger et al. 2015), and/or limiting the examination to one particular weight group (e.g., Hunger et al. 2015), I explicitly classify weight as a social identity and examine how the dual components of weight identity, weight status and W-ISI, affect self-efficacy perceptions, food evaluations, exercise intentions, and a variety of psychological well-being variables. To develop a conceptual framework for examining weight identity, I draw upon literature concerning social identity, weight stigmatization, and stereotype threat I advance the notion that when weight is made salient, normal weight consumers high in W-ISI and overweight consumers low in W-ISI will (a) express lower (higher) levels of dieting self-efficacy (b) express higher (lower) healthy = tasty intuition, (c) evaluate unhealthy food items less favorably, and (d) express higher levels of exercise intentions. I then tested these basic hypotheses using three studies.

Prior to conducting the main studies, I performed an exploratory pilot study to test how overweight and obese consumers respond to weight primes. Specifically, this study was designed to ascertain whether weight status primes engender an independent assessment of food evaluations, or whether weight status primes are confounded with negative affect. Results show that priming weight status produces a statistically different effect than priming negative affect.
Moreover, results show that when weight status is primed, overweight consumers express less favorable evaluations of unhealthy food options but that this effect is attenuated for obese consumers.

Study 1 extends my investigation of the relationship between weight status and consumer evaluations by introducing W-ISI as a moderator and describing how weight status and W-ISI concurrently affect self-efficacy perceptions, unhealthy = tasty beliefs, unhealthy food evaluations, and exercise attitudes. As expected, results indicate that when ‘overweight’ is made salient, overweight consumers low in W-ISI (normal weight consumers high in W-ISI) report higher (lower) dieting self-efficacy, lessened (heightened) belief in the tasty = healthy intuition, and less favorable evaluations of foods perceived to be highly caloric. Results were nonsignificant for exercise intentions and for foods considered moderately caloric or low in calories.

Study 2 extends these findings by showing that similar results occur when ‘thin’ is made salient. This finding is relevant because previous research has found that consumers maintain a pro-thin bias and may maintain an anti-fat bias. Thus, it is possible that ‘thin’ salience will engender dissimilar results. However, the similar pattern of results suggest that both thin and overweight salience prompts consumers to feel susceptible to the effects of weight identity.

Study 3 builds on the idea of weight salience by testing the effects of identifying with an overweight ‘other’. Prior research suggests that identifying and/or comparing oneself to a thin ‘other’ results in lower self-esteem (e.g., Richins 1991; Smeesters and Mandel 2006) and may affect food consumption (e.g., Strahan, Spencer, and Zanna 2007) but less is known about the effects of identification or comparison with an overweight other. This gap in the literature is noteworthy for both practical and theoretical reasons, namely (a) the large number of consumers
who are overweight or obese, (b) the increased presence of overweight media figures, and (c) the potential of downward social comparison effects.

As expected, findings from Study 3 suggest that identification with an overweight ‘other’ primarily impacts overweight consumers low in W-ISI and shows that the effects of identification for these consumers generally parallel findings in Studies 1 and 2. In addition, results show that identifying with an overweight other leads certain groups to accurately self-report their weight status. As shown in previous research (Kuchler and Variyam 2003) and replicated in the Study 3 control condition, consumers tend to underestimate their weight status. However, for normal and overweight consumers low in W-ISI and overweight consumers moderate in W-ISI, identification with an overweight other led to an accurate weight classification. In addition, findings show that identification with an overweight other led overweight consumers low in W-ISI to express less favorable evaluations of unhealthy foods but decreased dieting self-efficacy perceptions and weight loss confidence. Results were primarily nonsignificant for these variables for all other consumer groups.

Taken together, pilot study 1 and studies 1-3 provide evidence of the underlying proposition that normal weight consumers high in W-ISI and overweight consumers low in W-ISI respond less favorably to unhealthy food items when weight is made salient. The remainder of studies in this dissertation push this notion forward by suggesting that manipulating rather than measuring W-ISI might be enough to generalize these effects to specific weight classification groups. In particular, studies 4 and 5 hypothesized that manipulating W-ISI to be lower (higher) would lead overweight (normal weight) consumers to express higher (lower) dieting self-efficacy, less favorable evaluations of unhealthy foods, and positively impact psychological well-being.
Prior to testing the effect of lowering W-ISI for overweight consumers, a large pilot study was executed to determine a suitable method for lowering W-ISI. Results of Pilot Study 2 suggested that weight-self disassociation lowered W-ISI and provided initial evidence that lowering W-ISI leads overweight consumers to express higher levels of dieting self-efficacy, less favorable evaluations of unhealthy foods, and improved psychological well-being. Similar to Studies 1-3, however, results were nonsignificant for healthy foods.

Following the second pilot study, Study 4 was designed to provide additional support for the notion that lowering W-ISI (via weight-self disassociation) leads overweight consumers to express higher levels of dieting self-efficacy, lessen evaluations of unhealthy foods, and improve well-being. In addition, Study 4 was designed to test whether these effects are, at least in part, cognitively driven by examining cognitive load as a moderator. As expected, results indicated that when W-ISI is lowered, overweight consumers experiencing low cognitive load express higher levels of dieting self-efficacy, less favorable evaluations of unhealthy food, and improved psychological well-being. This effect was attenuated during high cognitive load.

Study 5 shows that increasing W-ISI for normal weight consumers leads to lower levels of dieting self-efficacy and less favorable evaluations of unhealthy food. In addition, Study 5 identifies the underlying process driving these effects by introducing avoidance coping as an adaptive short-term strategy used by normal weight consumers faced with high W-ISI.

**Theoretical Contribution**

This dissertation make several contributions to the marketing literature. Foremost, this research is the first to introduce the construct of weight identity to the consumer behavior literature and to investigate its effects on consumer outcomes. In doing so, I present a comprehensive examination of the social identity construct by first examining a negative identity
and second, by examining structural parameters of social identity such as the dual components of identity (identity status and identity importance) and boundary permeability. Prior research on the intersection of identity and consumption often examines social identity as a one dimensional construct without considering the nuances of social identities. For example, consumer literature often examines social identity strictly from a group association or disassociation standpoint (e.g., Berger and Rand 2008, Reed 2004) without considering how identity self-importance and/or identity permeability moderate the effects of social identity salience\textsuperscript{14}. By incorporating the dual components of weight identity and considering boundary permeability as a salient factor affecting weight identity activation and motivation, I reconsider McFerran et al.’s (2010) assertion that weight-related variables need to be examined in isolation. As stated earlier, and shown throughout this dissertation and other obesity related research, how consumers feel about their weight and/or body significantly affects both psychological and physical well-being.

Another contribution of this research is that it challenges the prominent perception that identities are static and that marketers or marketing entities should focus on external interventions meant to attenuate the relationship between identity salience and identity-related attitudes and behaviors (e.g., Berger and Rand 2008). Instead, this research advances the notion that identities may be temporarily altered and that doing so may have a profound impact on consumer well-being. This idea falls in line with work advanced by both Deaux (1993) and Ashforth and Kreiner (1999). For example, Ashforth and Kreiner (1999) advance the notion that workers who hold a work identity socially perceived as negative engage in a variety of methods.

\textsuperscript{14} It should be noted that Reed (2004) did examine identity self-importance but his research investigated identity self-importance as a method of increasing the salience of the relevant identity. As such, Reed did not investigate the variable nature of identity self-importance and the effects of this variability.
to reframe their identity as positive. Thus, these consumers alter their identities, often by altering how they feel about their job.

To be fair, one may argue that attempts to encourage weight loss also attempt to alter a consumer’s identity by changing his or her weight status. This viewpoint is valid; prior research often considers identity change to be dependent on changing the condition as opposed to changing how one feels about the identity. However, I would push back on the notion that this approach in and of itself is appropriate for weight identity for three reasons. First, attempts to encourage consumers to lose weight have not been successful as consumers have either not lost weight or have not been able to keep the weight off. Second, prior research suggests that consumers who are able to lose weight do not smoothly transition to the normal weight, in-group identity (Levy and Pilver 2012). Instead, psychological distress lingers which put these consumers in a state of limbo. Thus, it would appear that losing weight would give consumers a “used to be overweight” identity rather than a normal weight identity. This new identity may or may not prove beneficial in encouraging healthy attitudes and behaviors. Third, previous literature concerning negative identities suggests that identity change associated with negative identities may hinge on changing how consumers perceive their identity (Ashforth and Kreiner 1999).

In addition to introducing the weight identity construct and offering the perspective that identity-based interventions may be internal versus external, I outline when and how a consumer’s weight identity is likely to be the basis for evaluations of unhealthy food, perceptions of dieting self-efficacy, and a variety of psychological factors. Using 5 studies and 2 large pilot test, I find support for the notion that normal weight and overweight consumers are motivated by distinct weight identity self importance needs. For normal weight consumers, avoidance coping
mediates the relationship between high W-ISI and weight-related outcomes. This finding contributes to previous work which suggests that avoidance coping may be beneficial in the short-term. For overweight consumers, cognitive load moderates the relationship between low W-ISI and weight-related outcomes. This finding builds upon prior research which suggests that weight-related motivation may be inhibited under instances of high cognitive load (Ward and Mann 2000).

This research also suggests that overweight and obese consumers may differ in how they perceive their weight identity and that these differences may significantly affect consumer well-being efforts for obese consumers. For example, findings from Studies 1-3 indicate that weight status and weight self-importance do not significantly impact efficacy perceptions or food and exercise evaluations when weight is made salient. This finding is made more impactful by Study 4’s findings that under low levels of cognitive load, obese consumers report extremely low levels of consumer well-being relative to overweight and normal weight consumers. Interestingly, Study 4 also shows that high cognitive load may improve obese consumers’ well-being.

The pilot test concerning low W-ISI also provides a number of interesting and potentially important discoveries. First, results indicate that weight-related mindfulness and social acceptance are not effective at engendering less favorable evaluations of unhealthy food or improving dieting self-efficacy perceptions in the short-run. On its face, this finding regarding mindfulness appears to contradict research which suggests that the technique is beneficial for improving unhealthy attitudes and behaviors (Daubenmier et al. 2011; Lillis et al. 2009). However, the bulk of this research confounds mindfulness with a host of other practices or requires a much longer time commitment. The results of the pilot test, then, provides some evidence that weight-related mindfulness training either requires a more significant time
investment. Alternatively, these findings may provide evidence for research which suggests that it is not an effective tool for promoting healthy attitudes and behaviors (Kearney et al. 2012).

As for social acceptance, results suggest that acceptance does little to reduce W-ISI and has no significant effect on dieting efficacy perceptions or food evaluations in the short run. This finding is interesting in light of recent research by Lin and McFerran (2015) which suggests that acceptance may increase food consumption and reduce motivation to engage in a healthier lifestyle. However, it should be noted that the social acceptance manipulation differed from the studies presented by Lin and McFerran (2015). In their studies, Lin and McFerran manipulated acceptance in the context of advertisements with taglines such as ‘Real Women’ as opposed to the study presented here which asks consumers to consider the social acceptance they have received despite of their weight. This difference is significant enough that it is a bit of a stretch to compare the results of this experiment with Lin and McFerran’s work.

It should also be noted that body positivity, an arguably different form of acceptance, did engender lower W-ISI perceptions and led to less favorable evaluations of unhealthy foods. This finding, coupled with the results of the social acceptance manipulation and the findings of Lin and McFerran suggest that acceptance is a complex process that requires further study. For example, it may be that acceptance is a positive force when it is tailored to the individual (as is the case for body positivity) as opposed to society as whole (as is the case for the social acceptance manipulation and the studies done by Lin and McFerran).

Substantive Contribution

Implications for Public Policy Makers

For public policy makers, findings imply that a one size fits all strategy to discourage unhealthy attitudes and behaviors may be less effective than a more nuanced approach that
acknowledges the impact that weight status and W-ISI may play in affecting food and exercise decision making. While it is not new to suggest that individual difference factors and message framing play an important role in message acceptance and attitude and behavioral change, it often appears as though policy makers and consumer welfare advocates rely on a one-dimensional approach to encourage healthy behaviors. This approach assumes that normal weight and overweight consumers maintain the same level of engagement with and acceptance of health messages despite having very different lived experiences and weight-related psychological states. In contrast, this research provides evidence that weight-related messages and campaigns may need to consider creating tailored messages for normal weight and overweight consumers, messages that address the psychological needs of each group.

Similarly, this research suggests that the lived experience of an overweight body plays a profound role in determining how overweight consumers respond to weight-related messages. Contrary to what one might expect, emphasizing the importance of weight did not significantly alter how overweight consumers evaluated unhealthy foods. This finding is important because policy makers and healthy advocates often have a tendency to utilize messages that emphasize the importance of weight in their attempts to convince overweight consumers to pursue a healthier lifestyle. For example, NYC tried to combat sugary drink consumption with a campaign that read “Are you pouring on the pounds? Don’t drink yourself fat,” and the Obesity Action Coalition maintains a slogan that reads “Your Weight Matters.” The evidence provided in this dissertation gives some credence to the idea that these type of messages may be less effective for a large portion of the population.

In addition, while this research primarily focused on normal weight and overweight consumers, the pattern of results do provide some insights regarding obese consumers. In
particular, select findings from studies 1-3 suggest that priming weight may engender a boomerang effect whereby unhealthy foods are evaluated more favorably by obese consumers. Although the exact cause of this boomerang effect is not known and should be examined in future studies, the finding falls in line with research which suggests that stereotype threat (Seacat and Mikelson 2009), weight stigma (Major et al. 2014), and weight-based social identity threat (Hunger et al. 2015) lead to unhealthy attitudes and behaviors. What is surprising about these effects, however, is that they appear to only occur for obese and not overweight consumers and that they primarily occur for obese consumers high in W-ISI. These results again add credence to the notion that public policy makers may need to re-evaluate the current strategy of lumping overweight and obese consumers into the same category. In addition, these results suggest that obese consumers high in W-ISI are most likely to exhibit negative reactions to the one size fits all strategies put forth by public policy makers and consumer welfare advocates.

This dissertation also offers findings that may provide insight into the growing obesity epidemic. First, this research suggests that normal weight consumers may utilize avoidance coping when faced with instances of high W-ISI. As previously noted, avoidance coping may be adaptive in the short run but is problematic when used as a long-term coping mechanism. The knowledge that normal weight consumers use avoidance coping is somewhat novel as avoidance coping is usually attributed to those with an eating disorder such as bulimia or an overweight body (e.g., Puhl and Brown 2003). The research presented suggests that normal weight utilize similar coping mechanisms as overweight consumers. For policy makers, this would suggest that instilling better coping mechanisms to deal with weight-related stress and discomfort may be beneficial in aiding consumers and encouraging healthy mindsets and consumer well-being. Second, this research provides additional support for the notion that cognitive load inhibits
healthier attitudes and behaviors. For policy makers, the negative effects of cognitive load represent an opportunity to develop programs and/or recommendations that encourage consumers to make fewer food decisions under instances of high cognitive load. Lastly, the lack of effects for healthy food and exercise intentions suggests that consumers feel a pull against unhealthy foods but do not feel a pull toward healthy foods and exercise attitudes. This is not altogether surprising since the negative identity attributed to overweight bodies often stems from assumptions that weight is associated with unhealthy eating. However, these views are problematic because policy makers spend hundreds of millions of dollars attempting to encourage healthy attitudes and behaviors (FNS 2010). For policy makers, these findings may provide additional insight into as to why health campaigns have not curbed obesity rates.

Managerial Implications

In the last decade, several food marketers have attempted to discourage unhealthy eating either out of general concern with the rising obesity epidemic or out of fear that the food companies will be subject to the same legal and societal pressures that face tobacco manufacturers (Brownell and Warner 2009). However, questions abound regarding suitable methods for increasing health consciousness and decreasing unhealthy consumption. A cursory glance at marketing campaigns suggests that companies often rely on a stagnant list of buzz words that supposedly encourage healthier consumption and/or rely on providing a slew of nutrition information that may or may not be understood by consumers (e.g., Tangari, Burton, and Davis 2014). The research presented in this study suggests that marketers interested in helping consumers to lose weight may need to consider tailoring their messages to the consumer and/or attempt to design messages that address consumer W-ISI. For example, weight loss
companies such as Weight Watchers and Jenny Craig may benefit from incorporating marketing messages that seek to lower W-ISI.

In addition, findings from Study 3 may provide insights for companies that have received criticisms for not using plus sized models in their advertisements. For example, Lane Bryant, a popular plus-sized clothing retailer, has recently come under fire for using models that do not seem to fit the generally accepted idea of plus-sized. Previous research has suggested that consumers generally prefer slimmer models or normal sized models. However, less is known regarding how consumers react to actual overweight models. Findings presented in Study 3 suggest that using an overweight model may encourage less favorable evaluations of unhealthy food products and prompt lower self-esteem among certain women. I would also offer that the results presented in Pilot Study 2 suggest that marketers can reduce W-ISI, whether by body positivity or self-weight disassociation, and that doing so may have a positive impact on overweight consumers. This information may prove useful for forward thinking marketers, those concerned with helping consumers achieve a healthier lifestyle.

**Limitations and Future Research**

This research attempts to address an important topic by operationalizing the dual components of weight identity (weight status and W-ISI) and empirically examining the relationship between weight identity and consumer outcomes. The introduction of the weight identity construct to the consumer behavior literature along with the exploratory nature of the studies presented in this dissertation mean that a number of opportunities exist for further research. Several of these opportunities have been noted throughout this dissertation. For example, I previously suggested further research to examine how overweight and obese consumers differ in their understanding and application of weight identity self-importance. As
noted, it is possible that the stigmatization associated with an obese body make it more difficult and less likely to truly achieve low weight identity self-importance.

In addition to these research opportunities, there are several avenues for additional research. For example, I operationalize weight identity as the interaction between weight status and W-ISI but it is possible that other factors may be considered such as perceived versus actual weight status. Second, research is somewhat mixed when it comes to the accuracy of weight and height self-reporting so additional search may verify this information. Additionally, the studies presented focus on evaluations of unhealthy food but I also gave participants the opportunity to evaluate a more healthful option and studies 1-3 included moderately unhealthy foods. Adding healthy food options and moderately unhealthy food options provided additional insight into the relationship weight identity - food evaluation relationship, yet cleaner experiments, those that focus exclusively on unhealthy food, may be executed going forward. Another factor to consider is the use of BMI as a means of determining weight status. Although BMI is regularly used to classify weight status, it is considered by many to be a flawed measure (e.g., Ahima and Lazar 2013) due to its inaccuracies in predicting obesity-related health risks for certain populations, namely athletes and muscular individuals. For the general population, however, BMI is a good predictor of body fat (HSPH 2016). Still, additional research may consider utilizing body fat percentage or waist to height or weight to hip ratios when classifying consumers as normal or overweight.

In addition to research that addresses concerns in the studies presented, a number of opportunities exist to extend and refine our understanding of weight identity. For example, future research may seek to investigate actual choice behaviors using a field experiment. In a similar vein, additional research may examine the impact of weight identity manipulations on consumer
packaged goods to note how these type of messages affect purchase behaviors as well as perceptions of the manufacturer. Moreover, future research may examine the structure of weight identity by considering the positive identity construction and/or identity fusion. For example, future research may utilize the positive identity achievement framework put forth by Ashforth and Kreiner (1999) or examine how strong identification with one’s weight status group affects weight identity and consumer outcomes.

Future research is also needed to examine how demographic factors such as age and race impact the consequences of weight identity. Prior research suggests that women place less importance on body shape, weight and appearance as they age (Tiggeman 2004). Research also suggests that Black women may hold greater body satisfaction and heavier body image ideals than White women (e.g., Rucker and Cash 1992; Flynn and Fitzgibbon 1998) and may be less likely to correctly classify themselves as overweight (Rand and Kuldau 1990). Similarly, research suggests that Latina women with lower levels of acculturation may differ in weight status perceptions (Lopez, Blix, and Blix 1995). Thus, it is possible that these factors impact weight identity construction and/or salience.

Another avenue for research may be to test the boundaries or confines of weight identity. As previously noted, research may examine how weight status perceptions rather than actual weight status affect the relationship between weight identity and unhealthy food evaluations. Similarly, research may also examine how previous weight gain and/or loss affects weight identity and its consequences. Work done by Annis, Cash, and Hrabosky (2004) suggests that currently overweight women maintain less positive self and weight-related self views but that currently overweight and formerly overweight women experience greater overweight preoccupations and appearance investment than women who have never experienced having an
overweight body. Additionally, if boundary permeability truly plays a role in determining the effects of weight identity, it may be interesting to examine how consumers who are approaching or migrating from a particular weight status respond to weight identity manipulations. Depending on one’s weight status passage (e.g., close to becoming overweight, close to becoming obese), work in this vein may fall in line with the goal striving literature.
REFERENCES


———, Gérard Desprès, Marie-Eve Gauzins, Pascal Huguet, Jacques-Philippe


Jackson, Sarah E., Rebecca J. Beeken, and Jane Wardle (2014), “Perceived Weight


### TABLE 1. Univariate Results for the Effects of Overweight Primes, Weight Status, and Weight Self-Importance on Dieting Self-Efficacy, Weight Loss Confidence, Weight Loss Desire, Exercise Attitudes, Exercise Intentions, and Unhealthy = Tasty Intuition and Esteem Measures (Study 1 - Chapter 4)

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<td>2.18*</td>
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*p < .10; **p < .05; ***p < .01
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<th><strong>Esteeom Measures</strong></th>
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<td>Exercise&lt;sup&gt;b,e&lt;/sup&gt;</td>
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<sup>a</sup>B= blatant and M = muted  
<sup>b</sup>Higher values indicate higher perceived dieting self-efficacy and more favorable attitudes toward exercise (measure on a 1-9 scale).  
<sup>c</sup>Lower values indicate greater weight loss desire.  
<sup>d</sup>Higher values indicate greater weight loss confidence and greater belief in the unhealthy = tasty intuition (measure on a 1-9 scale).  
<sup>e</sup>Exercise Intentions was not included in the table due to space limitations. This information is available upon request.
**TABLE 3.** Univariate Results for the Effects of Overweight Primes, Weight Status, and Weight Self-Importance on Dieting Self-Efficacy, Weight Loss Confidence, Weight Loss Desire, Exercise Attitudes, Exercise Intentions, Unhealthy = Tasty Intuition, and Esteem Measures (Study 2 - Chapter 5)

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<th>Weight Loss Confidence</th>
<th>Weight Loss Desire</th>
<th>Exercise Attitudes</th>
<th>Exercise Intentions</th>
<th>Unhealthy = Tasty Intuition</th>
<th>Self-Esteem</th>
<th>Appearance-Esteem</th>
<th>Weight-Esteem</th>
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<td>.03</td>
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<td>.29</td>
<td>6.67***</td>
<td>2.84*</td>
<td>.16</td>
<td>.46</td>
<td>.04</td>
<td>.94</td>
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<td>54.99***</td>
<td>.54</td>
<td>1.51</td>
<td>1.29</td>
<td>7.83***</td>
<td>41.33***</td>
<td>9.74***</td>
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<td>4.67**</td>
<td>6.91***</td>
<td>2.70*</td>
<td>3.31**</td>
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<td>8.15***</td>
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<td>.37</td>
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<td>1.31</td>
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<td>2.27*</td>
<td>4.68***</td>
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<td>1.31</td>
<td>3.34**</td>
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<tr>
<td>WS x WSI</td>
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<td>1.91</td>
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<td>5.58***</td>
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<td>.33</td>
<td>1.98*</td>
<td>11.07***</td>
<td>2.52**</td>
<td>2.22*</td>
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*p < .10; **p < .05; ***p < .01
TABLE 4. Dependent Variable Mean Results for the Effects of Overweight Primes, Weight Status, and Weight Self-Importance on Dieting Self-Efficacy, Weight Loss Confidence, Weight Loss Desire, Exercise Attitudes, Unhealthy = Tasty Intuition, and Esteem Measures (Study 2 - Chapter 5)\(^e\)

<table>
<thead>
<tr>
<th>Weight Status &amp; W-ISI</th>
<th>Dependent Measures</th>
<th>Esteem Measures</th>
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</thead>
<tbody>
<tr>
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<td>Dieting(^b)</td>
<td>Exercise(^b,e)</td>
</tr>
<tr>
<td></td>
<td>B  M</td>
<td>B  M</td>
</tr>
<tr>
<td>Normal Weight</td>
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<td></td>
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<tr>
<td>Mod W-ISI</td>
<td>4.77  4.45</td>
<td>5.99  5.85</td>
</tr>
<tr>
<td>High W-ISI</td>
<td>2.93  4.12</td>
<td>6.58  6.45</td>
</tr>
<tr>
<td>Overweight</td>
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<td></td>
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<tr>
<td>Low W-ISI</td>
<td>6.56  3.22</td>
<td>5.62  6.52</td>
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<td>Mod W-ISI</td>
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<td>5.44  6.59</td>
</tr>
<tr>
<td>Obese</td>
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<td>Low W-ISI</td>
<td>3.96  2.05</td>
<td>3.47  6.32</td>
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<td>Mod W-ISI</td>
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<td>High W-ISI</td>
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</table>

\(^{a}\)B= blatant and M = muted
\(^{b}\)Higher values indicate higher perceived dieting self-efficacy and more favorable attitudes toward exercise (measure on a 1-9 scale).
\(^{c}\)Lower values indicate greater weight loss desire.
\(^{d}\)Higher values indicate greater weight loss confidence and greater belief in the unhealthy = tasty intuition (measure on a 1-9 scale).
\(^{e}\)Exercise Intentions was not included in the table due to space limitations. This information is available upon request.
TABLE 5. Univariate Results for the Effects of Overweight Primes, Weight Status, and W-ISI on Dieting Self-Efficacy, Weight Loss Confidence, Weight Loss Desire, Weight Perception, Unhealthy = Tasty Intuition, Menu Attention, Menu Fluency, and Esteem Measures (Study 3 - Chapter 6)

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<th>Esteem Measures</th>
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<td>1.05</td>
<td>3.84**</td>
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<td>Weight Status (WS)</td>
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<td>4.92**</td>
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<td><strong>Interaction Effects</strong></td>
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<td>P x WSI</td>
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<td>1.22</td>
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*p < .10; **p < .05; ***p < .01
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<th>Weight Loss Confidence</th>
<th>Weight Loss Desire</th>
<th>Unhealthy = Tasty Intuition</th>
<th>Menu Attention</th>
<th>Self-Esteem</th>
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<td>1.94</td>
<td>2.06</td>
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</table>

aC = control and OO = overweight other
bHigher values indicate higher perceived dieting self-efficacy and menu attention (measured on a 1-7 scale).
cLower values indicate greater weight loss desire.
dHigher values indicate greater weight loss confidence and greater belief in the unhealthy = tasty intuition (measured on a 1-9 scale).
eMenu Involvement and Menu Fluency were not included in the table due to space limitations. This information is available upon request.
### TABLE 7. Univariate Results for the Effects of Exploratory Weight-Related Primes and Weight Status on Mood States, Self-criticism, W-ISI, State Body Image, Dieting Self-efficacy, and Esteem Measures (Pilot Test 2 - Chapter 7)

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<th>Sadness</th>
<th>Self-Criticism</th>
<th>W-ISI</th>
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<th>Dieting Self-efficacy</th>
<th>Self-Esteem</th>
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<th>Weight-Esteem</th>
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### TABLE 8. Univariate Results for the Effects of Weight-self Disassociation, Weight Status, and Cognitive Load on State Body Image, Self-Kindness, Dieting Self-efficacy, Exercise Self-efficacy, Weight Loss Performance, Health Goal Commitment, and Esteem Measures (Study 5 - Chapter 8)

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<th>Univariate F-Values</th>
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<td>WSD x Cog L</td>
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<td>5.61**</td>
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<tr>
<td>WS x Cog L</td>
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<td>3.30**</td>
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*p < .10; **p < .05; ***p < .01
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<th>Esteem Measures</th>
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<td>Main Effects</td>
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*p < .10; **p < .05; ***p < .01
Figure 1a. Effects of Weight Status and Mood Induction on Product Attitude-
Highest Calorie Food Item (Pilot Test 1 - Chapter 3)

Figure 1b. Effects of Weight Status and Mood Induction on Product Attitude-
Highest Calorie Food Item (Pilot Test 1 - Chapter 3)
Figure 2. Effects of Overweight Salience, Weight Status, and W-ISI on Dieting Self-efficacy (Study 1 - Chapter 4)

Normal Weight Consumers

<table>
<thead>
<tr>
<th>Weight Status</th>
<th>Low W-ISI</th>
<th>Moderate W-ISI</th>
<th>High W-ISI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muted Prime</td>
<td>5.1</td>
<td>4.51</td>
<td>5.2</td>
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<tr>
<td>Blatant Prime</td>
<td>4.63</td>
<td>4.62</td>
<td>2.1</td>
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</table>

Overweight Consumers

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<th>Moderate W-ISI</th>
<th>High W-ISI</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4.14</td>
<td>3.24</td>
</tr>
<tr>
<td>Blatant Prime</td>
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<td>4.96</td>
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Obese Consumers

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<tr>
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<th>Low W-ISI</th>
<th>Moderate W-ISI</th>
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</thead>
<tbody>
<tr>
<td>Muted Prime</td>
<td>3.83</td>
<td>3.41</td>
<td>2.72</td>
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<tr>
<td>Blatant Prime</td>
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</table>
Figure 3. Effects of Overweight Salience, Weight Status, and W-ISI on Unhealthy = Tasty Intuition (Study 1 - Chapter 4)
Figure 4. Effects of Overweight Salience, Weight Status, and W-ISI on Product Attitude – Highest Calorie Food Item (Chapter 4)
Figure 5. Effects of Overweight Salience, Weight Status, and W-ISI on Anticipated Consumption Pleasure – Highest Calorie Food Item (Study 1- Chapter 4)
Figure 6. Effects of Thin Weight Salience, Weight Status, and W-ISI on Dieting Self-efficacy (Chapter 5)
Figure 7. Effects of Thin Weight Salience, Weight Status, and W-ISI on Unhealthy = Tasty Intuition (Chapter 5)
Figure 8. Effects of Thin Weight Salience, Weight Status, and W-ISI on Product Attitude – Highest Calorie Food Item (Chapter 5)
Figure 9. Effects of Thin Weight Salience, Weight Status, and W-ISI on Anticipated Consumption Pleasure – Highest Calorie Food Item (Study 2 - Chapter 5)
Figure 10. Effects of Identification Prime, Weight Status, and W-ISI on Dieting Self-efficacy (Chapter 6)

<table>
<thead>
<tr>
<th>Weight Status</th>
<th>Normal Weight Consumers</th>
<th>Overweight Consumers</th>
<th>Obese Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low W-ISI</td>
<td>4.98 5.02</td>
<td>5.82 4.57 3.99</td>
<td>5.05 3.64</td>
</tr>
<tr>
<td>Moderate W-ISI</td>
<td>4.02 4.23</td>
<td>4.57 4.39 3.64</td>
<td>3.59 3.33</td>
</tr>
<tr>
<td>High W-ISI</td>
<td>4.06 5.11</td>
<td>3.99 3.07 2.85</td>
<td>3.33 3.01</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>Control</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td>Overweight Other</td>
<td>Overweight Other</td>
<td>Overweight Other</td>
</tr>
</tbody>
</table>
Figure 11. Effects of Identification Prime, Weight Status, and W-ISI on Weight Loss Desire (Chapter 6)
Figure 12. Effects of Identification Prime, Weight Status, and W-ISI on Unhealthy = Tasty Intuition (Chapter 6)
Figure 13. Effects of Identification Prime, Weight Status, and W-ISI on Product Attitude – Highest Calorie Food Item (Chapter 6)
Figure 14. Effects of Identification Prime, Weight Status, and W-ISI on Anticipated Consumption Pleasure – Highest Calorie Food Item (Chapter 6)

Normal Weight Consumers

- Low W-ISI: 5.51
- Moderate W-ISI: 5.82
- High W-ISI: 2.9

Overweight Consumers

- Low W-ISI: 8.83
- Moderate W-ISI: 6.08
- High W-ISI: 4.33

Obese Consumers

- Low W-ISI: 6.99
- Moderate W-ISI: 5.8
- High W-ISI: 4.4
Figure 15. Plot of the Moderating Effects of Weight-related Primes on Self-criticism (Chapter 7)
Figure 16. Plot of the Moderating Effects of Weight-related Primes on Weight-esteem

(Chapter 7)

Normal Weight Consumers

Overweight Consumers

Obese Consumers
Figure 17. Plot of the Moderating Effects of Weight-related Primes on W-ISI (Chapter 7)
Figure 18. Plot of the Moderating Effects of Weight-related Primes on Dieting Self-efficacy (Chapter 7)
Figure 19. Plot of the Moderating Effects of Weight-related Primes on Exercise Self-efficacy (Chapter 7)
Figure 20. Plot of the Moderating Effects of Weight-related Primes on Product Attitude – Highest Calorie Food Item (Chapter 7)

Normal Weight Consumers

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>4.09</td>
</tr>
<tr>
<td>Body Pos.</td>
<td>4.25</td>
</tr>
<tr>
<td>Mindful</td>
<td>4.4</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>3.49</td>
</tr>
<tr>
<td>Soc. Acc.</td>
<td>4.07</td>
</tr>
</tbody>
</table>

Overweight Consumers

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>4.63</td>
</tr>
<tr>
<td>Body Pos.</td>
<td>3.52</td>
</tr>
<tr>
<td>Mindful</td>
<td>4.13</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>2.53</td>
</tr>
<tr>
<td>Soc. Acc.</td>
<td>4.57</td>
</tr>
</tbody>
</table>

Obese Consumers

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>4.51</td>
</tr>
<tr>
<td>Body Pos.</td>
<td>5.26</td>
</tr>
<tr>
<td>Mindful</td>
<td>3.99</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>3.4</td>
</tr>
<tr>
<td>Soc. Acc.</td>
<td>4.11</td>
</tr>
</tbody>
</table>
Figure 21. Plot of the Moderating Effects of Weight-related Primes on Anticipated Consumption Pleasure – Highest Calorie Food Item (Chapter 7)
Figure 22. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on State Body Image (Chapter 8)

### Normal Weight Consumers

<table>
<thead>
<tr>
<th></th>
<th>Low Load</th>
<th>High Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>4.26</td>
<td>4.73</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>4.92</td>
<td>4.98</td>
</tr>
</tbody>
</table>

### Overweight Consumers

<table>
<thead>
<tr>
<th></th>
<th>Low Load</th>
<th>High Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>3.69</td>
<td>3.11</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>4.71</td>
<td>3.45</td>
</tr>
</tbody>
</table>

### Obese Consumers

<table>
<thead>
<tr>
<th></th>
<th>Low Load</th>
<th>High Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>2.21</td>
<td>2.84</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>2.89</td>
<td>2.87</td>
</tr>
</tbody>
</table>
Figure 23. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Self-compassion (Chapter 8)
Figure 24. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Dieting Self-Efficacy (Chapter 8)

<table>
<thead>
<tr>
<th></th>
<th>Normal Weight Consumers</th>
<th>Overweight Consumers</th>
<th>Obese Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Load</td>
<td>High Load</td>
<td>Low Load</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>W-S Dis.</td>
<td>Control</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>4.75</td>
<td>3.02</td>
</tr>
<tr>
<td>W-S Dis.</td>
<td>5.33</td>
<td>4.02</td>
<td>3.67</td>
</tr>
</tbody>
</table>

Low Load: Low cognitive load; High Load: High cognitive load.
Figure 25. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Product Attitude – Highest Calorie Food Item (Chapter 8)
Figure 26. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Purchase Intentions - Highest Calorie Food Item (Chapter 8)
Figure 27. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Anticipated Consumption Pleasure - Highest Calorie Food Item (Chapter 8)
Figure 28. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Taste Perceptions - Highest Calorie Food Item (Chapter 8)
Figure 29. Effects of Weight-Self Disassociation, Weight Status, and Cognitive Load on Health Goal Commitment (Chapter 8)
Figure 30. Effects of High W-ISI and Weight Status on State Body Image (Chapter 9)
Figure 31. Effects of High W-ISI and Weight Status on Dieting Self-efficacy (Chapter 9)
Figure 32. Effects of High W-ISI and Weight Status on Avoidance Coping (Chapter 9)
Figure 33. Effects of High W-ISI and Weight Status on Product Attitude – Highest Calorie Food Item (Chapter 9)
Figure 34. Effects of High W-ISI and Weight Status on Anticipated Consumption Pleasure – Highest Calorie Food Item (Chapter 9)

![Bar Chart]

- Normal Weight: Control 4.31, High W-ISI 3.45
- Overweight: Control 4.29, High W-ISI 3.66
- Obese: Control 4.04, High W-ISI 3.74
Appendix A. Instructional Attention Check

What sources do you get your news from? In order to insure that you have read the instructions, please ignore the items listed below and select “none of the above”.

☐ Network TV  ☐ Podcasts
☐ Cable TV  ☐ Magazines
☐ Radio  ☐ Word of Mouth
☐ Newspapers  ☐ Social Networking Sites
☐ Online News  ☐ None of the above
☐ Online Blogs

*The Instructional Manipulation Check was used in all studies*
### Appendix B. Weight Self-Importance (WSI) Scale

<table>
<thead>
<tr>
<th>Items</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weight Salience Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My weight is something I rarely think about.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I really don't have clear feelings about my weight.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I spend a lot of time thinking about my weight.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Losing weight is a personal goal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight Identity Importance Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My weight is an important part of who I am.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My weight has very little to do with who I am.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My weight is an important reflection of who I am.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. My weight is unimportant to my sense of what type of person I am.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. My weight is an important part of my self-image.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Items ranged from (1) strongly disagree to (9) strongly agree*

*Items were reverse coded so that lower scores reflected lower weight self-importance*
Appendix C. Rosenberg’s Self-Esteem Scale

1. I feel that I am a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure. **
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of. **
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself. **
9. I certainly feel useless at times. **
10. At times I think I am no good at all. **

*Anchored by strongly disagree (1) and strongly agree (7)  
**Reverse Coded
Appendix D. The Weight and Appearance-Esteem Measures

**Appearance-esteem Subscale (Body-Esteem Scale for Adolescents and Adults (Mendelson, White, and Mendelson 2001).**

1. I like what I look like in pictures.
2. I like what I see when I look in the mirror.
3. There are lots of things I'd change about my looks if I could. **
4. I wish I looked better. **
5. I wish I looked like someone else. **
6. My looks upset me. **
7. I'm pretty happy about the way I look.
8. I feel ashamed of how I look. **
9. I worry about the way I look. **
10. I'm looking as nice as I'd like to.

*Anchored by strongly disagree (1) and strongly agree (7)
**Reverse Coded

**Weight-esteem Subscale (Body-Esteem Scale for Adolescents and Adults (Mendelson, White, and Mendelson 2001)**

1. I'm proud of my body.
2. I am preoccupied with trying to change my body weight. **
3. I am satisfied with my weight.
4. I really like what I weigh.
5. I feel I weigh the right amount for my height.
6. Weighing myself depresses me. **
7. My weight makes me unhappy. **
8. I think I have a good body.

*Anchored by strongly disagree (1) and strongly agree (7)
**Reverse Coded
### Appendix E. Weight and Negative Affect Activation Primes (Pilot Study-Chapter 3)

<table>
<thead>
<tr>
<th>Prompt Category</th>
<th>Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Please describe below, in as much detail as possible, a typical Saturday in your life.</td>
</tr>
<tr>
<td>Overweight</td>
<td>Please describe below, in as much detail as possible, a time in life when you felt overweight. Describe the circumstances, how you felt, and what you did.</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>Please describe below, in as much detail as possible, a time in life when you were sad. Describe the circumstances, how you felt, and what you did.</td>
</tr>
</tbody>
</table>
Appendix F. List of Anagram Words Used in Study 1 (Chapter 4)

<table>
<thead>
<tr>
<th>EXPERIMENTAL STIMULI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anagram</strong></td>
<td><strong>Prime</strong></td>
</tr>
<tr>
<td>TAF</td>
<td>FAT</td>
</tr>
<tr>
<td>YTHERF</td>
<td>HEFTY</td>
</tr>
<tr>
<td>BBYCHU</td>
<td>CHUBBY</td>
</tr>
<tr>
<td>IGB</td>
<td>BIG</td>
</tr>
<tr>
<td>BEESO</td>
<td>OBESE</td>
</tr>
<tr>
<td>YVHEA</td>
<td>HEAVY</td>
</tr>
<tr>
<td>PUDYGG</td>
<td>PUDGY</td>
</tr>
<tr>
<td>RAGLE</td>
<td>LARGE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NONEXPERIMENTAL STIMULI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unrelated Anagram</strong></td>
<td><strong>Prime</strong></td>
</tr>
<tr>
<td>SILENT</td>
<td>LISTEN</td>
</tr>
<tr>
<td>ELVIS</td>
<td>LIVES</td>
</tr>
<tr>
<td>MOEH</td>
<td>HOME</td>
</tr>
<tr>
<td>YABB</td>
<td>BABY</td>
</tr>
<tr>
<td>CLUK</td>
<td>LUCK</td>
</tr>
<tr>
<td>WODN</td>
<td>DOWN</td>
</tr>
<tr>
<td>PLIS</td>
<td>LISP</td>
</tr>
</tbody>
</table>
Appendix G. Menu Used in Studies 1 and 2

Olive Twist Restaurant

Brick Oven Flatbread

Our Own Flatbread Topped With Olive Oil, Pepperoni, and Mozzarella

Grilled Salmon

Wood Grill Salmon Topped with a Light Sauce and Served with Fresh Asparagus

Grilled Chicken Salad

Grilled Chicken Over a Bed of Fresh Salad Greens with Grape Tomatoes and Red Onions

Gourmet “Big Cheese” Burger

Our Premium Beef Burger Topped with Thick Sliced Mozzarella
Appendix H. List of Anagram Words Used in Study 2 (Chapter 5)

<table>
<thead>
<tr>
<th>EXPERIMENTAL STIMULI</th>
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</tr>
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<tr>
<td>LIMS</td>
<td>SLIM</td>
</tr>
<tr>
<td>NITH</td>
<td>THIN</td>
</tr>
<tr>
<td>KNLAY</td>
<td>LANKY</td>
</tr>
<tr>
<td>MRIT</td>
<td>TRIM</td>
</tr>
<tr>
<td>LINSKY</td>
<td>SLINKY</td>
</tr>
<tr>
<td>EALN</td>
<td>LEAN</td>
</tr>
<tr>
<td>GHLTI</td>
<td>LIGHT</td>
</tr>
<tr>
<td>NNSKIY</td>
<td>SKINNY</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NONEXPERIMENTAL STIMULI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrelated Anagram</td>
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<tr>
<td>SILENT</td>
</tr>
<tr>
<td>ELVIS</td>
</tr>
<tr>
<td>MOEH</td>
</tr>
<tr>
<td>YABB</td>
</tr>
<tr>
<td>CLUK</td>
</tr>
<tr>
<td>WODN</td>
</tr>
<tr>
<td>PLIS</td>
</tr>
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</table>
Appendix I. Pictorial Stimuli Used in Study 3 (Chapter 6)

Control Condition

Experimental Condition
### Appendix J. Menu Used in Study 3 (Chapter 6)

<table>
<thead>
<tr>
<th>Entrees</th>
<th>Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angus, Bacon &amp; Cheese Hamburger</td>
<td>Coke, Sprite, Dr. Pepper Bottle of Water, Apple Juice</td>
</tr>
<tr>
<td>Crispy Chicken Sandwich</td>
<td></td>
</tr>
<tr>
<td>3.5 oz. Hamburger</td>
<td>Small – 16 ounces</td>
</tr>
<tr>
<td>Chicken BBQ snack wrap</td>
<td>Medium – 21 ounces</td>
</tr>
<tr>
<td>Caesar Chicken Salad</td>
<td>Large – 32 ounces</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Side Items</th>
<th>Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td></td>
</tr>
<tr>
<td>Side Salad</td>
<td></td>
</tr>
<tr>
<td>Side of Baby Carrots</td>
<td></td>
</tr>
</tbody>
</table>
Appendix K. Control Condition (Pilot Test 2 - Chapter 7)

No guilt trips over holiday gift cards; they’ve been at the top of wish lists for eight years

My husband and I were talking with our children about what they wanted for Christmas. All of them are in their teens, and any pretense of Santa has long been gone. The holiday has become their chance to break down our frugal barriers.

But we do love to hear their squeals of delight at finally getting a coveted item. And then there are the gifts that fail.

Last year, my husband bought our now-14-year-old daughter, Jillian, what he thought was the prettiest sweater. I warned him that she wouldn’t like it. But he loved the multicolored design and was convinced she would love it, too.

She laughed. My husband was crestfallen, although he laughed, too. But I was ready to give her college fund to her brother. I’m not that old.

This year, as the kids were rattling off what they wanted, I whispered to my husband, “Gift cards.”

He and I no longer have any gift-card guilt. And we are not alone.

Total spending on gift cards is expected to reach $31.74 billion, according to the National Retail Federation. Gift cards have been the most requested holiday item eight years in a row. The federation said total spending on gift cards has increased 83 percent since 2003, when it began tracking people’s intentions to give the cards as holiday presents.

You don’t even have to give folks a physical plastic card. You can purchase electronic cards that can be delivered to a person’s smartphone. And it saves you the hassle of fighting crowds at the mall.

It used to be that a gift card was seen as the lazy person’s gift of choice. For some, it shows a lack of creativity or thoughtfulness. But in a country where so many have so much and don’t really need anything, we should embrace the truth that gift cards are convenient. They relieve you of the stress of finding gifts for people who are hard to please. They help folks like me who don’t know what’s in or what’s cool. No more sweater slip-ups.

If you’re giving a card, here are some guilt-free shopping tips:

• **Do some one-stop shopping.** I love that many supermarket chains and big retailers have large selections of specialty gift cards for restaurants, movie theaters and other stores. So don’t waste time going from store to store.

• **Keep the receipts.** On a few occasions, a gift card wouldn’t register when I tried to redeem it. Unfortunately, the giver hadn’t kept the receipt proving that money had been loaded on the card.

• **Give more than the card.** To personalize the gift card, include a handwritten note. If I’m giving a gift card from a bookstore, I might pair it with a journal, pen or bookmark and the note. If I’ve ordered an electronic gift card, I’ll get a greeting card and write a note so I can hand the person something.

• **Be creative about how you present the gift card.** I’ve found some really cool cardholders. For a few dollars, you can buy holders that look like tiny purses. Or make your own cardholder. When I was searching for ideas online, I saw a creative suggestion courtesy of Pinterest from someone who was giving a gift card from Starbucks. The gift giver made the cup look like a mocha frappuccino by lining the inside of the cup with brown paper and adding white tissue paper at the top to look like whipped cream. You might use old movie stubs to decorate the wrapping for a movie gift card. On Pinterest, search for “creative gift card wrapping.”

• **Don’t be embarrassed to give what you can afford.** Some folks overspend on a gift card because they think a low dollar amount makes them look miserly. If you can afford just a $5 or $10 card, give it without shame. You may get recipients who will comment negatively on the amount or show their displeasure in some way. But that’s their issue, not yours. They are showing themselves to be ungrateful, and their bad behavior will save you money next year because you should strike them from your list.
Appendix L. Mindfulness Manipulation (Pilot Test 2 - Chapter 7)

**Instructions**
We would like you to spend a short period of time reviewing a set of two words or statements. While thinking of the words or statements, please actively think about how the words may be related to each other and how they might be different. Next we would like you to make a grammatical 4 to 10 word sentence and write it down in the space provided and share your thoughts about the feelings invoked by the sentence that you created.

<table>
<thead>
<tr>
<th>Word/Statement Combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>BODY</td>
</tr>
<tr>
<td>WEIGHT</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>BODY IMAGE</td>
</tr>
</tbody>
</table>
### Writing Prompt Number 1
In an effort to counteract the idea that your weight is central to loving yourself and/or central to the many loving relationships we have with our family, friends, spouses…etc., we would like you to spend 1-2 minutes writing about all of the abilities and successes that you have had in life that have nothing to do with your weight.

### Writing Prompt Number
Now make a list of people who love you no matter what you weigh.
Appendix N: Pilot Test - Weight-Self Dissociation Manipulation (Pilot Test 2 - Chapter 7)

| Writing Prompt | We’d like you to write 5 independent statements (complete sentences each with about 10 to 15 words). The statements should convey some positive, deeply moving, emotionally involving thoughts and or sentiments that describe your relationship with your weight. Concentrate on how you have managed to embrace a more realistic attitude about your body while also STRENGTHENING a sense of independence between your sense of self and your weight. |
5 Mantras To Help You Stop Giving A Sh*t About Your Bikini Body

LOVE THAT BODY! REAL TALK

I want to start this by letting you in on a little secret: Your body does not have to change for you to start loving it more. You do not need to lose a pound, an inch, tone up an arm, reduce a wrinkle or build more muscle before you can start loving your body more. With this fact in mind, here are 5 mantras I’ve been using to pump myself up.

1. **No one cares about my body more than I do** (and if they do, that’s their own stuff coming up).
   When I was in Vegas, a guy came up to me and began talking about how he normally has a 6-pack but was bloated because he had recently drunk one of those good-for-the-first-3-drinks drinks that’s shaped like the Eiffel Tower. My first thought (after *Hmm, that’s an interesting pickup line*) was interesting: here I am focused on feeling insecure in my body and slamming mojitos for confidence, and everyone else is focused on themselves.

2. **Do I choose my friends based on their bodies or body types?**
   It never hurts to remind yourself what matters most in a person. Realistically, do you choose your friends and lovers based on their body types? If the answer is yes, that could be a very shaky foundation for those relationships. People might be attracted to others initially based solely on their physical appearance, but it won’t take you much further than one night.

3. **This is the body I have today, and I can choose to be kind to it or hate on it.**
   Ultimately, you can’t take a magic wand and change your body right now (or at least, the majority of us can’t). I suppose with enough money and time off you could get a series of surgeries and whatnot, but this one is for those of us who either can’t or don’t want to exercise that option. So, you have a choice: You can beat up on your body and feel like crap, let those demons keep you inside and keep you from having fun (not unlike the demons of anxiety or depression), or you can practice compassion toward your body, acknowledge that it’s not perfect (nor is anyone’s) tell yourself the other mantras, and go on with your day and your life.

4. **If there were no mirrors or media, how would I judge my body?**
   This one might not be surprising to you, but it can be helpful to be curious about the impact the media and society have on how frequently we feel like crap about our bodies. Remember how much the diet and fashion industries make off you believing you’re not good enough. Remember how unrealistic and unrepresentative of the population the size 0 (or often “ripped up”) airbrushed models are. Remember that there are hundreds of different body types out there and they are all unique and miraculous. Imagine how you’d relate to your body if there were no mirrors, no media, and no mode of comparison.

5. **My body is imperfect, and that’s OK.**
   We are all perfectly imperfect. Marked and dimpled, asymmetrical and saggy, imperfection is part of the human condition. Instead of focusing on having a “perfect” body, remind yourself that your body is imperfect, as it should be. That’s what makes you a human, and it’s what all the rest of us humans share. Your body is imperfect and that’s OK, and you are imperfect, and that’s OK.

So the next time insecurity and self-judgment are preventing you from experiencing situations involving swim suits, find encouragement in these mantras!
Appendix P. Healthy and Unhealthy Food Items (Pilot Test 2 - Chapter 7)

Healthy Food Item

Unhealthy Food Item
Appendix Q. Control Condition (Chapter 9)

Growing Perennials

Perennial plants are the backbone of nearly every flower garden. Unlike annual plants, which must be replanted each spring, herbaceous perennials die to the ground at the end of the season, and then regrow from the same roots the following year. People grow perennial flowers because they are such easy-care, dependable performers, and because they offer an enormous variety of color, texture, and form. Here are the basics of garden design, plant selection, and care.

Some perennials, such as primroses, require deep humusy soil and plenty of shade, while others such as threadleaf coreopsis and cushion spurge wither away unless they grow in well-drained soil and full sun. Some perennials contain themselves in a nice, neat mound, while others, such as geoseenck loosestrife, will take over your entire garden. Some species should be cut back in midsummer, while others, such as hybrid lilies, may die if you remove their foliage.

There are so many different species and cultivars of perennial flowers to choose from that few people ever become completely familiar with all the options. For the perennial gardener, books are an invaluable resource. They provide photographs for identification (and inspiration!), cultural information, a description of growth habits, bloom time, color, and characteristics of special cultivars. Invest in a good how-to book that has cultural information, and a color encyclopedia to help you identify plants and plan your selections.

Fellow gardeners are another great source of information about perennials. They can give you firsthand details about bloom time, height, hardiness and cultural requirements, and, if you visit their gardens, you can also see for yourself what the plants really look like up close. Nothing beats seeing a plant in a garden setting, where you can observe how it is being used. You may even go home with some pass-along plants for your own garden.

Perennial Tips for the Ages
When planting a new perennial garden, prepare the soil well at the outset. That may be your only opportunity to loosen the soil, remove rocks, and add organic matter. If you start plants by seed, put your first-year seedlings in a nursery bed rather than directly into your flower garden. They will not bloom or have much of a presence until the second year anyway, and a nursery bed will allow you to keep a better eye on their performance. Most perennials should be divided in early spring when new growth is only a few inches high. If you miss your chance in the spring, wait until fall. Irises are the one major exception to this rule: they should be transplanted in early summer, right after they have bloomed.

Keep newly transplanted perennials well watered for the first few weeks. Water deeply to saturate the entire root ball and establish good contact between the roots and the surrounding soil. Most perennials prefer a pH of about 6.5, although some prefer more alkaline or acidic soil. If you have trouble with a particular plant, check its pH requirements and the pH level of the soil in your flower garden.

If your plants look stressed during the growing season, or if you see disease or insect damage, feed your plants with a quick-release organic fertilizer (try a blend of seaweed and fish emulsion). All plants die eventually, and some will die sooner than others, no matter what you do about it. If a plant performs poorly, try moving it to a different location. If it still is not happy, give it away or send it to the compost pile.

When designing a perennial garden, think about how you’ll get access to your plants to stake, deadhead, or divide them. Flat rocks can be used as stepping stones within the garden. A walkway created at the back of a border will be hidden during the growing season, but will make the bed accessible for spring and fall chores.
10 Reasons *Not* to Not Be Fit

Being fit is not something that you just luckily stumble onto after a series of disappointing efforts to get rid of unhealthy habits. As far as I'm concerned, the only thing that stands in our way to becoming fit is our own lack of trust in ourselves.

Insecurity or a lack of self-esteem is like a termite that can erode even the strongest of wood and cement foundations from within. To be able to get past such a barrier, we need to understand our negative mental, physical, and emotional drivers — what makes us suck at being fit.

1. **I'm not shallow, I'm OK the way I am.**
   This is an emotional driver. It's very much akin to self-denial, like fooling ourselves, pretending that everything is OK when it's actually not. Why do people do this?

2. **I don't have enough time to exercise.**

   This is a mental driver. When you think you have no time to exercise, you're actually trying to convince yourself that you have no time, even when you can make time, if you truly, wanted to do so.

   *"A One Hour Workout is 4% of Your Day"*  
   — no excuses

3. **I never see any results.**
   You don't pack on 10 pounds in a week, so you can't expect to lose 10 pounds in a week. Watch your "mindless" calorie intake. Are you snacking on candy between meals? Are you going out for margaritas twice per week? A margarita can have about 350 calories or more, which is about 30 minutes jogging on a treadmill!

4. **My friends/relatives all eat like this and they don't suffer any adverse effects.**
   This is another emotional driver. Comparing yourself with others is self-defeating because you are a unique individual. If you really want to become fit, you need to think of yourself as someone with unique needs.

5. **Exercise is boring.**
   This can be either a mental or emotional driver. If you have never exercised before, you cannot honestly say that it is boring. If you have exercised and gotten bored, it could be because you were going about your exercising in the wrong way.

6. **Can't find the motivation.**
   Everyone needs to set short- and long-term goals for themselves, whether it's to lose 10 pounds in 3 months or to gain an inch in size on their arms. Try to be specific with your goals and write them down somewhere you see them every day. You could also try taking a picture of yourself as your "before" picture and take a progress picture every month in the same clothing and compare.

7. **Can't find the motivation.**
   Of course you can't create more time in the day, so your only option is to use the time you do have more wisely. Instead of waiting until the end of the night, when all you can think about is putting your feet up and relaxing, why not get that workout out of the way in the morning, before you go to work and the kids wake up? If you wake up an hour earlier everyday, you can probably afford to also go to sleep an hour earlier, while still seeing your kids off to bed. As an added bonus, an early morning workout will give you lasting energy throughout the rest of the day.

*Good luck on your journey to looking and feeling better!
## Appendix S. Coping Measures (Chapter 9)

<table>
<thead>
<tr>
<th>Form of Coping</th>
<th>Items</th>
<th>Correlation</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
<td>I take additional action to try to get rid of the problem.</td>
<td>.87</td>
<td>Carver, Scheier, and Weintraub (1989)</td>
</tr>
<tr>
<td></td>
<td>I concentrate my efforts on doing something about it.</td>
<td></td>
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<tr>
<td></td>
<td>I do what has to be done, one step at a time.</td>
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<td></td>
<td>I take direct action to get around the problem.</td>
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<td></td>
<td>I realize I brought the problem on myself.</td>
<td>.27</td>
<td>Lazarus and Folkman (1980)</td>
</tr>
<tr>
<td><strong>Accepting Responsibility</strong></td>
<td>I make a promise to myself that things would be different next time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I try to step back from the situation and be objective.</td>
<td>.40</td>
<td>Duhachek (2005)</td>
</tr>
<tr>
<td><strong>Rational Thinking</strong></td>
<td>I try to keep my feelings from controlling my actions.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>I try to come up with a strategy about what to do.</td>
<td>.77</td>
<td>Carver, Scheier, and Weintraub (1989)</td>
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<tr>
<td><strong>Planning</strong></td>
<td>I think about how I might best handle the problem.</td>
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<td></td>
<td>I focus on dealing with the problem, and if necessary let other things slide a little.</td>
<td>.38</td>
<td>Carver, Scheier, and Weintraub (1989)</td>
</tr>
<tr>
<td><strong>Suppression of Competing Activities</strong></td>
<td>I try hard to prevent other things from interfering with my efforts at dealing with the problem.</td>
<td>.38</td>
<td>Carver, Scheier, and Weintraub (1989)</td>
</tr>
<tr>
<td><strong>Restraint</strong></td>
<td>I restrain myself from doing anything too quickly.</td>
<td>.62</td>
<td>Carver, Scheier, and Weintraub (1989)</td>
</tr>
<tr>
<td></td>
<td>I force myself to wait for the right time to do something.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>I try to forget the whole thing.</td>
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<tr>
<td><strong>Avoidance</strong></td>
<td>I wish that the situation would go away or somehow be over with.</td>
<td></td>
<td>Lazarus and Folkman (1980)</td>
</tr>
<tr>
<td><strong>Seek Social Support</strong></td>
<td>I get professional help.</td>
<td>.40</td>
<td>Lazarus and Folkman (1980)</td>
</tr>
<tr>
<td></td>
<td>I talk to someone about how I was feeling.</td>
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</tbody>
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