A Shaken Self on Shopping
Consumer Threats and Compensatory Consumption

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What the world needs is more geniuses with humility; there are so few of us left.

Oscar Levant
Abstract

In a series of experiments, with a total sample of over 2,400 participants, this thesis investigates how various threats that customers may encounter influence their subsequent purchase and choice behaviors. Furthermore, this thesis examines whether individuals’ predicted behaviors in certain consumer contexts are congruent with customers’ actual behaviors in these very contexts.

Paper I takes an evolutionary approach and investigates whether a status threat to male customers, induced by exposure to physically dominant men, results in compensatory consumption of products that signal status through price or size. Directly contradictory to consumer lay beliefs, the results reveal that male customers spend more than twice as much money and purchase nearly twice as expensive products compared to female customers in the presence, but not absence, of a physically dominant male employee. Product type moderates this effect, as men exposed to physically dominant (versus non-dominant) male employees and muscular (versus non-muscular) male models demonstrate a greater willingness to consume status-signaling, but not functional products. Men’s elevated feelings of intra-sexual competitiveness act as the underlying psychological mechanism justifying this effect. Thus, exposure to physically dominant men activates a more competitive mindset towards other men, which ultimately results in an increased desire to acquire status-signaling goods. Finally, male stature moderates the effect, with short (versus tall) men being particularly prone to consume products that signal status after exposure to other physically dominant men.

Paper II takes a reactance-based approach and examines whether customers whose freedom to touch has been threatened compensate by touching, and ultimately purchasing, a larger number of products. The results of this investigation demonstrate that people predict that restricting (versus encouraging) product touch during an in-store product demonstration should make them spend less money in the store and purchase fewer products. Thus, a tactile threat is thought to have an overall negative impact on customers’ purchase behavior. However, a field study shows that restricting (versus encouraging) product touch during an in-store product demonstration results in significantly more products being purchased, more than twice as much money being spent, and much more expensive products being purchased.
**Paper III** investigates whether threats to customers’ self-control in one domain influence choice behavior and consumption preferences in another unrelated domain. More specifically, the paper examines whether exposure to attractive opposite-sex faces (and hence a subtle activation of sexual desire and its associated pleasure-seeking mindset) makes individuals more motivated to choose and consume unhealthy-but-rewarding foods. In direct contrast to the beliefs held by marketing professors and other scholars, but consistent with visceral state theories, exposure to attractive (versus unattractive) opposite-sex faces makes people more motivated to choose and consume unhealthy rather than healthy foods. This effect is moderated by self-rated physical attractiveness and generalized sense of power, and only influences people who perceive themselves as inferior (versus superior) on such self-view-relevant attributes. Furthermore, the effect is stronger for men than for women, does not generalize after exposure to attractive same-sex faces, and only increases the desire to acquire the most rewarding product, even in a product category that is commonly viewed as rewarding.

The main findings of this work can be summarized as follows: Consumer threats result in compensatory consumption, not only in the specific domain under threat, but also in unrelated or only symbolically similar domains. Such compensatory responses are in direct contrast to consumer lay beliefs and even predictions made by marketing professors and other scholars, suggesting that people are generally unaware of the impact certain threats have on their behavior. These results should be as interesting for customers trying to make informed choices and resist various influence attempts as for marketers, advertisers, and retail managers trying to influence customers.

**Keywords:** threat-compensation effects, compensatory consumption, belief-behavior inconsistencies
Sammanfattning

I en rad experiment, med ett totalt urval på över 2400 deltagare, undersöker denna avhandling hur olika hot som konsumenter kan komma att möta påverkar deras köp- och valbetenden. Avhandlingen utreder vidare huruvida människors predicerade beteenden i vissa konsumtionssammanhang är kongruenta med konsumenters faktiska beteenden i dessa sammanhang.


Studie II baserar sig primärt på socialpsykologiska teorier kring reaktionsbildning och undersöker om konsumenter vars taktila frihet har hotats kompenserar genom att ta på, och i förlängningen köpa, fler produkter. Resultaten av denna undersökning visar att människor antar att en taktil restriktion (jämfört med uppmuntran) under en produkt demonstration kommer få dem att spenderar mindre pengar i butiken och köpa färre produkter. Ett hot mot konsumenters taktila frihet väntas således ha en generellt negativ effekt på deras köpbeteende. En fältstudie visar emellertid att en sådan taktil restriktion (jämfört med uppmuntran) under en produkt demonstration resulterar i signifikant fler inhandlade produkter, mer än dubbelt så mycket pengar spenderade och mycket dyrare produkter konsumerade.
Studie III undersöker huruvida hot mot konsumenters självkontroll i ett område påverkar deras valbeteende och konsumtionspreferenser i ett annat orelaterat område. Mer specifikt utreder studien om exponering för attraktiva ansikten av det motsatta könet (och således en subtil aktivering av sexlusten och dess tillhörande njutningssökande sinne) gör individer mer motiverade att välja och konsumera ohälsosamma, belönande matvaror. Tvärtom vad marknadsföringsprofessorer och andra forskare tror, men i linje med teorier om människors instinktiva drifter, visar resultaten att exponering för attraktiva (jämfört med oattraktiva) ansikten av det motsatta könet gör människor mer motiverade att välja och konsumera ohälsosamma snarare än hälsoresamma matvaror. Denna effekt modereras av självskattad fysisk attraktivitet och generella känslor av makt, och påverkar endast personer som skattar sig själva som underlägsna (jämfört med överlägsna) på sådana självbildsrelevanta attribut. Vidare visar det sig att effekten är starkare för män än för kvinnor, att den inte kan generaliseras till exponering för attraktiva ansikten av samma kön samt att den endast ökar önskan att förvärva den mest belönande produkten, även i en produkttkategori som vanligen betraktas som belönande.

Huvudfynden i föreliggande avhandling kan summeras såsom följer: Hot mot konsumenter leder till kompensationskonsumtion, inte bara i det specifika området för hotet, utan även i orelaterade eller endast symboliskt likartade områden. Sådana kompensationsresponder går stick i stäv med såväl konsumenters sunda förnuft som prediktioner från marknadsföringsprofessorer och andra forskare, vilket tyder på att människor generellt är omedvetna om vilken inverkan olika hot har på deras beteende. Dessa resultat torde vara lika intressanta för konsumenter med avsikten att göra välgrundade val och stå emot olika påverkansförsök som för marknadsförare, reklammakare och butiksägare i deras strävan efter att påverka konsumenter.

Nyckelord: hot-kompensationseffekter, kompensationskonsumtion, tro-beteendeinkonsekvenser
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Once upon a time, a little boy grew up close to a sea. In the summertime, the sea served as a popular bathing location. Small boats used to drive around further out in the water, thus leaving soft waves on the sunny seashore. The little boy loved to spend time in that water, but also stand silently on the beach to peacefully perceive the boats and the waves they created.

When the boy was four years old, his parents took him to an indoor adventure bath for the first time in his life. Unlike his usual approach to directly jump into the water, the boy was frozen in a confused expression at the pool side, staring out at the water. After a while, his mother came to him and asked what he was thinking of. The boy replied with four simple words: “Where is the boat?” Apparently, he had been watching the waves produced by the pool’s wave machine, and given his earlier observations that boats cause waves, he desperately tried to find the boat creating these waves.

That little boy was me, as a four-year-old naive scientist trying to make sense of the world. Ever since that day, I have had a strong motivation to explore, establish, and understand cause-effect relationships. Hence, the decision to write this thesis was probably a consequence of my constant curiosity to learn more in life, gain knowledge, and win wisdom. And now, after five years of hard work, it’s finally done, and it’s time to thank those individuals who made it all happen.

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Karlstad, January 31, 2017

Tobias Otterbring
1. Introduction

I’d rather cry in a BMW than laugh on a bicycle. Ma Nuo

Folk wisdom suggests that there may be a link between penis size and purchases of prestigious high-status cars, commonly referred to as penis extenders, with men who feel inferior due to their small organs being more likely to purchase luxurious Lamborghinis and other expensive cars to offset a threat to their marginal manhood. Indeed, one unpublished study (Eklöf et al., working paper) found indirect support for this claim, by documenting a statistically significant negative correlation between the relative sales of a high-status (versus low-status) car and men’s penis size in 23 developed countries. Thus, the relative market share of a high-status car was larger in countries where men, on average, had smaller penises.

Relatedly, in one of the United States Republican presidential debates, Donald Trump’s opponent Marco Rubio noted that Trump has very small hands. For the sake of clarity, he also added with emphasis: “And you know what they say about men with small hands?” implying that something else must be tiny on Trump too (Krieg, 2016). Trump responded by assuring millions of American voters on national television that, although “he referred to my hands as if, if they’re small, something else may be small, I guarantee to you there’s no problem, I guarantee!” Needless to say, Trump has several luxury cars of brands such as Rolls Royce and Lamborghini and a motorcycle made of 24-karat gold (Wallinga, 2015).

As the above examples imply, there may be a link between different kinds of threats, important to an individual’s self-view or identity, and the individual’s inclination to engage in subsequent compensatory acts aimed at restoring his or her “shaken self.” Support for this claim has had a long history in psychology (e.g., Adler, 1924/1951; 1964; Freud, 1905/1962; James, 1890/1981). For instance, although Sigmund Freud’s (1925) concept of penis envy originally referred to women’s envy for the penis due to their own inconspicuous organs and the visibility, size, and conspicuousness of their male counterparts, penis

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1 Read March 8, 2016 (International Women’s Day).
2 Although Freud’s (1925) claim of female penis envy has been heavily criticized, it has received symbolic support by theories arguing that although women do not envy the penis
Envy has been documented among men too (e.g., Domhoff, 2013; Hall & Van de Castle, 1965), but seems to have a more literal meaning for men than for women (Nathan, 1981), as evident from phrases such as “size matters” and “the bigger, the better.” About the same time as Freud, Alfred Adler (1924/1951) devoted much of his theorizing to discussing how humans compensate for various weaknesses, shortcomings, and feelings of inferiority by engaging in self-shielding activities and compensatory ways to counteract such self-threats. Freudian psychology also conceptualized defense mechanisms as a way to deal with the inner conflicts between the id’s impulsive desires (mainly in the sexual realm) and the superego’s role as a guard (a moral compass), restricting the id’s urges for instant gratification (A. Freud, 1936/2011). Thus, according to Freudian reasoning, a self-threat occurs when the ego encounters a situation in which the id may defeat the superego without any possibility for the ego to influence this outcome (S. Freud, 1938/1995).

This line of theorizing was later generalized to domains other than sex by scholars arguing that people who encounter a self-threat are more prone to protect their shaken selves by engaging in activities aimed at retaining a positive self-view (e.g., Arndt et al., 2003; Baumeister et al., 1998; Baumeister & Jones, 1978; Baumeister et al., 1996; Bradley, 1978; Campbell & Sedikides, 1999; Cutright, 2012; Gao et al., 2009; Festinger, 1954; Festinger & Carlsmith, 1959; Harmon-Jones et al., 2008; Hoegg et al., 2014; Johnston, 1967; Miller, 1976; Miller & Ross, 1975; Park & Maner, 2009; Rozin et al., 2014; Schlenker & Miller, 1977; Schneider, 1969; Taylor & Brown, 1988; Zhang & Baumeister, 2006). Thus, even though Freud (1905/1962) viewed the battle between the id and the superego as the inner conflict motivating individuals to engage in compensatory defenses, most current theories of psychological threats still maintain that an aversive state of arousal accounts for the compensatory actions people practice as defense mechanisms for their shaken self-views (e.g., Han et al., 2015; Kim & Rucker, 2012; Mandel et al., 2017; McGregor et al., 2012; Proulx, 2012; Proulx & Heine, 2010; Proulx et al., 2012; Rucker & Galinsky, 2008; Rucker et al., 2012; Sivanathan & Pettit, 2010; Tritt et al., 2012).

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*per se*, they envy the status and power held by many men, with the penis being a symbolic reminder of this fact (e.g., Nathan, 1981; Thompson, 1943).

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3 “Be parsimonious in the use of references.” (Summers, 2001, p. 411)
How, then, do individuals respond to environmental cues that may act as threats? And how well do they predict how these cues influence the behaviors displayed by themselves and others? The current thesis is fundamentally about these two questions. More specifically, this thesis examines how certain cues that customers may encounter in various consumer contexts may threaten aspects of their self and identity, producing subsequent compensatory responses, despite little awareness of the impact these cues have on their behaviors.

In what follows, I first introduce the overarching conceptual framework of this thesis by reviewing findings in psychology and related disciplines regarding: (1) the distinction between predicted and actual behaviors, and (2) various threat-compensation effects. This is done in Chapter 2. Because several streams of research have indicated that threat-compensation effects occur beyond conscious awareness, I argue that lay beliefs about how various threats may influence consumer behavior is a weak predictor of customers' actual purchase and choice behaviors. Moreover, in line with multiple threat-compensation theories suggesting that a threat in one domain can evoke compensatory responses in another, I presuppose that consumer threats can result in compensatory consumption, not only in the specific domain of threat but also in unrelated or only symbolically similar domains.

In Chapter 3, I then review the results corresponding to the three empirical investigations included in this thesis. Shortly stated, Paper I investigates whether a status threat to male customers, induced by exposure to physically dominant male employees or muscular male models, results in compensatory consumption of products that signal status through price or size. Paper II examines whether customers whose freedom to touch has been threatened compensate by touching, and ultimately purchasing, a larger number of products. Paper III investigates whether threats to customers’ self-control in one domain can influence their choice behavior and consumption preferences in another unrelated domain. More specifically, the paper examines whether exposure to attractive opposite-sex faces (and hence a subtle activation of sexual desire and its associated pleasure-seeking mindset) makes individuals more motivated to choose and consume unhealthy-but-rewarding foods, and whether this potential effect is particularly strong among people who rate themselves as inferior on self-view-relevant attributes.
Having reviewed the results pertaining to Papers I-III, I conclude this thesis in Chapter 4 by discussing its overall scientific contribution. The empirical findings strongly support my theorizing. All papers demonstrate that consumer lay beliefs – and even predictions made by marketing professors and other scholars – are directly contradictory to customers’ actual purchase and choice behaviors in each of the studied situations. Moreover, all papers mutually show that customers do indeed respond with compensatory consumption to combat various threats. I close my work by acknowledging its limitations, highlighting its more general implications, and summarizing what would be fruitful for future researchers to examine.

Below, I provide an overview of the three papers included in this doctoral dissertation, with respect to their titles and (intended) journal outlets.

**Paper I:**

**Paper II:**

**Paper III:**
2. Conceptual Framework

Actions Speak Louder Than Words: Beliefs versus Behaviors

Only two things are infinite: the universe and human stupidity, and I’m not sure about the former.  
Albert Einstein

About 90 percent of Americans with a driver’s license think they drive more safely and more skillfully than the average person (Svenson, 1981). Even people whose (lack of) driving skills have resulted in accidents severe enough to require hospitalization describe themselves as much closer to “expert” than “very poor” in driving performance (Preston & Harris, 1965). This phenomenon does not only apply to automobile abilities. For instance, 94 percent of college professors rate themselves as above average in teaching skills (Cross, 1977), college students are wrong about 20 percent of the time when they express absolute certainty in their answers (Fischoff et al., 1977), and researchers rate their own manuscripts as superior relative to those authored by their peers; in fact, they think that their rejected manuscripts are at least as good as others’ accepted manuscripts (Van Lange, 1999). Editors of (so-called) scientific journals even seem to believe that their academic discipline is better than other disciplines (Sokal, 1996a, b; Sokal & Bricmont, 1999), and have ironically been awarded for “eagerly publishing research that they could not understand, that the author said was meaningless, and which claimed that reality does not exist” (Improbable Research, 1996). Furthermore, research shows that the majority of people think they have better sex lives than average (de Jong & Reis, 2015), and that they are more intelligent, competent, and talented than most others (Dunning et al., 2004); especially if they score in the bottom quartile on tests measuring these abilities (Kruger & Dunning, 1999). For sure, they cannot all be right.\(^4\)

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\(^4\) In a response to these editorial preconceptions, which postulate that science must be subordinated to a political agenda, that there is no real world, and that everything in the entire universe is just a set of social constructions, Sokal (1996a, p. 62) noted that “anyone who believes that the laws of physics are mere social conventions is invited to try transgressing those conventions from the windows of my apartment. (I live on the twenty-first floor.)”

\(^5\) Most of the above examples pertain to the “better-than-average” effect, which will not be the focus of this thesis. Rather, these examples are merely meant to illustrate a major claim in the current work: Beliefs and behaviors are two distinct phenomena. In other words, because people tend to portray themselves positively to defend, maintain, and enhance a favorable self-view, one cannot take for granted that their predicted or stated responses reflect reality.
For quite some time, it has been known and shown that people’s capacity to predict their actions, attitudes, and abilities is limited (Fletcher, 1984; Kelley, 1992; Milgram, 1963; Nisbett & Wilson, 1977; Ross, 1977; Ariely & Loewenstein, 2006). Thus, although scholars have often argued that people’s common sense and their roles as naïve or intuitive psychologists (Heider, 1958; Ross, 1977) are great assets for theory building, research has repeatedly revealed that lay beliefs and other intuition-based predictions “are exaggerated at best, and wholly inaccurate at worst” (Kelley, 1992, p. 6).

In their seminal work on individuals’ (in)ability to accurately describe the causes of their behaviors through self-report, Nisbett and Wilson (1977) concluded that people suffer from several error sources that impair their capacity to correctly inform them about the underlying motivations for their behaviors. First, they may be unaware of the very existence of a stimulus (for instance, an external cue in the environment) that influences their behaviors, or they may believe that such a stimulus has no effect on their behaviors. Second, apart from being unaware that the stimulus has indeed affected their behaviors, they may even be unaware of the behaviors themselves. Based on this reasoning, the authors suggested that self-reports about the causes of people’s preferences and decisions are highly inaccurate and “may have little value as a guide to the true causal influences” (de Camp Wilson & Nisbett, 1978, p. 118).

However, despite several claims that self-report measures, intuition-based predictions, and lay beliefs are both unreliable and self-contradictory, and that common sense is an inherently dangerous resource for scholars to rely upon (Fletcher, 1984), there has been a call for more research on the distinction between beliefs and behaviors, between common-sense psychology and scientific psychology (Kelley, 1992). Therefore, to find counter-intuitive effects, identify unexpected relationships between variables, and avoid the obvious, researchers have been advised to start with commonly held beliefs and taken-for-granted assumptions, and then provide evidence that what seems to be true and obvious is in fact the opposite of that which most people would predict (Kelley, 1992). After all, more is obvious in hindsight than in foresight (Fischhoff, 1975; Fischhoff & Beyth, 1975; Hawkins & Hastie, 1990).

In this thesis, individuals’ intuitions concerning their predicted behaviors are consistently contrasted with people’s actual behaviors in several shopping-relevant situations. Thus, each paper in this thesis starts with an intuition-based study reflecting people’s lay beliefs toward the phenomenon of investigation.
Having established individuals’ common (non)sense, each paper then continues with an examination of people’s actual behaviors in the given consumer context. By making this contrast between beliefs and behaviors, I address the first main objective of this thesis. The following sections delineate past and present research into various threat-compensation effects, which corresponds to the second and last main objective of this doctoral dissertation.

**Threat-Compensation Effects**

Neither threats nor pleadings can move a man unless they touch some one of his potential or actual selves. Only thus can we, as a rule, get a ‘purchase’ on another’s will.

William James

Research shows that threats can have numerous thought-provoking influences on physiological, psychological, and behavioral responses. To exemplify just a few scientifically documented threat-compensation effects, and while continuing with the penis metaphor from the Introduction, men respond with increased testosterone levels when their status is threatened by another man who, in front of a woman, “shows off” by displaying expensive status products and money, and also when they engage in status-signaling displays themselves, such as driving a prestigious Porsche (Saad & Vongs, 2009). Furthermore, masturbating men who view sexually explicit pictures featuring two sexy women and one threatening same-sex rival with a potent penis (instead of three sexy women and no potent man) produce ejaculates with a significantly larger proportion of motile sperm (Kilgallon & Simmons, 2005). As a last example, men trained to expect electric shocks when viewing an erotic film get a significantly larger size of erection, as measured by penile circumference, in the presence (versus absence) of a threat-inducing signal light indicating the imminent shock (Barlow et al., 1983).

More generally, a threat response is defined as a fight-or-flight action, which may include psychological and physiological elements as well as behavioral components (Öhman & Soares, 1994). Furthermore, because humans and other species have evolved to quickly detect and respond to threatening stimuli in their environment (Öhman et al., 2001), threats typically evoke automatic responses, meaning that the conscious recognition of a threat is not required for the threat response to occur (Öhman & Soares, 1994; Tritt et al., 2012).

Threats to people’s goals or self-views often result in compensatory responses (Proulx, 2012). A large body of research has found that people engage in several self-view-bolstering activities after experiencing a self-threat, as a compensatory
defense mechanism meant to maintain a positive self-view (e.g., Campbell & Sedikides, 1999; Gao et al., 2009; Pettit & Sivanathan, 2011; Proulx & Heine, 2010; Schneider, 1969; Sivanathan & Pettit, 2010; Tesser, 2000). This is understandable given that people prefer to portray themselves positively, both to boost their own egos and to make others perceive them as desirable (Baumeister & Jones, 1978; Greenberg & Pyszczynski, 1985; Greenwald, 1980; Steele, 1988).

When summarizing the threat-compensation literature, scholars usually conclude that when certain important aspects of an individual’s identity or self-view are threatened, the individual experiences an aversive state of arousal, motivating the individual to engage in compensatory activities (Han et al., 2015; Proulx & Heine, 2010; Tritt et al., 2012). Thus, threat-compensation processes are generally conceptualized as having three distinct components: (1) a detected inconsistency between an individual’s ideal and actual self, resulting in (2) a state of aversive arousal, which ultimately motivates the individual to engage in (3) compensatory actions (Mandel et al., 2017; Proulx et al., 2012). According to this view, threat-compensation processes share a common instigator (inconsistency), a common motivator (a drive to reduce aversive arousal), and a common outcome (compensation). In other words, any given inconsistency evokes a common state of biologically based aversive arousal, which, in turn, prompts approach-motivated compensatory efforts (McGregor, 2006; Proulx et al., 2012; Tritt et al., 2012).

Previous research has found that various threats to individuals’ self-views motivate them to take the first chance possible to heal their harmed identities (Steele, 1988), either directly in the same domain as the threat (e.g., Festinger, 1954; Gao et al., 2009; Kunda, 1990; Miller & Ross, 1975) or indirectly, in an unrelated yet ego-boosting domain (e.g., Baumeister & Jones, 1978; Ivanic et al., 2011; Mazzocchi et al., 2012; Steele & Liu, 1983; Tesser, 2000; Zhong & Liljenquist, 2006). Thus, because people praise the pride and pleasure associated with a positive self-view (Smith, 1759/2002), they tend to respond to self-threats through several different compensatory actions, whether these very actions pertain to the specific domain of threat or another domain important for one’s self-view (Han et al., 2015; Mandel et al., 2017; Proulx, 2012; Steele, 1988). This supports the notion that various threat-compensation effects are not entirely distinct, but rather represent a more general motivational process, invariant across domains (Proulx & Heine, 2010). For instance, sometimes people may not be able to compensate in the specific domain under threat, and
may therefore seek other ways to compensate in domains that are either unrelated or only symbolically similar to the actual domain of threat. An example of this is found in the research by Zhong and Liljenquist (2006), in which a threat to individuals’ morality made them more likely to engage in physical cleansing, as a symbolic compensatory act to “wash away their sins.”

Within the impression management literature, threat-compensation effects have been discussed for more than half a century. For instance, Schneider (1969) found that men were more prone to present themselves positively on a set of desirable personality characteristics when their self-view had been threatened through negative feedback (versus positive or no feedback) on a test claiming to predict their leadership abilities and popularity. Later, Cialdini et al. (1976) demonstrated that the tendency to “bask in the reflected glory” (that is, to publicly announce one’s association with successful others) was strongest when people’s public self-views were threatened. Individuals were more likely to use the pronoun we when describing that “their” football team had won rather than lost, and this compensatory self-presentation was particularly powerful among people whose public prestige had been threatened through getting negative feedback on a knowledge test in the eyes of an observer. Relatedly, Baumeister and Jones (1978) found that participants whose personalities were negatively evaluated in the presence (versus absence) of an interaction partner later compensated by rating themselves in a profoundly more positive manner; this is presumably because individuals are more concerned about maintaining a positive self-view publicly rather than privately. Supporting this idea, Greenberg and Pyszczynski (1985) demonstrated that the threat of a public (versus private) failure resulted in compensatory self-inflation, making individuals evaluate their own self-image far more favorably as a way to compensate for their publicly threatened self-views and to “keep the bubble from bursting” (p. 279).

Evidently, people use countless compensatory actions in an effort to combat threats to their self and identity. Yet another way to reassert a shaken self-view is to engage in compensatory consumption, which is the topic of the next section as well as the remainder of this thesis.
Consumer Threats and Compensatory Consumption

Money can’t buy you happiness but it does give you a more pleasant form of misery.

Spike Milligan

It has been claimed that money can compensate for a lack of self-esteem and other aspects associated with one’s self and identity, meaning that a self-threat can make people sacrifice money to defend, maintain, and enhance a positive sense of the self (Zhang, 2009). Indeed, already William James (1890/1981) viewed money, and the possessions associated with it, as an important part of the self – a building block of what he referred to as “the consciousness of self” – which could, and should, be used to bolster one’s ego. Thus, a threatened self-view and feelings of inferiority can be compensated for through costly displays, either directly by “showing off” an abundance of money (Zhang, 2009) or indirectly, by purchasing products that either are rewarding (Van den Bergh et al., 2008) or that signal status and success (Rucker & Galinsky, 2009). As such, money is required not only to fulfill fundamental human motives such as acquiring food and providing shelter (Briers et al., 2006), but also to enable realization of higher-order needs (such as desire for status) that can result in reproductive success (Kenrick et al., 2010; Zhang, 2009).

Because possessions can be used for their reparative effects on the ego (Sivanathan & Pettit, 2010), people sometimes communicate those characteristics they feel that they lack themselves through their possessions, especially after various self-threats (Braun & Wicklund, 1989; Dommer & Swaminathan, 2013; Lee & Shrum, 2012). Thus, possessions are more than the sum of their instrumental functions, because they can also be used for their symbolic, identity-signaling properties (Belk, 1988; Levy, 1959; Shavitt et al., 2009; Wicklund & Gollwitzer, 1981). In other words, possessions communicate characteristics of the owner, not only to the owner him- or herself, but also to others (e.g., Beggan, 1992; Belk et al., 1982a; b; Solomon, 1983).

Examples of threat-compensation effects in the context of consumption include the endowment effect (the tendency to require a higher price to give up an object than people would be willing to pay to acquire it; Thaler, 1980), which has been explained in terms of self-threats (Chatterjee et al., 2013; Dommer & Swaminathan, 2013). Given that possessions can be viewed as an extended self (Belk, 1988), Chatterjee et al. (2013) conceptualized the act of selling as an implicit self-threat. As a defense mechanism to this threat, sellers therefore compensate by increasing the valuation of the self-associated possessions they
are about to give up. Thus, the endowment effect can be thought of as a response to the threat associated with losing those possessions that are part of an individual’s extended self. Relatedly, Dommer and Swaminathan (2013) found that the endowment effect increased sellers’ valuations of their goods more when facing a self-threat (unassociated with the act of selling). Accordingly, ownership creates a link between the possession and the self, resulting in an increased valuation of the item to be sold, especially when the seller encounters a self-threat (such as being reminded of a situation when he or she has been rejected).

In further support of such a compensatory account, Zhang and Baumeister (2006) found that participants who initially invested a small sum of money into a project and later were informed that the project made no profit still decided to put in more money; however, this effect was even more pronounced in the presence (versus absence) of various self-threats, such as making participants believe they had failed a creativity test or giving them the impression that they had negative personality traits. Later, an influential article by Gao et al. (2009) revealed that various self-threats resulted in a stronger urge for individuals to choose self-view-bolstering products as a means to restore their “shaken self.” For instance, participants told to write an essay about personal characteristics portraying them as intelligent using their non-dominant (versus dominant) hand were significantly more likely to choose an intelligence-signaling product (a fountain pen) instead of a product unrelated to intelligence (a pack of candy) in a binary choice between these products.

As two final examples, Levav and Zhu (2009) showed that customers whose physical freedom had been threatened (e.g., through crowded stores) compensated by seeking more variety in their product choices as a way to regain their sense of freedom. Similarly, Inesi et al. (2011) found that individuals who felt powerless (versus powerful) were more likely to prefer large assortments in consumer choice settings. For instance, powerless (relative to powerful) people showed a stronger preference for a store offering many ice cream flavors rather than one offering only a few. This makes sense as powerless people typically lack a certain level of freedom. Hence, they should be more motivated to engage in acts that show signs of freedom and should therefore prefer to choose among a large instead of a narrow set of options.

Besides the above illustrations of compensatory consumption, there is one more prominent way to signal successful rejection of several self-threats.
Specifically, a common compensatory consumption tactic to tackle such threats is to signal status, prestige, and wealth to others through possessions and purchases of positional goods. The next section therefore reviews the current state of affairs of the compensatory consumption literature focusing on status-signaling, conspicuous consumption (that is, the acquisition and display of costly products and events, associated with wealth and status, aimed to impress others; Griskevicius et al., 2007).

The Healing Halo of Status Signaling

A mask of gold hides all deformities.

Thomas Dekker

Status striving is a fundamental human motive (Kenrick et al., 2010; Kim & Pettit, 2015). According to Allport (1943), one of the main conceptions of the ego was its role as a dominance drive, demanding status and respect from others. When facing a self-threat, this drive was thought to act as a compensatory defense, motivating the individual to engage in certain status displays aimed at restoring the temporarily intimidated identity.

Status Signaling Through Price

In the context of consumption, product price is often used as an index of the product’s prestige value, with expensive compared to cheap products being perceived as having more status-signaling qualities (Braun & Wicklund, 1989). This is the reason customers are sometimes willing to spend plenty of money on a product – not because of its functional value but because of its ability to signal status (Rucker & Galinsky, 2008). Counter-intuitively, but consistent with a threat-compensation account, it is quite common that relatively poor people (compared to rich) spend a larger share of their income on conspicuous products and events (Bagwell & Bernheim, 1996; Banerjee & Duflo, 2007; Charles et al., 2009; Corneo & Jeanne, 1997). This is presumably done as a compensatory act to signal status and wealth to others – as a costly signal (Miller, 2000; Zahavi, 1975; 1977) – but also to regain and maintain a positive self-view (Sivanathan & Pettit, 2010).

Using Google Correlate to find which search terms correlated with income inequality, Walasek and Brown (2015) found that United States citizens living in states with more marked income inequality used substantially more terms associated with status goods, such as conspicuous clothing, jewelry, and expensive designer brands. More than 70 percent of the 40 search terms used
more frequently in states with greater income inequality were classified as referring to status goods, whereas none of the 40 search terms used more frequently in states with less income inequality referred to status goods (Walasek & Brown, 2015).

In a representative sample of North Americans, Sivanathan and Pettit (2010) found that low-income (versus high-income) individuals were willing to pay a higher price for a luxurious, high-status car, and that their lowered self-esteem accounted for this effect. Under more experimental settings, they also showed that people were willing to pay more for status-signaling goods (e.g., an exclusive watch) when their self-view had been threatened through negative performance feedback on various tasks. Interestingly, this effect did not replicate when participants instead could spend their money on undetectable counterfeits of such high-status goods. This finding was viewed as evidence against a signaling account, because signaling theories predict a more generalized desire to purchase and display all status-signaling products, regardless of whether they are counterfeits or not. Rather, Sivanathan and Pettit (2010) interpreted the null finding on counterfeits as support for their claim that self-threats only increase individuals’ inclination to consume products with high affirmational value, due to their more reparative effects on the ego.

Braun and Wicklund (1989) demonstrated that threats to an individual’s identity resulted in conspicuous consumption in various domains associated with the threat. Across six studies they found that a lack of certain aspects – and hence a threat to individuals’ abilities in these areas (e.g., lacking experience, expertise, or competence) – consistently resulted in compensatory displays of material prestige symbols, especially among those individuals who viewed the aspects in question as important to their own identities.

Rucker and Galinsky (2008) found that individuals whose sense of power had been threatened showed an increased desire to acquire products signaling status to compensate for feelings of powerlessness. Feelings of low power prompted people to pay more for action items and increased their reservation prices in negotiations, but only for status-signaling products (e.g., an executive pen) and hence not for products less linked to status (e.g., a minivan). Pettit and Sivanathan (2011) later illustrated that self-threats not only increase individuals’ inclination to consume high-status goods, but also to pay with credit over cash – even when this decision meant even higher costs. Thus, the desire to combat
a self-threat may be less painful when the resulting compensatory consumption is done with a credit card rather than with actual money.

**Status Signaling Through Size**

Another way to signal status that has recently received interest in the compensatory consumption literature is through size rather than price. Rucker and Galinsky (2009) found that feelings of powerlessness increased people’s preferences for large, visible brand logos on high-end clothing, given the status-signaling qualities of size. Therefore, they proposed that the powerless consume status-signaling goods primarily to show status to others, and not for the simple sake of luxury. Further support for this claim was shown by Dubois et al. (2012), who argued that customers may prefer supersized foods and beverages when their sense of power has been cast into doubt. In a series of experiments, they demonstrated that individuals viewed larger-sized options as higher in status; thus they were particularly prone to choose such options when their sense of power was threatened, especially when these choices took place in public rather than privately. What this showed was that people whose sense of power has been threatened can signal status by means other than through purchases of expensive, luxurious goods. Instead, powerless people can signal status through size. This makes symbolic sense, because poor relative to rich individuals (that is, individuals with lower socio-economic status) perceive and draw coins as larger, suggesting a link between monetary value and size (e.g., Bruner & Goodman, 1947), and perhaps more generally between desired objects and size. Indeed, Bahtetis and Dunning (2010) found that people tend to perceive money and other desirable objects that can fulfill important needs and goals as physically closer (and hence perceptually larger) than less desirable objects, thus motivating the perceiver to approach these objects.

Unlike the majority of threats described so far (e.g., threats associated with a lack of freedom, intelligence, confidence, competence or power), there are also more subtle ways to influence people’s purchase and choice behaviors, which may not even be perceived as threats. The next section therefore summarizes how certain stimuli can threaten people’s ability to make informed choices, despite the fact that such stimuli are typically portrayed more as pleasures than pain.
Self-Control Threats, Temptation, and Temporal Orientation

I can resist everything except temptation.  

Oscar Wilde

Research shows that certain environmental cues (e.g., pleasurable scents, delicious foods, sexually laden objects), can threaten self-control by changing people’s preferences towards instant gratification and smaller-sooner over larger-later rewards (e.g., Li, 2008; Van den Bergh et al., 2008; Wadhwa et al., 2008). Such cues change people’s temporal orientation towards the present, motivating them to approach immediate pleasures, while impairing their ability to inhibit impulses, resist temptation, and focus on the future (Hofmann et al., 2009; Mischel & Moore, 1973; Wilson & Daly, 2004). Interestingly, several studies have shown that exposure to cues associated with drive states such as hunger, thirst, and sexual desire not only seem to threaten people’s self-control in the activity associated with the particular state (i.e., sampling a tasty food item not only makes people hungrier), but also seem to impair their capacity to exert self-control in other unrelated domains (Festjens et al., 2014; Hayden et al., 2007; Li, 2008; Van den Bergh et al., 2008; Wadhwa et al., 2008; Wilson & Daly, 2004). For instance, Wilson and Daly (2004) found that pictorial exposure to attractive (versus unattractive) opposite-sex faces made people prefer smaller-sooner over larger-later monetary rewards. Van den Bergh et al. (2008) later generalized this finding by showing that men who touched bikinis (versus t-shirts) were more inclined to favor a smaller quantity of rewarding foods and beverages instantly instead of a larger quantity later in time. Relatedly, Festjens et al. (2014) demonstrated that both men and women who touched underwear rather than t-shirts (i.e., men touching bikinis and women touching boxer shorts) were willing to pay a higher price to acquire rewarding foods and beverages. Exposing individuals to cues associated with another drive state (i.e., hunger instead of sexual desire), Li (2008) found that participants who were seated in a room scented with cookies (versus no scent) reported being less happy if they had won a lottery but had to wait for the $100 price for some time instead of receiving it instantly. About the same time, Wadhwa et al. (2008) found that sampling delicious foods and beverages not only increased subsequent consumption of stimuli associated with hunger and thirst, but also increased desire for almost anything rewarding, including a massage and an exotic vacation. Taken together, these findings suggest that when people’s self-control has been threatened in an initial domain, their consumption should become more present-oriented and pleasure-seeking even in other unrelated domains.
Having reviewed research pertaining to the belief-behavior distinction, as well as theories on threat-compensation effects in general and the influence of consumer threats on compensatory consumption in particular, this thesis now turns to its three own empirical investigations. The next chapter briefly describes the results of Papers I-III, respectively.
3. Results

In this chapter, I present the empirical evidence of my work together with an explanation of what Papers I-III have in common conceptually, methodologically, and empirically.

In brief, all papers examine belief-behavior inconsistencies and are jointly based on a threat-compensation account. Methodologically, all papers share the experimental approach, with each examination including experiments from both lab and field settings, and with beliefs (through intuition-based studies) consistently contrasted with actual behaviors (through lab and field studies). As a last common denominator, all papers have dependent variables centered on the consumption of products that can be conceptualized as rewarding: expensive or otherwise status-signaling products (Papers I-II), and tasty, delicious foods (Paper III).

Table 1 provides an overview of all papers, with respect to their (intended) journal outlets, samples, study types, key dependent variables, and empirical take-away messages. This is followed by a summary of the main findings of each individual paper.
<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Sample</th>
<th>Study Type</th>
<th>Key DVs</th>
<th>Main Findings</th>
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</thead>
</table>
| **Paper I (under review):**<br>*Journal of Marketing Research* | Intuition Study: $N = 380$ (undergraduates)      | Intuition Study: Scenario-based experiment  <br>Study 1: Field experiment | a) Money spent in the store; b) Status signaling through price; c) Status signaling through size. | Directly contradictory to consumer lay beliefs, the presence (vs. absence) of a physically dominant  
| Study 1: $N = 369$ (consumers) | Study 2A: $N = 44$ (male undergraduates)        | Study 2A: Controlled lab experiment     | men employee motivates men, but not women, to spend more money and consume more costly products. | This effect is driven by physical dominance, and only applies after exposure to physically dominant (vs. non-dominant, but equally attractive) men. |
| Study 2B: $N = 238 + 268$ (undergraduates) | Study 3A: $N = 114$ (undergraduates)            | Study 3A: Controlled lab experiment     | Product type moderates the effect, which is restricted to products that signal status through price or size. Hence, the effect does not apply to products unrelated to status. | Intra-sexual male competition mediates the effect. Exposure to dominant men activates a more competitive mindset towards other men, resulting in an increased desire to acquire status-signaling goods. |
| Study 3B: $N = 292$ (undergraduates) | Study 1: Scenario-based experiment               | Study 1: Field experiment              | Male stature moderates the effect, with short men (i.e., men whose bodies lack an important marker of physical dominance) being particularly prone to engage in status-signaling consumption after exposure to other dominant men. |                                                                                                   |
| **Paper II (published):**  <br>*Food Quality and Preference* | Study 1: $N = 35$ (undergraduates)               | Study 1: Scenario-based experiment     | a) Money spent in the store; b) Number of products purchased; c) Consumption of costly products. | Directly contradictory to consumer lay beliefs, restricting (vs. encouraging) product touch during an in-store product demonstration results in more money being spent, a larger number of products being purchased, and more costly products being purchased. |
| Study 2: $N = 126$ (consumers) | Study 2: Field experiment                        | Study 2: Field experiment              |                                                                                            |                                                                                                   |
Table 1: Paper Overview

<table>
<thead>
<tr>
<th>Paper III (under review): Journal of Consumer Research</th>
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<tbody>
<tr>
<td>Intuition Study 1: $N = 126$ (marketing professors)</td>
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<td>Intuition Study 2: $N = 59$ (scholars holding a PhD)</td>
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<tr>
<td>Study 1: $N = 89$ (male undergraduates)</td>
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<td>Study 2A: $N = 80$ (people close to a cafeteria)</td>
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<tr>
<td>Study 2B: $N = 80$ (people close to a cafeteria)</td>
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<tr>
<td>Study 3: $N = 118$ (male undergraduates)</td>
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<tr>
<td>Intuition Study 1: Scenario-based experiment</td>
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<tr>
<td>Intuition Study 2: Scenario-based experiment</td>
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<td>Study 1: Controlled lab experiment</td>
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<td>Study 2A: Field experiment</td>
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<td>Study 2B: Field experiment</td>
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<tr>
<td>Study 3: Controlled lab experiment</td>
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<tr>
<td>a) Food choice: healthy vs. unhealthy; b) Purchase intentions.</td>
</tr>
</tbody>
</table>

Directly contradictory to the predictions made by marketing professors and other scholars, exposure to attractive (vs. unattractive) opposite-sex faces increases individuals’ inclination to choose unhealthy rather than healthy foods.

Self-rated physical attractiveness moderates this effect, which only generates compensatory choices of unhealthy foods among people who rate themselves as below (vs. above) average in attractiveness. Furthermore, the effect is stronger for men than for women.

The effect is restricted to attractive (vs. unattractive) opposite-sex faces, and hence does not generalize to attractive same-sex faces.

The effect only increases the desire to acquire the most rewarding product, even in a product category that is commonly viewed as rewarding. Moreover, individuals’ generalized sense of power moderates the effect, and only increases purchase intentions for unhealthy, rewarding foods among people who rate themselves as powerless (vs. powerful).
Main Findings, Paper I

We buy things we don’t need with money we don’t have to impress people we don’t like.

Tyler Durden, Fight Club

Paper I takes an evolutionary approach and investigates whether a status threat to male customers, induced by exposure to other physically dominant men, results in compensatory consumption of products that signal status through price or size. An initial intuition-based experiment reveals that people hold a lay belief that the presence of an athletic, muscular male employee at the entrance of a retail store will have a significantly more positive impact on female customers’ purchase behavior, making them spend more money than male customers. Directly contradictory to this lay belief, the results from a retail field experiment demonstrate that male customers spend more than twice as much money and purchase nearly twice as expensive products compared to female customers in the presence, but not absence, of a physically dominant male employee (Study 1). This effect is contingent on physical dominance and is moderated by product type. Thus, men exposed to a physically dominant (versus non-dominant, but equally attractive) male employee are significantly more inclined to spend their money on products that signal status through price, whereas type of exposure has no impact on their willingness to spend money on products that are less linked to status (Study 2A). Furthermore, the effect is mediated by intra-sexual (male-to-male) competitiveness, in the sense that exposure to a muscular (versus non-muscular) male model activates a more competitive mindset towards other men, which ultimately results in an increased desire to acquire status-signaling, but not functional goods (Study 2B). In addition, the effect generalizes to status signaling through size, with men preferring (Study 3A) and drawing (Study 3B) significantly larger brand logos after exposure to other physically dominant men. Finally, male stature moderates the effect, with men whose bodies lack physical dominance (i.e., short men) being particularly prone to consume products that signal status after exposure to another physically dominant man (Study 3B).

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6 Statistics and details about measures, response formats, reliability coefficients, experimental designs, participants, and procedures are provided in Papers I-III, respectively.
While Paper I primarily focused on a threat to male customers’ status, there are many other threats that most likely should have an impact on both men and women. The next paper therefore focuses on an aspect that is arguably valued universally among humans – wherein the lack thereof should be perceived as a threat. Specifically, Paper II examines whether compensatory consumption can arise after individuals’ freedom to act in a certain way is threatened.

**Main Findings, Paper II**

Real freedom is having nothing. I was freer when I didn’t have a cent.  

*Mike Tyson*

**Paper II** takes a reactance-based approach and examines whether customers whose freedom to touch has been threatened compensate by touching, and ultimately purchasing, a larger number of products. More precisely, the paper investigates how an in-store product demonstration influences customers’ subsequent purchase behavior depending on whether they are restricted from or encouraged to touch the products being demonstrated. An initial intuition-based experiment shows that people hold a lay belief that restricting touch during an in-store product demonstration will have a significant negative impact on the amount of money they spend and the number of products they purchase. Thus, a tactile threat is thought to have an overall negative impact on customers’ purchase behavior (Study 1). Directly contradictory to this lay belief, a retail field experiment reveals that restricting (versus encouraging) touch during an in-store product demonstration has a pronounced compensatory effect, and actually results in significantly more products being purchased, over twice as much money being spent, and nearly twice as expensive products being purchased (Study 2).

So far, both papers in this thesis have focused heavily on how consumer threats result in compensatory consumption of threat-congruent products and activities. Paper I found that a dominance-induced status threat made male customers more motivated to consume status-signaling products, and Paper II showed that a threat to customers’ freedom to touch made them more inclined to touch, and ultimately purchase, products. Therefore, the emphasis on these papers has been on a rather domain-specific form of compensatory consumption. The last paper instead concentrates on out-of-domain forms of compensatory consumption. In particular, Paper III investigates whether a threat to customers’ self-control in one domain influences their choice behavior and consumption preferences in another unrelated domain.
**Main Findings, Paper III**

Instant gratification takes too long.

Carrie Fisher

**Paper III** examines whether exposure to attractive opposite-sex faces (and hence a subtle activation of sexual desire and its associated pleasure-seeking mindset) increases individuals’ inclination to choose and consume either healthy or unhealthy foods. Two intuition-based experiments jointly show that marketing professors and other scholars with at least a PhD in food science, marketing, psychology, or another related discipline predict that exposure to attractive (versus unattractive) opposite-sex faces should make people more likely to choose healthy foods. Directly contradictory to these beliefs but consistent with visceral state theories, exposure to attractive (versus unattractive) opposite-sex faces makes people more motivated to choose unhealthy rather than healthy foods (Studies 1-2A). This effect is moderated by self-rated physical attractiveness (Study 2A) and generalized sense of power (Study 3), and only influences people who perceive themselves as inferior (versus superior) on such self-view-relevant attributes. Furthermore, the effect is stronger for men than for women (Study 2A), does not generalize after exposure to attractive same-sex faces (Study 2B), and only increases purchase intentions for the most rewarding product, even in a product category that is commonly viewed as rewarding (Study 3).

Having gone through the results of all three papers, it is now time to discuss their overall scientific contribution. Thus, the following chapter is devoted to the “big picture” findings, what they mean for theory and practice, and what we can learn from them in a broader context. I close my work by acknowledging some general limitations, providing fruitful avenues for future research, and summarizing the key content of this thesis in a final conclusion.
4. General Discussion

All generalizations are false, including this one. 
Mark Twain

This thesis aimed to address two fundamental questions. First, it hoped to shed some light on how individuals respond to environmental cues that may act as threats. More specifically, the current work sought to examine how various threats that customers may encounter influence their subsequent purchase and choice behaviors. Second, this thesis sought to investigate the validity of a commonly held assumption within the fields of psychology, marketing, and consumer-based research; namely that individuals’ predicted behaviors can be used to draw inferences on how people will behave in reality.

The answers pertaining to both these questions can be summarized as follows: Consumer threats result in compensatory consumption in a way that goes directly against what consumer lay beliefs and even the predictions made by marketing professors suggest. In Paper I, people predicted that the presence of a physically dominant male employee would have a more positive effect on female customers’ purchase behavior. In reality, however, the presence of such an imposing employee made male customers spend more than twice as much money and purchase almost twice as expensive products compared to female customers. Hence, contrary to lay beliefs, a dominance-induced status threat made male customers much more motivated than female customers to engage in compensatory status-signaling consumption, to recover their shaken selves and regain their own sense of status. In Paper II, people predicted that a threat to their freedom to touch during an in-store product demonstration would have an overall negative impact on their purchase behavior, when in reality such a tactile threat more than doubled the amount of money being spent, led to a significant increase in the number of products being purchased, and resulted in almost twice as expensive products being purchased. In Paper III, marketing professors and scholars from other related disciplines predicted that viewing an opposite-sex individual with an attractive face would make people more likely to choose a healthy food alternative, when in reality it increased choice likelihood and purchase intentions of unhealthy food alternatives. Taken together, these findings clearly demonstrate that lay beliefs and even expert-based predictions fatally failed to forecast customers’ actual purchase and choice behaviors. Although I am far from the first one questioning the validity of self-report measures, the results reported in this thesis are a good reminder for social scientists to sometimes step out of their labs, not put all faith in
MTurk samples, and perhaps conduct studies on other participants than university students, commonly referred to as WEIRD people (that is, individuals from Western, educated, industrialized, rich, and democratic societies), as they are “some of the most psychologically unusual people on Earth” (Henrich et al., 2010a, p. 29; for a detailed argument for this claim, see Henrich et al., 2010b).

At a general level, the results reported herein support previous theories on reaction formation, postulating that people who experience self-threats are more inclined to exhibit exaggerated or extreme reactions in the opposite direction of the threat, as a defense mechanism meant to maintain a positive sense of the self (Baumeister et al., 1998). In addition, the results relate to literature demonstrating that people who experience self-doubt, insecurity or threats to their identity tend to restore such “injured” inner states by means of material possessions, status displays, and other forms of compensatory consumption (Braun & Wicklund, 1989; Chang & Arkin, 2002; Han et al., 2015; Ivanic et al., 2011; Kim & Rucker, 2012; Levav & Zhu, 2009; Mandel et al., 2017; Nunes et al., 2011; Rucker, & Galinsky, 2009; Pettit & Sivanathan, 2011).

However, the inferences that can be drawn based on the findings of this thesis differ in one crucial way from most previous conceptualizations of compensatory consumption. To date, theories of compensatory consumption typically argue that threats to an individual's self-view or identity make the individual more prone to choose and consume self-view-bolstering products (e.g., Gao et al., 2009; Dubois et al., 2012; Rucker & Galinsky, 2008). Unlike this conceptualization, the results from the last paper included in this thesis – that people who perceived themselves as inferior on self-view-relevant attributes were most likely to choose and consume unhealthy-but-rewarding foods when facing a threat to their self-control – instead indicate that the common compensatory response when experiencing self-threats is to choose and consume rewarding, rather than self-view-bolstering, products. Indeed, it is arguably easier to think of the consumption of a chocolate cake as something rewarding rather than something that is self-view-bolstering. Thus, although earlier theorists may be right in their claims that certain forms of compensatory consumption are self-view-bolstering (e.g., purchasing an expensive sports car or an exclusive watch), the present research suggests a more unified way to look at this type of consumption. In other words, regardless of whether a customer purchases a prestigious, high-status car or a calorie-dense chocolate cake to offset a threat to his or her shaken self, the common denominator of both
these products is not primarily that they are self-view-bolstering, but rather that they are rewarding, and hence activate the same brain regions responsible for reward processing (Erk et al., 2002; Small et al., 2001).

Whereas the compensatory effects found in Papers I-II reasonably represent rather domain-specific compensatory responses (that is, a dominance-induced status threat increased men’s status-signaling consumption, and a threat to customers’ freedom to touch generated compensatory touching; consequently, more products were purchased), Paper III demonstrates that a threat in one domain can create compensatory responses in domains unrelated to the specific threat. In this final paper, exposure to attractive opposite-sex faces (and hence a subtle activation of sexual desire and its associated pleasure-seeking mindset) was found to result in a generalized inclination for individuals to choose and consume unhealthy-but-rewarding foods, especially if they rated themselves as inferior on self-view-relevant attributes such as self-rated physical attractiveness or generalized sense of power. Hence, despite the fact that perceptions of one’s own attractiveness and power have little to do with eating, people who felt unattractive and powerless still engaged in compensatory consumption of unhealthy-but-rewarding foods, presumably as a comfort eating response to feel better and reduce the salience of these aversive attributes (Mandel et al., 2017; see also Corinil & Chandon, 2013; Troisi & Gabriel, 2011). Thus, in line with several recent threat-compensation theories (e.g., Han et al., 2015; Proulx, 2012; Proulx et al., 2012), my work supports the claim that threat-compensation effects share some common features, in the sense that threats can be counteracted through compensatory responses, whether or not these responses relate to the specific domain of threat. This supports the view that the underlying mechanism assumed to generate various threat-compensation effects represents a generalized motivational process, invariant across domains (Proulx & Heine, 2010; Tritt et al., 2012).

Limitations and Future Research
A potential drawback of the current work is the many boundary conditions demonstrated, with the compensatory responses only being reliable among a subset of individuals and circumstances. For instance, Paper I never found any impact of physical dominance on women’s compensatory consumption, and Paper III revealed that exposure to attractive opposite-sex faces only increased the desire to acquire unhealthy, rewarding foods among people who rated themselves as unattractive or powerless. Although these findings limit the generalizability of my work, such moderating factors still improve the
understanding, and hence the scientific value, of the specific phenomena of interest. Moreover, this thesis never had generalizability as a top priority; rather, the primary purpose was to establish causality, which explains the experimental approach utilized in each empirical investigation. Nevertheless, it is reasonable to assume that even those individuals who were not influenced in the present research will sometimes exhibit compensatory responses, even though the threats generating these responses, as well as the responses themselves, might differ from what has been shown in this thesis (cf. Mandel et al., 2017). Another plausible possibility is that more powerful manipulations could have influenced individuals who were unaffected in the present research. As an illustrative example, the subtle sex cues used in Paper III (pictorial exposure to attractive opposite-sex faces) had the same overall impact on men’s and women’s choice behavior, even though the tendency of choosing vice options was somewhat more pronounced in male participants. However, ongoing research using more explicit sex-cue exposure shows that, whereas men still favor choices of vice options and immediate rewards under such circumstances, women instead become more future-focused and, consequently, are better able to resist temptation, delay gratification, and choose larger-later rewards (Otterbring & Sela, 2017). Therefore, apart from studying other threats and compensatory responses than those reported in this thesis, future research could test whether the strength of the manipulation (subtle versus strong) can produce different threat-compensation effects.

Despite my theorizing that an aversive state of arousal accounts for the threat-compensation effects obtained in all papers, this state was only implicitly captured in Paper I, where some of the competitiveness items (e.g., I don’t like seeing other men with a nicer house or a nicer car than mine; I can’t stand it when I see another man who is more attractive than I am) can be thought of as reflecting negative arousal. Hence, apart from Paper I, my work lacks process evidence justifying that this state is indeed the underlying psychological mechanism driving the effects. Yet, I am not alone in omitting explicit measures meant to capture this process. In fact, despite that an aversive motivational state is commonly held responsible for the compensatory actions people perform to combat various self-threats, many studies do not test whether this psychological process is a valid explanation. For instance, Festinger’s (1957) ground-breaking work on cognitive dissonance (i.e., the aversive state of arousal arising when individuals experience an inconsistency between attitudes or behaviors, motivating them to attitudinal or behavioral change) never measured dissonance. This is logical, however, given research
showing that the aversive arousal state thought to produce various threat-compensation effects, whether it is referred to as dissonance (Festinger, 1957), reactance (Brehm, 1966), imbalance (Heider, 1958), or something else, rarely reach conscious awareness (Proulx & Heine, 2010; Tritt et al., 2012). Thus, people may not be aware of, able to, or willing to explicitly acknowledge that a certain threat has motivated them to engage in compensatory self-shielding activities (Sherman et al., 2000; Steele, 1997). Additionally, people often misattribute the original source of arousal (e.g., Dutton & Aron, 1974; Schachter & Singer, 1962) and sometimes report a decrease in perceived arousal, even while their physiological arousal increases (e.g., Adams et al., 1996; Anderson et al., 1995; Morokoff, 1985). Furthermore, measures of arousal through self-report commonly fail to distinguish between people who have versus have not faced a self-threat (Proulx & Heine, 2010), and research studies, including those reported in this thesis, have found limitations in self-report measures pertaining to perceptions of various threats. Nevertheless, a suggestion for future research would be to examine whether this aversive state of arousal can be measured more objectively through physiological tools such as galvanic skin conductance, heart rate, pupil dilation, or brain activity. For instance, it would be very interesting to disentangle whether threats in different domains still activate the same regions in the human brain, as suggested by theories arguing that the aroused state underlying various threat-compensation effects is invariant across domains. Relatedly, it would be valuable to get insights into whether a compensatory response reduces this aversive state of arousal differently, depending on the domain specificity of the response. Given research showing that merely thinking of important personal values activates the reward regions in the brain (Dutcher et al., 2016), and that such self-affirmations enable individuals to offset self-threats without engaging in subsequent compensatory actions (e.g., AlBalooshi et al., 2016; Sivanathan & Pettit, 2010; Steele, 1988), scholars could also investigate whether self-affirmational thoughts can “cool down” the brain regions activated when facing various threats.

A final suggestion for future research would be to examine which self-threats that primarily generate internal (intrapsychic) compensatory responses and which rather produce external (self-presentational) responses (cf. Baumeister et al., 1998). Applied to a consumer context, this taps into the important question of whether compensatory consumption should be conceptualized predominantly as: (1) a rewarding (intrapsychic) activity people practice
privately to feel better, or (2) a self-view-bolstering (self-presentational) activity taking place in public, meant to signal desirable traits to others.

Conclusion

I close this thesis by summarizing its key content in three final sentences. Consumer threats result in compensatory consumption, not only in the specific domain under threat, but also in unrelated or only symbolically similar domains. Such compensatory responses are in direct contrast to consumer lay beliefs and even predictions made by marketing professors and other scholars, suggesting that people are generally unaware of the impact certain threats have on their behavior. These results should be as interesting for customers trying to make informed choices and resist various influence attempts as for marketers, advertisers, and retail managers trying to influence customers.
References


A Shaken Self on Shopping

In a series of experiments, this thesis investigates how threats that customers may encounter influence their subsequent purchase and choice behaviors. Moreover, this thesis examines whether individuals’ predicted behaviors are congruent with customers’ actual behaviors in certain consumer contexts.

Paper I investigates whether a status threat to male customers, induced by physically dominant men, results in compensatory consumption of products that signal status through price or size. Paper II examines whether customers whose freedom to touch has been threatened compensate by touching, and ultimately purchasing, more products. Paper III investigates whether attractive opposite-sex faces threaten individuals’ self-control, thereby making them more motivated to choose and consume unhealthy-but-rewarding foods.

The results reveal that consumer threats do indeed lead to compensatory consumption. Such compensatory responses are in direct contrast to lay beliefs and even predictions made by marketing professors, suggesting that people are generally unaware of the impact certain threats have on their behavior. These results should be as interesting for customers trying to make informed choices as for marketers, advertisers, and retail managers trying to influence customers.