

**THE DARK SIDE OF LUXURY CONSUMPTION:  
PSYCHOLOGICAL AND SOCIAL CONSEQUENCES OF USING LUXURY  
GOODS**

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## **CHAPTER I:**

### **OVERVIEW OF DISSERTATION**

In the U.S. and around the world, luxury consumption is at an all-time high. Among over 100 categories of consumer spending, luxury goods show the strongest growth (Sparshott 2014). The number of luxury consumers has more than tripled over the past 20 years to a total of 330 million consumers at the end of 2013, and in the next five years, global luxury sales are expected to grow up to 50% faster than global GDP (D'Arpizio 2013). Not surprisingly, many of the most valuable brands in the world are luxury brands, such as Burberry, Louis Vuitton, and Prada (Forbes 2013).

Ever since Veblen's *Theory of the Leisure Class*, scholars have been interested in why consumers have such a voracious appetite for luxury goods. In marketing, researchers have found a number of motivations for owning and using luxury goods, including expressing one's identity, signaling prestige and status, and compensating for feelings of powerlessness (e.g., Berger and Ward 2010; Griskevicius et al. 2007; Han, Nunes, and Dreze 2010; Rucker, Galinsky, and Dubois 2012).

In contrast to prior research examining motivations for attaining luxury goods, my dissertation examines the psychological and behavioral consequences of using luxury products. Specifically, I seek to answer the following question: *When consumers use luxury products, how does it affect the way they feel and behave?* Whereas prior research has looked at motivations for desiring luxury goods, I look at the actual consumption experience of using luxury goods. In my research, I provide individuals with an opportunity to use luxury goods, and then assess the consequences of their luxury consumption.



My dissertation consists of two essays. The first essay focuses on the *interpersonal* aspect of behavioral consequences of using a luxury product. In particular, I look at how using a luxury product affects whether individuals are selfish or generous toward others. The second essay focuses on the *intrapersonal* aspect of behavioral consequences of using a luxury product. In particular, I look at how the experience of using a luxury product affects an individual's self-control. Essay 1 examines what happens *DURING* the consumption of a luxury product, while essay 2 examines what happens *AFTER* the consumption of a luxury product. Taken together, these two essays explore the psychological and behavioral consequences of using luxury products.

### **Essay 1: The Devil Wears Prada:**

#### **How Luxury Consumption Influences Social Behavior**

In this essay, I examine whether using a luxury product makes people behave in a selfish or generous way. Previous work suggests that consumers want luxury products as a way to signal one's status and power (e.g., Han et al. 2010; Rucker and Galinsky 2008, 2009). Further, recent research in social psychology has established a link between higher status/power and behaviors that are self-interested, including selfishness and uncooperative behaviors (Piff et al. 2010; 2014). Based on these lines of research, *I propose that using a luxury product can induce higher feelings of status, and these perceived higher status feelings result in self-interested behaviors.*

Given that luxury consumption should promote self-interested behavior, what form might these self-interested behaviors take? I further propose that self-interested behavior is often equated with selfish behavior, where people take more resources for the self and give less to others. Accordingly, *I predict that using a luxury product will*

*generally lead people to engage in selfish behavior.* However, self-interested behavior does not always mean being less generous. *I propose that luxury consumption will lead to generous behaviors only if engaging in such behaviors provides an explicit opportunity to boost reputation for the luxury users.*

I completed six studies to test these hypotheses. In these studies, female participants were provided with either a luxury handbag (Louis Vuitton, Prada, or Burberry) or a non-luxury handbag to use while walking around a campus building. After using the product, the participants were engaged in tasks to measure self-interested behavior. In study 1 and 2, for example, participants came back to the lab after using the luxury product, and were asked to divide prize money between themselves and another person. Awarding oneself more prize money was considered evidence of selfish behavior. Across six studies, I found that:

*Study 1 & 2:* Women who used a luxury handbag indicated they would give less money to others.

*Study 3:* Women who used a luxury handbag indicated they would give less money to others. Moreover, this selfish behavior was mediated by perceptions of higher status triggered by using a luxury product.

These three experiments provide behavioral evidence that luxury product consumption makes people engage in more selfish behaviors. The next three studies tested the prediction that using a luxury product can also result in more generous behavior. Participants were assigned to use a luxury or non-luxury product, and after using the product, were given \$5 for participating in the study. Then, they were provided with an opportunity to donate cash from their payment to a charity of their choice. Their

donation was made and recorded either in public in front of other people or in a private cubicle in the lab. The results show that:

*Study 4 & 5:* Women who used the luxury (vs. non-luxury) product donated significantly more money in *public*. However, women who used the luxury product donated significantly less money when the donation was made in *private*.

*Study 6:* Women who used the luxury (vs. non-luxury) product donated significantly more money in public. However, this effect did not emerge when women using the luxury product were told that many other women also owned the product. Thus, relative status (not absolute status) drives the luxury effects on generous behaviors.

## **Essay 2: Louis Vuitton and Your Waistline:**

### **How Luxury Consumption Influences Self-Control**

In the four experiments of essay 2, I examine the negative psychological costs of luxury consumption *after* using a luxury product, particularly how luxury consumption reduces self-control. I propose that using a luxury product in public elicits a spotlight mindset, which triggers feelings of being paid attention to and more mindful of needing to monitor their behavior in front of other people. Past research suggests that such a process requires self-regulation (Vohs et al. 2005). Moreover, an extensive body of research shows that our ability to engage in self-regulation is limited, and our ability to self-regulate is depleted as we engage in more and more attempts to self-regulate (Baumeister, Vohs, and Tice 2007; Vohs and Heatherton 2000). Thus, *I propose that using a luxury product in public depletes one's self-regulatory resources, which reduces one's ability to exert self-control in a subsequent task, such as resisting tasty but unhealthy food (such as candy).*

In order to test my prediction, I have completed four experiments. As before, women used a luxury or non-luxury product. After using the product, the participants then completed tasks designed to assess their ability to exert self-control when a snack of candy was made available to them. Looking at the amount of candy consumed, I found results supportive of my prediction. For example:

*Study 1 & 2:* Women who carried a luxury handbag were less able to resist candy and ate more of it than women who carried a non-luxury handbag, and this difference was due to feelings of being in a spotlight. Also, the effects of carrying a luxury handbag on food consumption were stronger for women who generally struggle with self-control.

*Studies 3 & 4:* These studies ruled out several alternative explanations for the observed effects. Increases in food consumption for luxury users were not driven by changes in feelings of power, status, positive mood, negative mood, or how much the participants liked the handbag.

The rest of my dissertation is organized as follows. Chapter II covers the introduction, theoretical framework, empirical findings of six studies, and general discussion for Essay 1. Chapter III covers the introduction, theoretical framework, empirical findings of four studies, and general discussion for Essay 2. Chapter IV then summarizes the empirical evidence across essays, identifies my research contributions, and discusses limitations and directions for future research.

## References

- Baumeister Roy F., Kathleen D. Vohs, and Dianne M. Tice (2007), "The Strength Model of Self-Control," *Current Directions in Psychological Science*, 16 (6), 351-55.
- Berger, Jonah and Morgan Ward (2010), "Subtle Signals of Inconspicuous Consumption," *Journal of Consumer Research*, 37 (December), 555-69.
- D'Arpizio, Claudia (2013), "Luxury Goods Worldwide Market Study, Fall 2013," Bain & Company, accessed April 27, 2014, <http://www.bain.com/publications/articles/luxury-goods-worldwide-market-study-fall-2013.aspx>
- D'Arpizio, Claudia (2014), "Luxury Goods Worldwide Market Study, Winter 2014," Bain & Company, accessed April 27, 2014, <http://www.bain.com/publications/articles/luxury-goods-worldwide-markey-study-winter-2014.aspx>
- Forbes (2013), "The World's Most Valuable Brands," Thomson Reuters Fundamentals via FactSet Research System, accessed April 27, 2014, [http://www.forbes.com/powerful-brands/list/#page:1\\_sort:6\\_direction:asc\\_search:](http://www.forbes.com/powerful-brands/list/#page:1_sort:6_direction:asc_search:)
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals," *Journal of Personality and Social Psychology*, 93 (1), 85-102.
- Han, Young Jee, Joseph C. Nunes, and Xavier Drèze (2010), "Signaling Status with Luxury Goods: The Role of Brand Prominence," *Journal of Marketing*, 74 (July), 15-30.
- Piff, Paul K. (2014), "Wealth and the Inflated Self Class, Entitlement, and Narcissism," *Personality and Social Psychology Bulletin*, 40(1), 34-43.

- Piff, Paul K., Michael W. Kraus, Stéphane Côté, Bonnie Hayden Cheng, and Dacher Keltner (2010) "Having Less, Giving More: The Influence of Social Class on Prosocial Behavior," *Journal of Personality and Social Psychology*, 99(5), 771-84.
- Rucker, Derek D. and Adam D. Galinsky (2009), "Conspicuous Consumption Versus Utilitarian Ideals: How Different Levels of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45(3), 549-55.
- Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to Acquire: Powerlessness and Compensatory Consumption," *Journal of Consumer Research*, 35(2), 257-67.
- Rucker, Derek D., Adam D. Galinsky, and David Dubois (2012), "Power and Consumer Behavior: How Power Shapes Who and What Consumers Value," *Journal of Consumer Psychology*, 22, 352-68.
- Sparshott, Jeffrey (2014), "What Products Drove Consumer Spending? Luxury Items, Mostly," *The Wall Street Journal*, accessed February 11, 2014, <http://blogs.wsj.com/economics/2014/01/22/what-products-drove-consumer-spending-luxury-items-mostly/>
- Vohs, Kathleen D., Roy F. Baumeister, and Natalie J. Ciarocco (2005), "Self-Regulation and Self-Presentation: Regulatory Resource Depletion Impairs Impression Management and Effortful Self-Presentation Depletes Regulatory Resources," *Journal of Personality and Social Psychology*, 88 (4), 632-57.
- Vohs, Kathleen D. and Todd F. Heatherton (2000), "Self-Regulatory Failure: A Resource-Depletion Approach," *Psychological Science*, 11 (3), 249-54.

## **CHAPTER II:**

### **Essay 1: The Devil Wears Prada?**

#### **How Luxury Consumption Influences Social Behavior**

One of the biggest trends in consumer behavior over the last two decades is the growth of luxury consumption. During this time, sales of luxury goods have skyrocketed from \$80 billion to over \$500 billion per year (D'Arpizio 2014) and the number of luxury consumers has more than tripled from 90 million to 330 million (Statista 2014). Across 100 categories of consumer spending, luxury goods have the strongest growth trajectory of any category (Sparshott 2014), and in the next five years, global luxury sales are expected to grow up to 50% faster than the global Gross Domestic Product (D'Arpizio 2014).

Once the purview of only the rich, luxury goods are in the hands of more consumers than ever before. Despite this, we have very little understanding of how the introduction of luxury goods into our lives affects our thoughts, feelings, and behaviors. Luxury goods are sought after as a means to satisfy a variety of psychological needs, such as signaling status and prestige, as well as compensating for feelings of powerlessness (Rucker, Galinsky, and Dubois 2012; Griskevicius et al. 2007; Han, Nunes, and Dreze 2010; Wilcox, Kim, and Sen 2009). If luxury goods can have these transformative qualities, there is every reason to believe that using luxury products can have a significant influence on how we feel and how we interact with others.

We explore this possibility by examining the effects of luxury consumption on social behavior. We ask the question: Does luxury consumption make consumers more

selfish or more generous? To answer this question, we provide women with a luxury product to use, such as a Prada or Louis Vuitton handbag. After using the luxury product, we provide a number of opportunities for people to exhibit selfish or generous behaviors. We find that using a luxury product generally results in selfish behaviors, such as taking more money from others. However, we also find that using a luxury product can result in more generous behavior, such as donating more money to charity.

How can luxury consumption make people more selfish *and* more generous? We reason that using a luxury product increases a consumer's own sense of social status, which encourages one to behave in ways to benefit the self. Most of the time, this tendency leads one to engage in selfish behaviors that directly benefit the self, such as acquiring more money and giving less to others. However, money and resources are not the only valuable currencies. One's social reputation and social standing are also of value. We find that when there is an explicit opportunity to enhance one's reputation by giving to others, such as by donating money to a charity in a public setting, luxury users will exhibit more generous behavior. In other words, luxury users behave in ways to benefit the self, which can result in either more selfish or more generous behavior depending on the situation.

Our findings make several contributions to luxury research. First, to our knowledge, we are the first to examine the psychological and behavioral consequences that are triggered by luxury use. Past research has examined people's attitudes, preferences, and motivations for acquiring luxury goods (Berger and Ward 2010; Han et al. 2010; Lee and Shrum 2012; Ordabayeva and Chandon 2011; Rucker, Galinsky, and Dubois 2012; Wang and Griskevicius 2014; Wilcox et al. 2009). However, what happens



after individuals acquire and use luxury goods has not been explored. Doing so requires a different experimental approach than prior research, which has typically assessed attitudes and preferences for luxury goods, but has not observed what happens when individuals actually use luxury goods. Our novel experimental approach includes actual use of luxury products and observations of real behavior.

Second, we show that luxury consumption can influence social behavior in seemingly opposite ways. Luxury users feel a boost in social status, and these feelings give rise to behaviors that benefit self, which can result in more selfish or more generous behavior. The idea that individuals with higher social status can act more selfishly and more generously is novel, and qualifies prior findings that individuals with higher socioeconomic status are willing to behave more antisocially (Piff et al. 2010, 2012) and are less compassionate toward other people (Stellar et al. 2012). Although individuals with higher status do behave in ways to benefit the self, this behavior is not restricted to selfish or antisocial acts. Even seemingly generous behavior, such as donating money to others, can also be exhibited by these individuals if there is something to be gained from one's generosity, such as the reputational benefits that come from giving.

Finally, we show that luxury goods have an impact that goes beyond the luxury user alone. Whereas prior work on luxury consumption has examined well-being from the standpoint of the consumer, we show that luxury consumption has negative consequences for the well-being of others because the selfish behaviors triggered by luxury usage in our studies impose costs on others. Such behaviors, which can be viewed as the societal costs of luxury consumption, are not only unexpected but are also unwelcome consequences of luxury usage.

## CONCEPTUAL BACKGROUND

### The Consumption of Luxury

Luxury goods are products or brands offered at a premium price and quality level (Patrick and Hagtvedt 2008). Luxury brands, in particular, have been defined as being relatively rare and exclusive (Fuchs et al. 2013, Han et al. 2010, Phau and Prendergast 2000; Vigneron and Johnson 2004). Our research focuses on premier luxury brands—such as Prada, Louis Vuitton, and Burberry—that are consistent with these definitions and whose products are widely viewed by consumers as luxury goods (Fuchs et al. 2013).

Luxury consumption has grown exponentially, and key to this growth has been an increasing appeal to a broader audience. Although historically associated with older, ultra-affluent individuals, luxury consumption today is much more common among other groups such as young professionals and college students (Phillips 2012). These younger luxury consumers not only outnumber older, ultra-affluent consumers by a 10:1 margin, but they also drive the sales of luxury accessories, such as wallets and sunglasses, which constitute the largest segment of the luxury market (D'Arpizio 2014). Luxury goods can also be consumed without actually purchasing them. Modern consumers can rent a variety of luxury products, such as designer handbags, clothing, and jewelry, as well as expensive luxury cars. For example, instead of paying \$4,500 for a highly-coveted Chanel 2.55 flap handbag, women can rent the same handbag for \$300 a month from companies such as *Bag Borrow or Steal* and *Rent Me a Handbag*.

Past research examining luxury consumption has primarily considered why people seek luxury products. Studies find that people seek luxury goods for a variety of

reasons such as boosting their self-esteem, and attaining happiness and fulfillment, especially when they feel deprived or powerless (Belk 1985; Charles, Hurst, and Roussanoy 2009; Richins 1987; Rucker et al. 2012). People also seek luxury goods to signal important information to others (Belk, Bahn, and Mayer 1982; Richins 1994; Wang and Griskevicius 2014). For instance, luxury products can be used to signal their owners' wealth and prestige, identity, personal taste, and can even serve to attract and protect romantic partners (Bagwell and Bernheim 1996; Berger and Ward 2010; Griskevicius et al. 2007; Han et al. 2010; Mazzocco et al. 2012; Sundie et al. 2011; Wernerfelt 1990; Veblen 1899).

Although past research on luxury has examined people's attitudes, preferences, and motivations for acquiring luxury goods, little is known about the psychological and behavioral consequences of using luxury goods. Prior research has stopped short of examining what happens when consumers actually use luxury goods—do they see themselves differently, or act differently? This is the question we address in our research. Specifically, we examine whether the mere act of using a luxury product, such as carrying a Prada handbag versus a non-luxury handbag, alters a person's perceptions of themselves as well as their behavior.

### **Luxury Consumption, Social Status, and Self-Interested Behavior**

Luxury products have often been described as status symbols (Han et al. 2010; Veblen 1899). The connection between luxury and status is evident in research examining consumer motivations for desiring luxury goods. For example, consumers with a higher need for status show a stronger desire for luxury goods (Han et al. 2010), and powerless people exhibit greater interest in luxury goods in order to compensate for

their lack of status (Rucker and Galinsky 2008, 2009). Indeed, people who wear luxury brands are perceived as possessing higher status by others (Nelissen and Meijers 2011), which suggests that the people wearing or using a luxury product may perceive themselves as possessing elevated status.

We propose that using luxury goods elevates the user's sense of social status. For example, we predict that a woman will perceive herself as having higher social status when she is carrying a Prada handbag as opposed to a non-luxury handbag. Social status refers to an individual's rank in a social hierarchy or position in society (Dreze and Nunes 2009; French and Raven 1959; Magee and Galinsky 2008). Higher social status is often associated with having power (Rucker and Galinsky 2008, 2009; Wong and Shavitt 2010) and being admired by others (Magee and Galinsky 2008; Ridgeway and Walker 1995). Although prior research has made a connection between luxury goods and status, there is no empirical evidence that people actually perceive themselves as having higher social status when they use luxury goods.

If using luxury goods increase perceptions of consumers' own social status, behavioral consequences are likely to follow. Possessing higher status is a desirable state, and individuals are naturally motivated to promote status once it is acquired (Griskevicius and Kenrick 2013; Kenrick et al. 2010). Status is often promoted through self-interested behaviors. For example, past correlational work shows that people with higher socioeconomic status are less generous, less charitable, and less helpful (Piff et al. 2010, 2012) and are less compassionate toward another person's suffering (Stellar et al. 2012). Likewise, giving people power leads them to prioritize self-interest over group goals (Maner and Mead 2010), spend more on themselves rather than on others (Rucker,

Dubois, and Galinsky 2011), and exhibit less perspective-taking (Galinsky et al. 2006). Thus, we propose that using luxury goods increases self-perceptions of social status, which then promotes self-interested behavior.

### **Self-Interested Behaviors: Selfishness and Generosity**

Given that luxury consumption should promote self-interested behavior, what form might these self-interested behaviors take? As described earlier, self-interested behavior is often equated with selfish behavior, where people take more resources for the self and give less to others. Accordingly, we predict that using a luxury product will generally lead people to engage in selfish behavior. For example, we expect that using a luxury handbag (vs. non-luxury handbag) will cause women to engage in more selfish behaviors, such as taking more scarce resources, splitting a pool of money in a way that favors themselves, and donating less money to a charity. In these examples, the luxury user places their own self-interest in obtaining money and other resources ahead of concern for others. Further, we expect this effect of luxury consumption on selfish behavior to be statistically mediated by self-perceptions of social status.

But while the consumption of luxury products should lead to self-interested behavior, this doesn't mean that that luxury consumers should always behave less generously. Self-interested behavior does not always mean being less generous. At times, it is on one's self-interest to behave more generously and give more to others.

Anthropological research shows that having a reputation as a cooperative and helpful member of a group elevates a person's status. Across cultures, engaging in behaviors that benefit others can help build a good reputation (Semmann et al. 2005; Wedekind and Braithwaite 2002), which elevates one's status in a group (Smith and Bird

2000). For example, past research shows that people promote their status by sharing more food with others (Gurven et al. 2000), contributing more to public goods (Hardy and Van Vugt 2006; Van Vugt and Hardy 2009), and giving more resources to people in need (Cole and Chaikin 1990; Murdock 1970).

Although behaving in a generous way can be beneficial in terms of promoting status, this type of behavior also increases the well-being of others at a cost to the individual. Donating money to charity, for example, may be advantageous as a way to promote one's status, but the individual donating money is also giving up resources, which is disadvantageous in terms of maintaining status. Given this central trade-off, we consider when higher status should lead to selfish behavior versus leading to generous behavior.

We propose that higher status individuals will give more to others *only* when there is an explicit opportunity for such behavior to elevate one's reputation. Typically, these opportunities take place in public, where the giver's generous behavior can be seen and readily acknowledged by other people. For instance, consider donating money at a charity event where givers are acknowledged in public. Publically visible prosocial behaviors allow an individual to benefit in terms of reputation, whereas private prosocial behaviors do not (Hardy and Van Vugt 2006; Van Vugt and Hardy 2009). Accordingly, previous research finds that consumers with a status-seeking motive are more willing to sacrifice benefits to themselves and make choices that benefit the group when making such choices in public but not in private (Griskevicius et al. 2010).

We predict that luxury (vs. non-luxury) consumption will lead to generous behaviors *only* when engaging in such behaviors provides an explicit opportunity to boost

reputation for the luxury user. For example, using a luxury (vs. non-luxury) product should make people more willing to donate money to charity if the donation occurs in public in front of others. However, if the donation context is private and there is no opportunity to boost reputation by displaying one's generosity, luxury (vs. non-luxury) users will revert to being selfish, and will donate less money to charity. Although the public setting elicits generous behavior, while the private setting encourages selfish behavior, both types of behaviors are self-interested in nature. In the public setting, the luxury user can gain status by giving money to others; in the private setting, the luxury user can gain status by keeping more money for themselves. Thus, our central prediction is that luxury consumption triggers self-interested behaviors, but the type of self-interested behavior we observe (selfish or generous) varies by context.

### **Overview of Empirical Studies**

We test our predictions in six studies. The first three studies show that using a luxury product encourages more selfish behavior. In addition, Study 3 provides evidence that using a luxury product boosts perceptions of one's own social status, which statistically mediate the effect of product use (luxury vs. non-luxury) on selfish behavior.

Study 4 and 5 demonstrates that using a luxury (vs. non-luxury) product can also result in more generous behavior. Per our prediction, luxury users donated *more* money to a charity than non-luxury users when the donation was made in public in front of others. However, luxury users donated *less* money to a charity than non-luxury users when the donation was made in private.

Finally, Study 6 demonstrates a theoretically-derived boundary condition for our effects. We show that when the luxury item is perceived to be less exclusive, luxury users

do not feel a boost in their social status, and thereby do not behave differently. Taken together, this set of studies demonstrates that using luxury products encourages self-interested behaviors, which present as selfish behavior in private contexts and as generous behavior in public contexts that afford the opportunity to boost reputation through giving. Furthermore, we show that both selfish and generous behaviors are caused by the higher sense of status that luxury users experience.

### **STUDY 1: LOUIS VUITTON AND SELFISH BEHAVIOR**

Study 1 tested how the consumption of a luxury product influences women's behavior. Participants first walked around a busy area either wearing or not wearing a luxury handbag. Afterwards, they were presented with an opportunity to behave in a selfish way. We predicted that the women in the luxury consumption condition would behave more selfishly.

#### **Method**

*Participants.* One-hundred and eleven female students ( $M_{\text{age}} = 20.46$ ,  $SD = 1.57$ ) in an introductory business course at a large North American university participated in the study in exchange for partial course credit. Twelve participants did not follow the study instructions (e.g., clicked through the survey without reading, didn't understand the questions) and were excluded from the data analysis.

*Luxury Product Pre-test.* To ensure participants had familiarity with luxury brands, a pre-test was conducted with a separate sample of 48 female participants ( $M_{\text{age}} = 20.08$ ,  $SD = 0.74$ ) from the same sample population as the main study. All participants answered several yes/no questions about ten luxury brands: (1) Have you ever purchased any of the following brands: Gucci, Prada, Louis Vuitton, Burberry, Coach, Tory Burch,



Boss, Michael by Michael Kors, Kate Spade, Marc by Marc Jacobs? And (2) Have you ever seen your friends or classmates with products from these brands?

Findings showed that 93.8% of the women indicated that they had purchased at least one of these brands, and 97.9% had seen their friends or classmates with products from these brands. Because some of these brands are considered more exclusive than others, we also asked the same two questions again by focusing only on the four high-end luxury brands: Gucci, Prada, Louis Vuitton, and Burberry. Findings showed that 52.1% of women indicated that they had purchased at least one of these four brands, and 87.5% of the women had seen their friends or classmates with products from these brands. Thus, consistent with trends in the luxury goods industry showing that luxury consumption is common among younger consumers, women in our sample population were both highly familiar with and common consumers of luxury brands.

*Procedure.* All participants arrived individually for a study on consumer products and were randomly assigned to one of the three between-subjects conditions: control, luxury logo, and luxury consumption. In the luxury consumption condition, participants were given a Louis Vuitton bag and were explicitly told that this is a brand new Louis Vuitton bag (see illustration A for pictures). The Louis Vuitton bag retails for \$750 but no price information was provided to participants. Louis Vuitton was chosen as the luxury brand because it is not only well-known, but is also highly desirable. Pretesting indicated that our participant population rated Louis Vuitton an average of 5.67 in desirability on a 1-7 scale.

To get a sense of what it's like to own and use the handbag, each participant was first instructed to imagine that the handbag belonged to her. She was then instructed to

put her personal items into the handbag and walk around campus. To ensure that participants would follow a similar walking path, each participant was given instructions to follow a specific path. This included taking a specific elevator to a specified floor, walking through a busy area to a specific coffee shop, and then following the same path to get back. After coming back to the lab about 15 minutes later, each participant was directed to a private room with a computer to fill out a survey about the handbag. This portion of the study contained the dependent measures.

Participants in the control condition were given a campus map and a tour guide brochure and walked around the same path as the participants in the luxury consumption condition did. The cover story for them was to evaluate the campus map and tour guide brochure. They also walked for about 15 minutes and came back to the lab for the computer survey.

Participants in the luxury logo condition were given the campus map and tour guide brochure and were asked to read them while sitting in an individual room. In the room were papers and pencils with the Louis Vuitton brand name and logo. The goal of this procedure was to expose (prime) participants with the luxury brand, but not allow them to consume the product. After about 15 minutes in the room that contained the brand logo, these participants were also asked to evaluate the campus maps and tour guide brochure before they completed the final survey on computer.

*Dependent Measures.* After participants answered questions about the handbag or the maps (to maintain consistency with the cover story), they completed the dependent measure. It was taken from a previous study that measured selfish behavior (Zitek et al. 2010) and examined how people choose to split communal prize money when they win a

contest. Participants were told that the researcher needed feedback for a future study. In this future study, two people would compete with each other for a prize of \$10 that would be divided between the winner and the loser. Participants in the *current* study were asked to imagine that they were in that study and that they won the competition by answering 7 out of 10 questions correctly. Participants were asked to indicate how the researcher should split the \$10 of prize money between the winner (the participant) and the loser (the other person). The dependent measure consisted of how much money the participant gave to themselves. Participants provided their response by choosing one of 11 options that ranged from “\$0 to me, \$10 to my opponent” to “\$10 to me, \$0 to my opponent.” The options differed from each other in \$1 increments.

## **Results and Discussion**

We examined how much of the \$10 prize money people gave to themselves across three conditions. A one-way analysis of variance (ANOVA) revealed a main effect ( $F(2,96) = 3.98, p = .022$ ). As seen in figure 1, participants in the luxury consumption condition gave significantly more money to themselves ( $M = \$8.65, SD = 1.76$ ) than participants in both control condition ( $M = \$7.67, SD = 1.98; t(96) = -2.66, p = .009$ ) and in the luxury logo condition ( $M = \$7.36, SD = 2.11; t(96) = -2.09, p = .039$ ). There was no difference between participants in the control condition and luxury logo condition ( $p = .53$ ).

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figure 1 about here  
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In summary, Study 1 showed that the consumption of a luxury product led people to behave in a more self-interested manner. We found that wearing a Louis Vuitton

handbag, but not merely seeing a Louis Vuitton logo, led women to award themselves more prize money if they imagined winning a contest.

## **STUDY 2: PRADA AND SELFISH BEHAVIOR**

Study 2 sought to conceptually replicate the findings from Study 1. In Study 2, all participants walked around a busy area wearing either a luxury (Prada) or a non-luxury handbag. In addition to the dependent measure used in Study 1, Study 2 also assessed selfishness in a second way. The second measure was based on the notion of selfishly taking the last desirable item from a group's common resources, such as when a person takes the last piece of food from a communal plate. Study 2 examined the percentage of women who took the last desirable pen from a communal pen box.

### **Method**

*Participants.* Seventy-two female students ( $M_{\text{age}} = 19.90$ ,  $SD = 1.01$ ) in an introductory business course at a large North American university participated in the study in exchange for partial course credit. Five participants did not follow the study instructions (e.g., taking their own pen out of a bag) and were excluded from the data analysis.

*Procedure.* The procedure was similar to Study 1. All participants arrived individually for a study about handbags. Each participant was first given a handbag to try out by carrying it around campus. Afterwards, they provided feedback about the handbag. The study had two between-subjects conditions: Women were randomly assigned to either carry around a luxury or a control handbag.

*Luxury Consumption Experience.* Participants were given one of two mid-size handbags. In the luxury condition, participants were given a Prada bag and were

explicitly told that this is a brand new Prada bag. In the control condition, participants were given a non-luxury bag similar in size and style to the Prada bag and were told it was a brand new bag from a department store (see illustration A for pictures). Whereas the Prada bag retails for \$1890, the control bag retails for \$75, although no price information was provided to participants. Prada was chosen as the luxury brand, like Louis Vuitton, it is not only well-known, but is also highly desirable. Pretesting indicated that our participant population rated Louis Vuitton an average of 5.7 in desirability on a 1-7 scale. As the luxury condition in Study 1, participants were asked to imagine the bag belonged to them, put their personal items into the bag, and walked around campus with the bag following the same path.

*Dependent Measures.* The study had two dependent measures. The first measure examined whether women would take the last desirable item from a communal tray. As participants were about to begin the computer survey, the experimenter informed them that part of the survey would be done on paper and that they would need a pen. The experimenter directed the participant to a research lab pen tray, which contained three pens specifically placed there for the study. One pen looked brand new and two other pens were clearly less desirable; they had been slightly chewed on and had dark smudges from ink leaks. The experimenter casually noted that the participant should take only one pen because other research participants would need pens for other studies going on in the lab. The dependent measure was whether the participant took the last desirable pen or whether she left it on the tray for other participants.

After participants answered questions about the handbag (to maintain consistency with the cover story), they completed the second dependent measure. The second

measure was identical to the one used in Study 1. We measured how much of a \$10 prize participants would give to themselves rather than another person.

## **Results and Discussion**

*Pen.* We first examined the percentage of people who took the last desirable pen in the luxury and the control condition. As seen in figure 2, the result indicated that people were far more likely to take the last desirable pen in the luxury condition compared to the control condition (61.8% vs. 30.3%;  $\chi^2(1) = 6.67, p = .01$ ). Thus, women who wore the Prada handbag were more likely to take the last desirable pen.

*Money Allocation.* We next examined how much of the \$10 prize money people gave to themselves in the luxury and the control conditions. As seen in figure 2, participants in the luxury condition gave significantly more money to themselves ( $M = \$7.44, SD = 1.52$ ) than participants in the control condition ( $M = \$6.69, SD = .95; t(66) = 2.39, p = .02$ ). Thus, women who wore the Prada handbag gave themselves more money when dividing a communal prize between themselves and another person.

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figure 2 about here  
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In summary, Study 2 showed that the consumption of a luxury product led people to behave in a more selfish manner. Using the luxury handbag led women to be more than twice as likely to take the last desirable pen from a communal pen tray. Wearing the luxury handbag also led women to award themselves more prize money if they imagined winning a contest, thereby leaving less prize money for the other person.

### STUDY 3: PSYCHOLOGICAL MECHANISM

Study 3 sought to conceptually replicate and extend the findings from the first two studies. Women once again walked around a busy area with either a luxury or a non-luxury handbag. Afterwards, they had the opportunity to behave in a more selfish manner. Consistent with findings from Study 1 and 2, we predicted that wearing luxury products would lead women to once again behave in a more selfish way.

Study 3 also tested the psychological mechanism responsible for how luxury consumption influences behavior. As described earlier, we hypothesize that consuming a luxury good increases a person's current sense of social status, which should then alter a person's behavior. We therefore measured people's perceptions of their current social status during their luxury consumption experience. We then tested whether perceptions of current social status statistically mediated the effect of luxury consumption on behavior.

#### Method

*Participants and Procedure.* Forty-one female students ( $M_{age} = 20.02$ ,  $SD = 0.96$ ) in an introductory business course at a large North American university participated in the study in exchange for partial course credit. The procedure was highly similar to the one described in the previous studies. Participants again came to the lab individually, were provided with the same cover story, were randomly assigned to carry either a luxury or a control handbag, walked around campus with the handbag for about 15 minutes, and then came back to the lab to complete the dependent measures in a private room.

*Luxury Consumption Experience.* In the luxury condition, participants were given a Louis Vuitton bag and were explicitly told that this is a brand new Louis Vuitton bag. In the control condition, participants were given a non-luxury bag similar in size and

style to the Louis Vuitton bag and were told that this is a new bag is from a department store (same as in Study 1). As in the previous studies, participants imagined owning the bag, put their belongings in the bag, and walked around campus and a coffee shop with the bag following the same specified path.

*Perceived Social Status.* To assess whether wearing the handbag influenced people's perceptions of social status, participants filled out a short survey during their consumption experience. Before leaving the lab to try the handbag, participants were instructed that when they arrived at the coffee shop, they should find a place to sit and open the handbag. Inside the handbag, they would find a pencil and a survey to fill out at the coffee shop.

Embedded in this survey were five items that measured participants' perceptions of their current level of social status. As described earlier, social status refers to a person's standing in a hierarchy, whereby higher social status is associated with having more power and higher position in society. To assess people's perceptions of their current social status, participants responded to five items regarding how they were currently feeling. Specifically, "Do you feel... (1) you have higher status, (2) you are superior to others, (3) you are powerful, (4) like you are at the top, and (5) you have the power to influence others?" Participants provided responses to each item on a 1-7 scale with endpoint labels "Not at all" and "Very much." The five items were averaged to form a perceived social status index ( $\alpha = .88$ ).

*Dependent Measure.* Immediately after participants returned to the lab, they were directed to a private room with a computer to fill out a survey about the handbag. This portion of the study contained the dependent measure, which was identical to the one



used in previous studies. Once again, participants indicated how much of a \$10 prize they would give to themselves rather than another person if they beat that other person in a competition.

## **Results and Discussion**

*Money Allocation.* We first examined how much of the \$10 prize women gave to themselves in the luxury and the control conditions. As seen in figure 3, participants in the luxury condition gave more money to themselves ( $M = \$8.00$ ,  $SD = 2.00$ ) than did participants in the control condition ( $M = \$6.75$ ,  $SD = 1.94$ ,  $t(40) = 2.03$ ,  $p = .049$ ). Conceptually replicating the finding from Study 1 and 2, women who wore a luxury handbag once again gave themselves more money when dividing a communal prize between themselves and another person.

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figure 3 about here  
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*Perceived Social Status.* We next tested whether people differed in their sense of social status in the luxury and the control conditions. Findings showed that participants in the luxury condition perceived having significantly higher social status ( $M = 4.13$ ,  $SD = 1.45$ ) than participants in the control condition ( $M = 2.90$ ,  $SD = 1.09$ ;  $t(40) = 3.08$ ,  $p = .004$ ). This means that women carrying the Louis Vuitton handbag felt that they having higher social status compared to women carrying a non-luxury handbag.

*Mediation Analysis.* We next tested whether people's sense of social status statistically mediated the effect of luxury consumption on the monetary allocation. A visual depiction of the mediation model is presented in figure 4.

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figure 4 about here  
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First, the results showed that type of product (luxury vs. control) predicted perceptions of social status (path a:  $\beta = .44, p = .004$ ) and money allocation (path c:  $\beta = .31, p = .049$ ). Furthermore, sense of social status also predicted money allocation (path b:  $\beta = .42, p = .007$ ). Finally, the effect of product type on money allocations became non-significant once sense of social status was entered in the model (path c':  $\beta = .16, p = .35$ ). Following Preacher and Hayes (2008), a 10,000 resample bootstrap (Hayes (2012), Model 4) revealed a significant indirect effect of type of product on money allocation via sense of social status,  $b = .62$  (SE = .32), 95% CI [.128, 1.404]. Because the confidence interval does not include 0, this means that the effect of product type on money allocation was statistically mediated by sense of social status.

In summary, Study 3 conceptually replicated and extended the findings from the first two studies. Women who walked around with a luxury handbag once again behaved more selfishly compared to women who walked around with a non-luxury handbag similar in size and style. In addition, Study 3 tested the psychological mechanism responsible for how luxury consumption influences behavior. Findings showed that consuming a luxury good increased a person's sense of current social status, and that this increased perception of status statistically mediated the effect of luxury consumption on behavior. In other words, the consumption of luxury led people to behave in a more selfish manner because it led them to feel that they have higher social status.

#### **STUDY 4: LUXURY CONSUMPTION AND DONATIONS**

Thus far, we have shown that luxury consumption increases women's sense of social status, which then leads them to behave in a more selfish manner. In the next study, we examine the conditions under which luxury consumption might lead to more generous

behavior. Per our earlier discussion, we hypothesize that luxury consumption should have a different effect on behavior depending on whether the situation explicitly allows a person to enhance their reputation by behaving generously. If the situation does not present an explicit opportunity to enhance reputation by being more generous, as in Study 1, 2 and 3, luxury consumption should produce more selfish behavior. However, if the situation explicitly allows a person to enhance their reputation by engaging in giving behavior, then consuming luxury products should lead to people to become more generous. For example, if a person is presented with an opportunity to give to charity in a public place where other people will see their behavior, then luxury consumption should lead people to behave more generously.

To test whether donating money in public could enhance a person's reputation, we surveyed one hundred and one participants ( $M_{\text{age}} = 30.50$ ,  $SD = 8.87$ ) on Amazon's Mechanical Turk (MTurk). Participants responded to two yes/no questions: "Do you think donating money to a charity in public would: (1) increase someone's reputation, and (2) lead someone to have a good reputation?" Results showed that 83.2% of people believed that donating money to a charity in public would increase reputation and 82.2% believed that it would lead that person to have a good reputation. Thus, donating in public can have a positive impact on one's reputation.

In Study 4 women once again walked around a busy area with either a luxury or a non-luxury product. Afterwards, all participants were asked a hypothetical question about their willingness to donate to charity. Importantly, the donation location was varied to be either private or public. We predicted that when the donation was made in private, wearing a luxury product would lead people to donate *less* money, consistent with the

selfish tendencies found in Studies 1-3. By contrast, when the donation was made in public, we predicted that wearing the luxury product would lead people to behave more generously and donate *more* money.

## **Method**

*Participants and Procedure.* Eighty-three female students ( $M_{\text{age}} = 19.92$ ,  $SD = .95$ ) in an introductory business course at a large North American university participated in the study in exchange for partial course credit. The experiment had the following between-subjects design: 2 (product type: luxury vs. control) X 2 (donation context: public vs. private).

Similar to previous studies, participants arrived individually for a study on consumer products. Women were told that the study was about handbag and that each participant would be given a Prada handbag or a control handbag to wear it around campus. After about 15 minutes, all participants were directed back the lab.

*Dependent Measure.* Participants were asked to imagine that they had an opportunity to donate money to charity. In the *private* condition, participants were presented with an opportunity to donate as they were finishing a purchase at the checkout stage on the website of an online retailer. In the *public* condition, participants were presented with an opportunity to donate as they were standing in a checkout line at an actual store. Participants indicated how much money they would like to donate on a scale that ranged from \$0 to \$8.

## **Results and Discussion**

An ANOVA with product type and donation context did not reveal any main effects ( $p > .27$ ), but it revealed an interaction ( $F(1,82) = 34.03$ ,  $p = .001$ ). As seen in

figure 5, luxury consumption had a different effect on donation behavior depending on whether the donation was made in public versus in private. To test our specific hypotheses, we performed a series of planned contrasts in the private and public donation conditions.

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figure 5 about here  
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In the *private* context, people indicated that they would donate *less* money to charity in the luxury condition ( $M = \$2.00$ ,  $SD=1.85$ ) versus the control condition ( $M=\$3.08$ ,  $SD=1.95$ ;  $t(79) = 2.01$ ,  $p = .04$ ). Thus, as in Studies 1-3, luxury consumption led people to be more selfish when the situation did not explicitly provide an opportunity to enhance reputation through generosity.

In the *public* context, people indicated they would donate *more* money to charity in the luxury condition ( $M = \$3.72$ ,  $SD=1.66$ ) compared to the control condition ( $M = \$2.22$ ,  $SD=1.47$ ;  $t(79) = 2.69$ ,  $p = .009$ ). Thus, when the donation was made in public and therefore presented an opportunity to enhance reputation, women who carried a Prada handbag became more generous.

To look at the findings another way, the study found that participants who wore the control handbag generally did not differ in their donations when the donation context was public or private ( $p = .12$ ; see figure 5). However, participants who wore the luxury handbag exhibited a large difference in donations depending on whether the donation context was public or private. Women wearing the luxury handbag gave much more money to charity when the donation context was public rather than private ( $M = \$3.72$  vs.  $\$2.00$ ;  $t(79) = 3.13$ ,  $p = .002$ ).

In summary, Study 4 found that when women were asked to make a donation to charity in private, those wearing a Prada handbag indicated that they would donate *less* money than those wearing a non-luxury handbag. Consistent with the findings from Studies 1-3, luxury products made people more selfish when the situation did not allow people to explicitly enhance their reputation through giving. However, when women were asked to make a donation to charity in public, those wearing a Prada handbag indicated that they would donate *more* money than those wearing a non-luxury handbag. That is, when the situation explicitly allowed a person to enhance their reputation by engaging in helping behavior, luxury products led people to behave in a more generous manner.

Taken together, Study 4 is consistent with the notion that luxury consumption spurs self-interested behavior. Self-interested behavior is manifested as more selfish behavior in private, but is manifested as more generous behavior in public where it can boost a person's reputation.

#### **STUDY 5: LUXURY CONSUMPTION AND REAL DONATION BEHAVIOR**

Study 5 aimed to replicate the findings in Study 4 with actual money donation as the dependent measure and a different brand luxury product. Women once again walked around a busy area with either a luxury or a non-luxury product—a Burberry scarf or a non-luxury scarf. All people received money for participating in the study and were later presented with an opportunity to donate some or all of the money to charity. Importantly, the donation was made either privately or publically. As in Study 4, we predicted that when people made the donation in private, wearing a luxury product would lead people to

donate *less* money, while wearing the luxury product would lead them to behave more generously and donate *more* money in public.

## **Method**

*Participants.* One-hundred and two female students ( $M_{\text{age}} = 20.10$ ,  $SD = 1.07$ ) in an introductory business course at a large North American university participated in the study in exchange for partial course credit. Two participants did not follow instructions (e.g., they spent an inordinate amount of time walking around campus and came back to the lab after the session had already ended) and were excluded from the analyses. The study had the following between-subjects design: 2 (product type: luxury vs. control) X 2 (donation context: public vs. private).

*Procedure.* Participants arrived individually for a study on consumer products. Women were told that the study was about scarves and that each participant would be given a scarf to try out by wearing it around campus. To make the experience as realistic as possible, participants were asked to imagine the scarf belonged to them and were allowed to wear it in any style they preferred. Participants were instructed to follow the same walking path as in previous studies.

*Luxury Consumption Experience.* Participants were randomly assigned to receive one of two scarves. In the luxury condition, participants were given a Burberry scarf and were explicitly told that this is a brand new Burberry scarf. In the control condition, participants were given a non-luxury scarf similar in size and style to the Burberry scarf and were told this is a brand new scarf from a department store (see illustration A for pictures). The Burberry scarf retails for \$385, whereas the control scarf retails for \$45, although no price information was provided to participants. Burberry was chosen as the

luxury brand because, like Prada and Louis Vuitton, it is not only well-known, but is also highly-desired. Pretesting indicated that our participant population rated Burberry an average of 5.50 in desirability on a 1-7 scale.

*Dependent Measure.* The dependent measure consisted of the amount of money participants donated to charity. To ensure that all participants had some money they could donate, participants were informed that they would receive \$5 in cash for being in the study (in addition to receiving the expected partial course credit). Participants were also informed that they would have an opportunity to donate some or all of the money to a charity of their choice. Later in the study, all participants received a request to donate to charity. The donation request was made either in private or in public.

In the *private* condition, the donation request was made via a letter while the person was alone in a lab room (same location used for administering the main survey in the previous studies). After participants had walked around campus with the scarf and had come back to the lab, they were seated in a private room to fill out a survey on the computer. The computer instructions directed them to open an envelope that was placed on the desk that contained a note, a request card, and a pencil. The note reminded participants about getting \$5 for their participation in the study and explained that, “In an effort to increase social awareness, we usually ask participants in our lab if you would like to make a donation to a charity of your choice.” The card provided names of three charities that participants could select (American Red Cross, Children’s Hospital, Livestrong Foundation). Participants could also write in a different charity if they preferred.



The card provided six options for the donation amount: \$0, \$1, \$2, \$3, \$4, or \$5. After making a choice, participants were directed (via the computer) to place the card back in the sealed envelope and put it back on the table. The dependent measure consisted of how much money participants donated to charity.

In the *public* condition, the donation was made publically. After their walk around campus with the scarf, participants were instructed to stop by a donation desk that was set up at the entrance of a busy administrative office. When participants arrived at the desk, they were greeted by a person working at the desk, who was actually a female research assistant blind to the study hypotheses. The person at the desk handed out the same donation request letter as the one used in the private condition to the participants. Therefore, participants in the public condition did not receive more or less encouragement from the donation request. After reading the donation request letter, participants were then given a pencil and the same donation card with the same charities as in the other condition. Participants were verbally informed that after they made a decision they would need to hand the card to the person at the desk so that she could write down the person's name and record the donation. After handing in the donation card, participants were directed back to the lab to complete the remainder of the study.

## **Results and Discussion**

The average donation amount in the study was \$3.57 (SD = \$1.87). To test whether wearing the luxury scarf had a different effect in public and private donation contexts, we conducted an ANOVA with product type and donation context. The analysis did not reveal any main effects ( $ps > .27$ ), but it did show an interaction with product type and donation context ( $F(1,98) = 0.87, p = .004$ ). As seen in figure 6, luxury consumption

had a different effect on donations depending on whether the donation was made in public versus in private.

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figure 6 about here  
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In the *private* donation condition, women donated *less* money to charity in the luxury condition ( $M = \$2.84$ ,  $SD=1.87$ ) versus the control condition ( $M=\$3.88$ ,  $SD=1.92$ ;  $t(98) = 2.06$ ,  $p = .041$ ). Thus, wearing a luxury product once again led women to behave in a more selfish manner when the situation explicitly did not allow people to enhance their reputation by helping.

In the *public* donation condition, by contrast, women donated *more* money to charity in the luxury condition ( $M = \$4.31$ ,  $SD=1.40$ ) compared to the control condition ( $M=\$3.20$ ,  $SD=1.99$ ;  $t(98) = 2.14$ ,  $p = .034$ ). Thus, when the donation was made in public, women who wore a luxury products once again became more generous.

To look at the findings another way, the study found that participants who wore the control scarf did not differ in their donations when the donation context was public or private ( $p = .19$ ; see figure 6). However, participants who wore the luxury scarf exhibited a large difference in donations depending on whether they were public or private. Women wearing the luxury scarf gave substantially more real money to charity when the donation context was public rather than private ( $M = \$4.31$  vs.  $\$2.84$ ;  $t(98) = 2.91$ ,  $p = .001$ ).

In summary, Study 5 replicated the specific pattern of findings from Study 4 using actual monetary donations. When asked to make a donation to charity in private, women wearing a Burberry scarf donated over 25% *less* money than those wearing a non-luxury scarf. But when asked to make a donation in public, those wearing a Burberry scarf donated over 40% *more* money than those wearing a non-luxury scarf. Taken together,

Study 5 once again showed that luxury products can make people less generous *or* more generous depending on whether the situation explicitly allows a person to enhance their reputation via helping behavior.

### **STUDY 6: ELIMINATING THE EFFECT OF LUXURY CONSUMPTION**

The last study sought to “turn off” the effect of luxury consumption by considering a situation in which luxury products should not influence behavior. The psychological reason why luxury products alter behavior is because consuming luxury goods increases a person’s sense of social status, as demonstrated via mediation in Study 3. The current study derived and tested a condition under which luxury should lose its luster by experimentally manipulating whether a luxury product does or does not increase a person’s sense of social status.

Luxury products are associated with social status, in part, because such products are positional goods that derive their value from being rare, exclusive, and difficult to obtain (Nelissen and Meijers 2011; Plourde 2008). For example, a person driving a Ferrari is perceived as having higher social status in part because most other people do not have this car. If many other people were to drive the same car, however, a Ferrari would be much less effective at enhancing social status. Indeed, luxury products do not effectively increase social status if other people have similar products (Kuksov and Xie 2012).

In Study 6, women once again walked around a busy area with either a luxury (Burberry) or a non-luxury scarf. As before, the Burberry scarf featured the iconic check pattern (see illustration A), which is easily identified as the brand’s signature by consumers familiar with luxury brands. In Study 6, we experimentally manipulated

whether the Burberry iconic check pattern was perceived as rare and exclusive *or* as commonplace. We predicted that when the luxury scarf is perceived as commonplace, it would no longer boost a person's sense of status.

Study 6 assessed how much money people donated to charity in a *public context* using the same behavioral measure as in Study 5. As in Study 5, we predicted that wearing the Burberry scarf would once again make women more generous. However, we predicted that depicting the luxury product as commonplace would eliminate this effect. When a luxury product does not increase a person's sense of status, wearing the luxury product should have no effect on donation behavior.

## **Method**

*Participants and Design.* One-hundred and seven female students ( $M_{\text{age}} = 20.09$ ,  $SD = 1.03$ ) in an introductory business course at a North American university participated in the study in exchange for partial course credit. Seven participants failed to follow instructions (e.g., they held the scarf in their hand instead of wearing it) and were not included in the data analysis. The study had three between-subjects conditions: control, luxury, and luxury *without status boost*.

*Procedure and Dependent Measures.* The procedure was identical to the public donation context condition in Study 5. Participants came to the lab individually, were given either a brand new luxury (Burberry) scarf or a brand new non-luxury scarf, walked around campus with the scarf, and learned that they would receive \$5 for participating in the study (in addition to receiving the expected course credit). All participants were instructed that they would stop by a coffee shop, and should find a place to sit and open the handbag. Inside the handbag, they would find a pencil and a survey to complete.

Embedded in this survey were five items measuring perceptions of their current level of social status. The five items measuring perception of social status were identical to the mediation items used in Study 3 and were averaged to form a perceived social status index ( $\alpha = .83$ ). Finally, all participants were provided with a public opportunity to donate some or all of the money they received for participating in the study to charity, using the same procedure described in Study 5.

*Luxury Consumption Experience.* Participants were randomly assigned to receive either a luxury scarf or a non-luxury scarf, using the same scarves described in Study 5. Unlike in Study 5, the current study had two different luxury product conditions. One of the luxury conditions (“luxury”) was essentially identical to the luxury product conditions in Studies 1-5.

In the other luxury condition (“luxury *without status boost*”), participants read a short news article about Burberry before trying out the scarf. The article briefly described the history of the brand, including the iconic check pattern. It then described that the check pattern was becoming common, with over 50% of women owning a Burberry accessory with the iconic check pattern. This material was, in fact, taken from an actual news article (Jones 2008). To bolster the notion that the check pattern was commonplace, several Burberry products sporting the iconic check pattern were placed along the walking path these participants followed: (1) a female confederate with a large Burberry check pattern tote bag was stationed on a sofa next to the elevator used by participants; (2) in the office where charity donations were solicited, a check-patterned Burberry garment bag with a dry cleaning tag and a pair of Burberry rain boots with the check pattern were

placed by the chair; and (3) a Burberry umbrella with the check pattern was placed in a lost and found box next to the donation desk.

To ensure consistency in the procedure in both luxury conditions, in the basic “luxury” condition, participants also read a news article before receiving and wearing the Burberry scarf. The article briefly described the history of the brand, noting how the iconic check pattern had become a symbol of luxury.

## Results and Discussion

*Donation.* An omnibus ANOVA revealed a significant effect of condition on donations ( $F(2,97) = 3.97, p = .051$ ). As seen in figure 7, women in the luxury condition donated *more* money ( $M = \$4.35, SD=1.54$ ) to charity than women in the control condition ( $M=\$3.47, SD=1.79; t(97) = -2.02, p = .047$ ). Thus, replicating the finding from Studies 4 and 5, women wearing a Burberry scarf became more generous when they had an opportunity to donate in public.

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figure 7 about here  
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By contrast, wearing the same luxury scarf had no effect on donations when the luxury product was commonplace. There was no difference in donations in the luxury *without status boost* condition and the control condition ( $M = \$3.38$  vs.  $\$3.35; t(97) = .19, p = .84$ ). Further, even though women wore a Burberry scarf in both conditions, women in the luxury *without status boost* condition donated significantly *less* money compared to women in the regular luxury product condition ( $M = \$3.38$  vs.  $\$4.35; t(97) = -2.24, p = .027$ ).

*Perceived Social Status.* An omnibus ANOVA revealed a significant main effect of condition on the social status index ( $F(2, 97) = 3.55, p = .033$ ). Planned contrasts confirmed that participants in the luxury condition perceived themselves as having higher social status ( $M = 4.00, SD = 1.04$ ) than participants in the luxury *without status boost* condition ( $M = 3.47, SD = 1.01, t(97) = -2.08, p = .04$ ), indicating that our manipulation was successful. Further, there was no difference in perceived social status between the luxury *without status boost* condition and the control condition ( $M = 3.36, SD = 1.09, t(97) = .42, p = .68$ ). Finally, replicating the previous finding from Study 3, participants in the luxury condition experienced higher perceived social status than participants in the control condition ( $t(97) = 2.47, p = .015$ ).

*Mediation Analysis.* Next, we tested whether women's perceived social status statistically mediated the effect of luxury consumption on donation behavior. As reported earlier, there was no difference between the control and luxury *without status boost* conditions in terms of the donation amounts and perceived social status. We, therefore, combined these two conditions for the mediation analysis.

The first regression revealed that condition (luxury vs. other conditions) predicted perceptions of social status (path a:  $\beta = .26, p = .01$ ) and donation amount (path c:  $\beta = .24, p = .008$ ). Additionally, perceived social status also predicted donation amount (path b:  $\beta = .29, p = .003$ ). Following Preacher and Hayes (2008), a 10,000 resample bootstrap (Hayes (2012), Model 4) revealed a significant indirect effect of condition on donation amount via perceived social status,  $b = .24$  ( $SE = .13$ ), 95% CI [.04, .61]. Because the confidence interval does not include 0, this means that the effect of condition on donation

amount was statistically mediated by perceived social status (see figure 8 for a visual depiction of the mediation model).

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Figure 8 about here  
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We repeated the mediation analysis for the luxury and the luxury *without status boost* conditions, since these were the conditions of focal interest for the study. The first regression revealed that condition (luxury vs. luxury *without status*) predicted perceptions of social status (path a:  $\beta = .25, p = .037$ ) and donation amount (path c:  $\beta = .27, p = .027$ ). Further, perceived social status also predicted donation amount (path b:  $\beta = .30, p = .014$ ). A 10,000 resample bootstrap (Hayes (2012), Model 4) revealed a significant indirect effect of condition on donation amount via perceived social status,  $b = .22$  (SE = .16), 95% CI [.01, .66]. Once again, this analysis confirmed that effect of the luxury condition (luxury vs. luxury *without status*) on donation amount was statistically mediated by perceived social status.

In summary, Study 6 replicated the public giving findings from Studies 4 and 5. Women wearing a luxury product once again behaved more generously in public contexts. In addition, Study 6 showed that the effects of luxury consumption can be “turned off” when the luxury product is perceived as more common and, therefore, does not increase a person’s sense of social status. Furthermore, Study 6 tested the psychological mechanism underlying how luxury consumption affects generous behavior. The same psychological mechanism responsible for triggering selfish behavior—perceived social status—also proved to be the underlying process that triggers generous behavior when there was an opportunity to enhance reputation through generous behavior.



## GENERAL DISCUSSION

Does the Devil wear Prada? This phrase implies that “bad” people wear luxury brands, but our empirical findings suggest the opposite possibility: wearing Prada can lead ordinary people to behave badly. We found that the experience of using a luxury product boosted women’s self-perceptions of social status. This state then triggered self-interested behavior, with women making choices to benefit themselves.

We found that most of the time self-interested behavior manifested as selfish behavior. We repeatedly found that women wearing luxury products behaved more selfishly, including by taking more money for themselves and donating less money to charity when no one was around to see it. However, we found that self-interested behavior manifested as generous behavior when the situation explicitly afforded people an opportunity to enhance their reputation by acting generously. When donations were made in public in front of other people, wearing luxury products led women to donate more money to charity. We contend that the types of selfish and generous behavior assessed in our studies all constitute self-interested behavior. Both selfish and generous behavior benefitted the person by either enabling them to acquire more resources or by enabling them to gain a boost in reputation. Indeed, both selfish and generous behaviors were driven by the same psychological mechanism, whereby both types of behavior were triggered by an increased sense of social status that resulted from consuming luxury goods.

Overall, we show that luxury consumption leads consumers to act in ways to benefit the self, which can result in either more selfish or more generous behavior depending on the situation. We obtained these robust effects across six studies that varied

the type of luxury product (handbag, scarf) and luxury brand (Prada, Louis Vuitton, Burberry). The pattern also persisted regardless of whether the dependent measure consisted of hypothetical situations, actual behavior, or incentive-compatible decisions concerning real money. Taken together, these findings provide novel and compelling evidence that using luxury goods affects how consumers feel and behave. Below, we discuss the contributions of our findings to several research streams, including luxury consumption and branding research, and suggest avenues for future research.

### **Luxury Consumption Research**

Ever since Veblen's classic work *The Theory of Leisure Class* (1899), researchers in domains such as sociology, psychology, economics, and marketing have been interested in the phenomenon of luxury consumption. For more than a century, researchers have focused on the motivational aspects of luxury consumption. Findings show that consumers desire luxury products for a variety of reasons, including increasing one's sense of well-being (Belk 1985; Richins 1987), increasing self-esteem (Sivananthan and Pettit 2010; Solomon 1983), compensating for feelings of powerlessness (Rucker et al. 2012), and affiliating with favored social groups (Berger and Ward 2010; Han et al. 2010). While this rich set of findings has bettered our understanding of why people desire luxury goods, there is a dearth of research examining the actual experience and consequences of consuming luxury goods.

To our knowledge, our research is the first to systematically examine how the consumption of luxury goods affects consumers' psychological and behavioral responses. In doing so, we show that using luxury goods causes a set of unintended consequences, many of them quite negative in nature. In contrast, the prior research cited above focuses

on expected positive consequences of luxury consumption such as increasing self-esteem or providing some positive benefit. Although luxury users in our studies do feel in a boost in social status, this often leads them to behave in selfish and mean ways. Thus, we demonstrate that there is a “dark side” of luxury consumption, beyond one’s pocketbook or materialistic tendencies.

Notably, the “dark side” of luxury consumption also impacts others who interact with luxury users. The self-interested behaviors exhibited by luxury users in our studies impose costs on other people. Prior work in areas related to luxury consumption, such as conspicuous consumption and materialism, have shown that this type of consumption can negatively affect the well-being of individual consumers (de Graaf, Wann, and Naylor 2001; Kasser 2002; Schor 2004). In contrast, we show that luxury consumption can have negative consequences for the well-being of *other* people. In a sense, this also affects societal well-being in that prosocial behavior (giving, sharing, and helping) is important to the fabric that holds communities and societies together.

There is a silver lining to our research, however. Luxury can lead people to be more generous, but only if the behavioral context affords an explicit opportunity to enhance reputation by behaving more generously. Although giving behavior under these circumstances is beneficial to the giver, it does indicate that it is not inevitable that luxury use will lead to selfish behavior.

### **Branding Research**

The current research also relates to findings showing how brands can influence our behavior. Just being exposed to a brand name or logo can be consequential. For example, incidental exposure to a brand logo (e.g., Apple logo) can activate behaviors

related to the brand's image, such as being creative (Chartrand et al. 2008; Fitzsimons, Chartrand, and Fitzsimons 2008). Similarly, using a branded product that is associated with certain outcomes (e.g., Gatorade and athletic performance) can increase the user's exercise performance, despite the fact that the actual beverage consumed has no properties that would be beneficial to this type of performance (Park and John 2014; Irmak, Block, and Fitzsimons 2005).

We add to this emerging body of research by showing that using luxury brands also impacts behavior, albeit in a very different way than prior demonstrations. Prior research has found that brands affect behavior through direct associations with the brand's image, such as Apple (creative) or Gatorade (athletic performance). Our studies are different in the sense that the behaviors we observe (e.g., splitting money, donations) are not directly related to the brand's image, but are downstream consequences of using a luxury brand.

Further, we find that use of luxury brands not only affects the user, but also other people who interact with the luxury user. Prior research has focused on a brand's effect on individual behavior, such as being more creative or exercising longer. We extend this research into new territory by examining whether brands use can trigger certain types of behavior that have consequences for others as well as oneself.

### **Future Research**

Our research provides a starting point for further examination of luxury consumption. First, our finding that luxury consumption produces feelings of higher social status suggests that luxury product use might have a variety of behavioral consequences. For example, past research shows that individuals with higher status or

power are more independent, exhibit greater action-orientation and greater abstraction, and engage in more risk taking behaviors (Dubois and Ordabayeva forthcoming; Maner et al. 2007). This suggests that using a luxury product might result in more risky behavior.

Second, the behavioral effects of luxury consumption we observed may be moderated by a number of individual differences. An individual's need for status would appear to be a strong candidate in this regard. It might be expected that consumers with a higher need for status (Eastman, Goldsmith, and Flynn 1999; Han et al. 2010), defined as a tendency to purchase products for their status and prestige value, would experience stronger feelings of status when using a luxury product, leading to stronger behavioral effects. A second potential moderator is culture. In the current study, the overwhelming majority of participants were U.S. citizens. Women from other countries and cultures may respond differently. For example, women from Eastern cultures, where the social hierarchy tends to be more salient than in Western cultures, might experience stronger feelings of increased social status and exhibit stronger behavioral effects from using luxury products.

Third, we focused our studies on women because the products we examined (e.g., handbag, scarf) are more relevant to women consumers. However, we expect that luxury consumption should also have the similar effects on men. In fact, based on past research has shown that males exhibit a stronger preference for signaling power and status (Hays 2013; Melnyk and Osselaer 2012), it is reasonable to argue that the effects demonstrated in the current paper should even be stronger among male consumers. Future research can expand the product type to be more male relevant and explore how luxury consumption can influence male consumers' social behaviors.

Our findings also link to related research on hormones. For example, compared to driving a non-luxury car, the experience of driving a luxury has been shown to boost men's testosterone levels (Saad and Vongas 2009). Future research is needed to examine how luxury consumption might influence women's hormonal responses. Finally, the behavioral effects of luxury consumption may also differ depending on the audience, given that the nature of the audience is an important factor that affects luxury consumption (e.g., Berger and Ward 2010; Han et al. 2010; Wang and Griskevicius 2014).

Addressing these questions, and others, holds the promise of understanding the consequences of luxury consumption in a more compelling way. Our findings show that luxury consumption can lead to both selfish and generous behaviors, and we invite further research to examine a wider range of psychological and behavioral consequences.

**ILLUSTRATION A**

**PRODUCTS USED ACROSS STUDIES**

<b>Study 1 and Study 3</b>	
<b>Luxury Handbag (Louis Vuitton)</b>	<b>Control Handbag</b>
	
<b>Study 2 and Study 4</b>	
<b>Luxury Handbag (Prada)</b>	<b>Control Handbag</b>
	
<b>Study 5 and Study 6</b>	
<b>Luxury Scarf (Burberry)</b>	<b>Control Scarf</b>
	

## REFERENCES

- Archer, John (2006), "Testosterone and Human Aggression: An Evaluation of the Challenge Hypothesis," *Neuroscience and Biobehavioral Reviews*, 30, 319-45.
- Bagwell, Laurie S. and B. Douglas Bernheim (1996), "Veblen Effects in a Theory of Conspicuous Consumption," *The American Economic Review*, 86, 3 (Jun), 349-73.
- Belk, Russell W. (1985), "Trait Aspects of Living in the Material World," *Journal of Consumer Research*, 12 (December), 265-80.
- Belk, Russell W., Kenneth D. Bahn, and Robert N. Mayer (1982), "Developmental Recognition of Consumption Symbolism," *Journal of Consumer Research*, 9 (June), 4-16.
- Berger, Jonah and Morgan Ward (2010), "Subtle Signals of Inconspicuous Consumption," *Journal of Consumer Research*, 37 (December), 555-69.
- Boksem, Maarten A. S., Pranjal H. Mehta, Bram Van den Bergh, Veerie van Son, Stefan T. Trautmann, Karin Roelofs, Ale Smidts, and Alan G. Sanfey (2013), "Testosterone Inhibits Trust but Promotes Reciprocity," *Psychological Science*, 24(11), 2306-14.
- Charles, Kerwin Kofi, Erik Hurst, and Nikolai Roussanov (2009), "Conspicuous Consumption and Race," *The Quarterly Journal of Economics*, 124 (2), 425-67.
- Chartrand, Tanya L., Joel Huber, Baba Shiv, and Robin J. Tanner (2008), "Nonconscious Goals and Consumer Choice," *Journal of Consumer Research*, 35 (August), 189-201.
- Cole, Douglas and Ira Chaikin (1990). *An Iron Band upon the People – The Law Against the Potlatch on the Northwest Coast*, Seattle, WA: University of Washington Press.



- Cottrell, Catherine A., Steven L. Neuberg, and Norman P. Li (2007), "What do People Desire in Others? A Sociofunctional Perspective on the Importance of Different Valued Characteristics," *Journal of Personality and Social Psychology*, 92(2), 208-31.
- D'Arpizio, Claudia (2014), "Luxury Goods Worldwide Market Study," Bain & Company, accessed May 01, 2014, <http://www.bain.com/about/press/press-releases/worldwide-luxury-goods-continues-double-digit-annual-growth.aspx>
- Dabbs, James M. and Marian F. Hargrove (1997), "Age, Testosterone, and Behavior Among Female Prison Inmates," *Psychosomatic Medicine*, 59, 477-80.
- Dabbs, James M. and Robin Morris (1990), "Testosterone, Social Class, and Antisocial Behavior in a Sample of 4,462 Men," *Psychological Science*, 209-11.
- de Graaf, John, David Wann, and Thomas H. Naylor (2001). *Affluenza: The All-Consuming Epidemic*. San Francisco, CA: Berrett-Koehler.
- Dreze, Xavier and Joseph C. Nunes (2009), "Feeling Superior: The Impact of Loyalty Program Structure on Consumers' Perceptions of Status," *Journal of Consumer Research*, 35 (April), 890- 905.
- Dubois, David and Nailya Ordabayeva (in press), "Social Hierarchy, Social Status, and Status Consumption," in *The Cambridge Handbook of Consumer Psychology*, eds. Michael Norton, Derek Rucker, and Cait Lambertson.
- Eastman, Jacqueline K., Ronald E. Goldsmith, and Leisa Reinecke Flynn (1999), "Status Consumption in Consumer Behavior: Scale Development and Validation," *Journal of Marketing Theory and Practice*, 7(Summer), 41-52.

- French, John R. P. Jr. and Bertram Raven (1959), *The Bases of Social Power*, Ann Arbor, MI: University of Michigan Press.
- Fitzsimons, Gráinne M, Tanya L. Chartrand, and Gavan Fitzsimons (2008), “Automatic Effects of Brand Exposure on Motivated Behavior: How Apple Makes You “Think Different”,” *Journal of Consumer Research*, 35 (June), 21-35.
- Fuchs, Christoph, Emanuela Prandelli, Martin Shreier, and Darren W. Dahl (2013), “All That Is Users Might Not Be Gold: How Labeling Products as User Designed Backfires in the Context of Luxury Fashion Brands,” *Journal of Marketing*, 77 (September), 75-91.
- Galinsky, Adam D., Joe C. Magee, M. Ena Inesi, and Deborah H. Gruenfeld (2006), “Power and Perspective Not Taken,” *Psychological Science*, 17 (2), 1068-74.
- Griskevicius, Vladas and Douglas T. Kenrick (2013), “Fundamental Motives for Why We Buy: How Evolutionary Needs Influence Consumer Behavior,” *Journal of Consumer Psychology*, 23(3), 372-386.
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), “Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals,” *Journal of Personality and Social Psychology*, 93 (1), 85-102.
- Griskevicius, Vladas, Joshua M. Tybur, and Bram Van den Bergh (2010) “Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation,” *Journal of Personality and Social Psychology*, 98, 392-404.

- Gurven, Michael, Wesley Allen-Arave, Kim Hill, and Magdalena Hurtado (2000), ““It's a Wonderful Life”: Signaling Generosity among the Ache of Paraguay.” *Evolution and Human Behavior* 21(4), 263-82.
- Han, Young Jee, Joseph C. Nunes, and Xavier Drèze (2010), “Signaling Status with Luxury Goods: The Role of Brand Prominence,” *Journal of Marketing*, 74 (July), 15-30.
- Hardy, Charlie L. and Mark Van Vugt (2006), “Nice Guys Finish First: The Competitive Altruism Hypothesis,” *Personality and Social Psychology Bulletin*, 32, 1402-13.
- Hayes, Andrew F. (2012), “PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling [White paper],” Retrieved from <http://www.afhayes.com/>
- Hays, Nicholas A. (2013), “Fear and Loving in Social Hierarchy: Sex Differences in Preferences for Power versus Status,” *Journal of Experimental Social Psychology*, 49(6), 1130-1136.
- Iredale, Wendy, Mark Van Vugt, and Robin Dunbar (2008), “Showing Off in Humans: Male Generosity as a Mating Signal,” *Evolutionary Psychology*, 6(3), 386-92.
- Irmak, Caglar, Lauren G. Block, and Gavan J. Fitzsimons (2005), “The Placebo Effect in Marketing: Sometimes You Just Have to Want It to Work,” *Journal of Marketing Research*, 42 (November), 406-09.
- Jones, Liz (2008), “The Luxury Brand with a Chequered Past, Burberry’s Shaken off Its Chav Image to Become the Fashionistas’ Favourite Once More,” Mail Online, accessed February 10, 2014, <http://www.dailymail.co.uk/femail/article-1023460/Burberrys-shaken-chav-image-fashionistas-favourite-more.html>.

- Jones, Lyle V. (1952), "Tests of Hypotheses: One-Sided vs. Two-Sided Alternatives," *Psychological Bulletin*, 49 (1), 43-6.
- Kasser, Tim (2002). *The High Price of Materialism*. Mass.: MIT Press.
- Kenrick, Douglas T., Vladas Griskevicius, Steven L. Neuberg, and Mark Schaller (2010), "Renovating the Pyramid of Needs: Contemporary Extensions Built Upon Ancient Foundations," *Perspectives on Psychological Science*, 5(3),292-314.
- Kuksov, Dmitri and Ying Xie (2012), "Competition in a Status Goods Market," *Journal of Marketing Research*, 49(October), 609-23.
- Lee, Jaehoon and L. J. Shrum (2012), "Conspicuous Consumption versus Charitable Behavior in Response to Social Exclusion: A Differential Needs Explanation," *Journal of Consumer Research* 39 (October), 530-44.
- Lindberg, Nina, Pekka Tani, Bjorn Appelberg, Hannu Naukkarinen, Ranan Rimon, Tarja Porkka-Heiskanen, and Matti Vrikkunen (2003), "Human Impulsive Aggression: A Sleep Research Perspective," *Journal of Psychiatric Research*, 37, 313-24.
- Magee, Joe C. and Adam D. Galinsky (2008), "Social Hierarchy: The Self-Reinforcing Nature of Power and Status," *The Academy of Management Annals*, 2(1), 351-98.
- Maner, Jon K., Matthew T. Gailliot, David A. Butz, and B. Michelle Peruche (2007), "Power, Risk, and the Status Quo: Does Power Promote Riskier or More Conservative Decision Making?" *Personality and Social Psychology Bulletin*, 33(4), 451-62.
- Maner, Jon K. and Nicole L. Mead (2010), "The Essential Tension Between Leadership and Power: When Leaders Sacrifice Group Goals for the Sake of Self-Interest," *Journal of Personality and Social Psychology*, 99 (3), 482-97.

- Mazzocco, Philip. J., Derek D. Rucker, Adam D. Galinsky, and Eric T. Anderson (2012), "Direct and Vicarious Conspicuous Consumption: Identification with Low-Status Groups Increase the Desire for High-Status Goods," *Journal of Consumer Psychology*, 22, 520-28.
- Melnyk, Valentyna, Stijn MJ van Osselaer and Tammo HA Bijmolt (2009), "Are Women More Loyal Customers Than Men? Gender Differences in Loyalty to Firms and Individual Service Providers," *Journal of Marketing*, 73(4), 82-96.
- Miller, Geoffrey F. (2007), "Sexual Selection for Moral Virtues," *Quarterly Review of Biology*, 82, 97-125.
- Murdock, George Peter (1970), "Rand and Potlatch among the Haida," *Yale University Publications in Anthropology*, 13, New Haven, CT: Human Relations Area Files Press.
- Nelissen, Rob M.A. and Marijn H.C. Meijers (2012), "Social Benefits of Luxury Brands as Costly Signals of Wealth and Status," *Evolution and Human Behavior*, 32(5), 343-55.
- Ordabayeva, Nailya and Pierre Chandon (2011), "Getting ahead of Joneses: When Equality Increases Conspicuous Consumption Among Bottom-Tier Consumers," *Journal of Consumer Research*, 38 (June), 27-41.
- Park, Ji Kyung and Deborah Roedder John (2014), "I Think I Can, I Think I Can: Brand Use, Self-Efficacy, and Performance," *Journal of Marketing Research*, 51(April), 233-47.
- Patrick Vanessa M. and Henrik Hagtvedt (2009), "Luxury Branding," *The Handbook of Brand Relationships*. NY: Society for Consumer Psychology, 267-80.

- Phau, Ian and Gerard Prendergast (2000), "Consuming Luxury Brands: The Relevance of the 'Rarity Principle'," *Journal of Brand Management*, 7 (5), 366-75.
- Phillips, Jordan (2012), "The Lure of Luxe: Climbing The Luxury Consumption Pyramid," North Charleston, SC: CreateSpace Independent Publishing Platform.
- Piff, Paul K, Michael W. Kraus, Stephane Cote, Bonnie Hayden Cheng, and Dacher Keltner (2010), "Having Less, Giving More: The Influence of Social Class on Prosocial Behavior," *Journal of Personality and Social Psychology*, 99 (5), 771-84.
- Piff, Paul K, Daniel M. Stancato, Stephane Cote, Rodolfo Mendoza-Denton, and Dacher Keltner (2012), "Higher Status Class Predicts Increased Unethical Behavior," *Proceedings of the National Academy of Science*, 109(11), 4086-91.
- Plourde, Aimee M. (2008), "The Origins of Prestige Goods as Honest Signals of Skill and Knowledge," *Human Nature*, 19 (4), 374-88.
- Preacher, Kristopher J. and Andrew Hayes (2008), "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediation Model," *Behavior Research Method*, 40 (3), 879-91.
- Richins, Marsha L. (1987), "Media, Materialism, and Human Happiness," *Advances in Consumer Research*, 14 (1), 352-56.
- (1994), "Special Possessions and the Expression of Material Values," *Journal of Consumer Research*, 21 (December), 522-33.
- Ridgeway, Cecilia L. and Henry A. Walker (1995), "Status Structure," in Karen S. Cook, Gary Alan Fine, and James S. House, eds. *Sociological Perspectives on Social Psychology*. Needham Heights: Allyn and Bacon.

- Rucker, Derek D., David Dubois, and Adam D. Galinsky (2011), "Generous Paupers and Stingy Princes: Power Drives Consumer Spending on Self versus Others," *Journal of Consumer Research*, 37 (April), 1015-29.
- Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to Acquire: Powerlessness and Compensatory Consumption," *Journal of Consumer Research*, 35(August), 257-67.
- (2009), "Conspicuous Consumption versus Utilitarian Ideals: How Different Level of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45(3), 549-55.
- Rucker, Derek D., Adam D. Galinsky, and David Dubois (2012), "Power and Consumer Behavior: How Power Shapes Who and What Consumer Value," *Journal of Consumer Psychology*, 22, 352-68.
- Saad, Gad and John G. Vongas (2009), "The Effect of Conspicuous Consumption on Men's Testosterone Levels," *Organizational Behavior and Human Decision Processes*, 110, 80-92.
- Schor, Juliet B. (2004), *Born to Buy*, New York: Scribner.
- Semmann, Dirk, Hans-Jürgen Krambeck, and Manfred Milinski (2005), "Reputation is Valuable Within and Outside One's Own Social Group," *Behavioral Ecology and Sociobiology*, 57(6), 611-16.
- Sivanathan, Niro and Nathan C. Pettit (2010), "Protecting the Self through Consumption: Status Goods as Affirmational Commodities," *Journal of Experimental Social Psychology*, 46, 564-70.

- Smith, Eric Alden and Rebecca Bird (2000), "Turtle Hunting and Tombstone Opening: Public Generosity as Costly Signaling," *Evolution and Human Behavior*, 21(4), 245-61.
- Solomon, Michael R. (1983), "The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective," *Journal of Consumer Research*, 10 (December), 319-29.
- Sparshott, Jeffrey (2014), "What Products Drove Consumer Spending? Luxury Items, Mostly," *The Wall Street Journal*, accessed February 11, 2014, <http://blogs.wsj.com/economics/2014/01/22/what-products-drove-consumer-spending-luxury-items-mostly/>
- Statista (2014), "Value of the Personal Luxury Goods Market Worldwide From 1995 to 2013," The Statistics Portal, accessed September 2014, <http://www.statista.com/statistics/266503/value-of-the-personal-luxury-goods-market-worldwide/>
- Stellar, Jennifer E., Vida M. Manzo, Michael W. Kraus, and Dacher Keltner (2012), "Class and Compassion: Socioeconomic Factors Predict Responses to Suffering," *Emotion*, 12 (3), 449-59.
- Stiff, Chris and Mark Van Vugt (2008), "The Power of Reputations: The Role of Third Party Information in the Admission of New Group Members," *Group Dynamics: Theory, Research, and Practice* 12, 155-66.
- Sundie Jill M., Douglas T. Kenrick, Vladas Grikevicius, Joshua M. Tybur, Kathleen D. Vohs, and Daniel J. Beal (2011), "Peacocks, Porsches, and Thorstein Veblen: Conspicuous Consumption as a Sexual Signaling System," *Journal of Personality and Social Psychology*, 100 (4), 664-80.

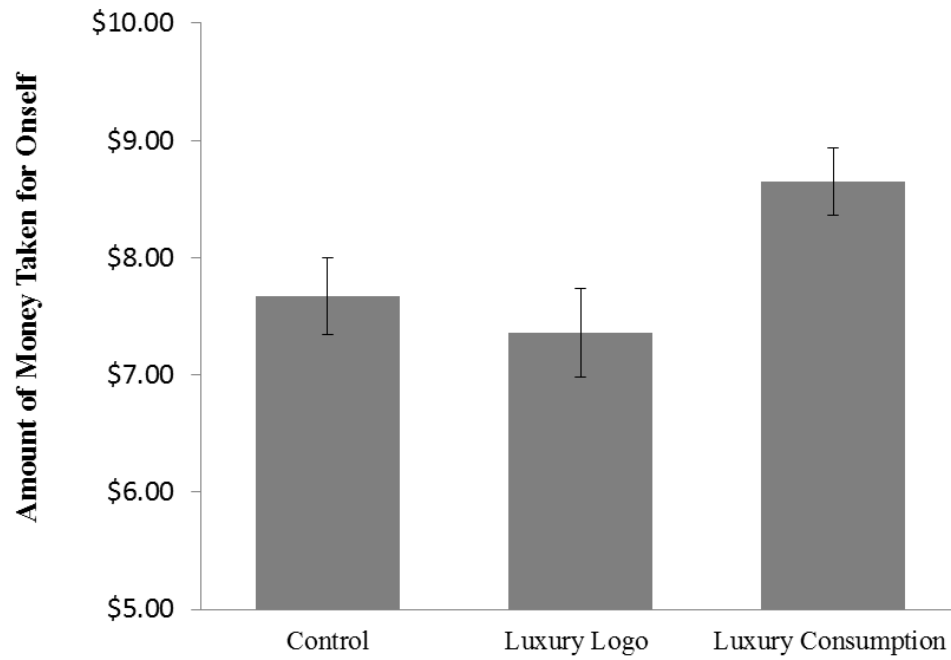


- Van Vugt, Mark and Charlotte L. Hardy (2009), "Cooperation for Reputation: Wasteful Contributions as Costly Signals in Public Goods," *Group Processes Intergroup Relations*, 13(1), 101-11.
- Veblen, Thorstein (1899), *The Theory of the Leisure Class*, New York: Penguin.
- Vigneron, Franck and Lester W. Johnson (2004), "Measuring Perceptions of Brand Luxury," *Brand Management*, 11 (July), 484-506.
- Wang, Yajin and Vladas Griskevicius (2014), "Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women," *Journal of Consumer Research*, 40 (February), 834-54.
- Wedekind, Claus and Victoria A. Braithwaite (2002), "The Long-Term Benefits of Human Generosity in Indirect Reciprocity," *Current Biology*, 12(12), 1012-15.
- Wernerfelt, Birger (1990), "Advertising Content When Brand Choice is a Signal," *The Journal of Business*, 63 (1), 91-8.
- Wilcox, Keith, Hyeong Min Kim, and Sankar Sen (2009), "Why Do Consumers Buy Counterfeit Luxury Brands?" *Journal of Marketing Research*, 46 (April), 247-59.
- Wong, Jimmy and Sharon Shavitt (2010), "Be Rude to Me and I Will Buy a Rolex: Effects of Culture Orientation on Responses to Power Threat in a Service Setting," *Advances in Consumer Psychology*, 2, 95.
- Zak, Paul J., Robert Kuzban, Sheila Ahmadi, Ronald S. Swerdloff, Jang Park, Levan Efremidze, Karen Redwine, Karla Morgan, and William Matzner (2009), "Testosterone Administration Decreases Generosity in the Ultimatum Game," *PLoS One*, 4 (12), e8330.

Zitek, Emily M., Alexander H. Jordan, Benoit Monin, and Frederick R. Leach (2010),  
“Victim Entitlement to Behave Selfish,” *Journal of Personality and Social  
Psychology*, 98(2), 245-55.

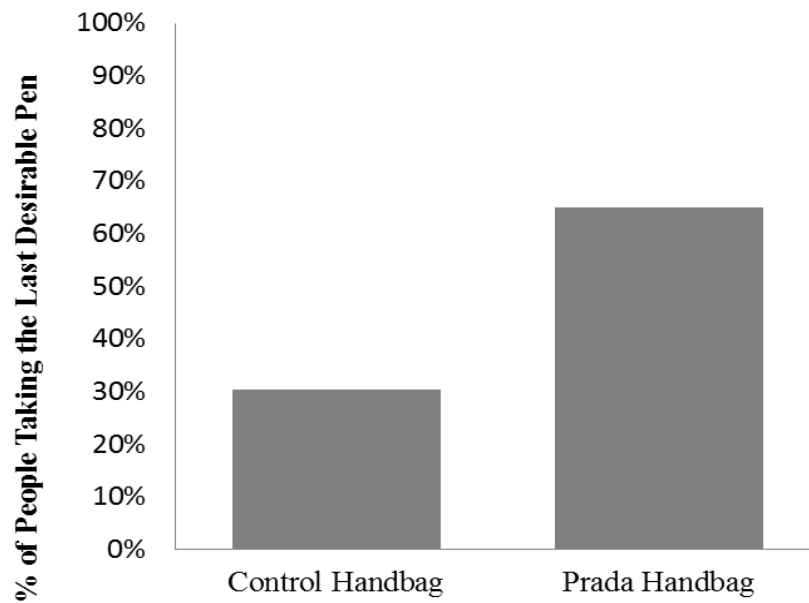
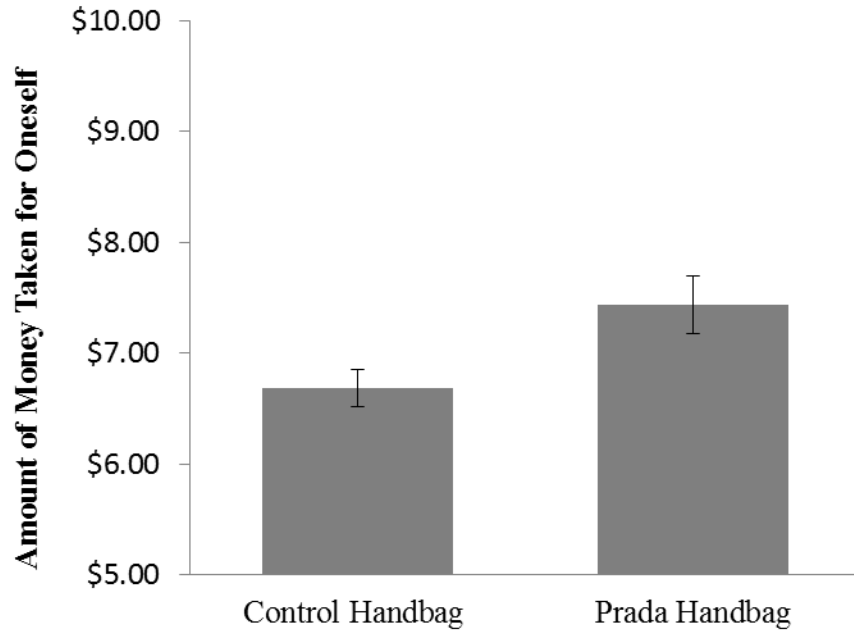
**FIGURE 1**

**EFFECT OF LUXURY CONSUMPTION ON SELFISH BEHAVIOR (STUDY 1)**



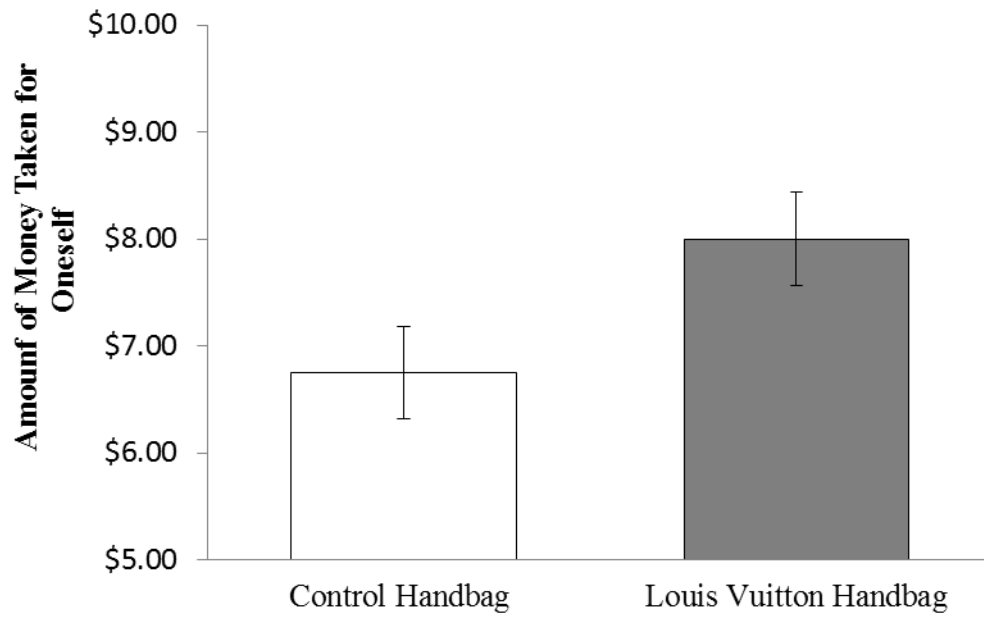
**FIGURE 2**

**EFFECT OF LUXURY CONSUMPTION ON SELFISH BEHAVIOR (STUDY 2)**



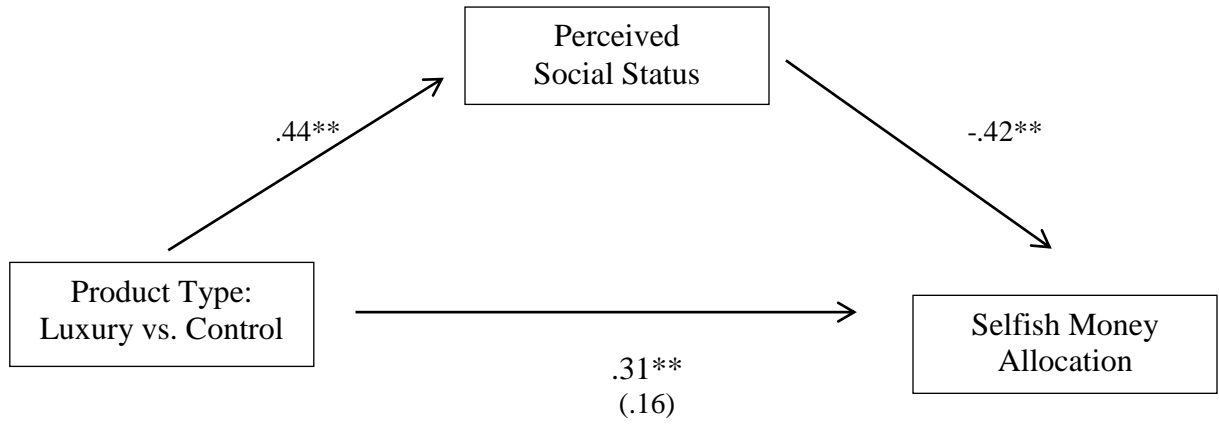
**FIGURE 3**

**EFFECT OF LUXURY CONSUMPTION ON SELFISH BEHAVIOR (STUDY 3)**



**FIGURE 4**

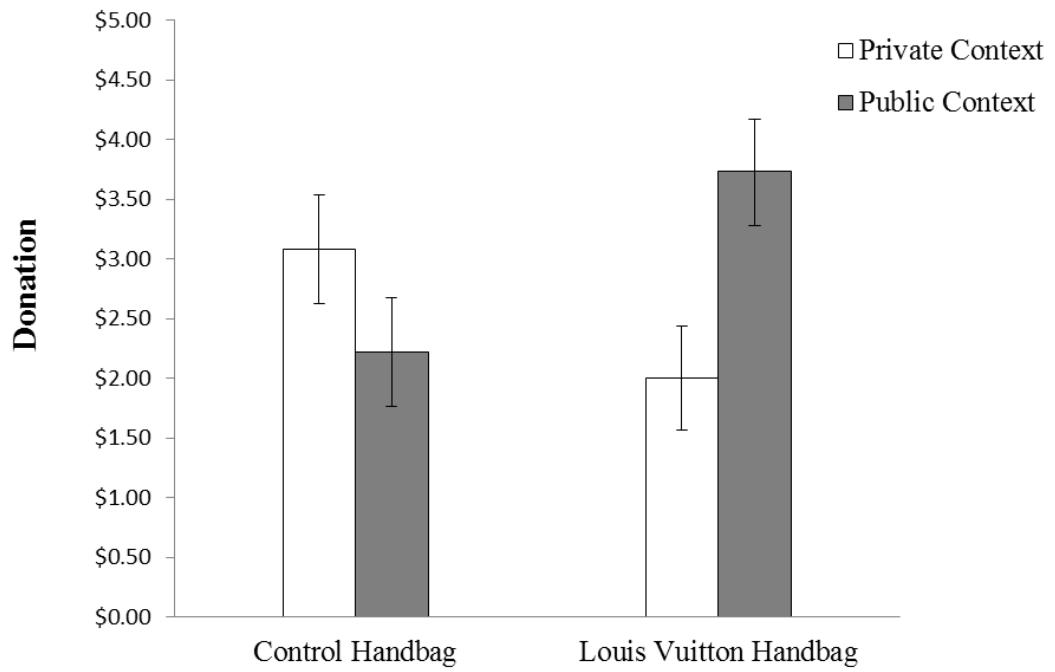
**EFFECT OF LUXURY CONSUMPTION ON SELFISH BEHAVIOR MEDIATED  
BY PERCEIVED SOCIAL STATUS (STUDY 3)**



Note: Coefficients are standardized  
p<.001, \*\*\*; p<.01, \*\*; p<.05, \*

**FIGURE 5**

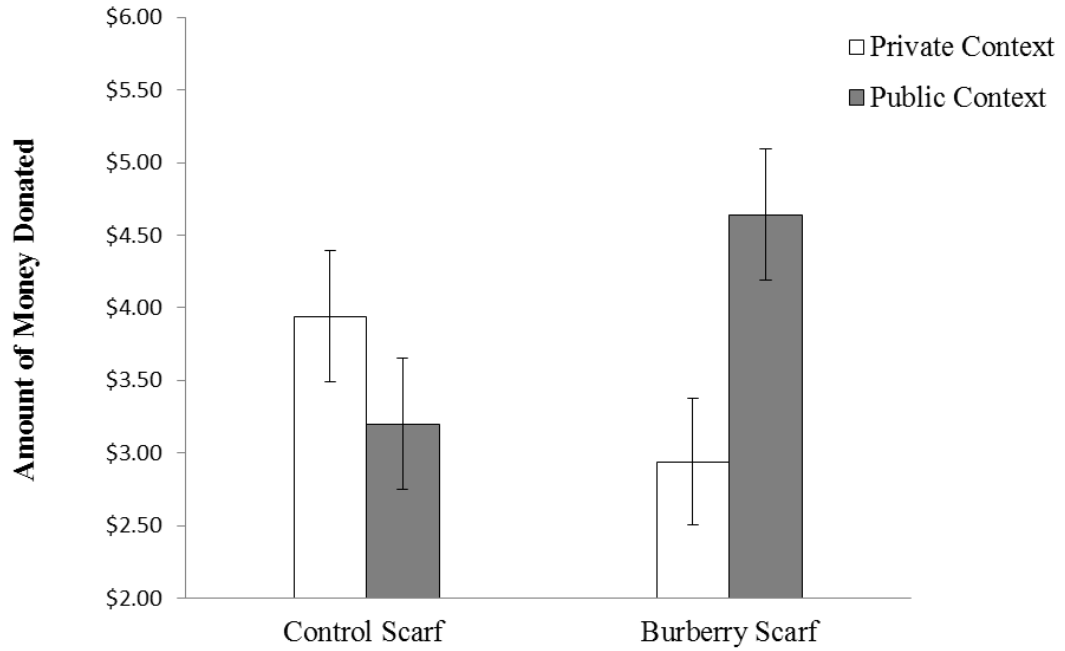
**EFFECT OF LUXURY CONSUMPTION ON CHARITY DONATIONS  
DEPENDING ON WHETHER DONATION IS PUBLIC OR PRIVATE (STUDY 4)**



**FIGURE 6**

**EFFECT OF LUXURY CONSUMPTION ON CHARITY DONATIONS**

**DEPENDING ON WHETHER DONATION IS PUBLIC OR PRIVATE (STUDY 5)**



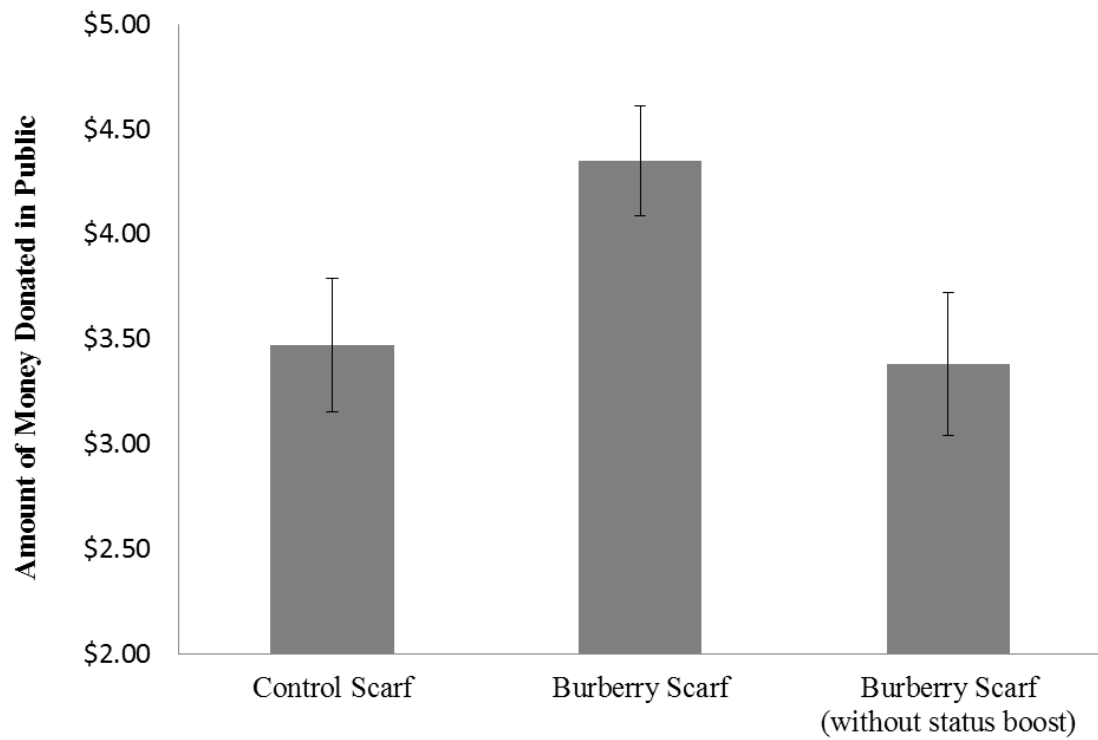


**FIGURE 7**

**EFFECT OF LUXURY CONSUMPTION ON PUBLIC CHARITY DONATIONS**

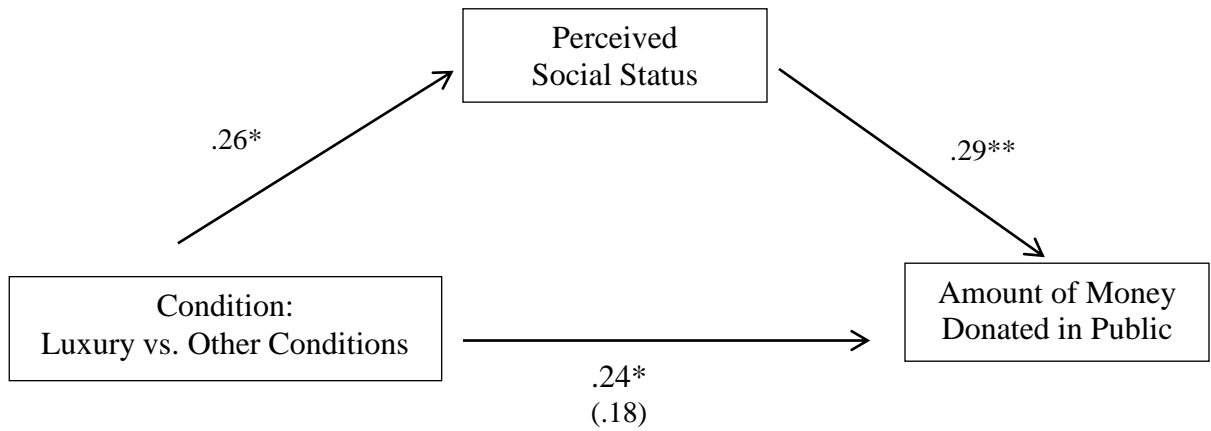
**DEPENDING ON IF THE LUXURY PRODUCT BOOSTS SOCIAL STATUS**

**(STUDY 6)**



**FIGURE 8**

**EFFECT OF LUXURY CONSUMPTION ON PUBLIC DONATIONS MEDIATED  
BY PERCEIVED SOCIAL STATUS (STUDY 6)**



Note: Coefficients are standardized  
p<.001, \*\*\*; p<.01, \*\*; p<.05, \*

## CHAPTER III:

### Essay 2: Louis Vuitton and Your Waistline:

#### How Luxury Consumption Influences Self-Control

Luxury consumption is skyrocketing. Among over 100 categories of consumer spending, luxury goods show the strongest growth (Sparshott 2014). In the next five years, global luxury sales are expected to grow up to 50% faster than global GDP (D'Arpizio 2013), with the highest growth in countries such as India (86%) and China (72%) (Euromonitor 2013). Many top luxury brands racked up double-digit sales increases last year, including Prada (29% increase; Paton 2013) and Louis Vuitton (19% increase; Roberts 2013). No wonder luxury brands such as Louis Vuitton, Prada, and Gucci are among the most valuable brands in the world (Interbrand 2013).

Not surprisingly, these trends in luxury consumption have drawn the attention of consumer researchers, who have identified a variety of motivations for owning luxury goods. Consumers desire luxury goods as a way to satisfy psychological needs, such as elevating self-esteem and creating stable selves (Belk 1985; Richins 1987) and compensating for feelings of powerlessness (Rucker, Galinsky, and Dubois 2012). Research also shows that consumers use luxury products to express their identity, signal prestige and status, and even attract and protect romantic partners (Berger and Ward 2010; Griskevicius et al. 2007; Han et al. 2010; Wilcox et al. 2009; Wang and Griskevicius 2014).

Interestingly, though, there has been little attention to the *actual experience* of using luxury goods. How does it feel to carry a luxury handbag or wear a luxury watch? Does using a luxury handbag or watch change our psychological state or affect our

behavior? We might expect the luxury consumption experience to be a largely positive one, given the positive outcomes consumers seek when acquiring luxury goods. However, is it possible that using luxury goods impacts consumers in negative ways that have not been anticipated? Answering these questions requires us to observe consumers actually using luxury products, which has not been a feature of prior work in the luxury area. As a result, we understand a good deal about consumer motivations for wanting luxury goods, but have little understanding of what happens once consumers acquire luxury goods and use them in their daily lives.

In this article, we examine the effects of luxury consumption by providing women with a luxury handbag to carry, such as a Louis Vuitton, Prada, or Burberry handbag. We then examine the psychological and behavioral effects of this luxury consumption experience. In particular, we focus on the negative effects that using a luxury good can trigger. We find that using a luxury item in public makes women feel they are getting attention from others, but it also makes them feel more self-conscious, and more mindful of needing to watch their behavior in front of others. This need to self-regulate one's behavior depletes self-regulatory resources, and impairs women's ability to exert self-control in subsequent situations. For example, we find that women who carry a luxury handbag are less able to resist tempting but unhealthy food (candy), and eat more of this unhealthy food than women who carry a non-luxury handbag.

Our research makes a number of novel and important contributions. First, to our knowledge, we are the first to examine the psychological and behavior consequences that accompany luxury consumption. Although consumers are motivated to acquire luxury goods for a variety of reasons, this does not guarantee that they will experience these

imagined benefits, nor does it guarantee that they will experience only positive psychological states when actually using luxury goods. Second, our research documents a novel effect not anticipated by prior research—that luxury use can result in negative psychological and behavioral effects. In terms of psychological states, using a luxury good makes individuals feel self-conscious and watchful of their behavior in front of others. This results in a depletion in self-regulatory resources, which negatively affects the luxury user because these resources are needed for many aspects of daily life where self-control is required—such as resisting tasty but unhealthy food, exercising daily, and curbing one’s temper with a child or fellow worker. Overall, our findings suggest that luxury consumption has psychic and behavioral costs that are in stark contrast to the prevailing wisdom regarding the positive benefits that consumers can derive from luxury goods.

Finally, these findings extend our knowledge of self-regulatory resource depletion theory. We demonstrate that enacting behaviors in a social context (using a luxury product) can deplete resources. Most prior research examines depletion using intrapersonal self-regulatory tasks, with very few studies showing that interpersonal tasks can also be depleting (for an exception, see Vohs, Baumeister, and Ciarocco 2005). Further, we show that tasks generally considered to be interesting and enjoyable (carrying a luxury handbag) can also deplete one’s self-regulatory resources. Prior depletion research incorporates tasks that are usually challenging, tedious, or uncomfortable. Thus, we provide a novel demonstration of self-regulatory resource depletion with a more positively valenced task.

## CONCEPTUAL OVERVIEW

In this section, we first describe the nature of luxury goods and luxury consumption. Next, we propose that using luxury goods in public elicits a particular state of mind, which we refer to as a spotlight mindset, which triggers impression management concerns. Then, we propose that dealing with these concerns draws on self-regulation resources, which depletes the pool of resources available for subsequent self-control tasks, resulting in worse performance in a subsequent self-control task (e.g., resisting candy).

### **Nature of Luxury Consumption**

We define luxury goods as products or brands that have premium prices and quality, and are relatively rare and unique. Occupying a premium position in the marketplace, with perceptions of high quality offered at premium prices, is a key characteristic of luxury brands (Patrick and Hagtvedt 2008). Rarity is a defining feature is found in early writings on luxury consumption (Veblen 1899), and today, luxury brands continue to be defined in terms of uniqueness and exclusivity (Phau and Prendergast 2000; Vigneron and Johnson 2004).

Most luxury goods are consumed in public settings. Although a consumer might drink a bottle of Domaine Laflaive (French wine priced at over \$4,000/bottle) at home alone, it is more likely the bottle of wine will be consumed with others. A millionaire might drive his Astin Martin One-77 (price of \$1.8 million) around his estate, but most of the time, the car will be driven in public in view of others. In fact, very few luxury goods are intended for private consumption. More than 70% of global luxury sales are for goods people typically consume in public—cars, jewelry, leather goods (handbags, shoes), and apparel (D'Arpizio 2013).

Consistent with public usage, researchers have focused on the role of luxury goods as signals of status and power to others, as opposed to the intrinsic enjoyment of using a luxury good. Over 100 years ago, Thorstein Veblen coined the term “conspicuous consumption” to capture people’s desire to seek out and flaunt luxury goods in his classic book, *Theory of The Leisure Class*. Today, the terms “conspicuous consumption” and “luxury consumption” are often used interchangeably. Consumer researchers have documented that luxury products can signal one’s status and prestige (Bagwell and Douglas 1996; Han et al. 2010; Mazzocco et al. 2012; Wernerfelt 1990; Wilcox et al. 2009), power (Rucker et al. 2012), group affiliation (Han et al. 2010; Berger and Ward 2010), and tastes (Berger and Ward 2010).

In accordance with these themes, our research focuses on premier luxury goods that meet our definition (such as Louis Vuitton, Prada, and Burberry) and the consequences of using these luxury goods in public settings.

### **Luxury Consumption and the Spotlight Mindset**

Although prior research has identified consumer motivations for desiring luxury goods, there has been virtually no attention given to the actual experience of using luxury goods. What are consumers thinking and feeling when they use a luxury good?

We propose that using a luxury good in public places the user in a spotlight, where they receive attention just like an actor stepping into a spotlight. Many consumers invite this attention in the hope that using a luxury good will signal identity, status, power, and group affiliation. However, even absent this desire, luxury goods naturally draw attention from others because they are relatively rare, novel, and stand out from other consumer goods. For example, drivers of luxury cars often receive glances from other

drivers at a stoplight, and women with expensive handbags often catch other women staring at them. Thus, regardless of one's intention, using a luxury good in public garners attention from others, placing the luxury user in a spotlight.

The spotlight metaphor offers several clues about the psychological state of consumers using luxury goods in public, which we refer to as a "spotlight mindset." First, we expect luxury users to feel that other people are paying attention and watching them. Luxury goods are relatively rare and distinctive, and research shows that individuals using a distinctive item not only believe people are paying attention to them, but also overestimate the amount of attention directed their way (Gilovich, Medvec, and Savitsky 2000; Gilovich and Savitsky 1999). In addition, because luxury goods are so often used as signaling devices, anyone using a luxury item in public can reasonably expect that other people will be paying attention to them.

Second, we expect luxury users will feel self-conscious, defined as being concerned with one's social appearance and the impression one is making on others (public self-consciousness: Fenigstein, Scheier, and Buss 1975). Feelings of being watched and in the public eye are associated with feelings of self-consciousness (Fenigstein 1984). Regardless of whether signaling motives are present, luxury users feel they are the focus of other people's attention, and concerns about how others are judging them naturally follow. These concerns may be quite valid, as research shows that people are more likely to draw inferences about others when they have higher-priced items and status goods (Charles, Hurst and Roussanov 2007; Richins 1994).

Third, and relatedly, we expect luxury users to be more careful about the way they behave in public. The need to be more careful about one's behavior is related to feelings



of self-consciousness. Individuals high in (public) self-consciousness are more willing to alter their behavior to avoid being negatively evaluated or rejected (Fenigstein 1979; Raichle et al., 2001) and are more susceptible to pressures to conform (Froming and Carver 1981; Scheier 1980). These findings suggest that (public) self-consciousness is related to being careful about how one behaves in public and altering one's behavior to be socially acceptable.

### **Spotlight Mindset and Self-Regulatory Resource Depletion**

Consuming a luxury product in public elicits a spotlight mindset, with thoughts of others watching you, being concerned about the impression you are making, and needing to be careful about one's behavior in front of others. Together, these aspects of a spotlight mindset suggest the need to manage one's thoughts and behaviors to create a more positive impression when using a luxury product in public, which as described below, is linked to self-regulation.

When individuals seek to achieve important social goals, maintain or meet social standards, or conform to group norms, the process of presenting a desirable image involves increased attentional and behavioral control. That is, individuals need to initiate, adjust, stop, or otherwise change or promote certain thoughts, feelings, or actions (Baumeister, Heatherton, and Tice 1994; Baumeister and Heatherton 1996; Carver and Scheier 2001). These activities are linked to self-regulation, which is essentially the ability to alter one's natural tendencies to bring them in line with standards (Baumeister and Heatherton 1996; Baumeister, Vohs, and Tice 2007). Especially relevant to our context is the finding that self-presentation requires self-regulation (Vohs et al. 2005). Furthermore, recent neuroscience research finds that regions of the brain (MPFC: medial

prefrontal cortex) activated when individuals process information about the self and others (e.g., making inferences about others' evaluations of the self: for a review, see Heatherton 2011) overlap with parts of the brain responsible for self-regulation (for reviews, see Bandfield et al. 2004; Krendl and Heatherton 2009).

Research also documents that self-regulation draws on a general resource, and these resources are subject to depletion. Baumeister and Heatherton's (1996) strength model of self-regulation makes these two important points. First, self-regulatory resources are domain general, with the same source used for seemingly separate self-regulatory tasks, such as regulating one's emotions, thoughts, and behaviors (Baumeister et al. 1998; Muraven, Tice, and Baumeister 1998). Therefore, self-regulation tasks related to impression management, regardless of whether they are cognitive, emotional, or behavioral, should all draw resources from the same general pool. Second, this domain-general pool is exhausted by repeated attempts at self-regulation (Baumeister et al., 2007; Vohs and Heatherton 2000). Acts of self-regulation deplete the resource pool, and therefore, impair subsequent self-regulation performance.

We draw upon these themes to develop the following predictions about the consequences of luxury consumption. As proposed earlier, using a luxury product in public elicits a spotlight mindset, which triggers impression management concerns. Dealing with these concerns draws on self-regulation resources, which depletes the pool of resources available. When these resources are needed to exert self-control in a subsequent situation, such as resisting tempting but unhealthy food (candy), luxury users have fewer self-regulation resources available to meet this challenge. As a consequence,

luxury users are less successful at exerting self-control, and will consume more candy than will consumers using non-luxury products.

## **THE CURRENT RESEARCH**

Across four experiments, we provide evidence that consuming a luxury product in public elicits a spotlight mindset, which draws on and depletes self-regulatory resources, and thus impairs self-control in subsequent situations. Our basic experimental approach is as follows. We ask research participants to use a luxury or non-luxury handbag, and we measure feelings of being in a spotlight for both conditions. Next, after using the luxury product, we present participants with a situation that requires self-regulatory resources—resisting a tasty but unhealthy snack (candy). We measure how much candy participants consume, with higher consumption indicating that self-regulatory resources have been depleted. This experimental paradigm is common to self-regulatory resource depletion research, where participants perform a first task that requires either significant self-regulation or little self-regulation. In our studies, this first task is using a luxury good (requires self-regulation) or using a non-luxury good (requires little or no self-regulation). Next, all participants perform a second unrelated self-regulation task (in our studies, resisting candy). Evidence for self-regulation resource depletion is obtained if participants perform worse in this second task (in our studies, eating more candy) when they performed a first task also requiring self-regulation resources.

Study 1 demonstrates the luxury depletion effect—using a luxury (vs. non-luxury) handbag in public depletes self-regulatory resources, which impairs self-control in a subsequent situation (resisting candy). As expected, we find that this effect is mediated by feelings of being in a spotlight (spotlight mindset). In Study 2, we provide further

evidence for the luxury depletion effect, showing that using a luxury handbag increases consumption of unhealthy food (which requires self-regulatory resources to resist) but *not* consumption of healthy food (which requires little or no self-regulatory resources to resist). We also rule out power and mood effects as alternative explanations for the luxury depletion effect. In study 3, we provide further process evidence by showing that the luxury depletion effect occurs only when luxury products are used in public, not in private. Further, we directly manipulate a spotlight mindset, and find that eliciting this mindset among individuals using a luxury product in private produces the same self-regulatory depletion effect experienced by public luxury users. In our final study, we examine two important moderators of the luxury depletion effect, price-quality luxury tier (premier vs. affordable) and trait self-control. Consistent with our theorizing, we find that the luxury depletion effect is stronger for premier luxury products and individuals with chronically lower levels of self-control.

### **STUDY 1: LOUIS VUITTON**

The objectives of this study are twofold. First, we demonstrate the basic luxury depletion effect by showing that consumers who use a luxury (vs. non-luxury) product perform worse in a subsequent self-control task, resisting candy offered to them. Second, we provide evidence that the luxury depletion effect is due to feelings that one is in a spotlight when using luxury products. Overall, we show that consumers who use a luxury (vs. non-luxury) product in public exhibit stronger feelings of being in a spotlight, and these feelings mediate the relationship between the type of product used (luxury vs. non-luxury) and the amount of candy consumed.

## **Participants and Design**

Ninety-one female students ( $M_{\text{age}} = 20.51$ ,  $SD = 2.32$ ) from a public university participated in exchange for partial course credit. Participants carried a luxury or non-luxury handbag while walking around a busy campus building. Participants in the luxury condition were either given the luxury handbag *or* were allowed to choose the luxury handbag from two options (a luxury and non-luxury handbag). This variation was included to examine whether feelings of being in a spotlight are different if one chooses versus is given a luxury handbag to carry. For example, participants choosing the luxury handbag may feel less self-conscious because they personally picked the handbag and welcome the attention they will receive from others. We examined these possibilities in a 3 (Product Type: Choose Luxury vs. Given Luxury vs. Control) between-subjects design study. Six participants were excluded from the analysis for failure to follow instructions, being allergic to chocolate, or choice of the non-luxury handbag.

## **Brand Pretests and Handbag Selection**

Louis Vuitton was selected as the luxury brand for the study based on a pretest with female students similar to those in the main experiment ( $N = 28$ ,  $M_{\text{age}} = 20.31$ ,  $SD = .92$ ). We tested eight luxury brands, and Louis Vuitton was rated highly in terms of: (1) high level of brand familiarity ( $M = 4.10$ ,  $1 = \text{not at all familiar to } 5 = \text{very familiar}$ ); (2) positive brand attitude ( $M = 5.67$ , average of two items on a scale of  $1 = \text{bad/very undesirable to } 7 = \text{good/very desirable}$ ); and (3) strong brand preference (over 75% of students picked it as one of the top three luxury handbags brands that they would most like to buy). A high level of brand familiarity ensures that the luxury item can be recognized and garner attention from others, which is foundational for feelings of being

in a spotlight for luxury users. A strong and positive brand attitude ensures that the luxury item will garner positive attention, which rules out alternative explanations for the luxury depletion effect based on embarrassment or social exclusion elicited by using an unpopular, negatively evaluated, or ugly handbag.

A cross-body clutch (9.4 × 5.5 × 1.6 inches) with the iconic Louis Vuitton monogram canvas pattern was chosen as the luxury handbag (retail price: \$730). This handbag was given to participants in the Given Luxury condition. In the Choose Luxury condition, participants were allowed to choose a handbag to carry, either the Louis Vuitton handbag or a non-luxury cross-body clutch of a similar style (retail price: \$45). In the Control condition, participants were given a non-luxury handbag to carry (retail price: \$75).

### **Procedure**

Participants were told that the lab session consisted of several short unrelated studies. They were told the first study was about consumers' opinions of women's handbags, which would involve using a handbag and completing a survey. After providing informed consent, participants were randomly assigned to one of the three conditions. For participants in the Choose Luxury condition, two handbags were presented, a Louis Vuitton (luxury) handbag and a non-luxury handbag. Participants were allowed to choose one of the handbags for the study. Only two participants (out of 32) chose the non-luxury handbag and were excluded from the analysis. Participants in the Given Luxury condition were given the Louis Vuitton handbag to use, whereas participants in the Control condition were given a non-luxury handbag to use. To make

the consumption experience as realistic as possible, each participant was asked to put her personal items into the handbag and to imagine the handbag belonged to her.

Next, each participant was given a list of tasks to complete while using the handbag for the next 15 minutes, including walking to a nearby building and stopping by a coffee shop. Several precautions were taken to ensure the consumption experience was public and visible. First, all sessions of the experiment were scheduled in a lab located in a school building during class time when there were plenty of students in the building. Second, participants were specifically asked to go to a coffee shop (located in an adjacent building) that has a high customer volume. Third, participants were asked to complete a short survey while sitting in the coffee shop, which provided more time for them to use the handbag in public. Finally, participants were scheduled so they would avoid seeing each other in public using the luxury or non-luxury handbags.

After 15 minutes, participants returned to the lab and were directed to individual rooms. Each room had a computer and a bowl of M&M's candies on the desk. The experimenter casually mentioned to participants that they were welcome to have some complimentary snacks while completing the computer-based survey. The participants were then left alone in the room to complete a second survey regarding the handbag experience and several demographic measures. After completing the survey, participants were debriefed and thanked. As soon as they left the room, the amount of M&M's consumed was measured using a digital scale (in grams).

## **Measures**

*Food consumption.* The weight of M&M's candy consumed (in grams) served as the main dependent variable.

*Spotlight index.* At the end of the second survey, participants were asked to recall their experiences using the luxury or non-luxury handbag, including several questions to assess the extent to which they felt they were in a spotlight during the experience. Participants responded to four items: “When you walked around with the handbag, to what extent did you feel you: (1) attracted attention from others, (2) were being noticed by others, (3) needed to be more careful in front of others, and (4) felt self-conscious about carrying the handbag.” Responses were recorded on a 7-point scale ranging from “not at all” to “very much.” Responses to these four items were averaged to form a spotlight index ( $\alpha = .68$ ).

## **Results**

*Food consumption.* A series of planned contrasts were conducted to examine the luxury depletion effect. First, as predicted, we found that participants who were given the Louis Vuitton handbag to use consumed significantly more M&M’s ( $M = 26.19$ ,  $SD = 25.39$ ) than participants who were given the control handbag to use ( $M = 15.21$ ,  $SD = 12.60$ ,  $t(82) = 2.11$ ,  $p = .02$ ). We also found that participants who chose to use the Louis Vuitton handbag also consumed significantly more M&M’s than participants who were given a control handbag to use ( $M = 26.70$  vs.  $15.21$ ,  $t(82) = 2.46$ ,  $p = .009$ ). Further, we did not find any difference between participants who were given the Louis Vuitton handbag to use versus those who chose the Louis Vuitton handbag ( $M = 26.19$  vs.  $26.70$ ,  $t(82) = .09$ ,  $p = .93$ , see figure 1).

----- Figure 1 about here -----

*Spotlight index.* The same sets of planned contrasts were conducted with the spotlight index. Participants who were given the Louis Vuitton handbag to carry had



stronger feelings of being in a spotlight ( $M = 4.19$ ,  $SD=1.48$ ) than participants who carried the control handbag ( $M=3.42$ ,  $SD=1.41$ ;  $t(82) = 1.99$ ,  $p = .025$ ). Similarly, participants who chose the Louis Vuitton handbag also reported significantly stronger feelings of being in a spotlight ( $M = 4.50$ ,  $SD=1.30$ ) than participants carrying the control handbag ( $M=3.42$ ,  $t(82) = 2.77$ ,  $p = .003$ ). Again, whether participants were given or chose the Louis Vuitton handbag did not affect their feelings of being in a spotlight ( $M = 4.19$  vs.  $4.50$ ,  $t(82) = .87$ ,  $p = .38$ ; see figure 1).

*Mediation analysis.* Thus far, our findings indicate that using a luxury handbag (1) heightened participants' feelings of being in a spotlight; and (2) resulted in higher M&M's consumption. We predicted these two effects would be related, such that the effect of luxury product use on M&M's consumption would be mediated by feelings of being in a spotlight when using the luxury product. To test for mediation, we used the Preacher and Hayes (2008) method for estimating indirect effects. Consistent with expectations, bootstrap estimates (based on 10,000 samples) indicated that the indirect effects of condition (Choose Luxury vs. Given Luxury vs. Control) through the spotlight index had a significant effect on M&M's consumption (Hayes 2012, Model 4, Kappa-squared, 95% bias-corrected,  $CI = [.0007, .0956]$ ). And, after controlling for the spotlight index, the effect of condition on M&M's consumption became non-significant (from  $\beta = -5.48$ ,  $p = .06$ , to  $\beta = -4.79$ ,  $p = .12$ ; see figure 2).

----- Figure 2 about here -----

## **Discussion**

Study 1 provides support for the luxury depletion effect. Consumers who used a luxury (vs. non-luxury) product in public were less successful in a subsequent self-

control task, eating more unhealthy food (M&M's) offered as a snack. This effect was observed regardless of whether the luxury product was chosen or was given to the consumer to use. Further, we found evidence for the proposed process. Using a luxury (vs. non-luxury) product in public induced stronger feelings of being in a spotlight, and these feelings mediated the effect of the type of product used (luxury vs. non-luxury) on consumption of M&M's.

The next study provides further evidence that luxury consumption depletes self-regulatory resources by varying the type of snack offered to participants, unhealthy snacks (M&M's, Skittles) versus healthy snacks (nuts, raisins). Prior research has shown that foods considered to be unhealthy and tempting (e.g., chocolate) are more difficult to resist, and require more self-regulatory resources to resist, than healthy foods (e.g., broccoli) (Vohs and Heatherton 2000; Redden and Haws 2013). Thus, if luxury consumption depletes self-regulatory resources, consumers who use a luxury product should have more difficulty resisting unhealthy snacks (and should eat more of these snacks) than consumers who use a non-luxury product. However, there should be *no* difference between consumers using a luxury versus non-luxury product in terms of consumption of healthy snacks, as self-regulatory resources are less necessary for resisting healthy foods. Further, feelings of being in a spotlight should mediate the predicted interaction between food type (healthy, unhealthy) and product type (luxury, non-luxury).

We also include several additional measures in the next study to rule out alternative explanations for the luxury depletion effect. First, we include a measure of power. Prior research shows that consumers desire luxury products when they lack power

or status (Rucker and Galinsky 2009; Sivanathan and Pettit 2010), and thus, using luxury products should make consumers feel that they are more powerful or have higher status. Feelings of status might be associated with a feeling of entitlement (Piff 2014), and these feelings may lead luxury users to feel they are entitled to eat more of the snacks being offered. Second, we include a mood measure to rule out a mood explanation for our results. Using a luxury product leads to feelings of being in a spotlight, which includes being self-conscious and sensing that others are watching you. If these feelings induce a more negative mood, luxury users may consume more unhealthy snacks as a means of repairing the negative mood they are experiencing (Tice, Bratslavsky, and Baumeister 2001). Alternatively, using a luxury product that is highly desirable may put consumers into a more positive mood, and they may be less inclined to break a positive mood by exerting self-control to resist a tempting snack offered to them.

## **STUDY 2: BURBERRY**

### **Participants and Design**

Eighty-eight female students ( $M_{\text{age}} = 20.78$ ,  $SD = 1.96$ ) from a public university participated in exchange for partial course credit or a small payment, and were randomly assigned to one of the conditions in a 2 (Product Type: Luxury vs. Control) by 2 (Food Type: Healthy vs. Unhealthy) between-subjects design.

### **Brand Pretests and Handbag Selection**

Burberry was selected as the luxury brand for the study based on a pretest with female students similar to those in the main experiment ( $N = 28$ ,  $M_{\text{age}} = 20.31$ ,  $SD = .92$ ). Using the same criteria for brand selection described in study 1, we chose Burberry due to: (1) a high level of brand familiarity ( $M = 3.80$ ,  $1 = \text{not at all familiar to } 5 = \text{very}$

*familiar*); 2) a positive brand attitude ( $M = 5.50$ , average of two items on a scale of  $1=bad/very\ undesirable$  to  $7=good/very\ desirable$ ); and (3) strong brand preference (over 65% of students picked it as one of the top three luxury handbags brands that they would most like to buy).

A beige color Burberry tote with the iconic check-print pattern (retail price: \$875) was chosen as the luxury handbag. A beige tote of similar size, with no visible logo was chosen as the control handbag (retail price: \$65).

### **Procedure**

The procedure was similar to the first study. Participants were given either a luxury handbag or control handbag, and carried this handbag while walking around a busy building completing several tasks. Afterwards, they returned to the lab to complete a final survey, and were offered healthy snacks (a bowl of unsalted nuts and a bowl of raisins) or unhealthy snacks (a bowl of M&M's and a bowl of Skittles) (adopted from Redden and Haws 2013). Two bowls of healthy (unhealthy) snacks were provided to accommodate varying food preferences among respondents. As soon as participants finished the survey and left the lab, the amount of the food consumed was measured.

### **Measures**

*Food consumption.* The weight of food consumed (in grams) served as the main dependent variable. The consumption of M&M's and Skittles was combined for participants in the unhealthy food condition, and the consumption of unsalted peanuts and raisins was combined for participants in the healthy food condition.

*Spotlight index.* Participants completed the same four items described in study 1, and responses were averaged to obtain the spotlight index ( $\alpha = .78$ ).

*Mood.* To examine mood as an alternative explanation, participants completed the 20-item *Positive and Negative Affect Schedule* (PANAS: Watson, Clark, and Tellegen 1988) while sitting in a coffee shop with the handbag. Included in the twenty items were positive emotions (e.g., interested, excited, proud, and happy) and negative emotions (e.g., upset, embarrassed, afraid, and irritable). For each item, participants were asked describe whether each emotion reflected how they felt at the moment (1 = *Very slightly/not at all* to 5 = *Extremely*).

*Power.* To examine whether feelings of power could constitute an alternative explanation, participants were asked to recall their experience using the handbag (luxury or control) and rate the extent to which they felt superior to others, felt powerful, or felt they had higher status than others. Responses for each item were recorded on a 7-point scale (1 = *not at all* to 7 = *very much*) and the three items were averaged to form a power index ( $\alpha = .93$ ).

## **Results**

*Food consumption.* We predicted that participants who used the luxury (vs. control) handbag in public would consume more unhealthy, but not healthy, food. An ANOVA was performed on food consumption with Product Type (Luxury vs. Control) and Food Type (Healthy vs. Unhealthy) as between-subjects factors. As expected, there was a significant two-way interaction between Product Type and Food Type ( $F(1, 84) = 3.88, p = .05$ ).

To test our specific predictions, a series of planned contrasts was performed. As shown in Figure 3, participants in the Luxury handbag condition ate significantly more *unhealthy food* ( $M = 40.45, SD = 19.25$ ) than participants in the Control handbag

condition ( $M = 28.31$ ,  $SD = 28.15$ ,  $t(84) = 1.78$ ,  $p = .035$ ). However, for *healthy food* consumption, there was no difference between participants in the Luxury handbag condition ( $M = 16.19$ ,  $SD = 19.09$ ) and Control handbag condition ( $M = 23.47$ ,  $SD = 24.15$ ,  $t(84) = 1.02$ ,  $p = .31$ ).

---Figure 3 about here---

*Spotlight index.* As expected, participants in the Luxury handbag condition felt more in the spotlight ( $M = 4.68$ ,  $SD = 1.68$ ) than participants in the Control handbag condition ( $M = 3.67$ ,  $SD = 1.79$ ,  $t(87) = 2.73$ ,  $p = .004$ ). These results confirmed that using the Burberry handbag made participants feel like they were garnering attention from others, needed to be careful about their behavior, and felt more self-conscious.

*Mediation analysis.* We hypothesized that the effect of luxury product consumption on unhealthy food intake, not healthy food intake, would be mediated by the feelings of being in a spotlight while using the luxury product. Specifically, we expected the interaction between Product Type and Food Type would be mediated by the spotlight index.

To test for mediation, we used the Preacher and Hayes (2008) method for estimating indirect effects. The mediation analysis was based on two separate multiple regressions models (Hayes 2012, Model 5, see figure 4). The first model included Product Type, Food Type, and the interaction as the independent variables, and food consumption as the dependent variable. This model revealed a significant two-way interaction ( $\beta = 24.27$ ,  $t(84) = 3.51$ ,  $p < .001$ ). After controlling for the spotlight index, this interaction effect was significantly reduced ( $\beta = -18.29$ ,  $t(84) = -1.89$ ,  $p = .06$ , 95%

bias-corrected, CI = [-8.52, -.45]). Thus, this analysis indicated that the interaction effect (Product Type x Food Type) was fully mediated by the spotlight index.

---Figure 4 about here---

*Additional analyses.* We explored two alternative explanations for our findings. First, we examined whether food consumption was related to the mood elicited by using different handbags. Results showed no significant differences between participants carrying a luxury versus control handbag for all twenty positive and negative affect measures ( $p$ -values > .17). Participants in both conditions evinced moderately positive moods. For example, they generally felt interested ( $M = 2.97$ ) and attentive ( $M = 2.88$ ). Therefore, it is unlikely that the higher (lower) consumption of unhealthy food in the Luxury (Control) handbag condition was due to negative or positive affect from using the handbag.

Second, we examined whether greater unhealthy food consumption after using a luxury (vs. control) handbag was due to feelings of being powerful. Participants who used the luxury (vs. control) handbag reported greater feelings of power ( $M = 4.70$  vs.  $3.45$ ,  $t(87) = 2.84$ ,  $p = .006$ ). However, a mediation analysis revealed that power did *not* mediate the effects of luxury on unhealthy food consumption. We used the same mediation analysis described above, but substituted power instead of the spotlight index as the mediator. After power was entered into the regression, the interaction between Product Type and Food Type was still significant ( $\beta = -19.13$ ,  $p = .05$ ), and the 1,000 resample of bootstrap also revealed a non-significant mediation effect (95% bias-corrected, CI = [-5.65, .29]). Thus, greater feelings of power do not account for why participants using a luxury handbag consumed more unhealthy food.

## Discussion

Our findings provide additional evidence for the luxury depletion effect. Using a different luxury brand (Burberry), we replicate the finding from study 1 that using a luxury product in public depletes self-regulatory resources, which impairs self-control and results in eating more unhealthy food. Further, study 2 strengthens our theory by showing that using a luxury product increases unhealthy food consumption (where self-regulatory resources are needed to resist consumption) but *not* healthy food consumption (where self-regulatory resources are less at play). The divergent results for unhealthy versus healthy food help rule out alternative explanations for why luxury users consume more unhealthy food, such as simply desiring more food or feeling entitled to take more food. Alternative explanations related to feelings of power or differential moods related to luxury use were also ruled out. Only heightened feelings of being in a spotlight proved to be a mediator for the observed pattern of findings.

The next study provides further evidence that luxury users' feelings of being in a spotlight are responsible for self-regulatory depletion. First, we vary the luxury consumption context to be public or private. In our first two studies, participants carried a luxury handbag in public, which triggers feelings of being in a spotlight. In study 3, we asked one group of participants to use a luxury handbag in public and another group to use the same luxury handbag in private. We used the small Louis Vuitton handbag from study 1, which participants carried as a regular handbag in view of others (public) *or* placed inside a tote bag hidden from others (private) while walking in a busy building. If feelings of being in a spotlight are responsible for the luxury depletion effect observed in our first two studies, we should observe the same effect for the public, but not the private,



consumption context. When luxury products are used in private, there is no reason to believe that a user will feel self-conscious and feel the need to watch their behavior—therefore, the luxury depletion effect should not be observed.

Further, with all participants using the same luxury handbag, we seek to rule out hedonic goal activation as an alternative explanation for why luxury users consume more tasty but unhealthy food. In prior studies, we compared participants who used a luxury handbag versus a control handbag, and it could be argued that carrying the luxury handbag activated hedonic goal seeking behaviors, such as eating candy. In study 3, all participants used the same luxury handbag, which would equalize hedonic goal seeking behaviors (if any) across conditions. If consumption of candy increases *only* for luxury users in the public condition, this would effectively rule out hedonic goal seeking as a plausible explanation for food consumption effects.

Finally, to add to our process evidence, we add a third condition where we directly manipulate feelings of being in a spotlight mindset. For this condition, participants use the Louis Vuitton handbag in private, but prior to doing so, we prime participants with a brief message about how others are always watching them and how they need to be careful about their behavior in front of others, which is consistent with how luxury users feel when using these goods in public settings. Thus, with this manipulation, we expect to see that participants using the luxury handbag in private will exhibit the same spotlight feelings (and associated depletion and food consumption) as participants using the luxury handbag in public.

### STUDY 3: PUBLIC VS. PRIVATE LUXURY CONSUMPTION

#### Sample and Procedure

Eighty female students ( $M_{\text{age}} = 20.37$ ,  $SD = 1.73$ ) participated in exchange for partial course credit and were randomly assigned to one of three conditions: Luxury Public vs. Luxury Private vs. Luxury Private with Spotlight Mindset Prime.

Participants were seated in a private room and were told they would complete several unrelated short studies. First, they were asked to read an article. For participants in the Spotlight Mindset Prime condition, the article described new psychological research revealing that people underestimate the amount of attention they receive from others in public. The article ended with the following statement: “Be careful about what you do in public because you are being watched by others more than you think!” Participants in the other two conditions read a control article about new research on high school students’ participation in extracurricular activities.

Next, all participants were given the Louis Vuitton handbag and were asked to put their personal items into it. Then, they were asked to walk around the building to complete the same set of tasks used in study 1. Participants in the Luxury Public condition completed their tasks while carrying the Louis Vuitton handbag in sight. Participants in the Luxury Private conditions were instructed to put the Louis Vuitton handbag into a leather tote bag (without a visible brand name or logo) before setting out to complete the same set of tasks. Per the procedure used in study 1, participants returned to the lab after 15 minutes and completed a computer-based survey in their private room. As before, a bowl of M&M’s candy was placed on the desk in each room and participants

were told it was a complimentary snack. After completing the survey, participants were dismissed, and then the weight of M&M's consumed was measured.

## **Measures**

*Food consumption.* The weight of M&M's candy consumed (in grams) served as the main dependent variable.

*Manipulation Checks.* Immediately after reading the spotlight prime or control article, participants rated how informative and credible the article was on a 7-point scale (1 = *Not at all* to 7 = *Very much*). Then, after carrying the handbag, participants in the spotlight prime and other conditions completed the four items in the spotlight index used in prior studies ( $\alpha = .79$ ). Both measures were taken to ensure that the spotlight prime article was credible and triggered the intended feelings of being in a spotlight.

*Handbag evaluation.* At the end of the study, participants rated how much they liked the handbag they used in the study on a scale from 1 = "not at all" to 7 = "very much." This measure was taken to ensure that the Louis Vuitton handbag was equally liked in the public and private consumption conditions.

## **Results**

*Manipulation checks.* The spotlight prime article and control article were rated equally in terms of being informative ( $M = 4.73$  vs.  $4.87$ ,  $t(77) = .41$ ,  $p = .69$ ) and credible ( $M = 4.50$  vs.  $4.34$ ,  $t(77) = .37$ ,  $p = .72$ ). Ratings for both articles were significantly higher than the scale midpoint, indicating participants found both articles informative and credible ( $p$ -values  $< .001$ ).

Next, we compared the spotlight index across conditions, which indicated our spotlight prime was successful. Participants in the Luxury Public condition and Luxury

Private with Spotlight Mindset Prime conditions had similar spotlight feelings ( $M = 4.32$  vs.  $4.19$ ,  $t(77) = .29$ ,  $p = .77$ ), and both had significantly greater spotlight feelings than participants in the Luxury Private condition ( $M = 3.20$ ,  $t$ -values  $> 2.10$ ,  $p$ -values  $< .02$ ).

*Food consumption.* A one-way ANOVA revealed the predicted main effect of different conditions on food consumption quantity ( $F(2,77) = 3.04$ ,  $p = .05$ ). To test our specific predictions, a series of planned contrasts was conducted. Consistent with expectations, participants in the Luxury Public condition consumed significant more candy ( $M = 24.11$ ,  $SD = 20.03$ ) than participants in the Luxury Private condition ( $M = 14.68$ ,  $SD = 15.97$ ,  $t(77) = 1.90$ ,  $p = .031$ ). Moreover, participants in the Luxury Private with Spotlight Mindset Prime condition also ate significant more candy ( $M = 28.70$ ,  $SD = 25.16$ ) than participants in the Luxury Private condition ( $M = 14.68$ ,  $SD = 15.97$ ,  $t(77) = -2.42$ ,  $p = .01$ ). Thus, triggering feelings of self-consciousness and being watched by others (spotlight prime) increased food consumption. Further, the spotlight prime was so successful that food consumption in this condition (Luxury Private with Spotlight Mindset Prime) was no different than food consumption in the Luxury Public condition ( $t(77) = -.748$ ,  $p = .46$ , see figure 5)

---Figure 5 about here---

*Additional analysis.* We examined whether candy consumption was related to how desirable each handbag was. Although all participants carried the same Louis Vuitton handbag, those in the Luxury Private condition carried the Louis Vuitton handbag inside a black tote bag. Evaluations of the Louis Vuitton handbag and the black tote bag were not different from one another ( $M = 4.39$  vs.  $4.59$ ,  $t(77) = .95$ ,  $p = .95$ ), and ratings of both handbags were significantly higher than the mid-point of the 7-point scale

( $t_s > 5.38$ ,  $p_s < .001$ ). Therefore, the observed effects were unlikely due to how much participants liked each handbag.

## **Discussion**

Results of this study provide additional support for our contention that luxury users' feelings of being in a spotlight are responsible for self-regulatory depletion, indicated by a lessened ability to resist tasty but unhealthy food. When a luxury handbag was carried in private, which vastly reduced feelings of being in the spotlight, food consumption was significantly lower than when the same luxury handbag was carried in public. Further, when the luxury handbag was carried in private, but participants were primed to feel that they were in a spotlight with others watching, food consumption was equal to when the luxury handbag was carried in public. These patterns of data rule out hedonic goal seeking behavior as an alternative hypothesis because participants in all conditions carried the same luxury handbag, yet food consumption amounts varied in accordance with our expectations.

This study also identifies a moderator of the luxury depletion effect. Luxury consumption in public elicits feelings of being in a spotlight and depletes self-regulatory resources, as indicated by higher levels of unhealthy food consumption. However, luxury consumption in private does not trigger the same spotlight feelings, and therefore, we observe less self-regulatory resource depletion and less unhealthy food consumption. Note that we used the exact same luxury handbag in both the public and private conditions, and participants performed the same tasks in both conditions.

We continue to examine moderating factors in the next study. First, we examine how the level of luxury moderates spotlight feelings and self-regulatory depletion. The

luxury market for items such as handbags, watches, and clothes is often viewed as consisting of different price-quality tiers, with brands such as Louis Vuitton and Prada at the top (“premier” or “premium” luxury) versus brands such as Coach and Tory Burch at the bottom (“affordable” or “accessible” luxury). In prior studies, we used premium luxury brands (Louis Vuitton and Burberry), and we predict that the effects observed with these brands would be less apparent with affordable luxury brands like Coach. Affordable luxury brands are lower-priced, purchased by more consumers, and therefore, garner less attention than premier luxury goods. Consumers carrying affordable luxury goods should not feel as self-conscious and watched by others, and thus, we expect that they will experience less self-regulatory resource depletion and will be more able to exert self-control when tempted by tasty unhealthy food. In short, the luxury depletion effect should be more evident for premier than affordable luxury goods.

Second, we examine individual differences in chronic levels of self-control as an important moderator. At a foundational level, people have varying abilities to control their thoughts, impulses, and behaviors. Although it may be difficult for people to consistently resist temptations such as eating candy, especially after their self-regulatory resources have been depleted, people with lower (vs. higher) levels of self-control are even less likely to overcome this challenge successfully (Muraven, Shmueli, and Burkley 2006; Hofmann, et al. 2012). If self-regulatory resource depletion and lack of self-control resources are responsible for increasing unhealthy food consumption, then low self-control participants should be even less successful at resisting the tempting M&M’s candies than high self-control participants.

Both moderators, level of luxury and trait self-control, are examined in the context of public luxury consumption in study 4. We predict that spotlight feelings and candy consumption will be greater when individuals use a premier (Prada) versus affordable (Coach) luxury brand. Further, we predict an interaction between level of luxury and trait self-control, expecting that the difference in candy consumption between premier versus affordable luxury brands will be greater for individuals with lower (vs. higher) trait self-control.

#### **STUDY 4:**

##### **LEVEL OF LUXURY AND TRAIT SELF-CONTROL AS MODERATORS**

###### **Sample and Procedure**

One hundred and seven female students ( $M_{\text{age}} = 20.09$ ,  $SD = 1.07$ ) from a public university participated in the study in exchange for partial course credit and were randomly assigned to one of the level of luxury conditions: Affordable Luxury (Coach) vs. Premium Luxury (Prada). The procedure was identical to study 1, except the computer-based survey administered at the end of the study included a measure of trait self-control.

###### **Brand Pretests and Handbag Selection**

To select affordable versus premium luxury brands, undergraduate female students ( $N = 68$ ;  $M_{\text{age}} = 20.05$ ,  $SD = 2.32$ ) were surveyed. They were provided with a detailed definition of an affordable luxury brand and a premium luxury brand, and were shown a list of 16 popular luxury brands of handbags (e.g., Chanel, Burberry, Prada, Louis Vuitton, Coach, Marc By Marc Jacobs, Juicy Couture). They were then asked to put each brand into one of the following categories: (1) affordable luxury brand, (2)

premium luxury brand, (3) not a luxury brand, and (4) not familiar with the brand. Coach was deemed the best example of an affordable luxury brand (85% of students placed it in this category), while Prada was chosen as a clear example of a premium luxury brand (88% of students placed it in this category).

Thus, we used Coach and Prada handbags for the study. To minimize style differences, we chose a Prada handbag in a medium blue Saffiano leather (retail price: \$1890) and a similar sized Coach handbag in a medium blue Saffiano leather (retail price \$295). We pretested both handbags to ensure that the Prada handbag would elicit greater feelings of being in the spotlight. We asked undergraduate female students ( $N = 34$ ,  $M_{\text{age}} = 20.52$ ,  $SD = 2.14$ ) to rate pictures of several handbags, including the Prada and Coach handbags. Students were asked to imagine they were walking around with each handbag and rated the extent to which they felt that it would: (1) attract attention from others, (2) be noticed by others, (3) make them feel they would need to be more careful in front of others, and (4) make them feel self-conscious about carrying the handbag. These four items were combined into a spotlight index for the Prada handbag ( $\alpha = .86$ ) and a spotlight index for the Coach handbag ( $\alpha = .82$ ). Results confirmed that the selected Prada handbag elicited significantly greater feelings of being in the spotlight than the selected Coach handbag ( $M = 5.57$  vs.  $4.65$ ,  $t(33) = -4.89$ ,  $p < .001$ ).

## **Measures**

*Food Consumption.* The weight of M&M's candy consumed (in grams) served as the main dependent variable.

*Trait Self-Control.* After several unrelated filler tasks were completed, participants filled out the self-control trait measures. We used the 12-item short form of



Tangney et al.'s (2004) general trait self-control scale, which is the most commonly used and well-validated measure of trait self-control in various self-control domains (e.g., Redden and Haws 2013; de Ridder, et al. 2012). Supported by past research, we used this general measure because all self-control regulation tends to come from generalized sources (Vohs and Baumeister 2004). The scale contains items such as “I refuse things that are bad for me” and “I am good at resisting temptation.” Participants responded on a 7-point scale ( $1 = \text{Not at all}$  to  $7 = \text{Very much}$ ), and responses to 12 items were averaged to form a self-control index ( $\alpha = .68$ ), with scores mean-centered for regression analyses.

## **Results**

*Food consumption.* Consistent with predictions, participants who used the Prada handbag ate significantly more M&M's ( $M = 24.13$ ,  $SD = 21.58$ ) than participants who used the Coach handbag ( $M = 13.78$ ,  $SD = 12.52$ ,  $t(105) = 2.92$ ,  $p = .004$ , see figure 6).

---Figure 6 about here---

*Trait self-control.* To examine whether differences between affordable versus premier luxury would be affected by an individual's trait self-control, a multiple regression was conducted with Level of Luxury (Premium = 0, Affordable = 1), participants' mean centered Self-Control index, and their interaction as independent variables, with food consumption as the dependent variable. The results revealed a significant main effect of Level of Luxury ( $\beta = -45.89$ ,  $t(103) = -2.25$ ,  $p = .02$ ), a significant main effect of Self-Control ( $\beta = -8.52$ ,  $t(103) = -2.95$ ,  $p = .003$ ), and a near significant interaction term ( $\beta = 8.79$ ,  $t(103) = 1.84$ ,  $p = .06$ ). To test our specific predictions, we performed spotlight analysis for participants who have stronger self-control (+1 SD above the mean) and weaker self-control (-1 SD below the mean; Aiken

and West 1991; Fitzsimons 2008). As depicted in figure 7, for participants with stronger self-control, using the premium luxury handbag or the affordable luxury handbag did not affect how much candy they ate ( $M = 16.83$  vs.  $12.95$ ,  $t(103) = -.59$ ,  $p = .55$ ). As expected, individuals with stronger self-control were generally better at resisting tempting unhealthy food. In contrast, participants with weaker self-control ate significantly more candy when they used the premium compared to the affordable luxury handbag ( $M = 29.66$  vs.  $13.54$ ,  $t(103) = -3.11$ ,  $p = .001$ ).

---Figure 7 about here---

## **Discussion**

Study 4 provided evidence of two important moderators of the luxury depletion effect found in our prior studies: level of luxury and trait self-control. Compared to an affordable luxury brand handbag, using a premium luxury brand handbag depleted more of a participant's self-regulatory resources, as indicated by higher consumption of candy. Trait self-control was also shown to be a moderator. The effect of using different levels of luxury handbags was strongest for people who had weaker trait self-control.

## **GENERAL DISCUSSION**

When we use a luxury good, how does it affect the way we think, feel, and behave? We observed the actual use of luxury goods in our studies, and found that luxury consumption can affect one's psychological state and subsequent behavior. Across four experiments, we found that using a luxury good in public elicits a spotlight mindset, where consumers feel watched, self-conscious, and needing to manage their behavior in front of others. This mindfulness requires self-regulation resources, and depletion of these resources reduces one's ability to exert self-control in subsequent situations (such

as resisting tasty but unhealthy food). We find this luxury depletion effect for different premium luxury brands (Louis Vuitton, Prada, Burberry) and different acquisition settings (luxury good is given versus chosen). Further, we find that the effect is stronger for public (vs. private) luxury usage, for premier (vs. affordable) luxury goods, and for individuals with low (vs. high) trait self-control. Taken together, our results show that luxury consumption can have unanticipated negative consequences—it can lower your ability to exert self-control in everyday life.

Below, we discuss our findings in terms of their contributions to several research streams, and also suggest directions for future research.

### **Luxury and Conspicuous Consumption**

In contrast to prior work on consumer motivations for acquiring luxury goods, we examine what the actual luxury consumption experience is like for consumers. To our knowledge, our work is the first to explore the psychological states and behavioral consequences of using luxury goods. While much of the prior research suggests that consumers expect the experience of consuming luxury goods to produce positive feelings (e.g., power, status, self-enhancement) and positive consequences (e.g., attracting/protecting a mate), we find that there can be unanticipated negative aspects to using luxury goods. In fact, our results show that the luxury consumption experience can be a mixed bag, with consumers feeling more powerful, yet also feeling self-conscious and needing to be careful of how they behave in front of others.

These novel effects on consumers' psychological states and subsequent behaviors deserve more inquiry, and our research provides an experimental paradigm for doing so. Actual consumption behavior can be difficult to study in a laboratory setting, yet we

show that allowing research participants to use a luxury good for as little as 15 minutes allows us to capture changes in how they feel, think, and behave. This experimental paradigm can be utilized and adopted for future research examining these effects in more detail. For example, one might investigate whether luxury goods deplete self-regulatory resources if the good is used for longer stretches of time, or how long the depletion effect lasts for situations throughout the day. For these types of questions, the research procedures can be adapted by having participants experience multiple episodes of using the same luxury good, or engaging in multiple tasks requiring self-control.

In this vein, there are a number of interesting questions that can be pursued in future research. First, we might examine whether our effects generalize to other situations where self-regulatory resources are required to exert self-control. For example: Does using a luxury good make consumers more prone to impulse purchases? Does using a luxury good cause individuals to purchase even more luxury goods? Prior work has suggested that individuals continue to purchase material goods and luxury items as a way to combat hedonic adaptation as they seek to raise their level of happiness. Our research suggests that repeated purchases of luxury items may also be explained by lack of self-control—that is, shopping while wearing a luxury item can reduce self-control, resulting in subsequent purchases of more luxury items.

### **Luxury Consumption and Increased Self-Control**

Although we found that luxury consumption reduces self-control, is it possible that there are conditions under which this effect may be reversed? Could luxury consumption ever lead to increases in self-control? We believe this possibility exists based on the following line of reasoning. Our findings from study 2 show that using a

luxury product increases perceptions of power and status. These feelings of enhanced power and status did not mediate the effects of luxury consumption on impaired self-control in a subsequent situation (resisting tempting but unhealthy food). However, several researchers have found that power leads to better self-control in that powerful individuals are more likely to take action rather than being passive (Galinsky, Gruenfeld and Magee 2003), and they perform better at controlling their attention on a variety of tasks (Guinote 2007). Finally, particularly relevant to the current investigation, DeWall et al. (2011) found that powerful people are better at self-control, especially when resources for self-regulation are low.

How can luxury consumption both impair and enhance self-control? We speculate that the nature of the self-control task is a determining factor. In our research, the self-control task is to resist eating tempting but unhealthy candy. Importantly, this task was incorporated into the experimental procedure in a way that did not draw attention to the fact that we were going to evaluate the participant's food consumption. And, we did not state an explicit goal for participants to resist eating too much food, such as "try not to eat too much of the snacks because they are high in fat and calories." However, if we had used a self-control task with an explicit goal communicated in our instructions to participants, especially a goal that is connected to power or status/achievement, we believe that the enhanced self-control tendencies associated with power/status (and luxury use) could result in better self-control for luxury users.

To explore this possibility, we conducted an additional experiment with procedures similar to our prior studies. We provided participants with a luxury or a non-luxury handbag, which they used in a public setting for 15 minutes. After using the

handbag, they returned to the lab and were told they would be completing an unrelated task, which was a series of word puzzles. They read a cover story about how performance on these types of tasks has been shown to predict academic and career success, and were then instructed to start working on the word puzzles for as long as they wanted to. Unknown to the participants, the word puzzles were non-solvable. We measured how long participants persisted in working on the word puzzles, with longer time indicating stronger self-control efforts. The results showed that participants in the luxury condition persisted for a longer time on the self-control task than participants in the control condition ( $M = 550.52$  sec vs.  $386.07$  sec,  $t(41)=1.99$ ,  $p = .053$ ).

These findings of better self-control for luxury users can be incorporated into our basic story about luxury consumption and self-control. Using a luxury product does increase thoughts about impression management, which depletes self-regulatory resources and leads to poorer self-control *unless there is an explicit goal that is salient and instrumental*. When an explicit goal of this nature is activated, the additional self-control associated with power/status and luxury use can be harnessed to meet this goal, resulting in better self-control. This is consistent with research showing that when self-control resources are depleted, power motivates selective self-control towards goals that are important (DeWall et al. 2011).

### **Self-Regulation of Behavior**

Our work also makes important contributions to self-regulation research and provides novel empirical evidence supporting the self-regulatory resource depletion model. First, we examine self-regulatory depletion that results from an interpersonal context, using luxury goods in public. The superior ability to regulate one's cognitive,

emotional, and behavioral activity sets humans apart from other species and plays an important role in humanity's evolutionary history. Given the important role of interpersonal relationships in human being's survival and reproduction (Baumeister and Leary 1995; Dunbar 1998; Leary 1999), it is plausible to argue that self-regulation evolved, at least in part, to improve interpersonal success. However, most prior work in self-regulation has focused on intrapsychic processes, with less exploration of interpersonal processes. Only a few papers have examined how interpersonal processes, such as challenging self-presentation contexts or social feedback situations, are related to self-regulatory performances (DeWall, Baumeister, and Vohs 2008; Vohs, Baumeister, and Ciarocco 2005).

Second, we demonstrate that even tasks generally considered to be interesting and enjoyable, such as using a luxury product, can draw upon and deplete self-regulatory resources. Prior work in self-regulation includes depletion tasks that can be characterized as challenging, tedious, or uncomfortable. Our findings provide evidence that even positive depleting tasks (using a luxury product) can produce negative depletion consequences, proving that self-regulatory depletion occurs in the absence of depleting tasks that are negative in valence.

Finally, in contrast to prior self-regulation research, we provide direct process evidence to support the self-regulatory resource depletion model. Researchers have supplied evidence for this model by comparing performance on a self-control task for individuals who completed a prior task that required or did not require self-regulation. If performance is worse for individuals who completed a prior task requiring self-regulation, researchers infer that self-regulatory resources have been depleted. Thus, there is no

direct process evidence that depletion has occurred. Although we used the same basic experimental approach, we also measured a phenomena related to resource depletion (spotlight mindset) and showed that it mediated the relationship between the source of resource depletion (using a luxury good) and the effects of resource depletion (candy consumption). Our mediation results (study 1 & study 2) confirm that stronger spotlight mindsets result in stronger depletion of self-regulatory resources, which leads to a greater lack of self-control in a subsequent task (resisting tempting unhealthy snacks).

### **Materialism and Consumer Well-Being**

Materialistic individuals view material possessions as a means for reaching desired end states, such as happiness and success (Richins and Dawson 1992). However, materialism has been consistently found to be associated with a variety of negative outcomes, such as lower levels of psychological well-being and life satisfaction (Belk 1985; Mick 1996; Richins and Dawson 1992), depression (Wachtel and Blatt 1990), using addictive substances (Kasser and Ryan 2001), and less productive interpersonal relationships (Kasser 2002).

Among types of material possessions, luxury goods are often mentioned in discussions of materialism, presumably because luxury goods are such a visible symbol of status or success. Thus, we would expect that luxury consumption would be associated with many of the negative long-term consequences of materialism. Our findings add to this picture by demonstrating that luxury goods can also have immediate negative effects on consumer well-being. We show that using luxury goods depletes self-regulatory resources that are often needed for other tasks in one's daily life. In effect, there is an opportunity cost of using luxury goods—self-regulatory resources are less available for



tasks that would increase an individual's well-being, such as resisting unhealthy snacks, quitting smoking, and devoting time to exercise.

In future research, it would be interesting to examine the effect of repeated luxury consumption on self-regulatory resource depletion. If consumers use luxury goods frequently, would they become habituated to the experience and cease to experience the negative effects we observed? We might predict that feelings of being in a spotlight would abate as consumers become more accustomed to using luxury goods in public, much like an actor that becomes accustomed to being in a spotlight. Perhaps individuals from wealthy backgrounds, who have grown up with luxury goods, become used to the attention that luxury cars, watches, and handbags garner in public. However, it is also possible that repeated consumption of luxury goods may exacerbate the spotlight mindset, with stronger feelings of self-consciousness and mindfulness of one's behavior. Or, perhaps the social environment in which luxury consumption takes place is more important. The spotlight mindset is triggered by using a luxury good in public, but in our studies, the public setting is one in which luxury products are not that visible. Perhaps this mindset would not be activated in environments where luxury goods are common among one's peers. Thus, ironically, luxury consumption may be more damaging to well-being in social environments with few luxury users, as opposed to social environments where luxury use is relatively common among many individuals.

Research along these lines would provide a fuller understanding of the effects of luxury consumption on consumer well-being. The negative impact of luxury consumption is not limited to our pocketbooks, and further research on the negative consequences in

terms of psychological states and behaviors holds the promise of helping consumers understand the trade-offs they make when they embrace a luxury consumption lifestyle.

## ANCILLARY STUDIES

### STUDY A: LUXURY CONSUMPTION AND BETTER SELF-CONTROL

#### Sample and Procedure

Forty two female students ( $M_{\text{age}} = 20.05$ ,  $SD = 1.83$ ) from a public university participated in the study in exchange for partial course credit and were randomly assigned to use either a luxury brand handbag (Prada) or a non-luxury handbag. The procedure was identical to study 4, except a different dependent measure.

#### Dependent Measure

Similar to study 4, after 15 minutes of using the handbag, all participants returned to their individual lab room. Next, participants were told that they would complete a task that in an unrelated study and read a cover story about how performance on verbal tasks has been shown to predict academic and career success. Next, participants were asked to start working on a series of word puzzles for as long as they want to. They were told they could decide to quit anytime by clicking a button on the computer screen and then proceed to the rest of the survey. The focal task included finding 24 words embedded in a 20 by 20 matrix of letters. Unknown to the participants, some of the words were not included in the matrix, and thus the task was unsolvable. Per previous literature (Dewall et al. 2011), the longer participants persist on an unsolvable task, the better self-control performance it suggests. Therefore, the time (in seconds) each participant spent on this task served as the main dependent measure, with longer time indicating stronger self-control efforts.

#### Results

The results showed that participants in the luxury condition persisted for a longer period of time ( $M = 550.52$ ,  $SD = 268.18$ ) on the self-control task than participants in the control condition ( $M = 386.08$ ,  $SD = 266.66$ ,  $t(41) = 1.99$ ,  $p = .053$ ).

### STUDY B: LUXURY CONSUMPTION AND BETTER SELF-CONTROL

#### Sample and Procedure

Thirty three female students ( $M_{\text{age}} = 19.88$ ,  $SD = .89$ ) from a public university participated the study in exchange for partial course credit and were randomly assigned to use either a luxury brand handbag (Prada) or a non-luxury handbag. The smaller number of subjects in this study was due to an unexpected low show up rate. The procedure was identical to study 4, except for a different dependent measure.

## **Dependent Measure**

Similar to study 4, after 15 minutes of using the handbag, all participants returned to their individual lab room. Next, participants were told that they would complete a task for an unrelated study. They read a cover story about how performance on the task requires mathematic ability and a sense of concentration, which have been shown to be the best index of general intelligence. Next, participants were asked to start working on a series of math matrices for as long as they wanted to. They were told that could decide to quit anytime by clicking a button on the computer screen and proceeding to the rest of the survey. The focal task included 20 matrices, each containing a set of 12 three-digit number (e.g., 2.13). Participants were instructed to write down the two numbers in each matrix that added up to exactly 10. Unknown to the participants, some of the matrices were unsolvable. Similar to the previous study, the time (in seconds) each participant spent on this task serves as the main dependent measure, with longer time indicating stronger self-control efforts.

## **Results**

The results showed that participants in the luxury condition persisted for a longer period time ( $M = 470.26$ ,  $SD = 179.43$ ) on the self-control task than participants in the control condition ( $M = 407.61$ ,  $SD = 200.27$ ,  $t(31) = .94$ ,  $p = .35$ ). Although the difference between the two conditions was not statistically significant due to lower statistical power (small sample size), it was on the same direction as the previous study.

## REFERENCES

- Aiken, Leona S. and Stephen G. West (1991), *Multiple Regression: Testing and Interpreting Interactions*. Thousand Oaks, CA: Sage.
- Bagwell, Laurie S. and B. Douglas Bernheim (1996), "Veblen Effects in a Theory of Conspicuous Consumption," *The American Economic Review*, 86, 3 (June), 349-73.
- Banfield, Jane F., Carrie L. Wyland, C. Neil Macrae, Thomas F. Munte, and Todd F. Heatherton (2004), "The Cognitive Neuroscience of Self-Regulation," in *The Handbook of Self-Regulation*, eds. Roy F. Baumeister and Kathleen D. Vohs, New York: Guilford, 62-83.
- Baumeister, Roy F., Ellen Bratslavsky, Mark Muraven, and Dianne M. Tice (1998), "Ego Depletion: Is the Active Self a Limited Resource?" *Journal of Personality and Social Psychology* 74 (5), 1252-65.
- Baumeister, Roy F., and Mark R. Leary (1995), "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological Bulletin*, 117 (3), 497-529.
- Baumeister Roy F. and Todd F. Heatherton (1996), "Self-Regulation Failure: An Overview," *Psychological Inquiry*, 7 (1), 1-15.
- Baumeister Roy F., Todd F. Heatherton, and Dianne M. Tice (1994), *Losing Control: How and Why People Fail at Self-Regulation*. San Diego, CA: Academic Press.
- Baumeister Roy F., Kathleen D. Vohs, and Dianne M. Tice (2007), "The Strength Model of Self-Control," *Current Directions in Psychological Science*, 16 (6), 351-55.

- Belk, Russell W. (1985), "Trait Aspects of Living in the Material World," *Journal of Consumer Research*, 12 (December), 265-80.
- Berger, Jonah and Morgan Ward (2010), "Subtle Signals of Inconspicuous Consumption," *Journal of Consumer Research*, 37 (December), 555-69.
- Carver, Charles S. and Michael F. Scheier (2001), *On the Self-Regulation of Behavior*. New York: Cambridge University Press.
- Charles, Kerwin Kofi, Erik Hurst, and Nikolai Roussanov (2009), "Conspicuous Consumption and Race," *The Quarterly Journal of Economics*, 124 (2), 425-67.
- D'Arpizio, Claudia (2012), "Luxury Goods Worldwide Market Study, Fall 2013," Bain & Company, accessed Jan 24, 2014, <http://www.bain.com/publications/articles/luxury-goods-worldwide-market-study-fall-2013.aspx>
- de Ridder, Denise T. D., Gerty Lensvelt-Mulders, Catrin Finkenauer, F. Marijn Stok, and Roy F. Baumeister (2012), "Taking Stock of Self-Control: A Meta-Analysis of How Trait Self-Control Relates to a Wide Range of Behaviors," *Personality and Social Psychology Review*, 16(1), 76-99.
- DeWall, C. Nathan, Roy F. Baumeister, Nicole L. Mead and Kathleen D. Vohs (2011), "How Leaders Self-Regulate Their Task Performances: Evidence That Power Promotes Diligence, Depletion, and Disdain," *Journal of Personality and Social Psychology*, 100 (1), 47-65.
- DeWall, C. Nathan, Roy F. Baumeister, and Kathleen D. Vohs (2008), "Satiated With Belongingness? Effects of Acceptance, Rejection, and Task Framing on Self-

- Regulatory Performance,” *Journal of Personality and Social Psychology*, 95 (6), 1367-82.
- Dunbar, Robin I.M. (1998), “The Social Brain Hypothesis,” *Evolutionary Anthropology*, 6, 178-90.
- Euromonitor (2013), “Global Luxury Goods Sales Exceed US\$318 Billion,” accessed January 14, 2014, [www.marketwired.com/press-release/global-luxury-goods-sales-exceed-us318-billion-1838681.htm](http://www.marketwired.com/press-release/global-luxury-goods-sales-exceed-us318-billion-1838681.htm).
- Fenigstein, Allan (1979), “Self-Consciousness, Self-Attention, and Social Interaction,” *Journal of Personality and Social Psychology*, 37, 75-86.
- \_\_\_\_\_ (1984), “Self-Consciousness and the Overperception of Self as a Target,” *Journal of Personality and Social Psychology*, 47, 860-70.
- Fenigstein, Allan, Michael F. Scheier, and Arnold H. Buss (1975), “Public and Private Self-Consciousness: Assessment and Theory,” *Journal of Consulting and Clinical Psychology*, 43 (4), 522-27.
- Fitzsimons, Gavan J. (2008), “Editorial: Death to Dichotomizing,” *Journal of Consumer Research*, 35 (1), 5-8.
- Froming, William J. and Charles S. Carver (1981), “Divergent Influence of Private and Public Self-Consciousness in a Compliance Paradigm,” *Journal of Research in Personality*, 15, 159-71.
- Galinsky, Adam D., Deborah H Gruenfeld, and Joe C. Megee (2003), “From Power to Action,” *Journal of Personality and Social Psychology*, 85 (3), 453- 466.
- Gilovich, Thomas, Victoria Husted Medvec, and Kenneth Savitsky (2000), “The Spotlight Effect in Social Judgment: An Egocentric Bias in Estimates of the

- Salience of One's Own Actions and Appearance," *Journal of Personality and Social Psychology*, 78 (2), 211-22.
- Gilovich, Thomas and Kenneth Savitsky (1999), "The Spotlight Effect and the Illusion of Transparency: Egocentric Assessments of How We Are Seen by Others," *Current Directions in Psychological Science*, 8 (6), 165-68.
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals," *Journal of Personality and Social Psychology*, 93 (1), 85-102.
- Grinote, Ana (2007), "Power and Goal Pursuit," *Personality and Social Psychology Bulletin*, 33 (8), 1076-87.
- Han, Young Jee, Joseph C. Nunes, and Xavier Drèze (2010), "Signaling Status with Luxury Goods: The Role of Brand Prominence," *Journal of Marketing*, 74 (July), 15-30.
- Hayes, Andrew F. (2012), "PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling [White paper]," Retrieved from <http://www.afhayes.com/>
- Heatherton, Todd F. (2011), "Neuroscience of Self and Self-Regulation," *The Annual Review of Psychology*, 62, 363-90.
- Hofmann, Wilhelm, Roy F. Baumeister, Georg Forster, and Kathleen D. Vohs (2012), "Everyday Temptations: An Experience Sampling Study of Desire, Conflict, and Self-Control," *Journal of Personality and Social Psychology*, 102 (6), 1318-35.



- Interbrand (2013), "Best Global Brands 2013," accessed January 14, 2014,  
[www.interbrand.com/en/best-global-brands/2013/Best-Global-Brands-2013.aspx](http://www.interbrand.com/en/best-global-brands/2013/Best-Global-Brands-2013.aspx).
- Kasser, Tim (2002), *The High Price of Materialism*, Cambridge, MA: MIT Press.
- Kasser, Tim and Richard M. Ryan (2001), "Be Careful What You Wish For: Optimal Functioning and the Relative Attainment of Intrinsic and Extrinsic Goals," in *Life Goals and Wellbeing: Towards a Positive Psychology of Human Striving*, eds. Peter Schmuck and Kennon M. Sheldon, Goetingen, Germany: Hogrefe & Huber, 116-31.
- Krendl, Anne C. and Todd F. Heatherton (2009), "Self Versus Others/Self-Regulation," in *Handbook of Neuroscience for the Behavioral Sciences*, eds. Gary G. Berntson and John T. Cacioppo, Hoboken, NJ: Wiley, 859-78.
- Leary, Mark R. (1999), "Making Sense of Self-Esteem," *Current Directions in Psychological Science*, 8 (1), 32-35.
- Mazzocco, Philip. J., Derek D. Rucker, Adam D. Galinsky, and Eric T. Anderson (2012), "Direct and Vicarious Conspicuous Consumption: Identification with Low-Status Groups Increase the Desire for High-Status Goods," *Journal of Consumer Psychology*, 22, 520-28.
- Mick, David G. (1996), "Are Studies of Dark Side Variable Confounded by Socially Desirable Responding? The Case of Materialism," *Journal of Consumer Research*, 23 (2), 106-119.
- Muraven, Mark, Dianne M. Tice, and Roy F. Baumeister (1998), "Self-Control as a Limited Resource: Regulatory Depletion Patterns," *Journal of Personality and Social Psychology*, 74 (3), 774-89.

- Muraven, Mark, Dikla Shmueli, and Edward Burkley (2006), "Conserving Self-Control Strength," *Journal of Personality and Social Psychology*, 91 (3), 524-37.
- Paton, Elizabeth (2013), "Prada Sales Climb 29% in a Year," *Financial Times*, accessed January 14, 2014, [www.ft.com/cms/s/0/7b6bf2d0-7aa6-11e2-9cc2-00144feabdc0.html](http://www.ft.com/cms/s/0/7b6bf2d0-7aa6-11e2-9cc2-00144feabdc0.html).
- Patrick Vanessa M. and Henrik Hagtvedt (2009), "Luxury Branding," in *The Handbook of Brand Relationships*, eds. Deborah J. MacInnis, C. Whan Park, and Joseph W. Priester, New York: M.E. Sharpe, 267-80.
- Phau, Ian and Gerard Prendergast (2000). "Consuming Luxury Brands: The Relevance of the 'Rarity Principle'," *Journal of Brand Management*, 7 (5), 366-75.
- Piff, Paul K. (2014), "Wealth and the Inflated Self: Class, Entitlement, and Narcissism," *Personality and Social Psychology Bulletin*, 40 (1) 34-43.
- Preacher, Kristopher J. and Andrew Hayes (2008), "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediation Model," *Behavior Research Method*, 40 (3), 879-91.
- Raichle, Katherine A., Alan J. Christensen, Shawna Ehlers, Patricia J. Moran, Lucy Karnell, and Gerry Funk (2001), "Public and Private Self-Consciousness and Smoking Behavior in Head and Neck Cancer Patients," *Annals of Behavioral Medicine*, 23 (2), 120-24.
- Redden, Joseph P. and Kelly L. Haws (2013), "Healthy Satiation: The Role of Decreasing Desire in Effective Self-Control," *Journal of Consumer Research*, 39 (February), 1100-14.

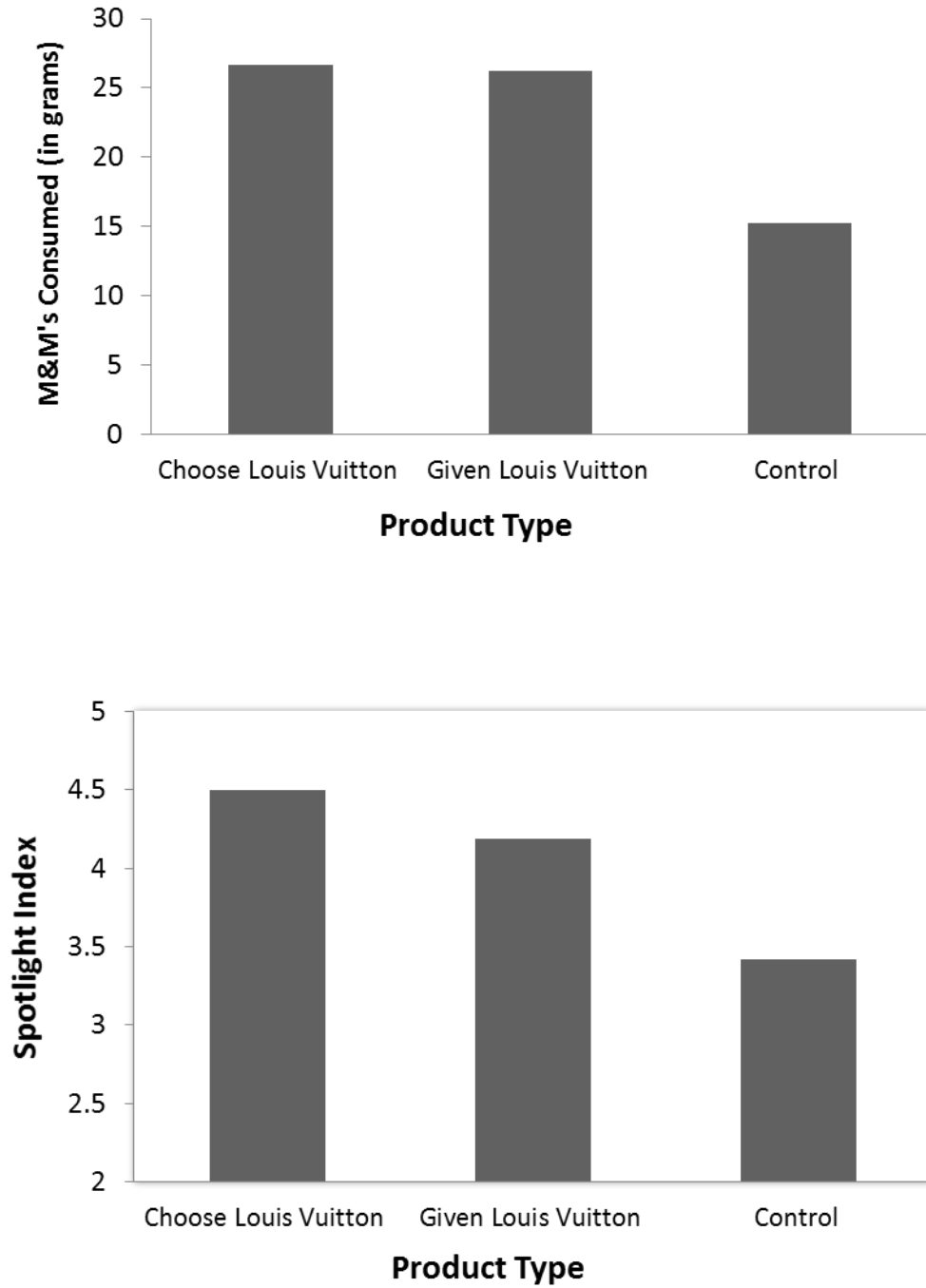
- Richins, Marsha L. (1987), "Media, Materialism, and Human Happiness," *Advances in Consumer Research*, 14 (1), 352-356.
- \_\_\_\_\_ (1994), "Special Possessions and the Expression of Material Values," *Journal of Consumer Research*, 21 (December), 522-33.
- Richins, Marsha L. and Scott Dawson (1992), "A Consumer Values Orientation for Materialism and its Measurement: Scale Development and Validation," *Journal of Consumer Research*, 19 (December), 303-16.
- Roberts, Andrew (2013), "LVMH to Adjust Vuitton Strategy amid Stable Leather Sales Growth," *Bloomberg News*, accessed January 14, 2014, [www.bloomberg.com/news/2013-01-31/lvmh-full-year-profit-increases-13-on-gains-in-u-s-and-asia.html](http://www.bloomberg.com/news/2013-01-31/lvmh-full-year-profit-increases-13-on-gains-in-u-s-and-asia.html).
- Rucker, Derek D. and Adam D. Galinsky (2009), "Conspicuous Consumption Versus Utilitarian Ideals: How Different Levels of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45(3), 549-55.
- Rucker, Derek D., Adam D. Galinsky, and David Dubois (2012), "Power and Consumer Behavior: How Power Shapes Who and What Consumers Value," *Journal of Consumer Psychology*, 22, 352-68.
- Scheier, Michael F. (1980), "Effects of Public and Private Self-Consciousness on the Public Expression of Personal Beliefs," *Journal of Personality and Social Psychology*, 39 (3), 514-21.
- Sivanathan, Niro and Nathan C. Pettit (2010), "Protecting the Self through Consumption: Status Goods as Affirmational Commodities," *Journal of Experimental Social Psychology*, 46, 564-70.

- Sparshott, Jeffrey (2014), "What Products Drove Consumer Spending? Luxury Items, Mostly," *The Wall Street Journal*, accessed February 11, 2014, <http://blogs.wsj.com/economics/2014/01/22/what-products-drove-consumer-spending-luxury-items-mostly/>
- Sundie, Jill M., Douglas T. Kenrick, Vidas Griskevicius, Joshua M. Tybur, Kathleen D. Vohs, and Daniel J. Beal (2011), "Peacocks, Porsches, and Thorstein Veblen: Conspicuous Consumption as a Sexual Signaling System," *Journal of Personality and Social Psychology*, 100 (4), 664-80.
- Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone, "High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success," *Journal of Personality*, 72 (2), 271-324.
- Tice, Dianne M., Ellen Bratslavsky, and Roy F. Baumeister, (2001), "Emotional Distress Regulation Takes Precedence Over Impulse Control: If You Feel Bad, Do It!" *Journal of Personality and Social Psychology*, 80(1), 53-67.
- Veblen, Thorstein (1899), *The Theory of the Leisure Class*, New York: Penguin.
- Vigneron, Franck and Lester W. Johnson (2004), "Measuring Perceptions of Brand Luxury," *Brand Management*, 11 (July), 484-506.
- Vohs, Kathleen D. and Todd F. Heatherton (2000), "Self-Regulatory Failure: A Resource-Depletion Approach," *Psychological Science*, 11 (3), 249-54.
- Vohs, Kathleen D. and Roy F. Baumeister (2004), "Understanding Self-Regulation: An Introduction," in *Handbook of Self-Regulation: Research, Theory, and Applications*, eds. Roy F. Baumeister and Kathleen D. Vohs, New York: Guilford, 1-9.

- Vohs, Kathleen D., Roy F. Baumeister, and Natalie J. Ciarocco (2005), "Self-Regulation and Self-Presentation: Regulatory Resource Depletion Impairs Impression Management and Effortful Self-Presentation Depletes Regulatory Resources," *Journal of Personality and Social Psychology*, 88 (4), 632-57.
- Wachtel, Paul L. and Sidney J. Blatt (1990), "Perceptions of Economic Needs and of Anticipated Future Income," *Journal of Economic Psychology*, 11(3), 403-15.
- Wang, Yajin and Vladas Griskevicius (2014), "Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women," *Journal of Consumer Research*, 40 (February), 834-54.
- Watson, David, Lee A. Clark, and Auke Tellegen (1988), "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales," *Journal of Personality and Social Psychology*, 54 (6), 1063-70.
- Wernerfelt, Birger (1990), "Advertising Content When Brand Choice is a Signal," *The Journal of Business*, 63 (1), 91-98.
- Wilcox, Keith, Hyeon Min Kim, and Sankar Sen (2009), "Why Do Consumers Buy Counterfeit Luxury Brands?" *Journal of Marketing Research*, 46 (April), 247-59.

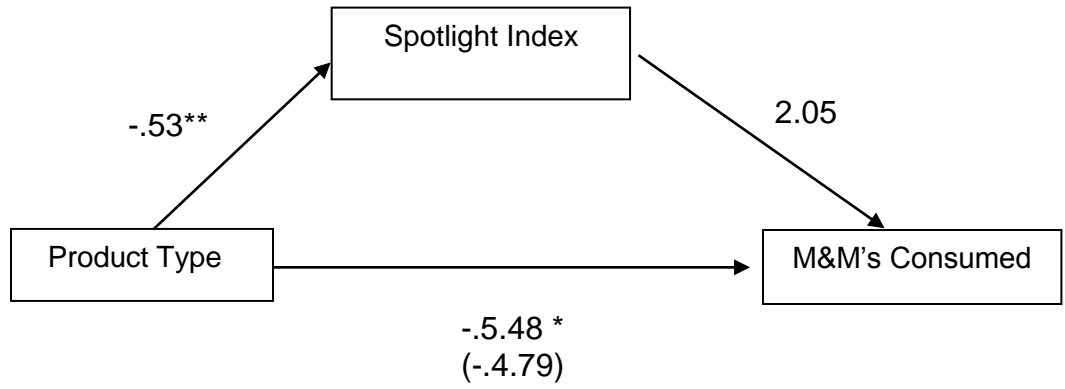
**FIGURE 1**

STUDY 1: EFFECT OF LUXURY USE ON SPOTLIGHT MINDSET  
AND M&M'S CONSUMPTION



**FIGURE 2**

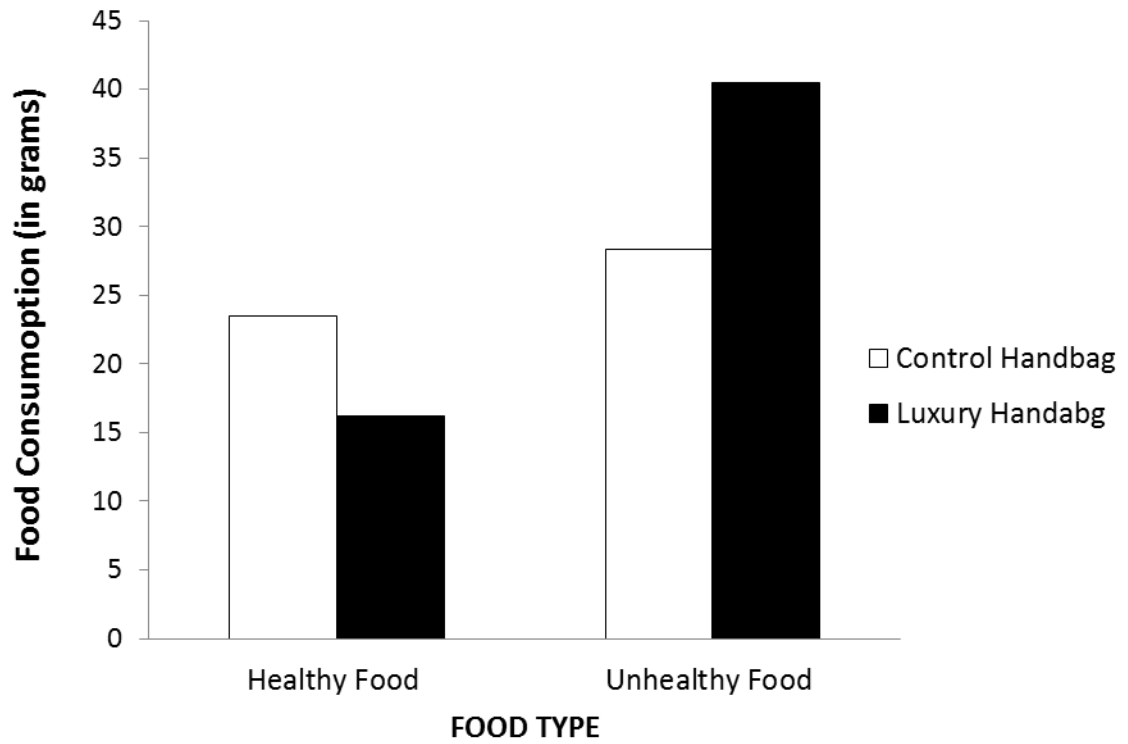
**STUDY 1: MEDIATION ANALYSIS**



Note: Coefficients are unstandardized  
\*\*\* $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

**FIGURE 3**

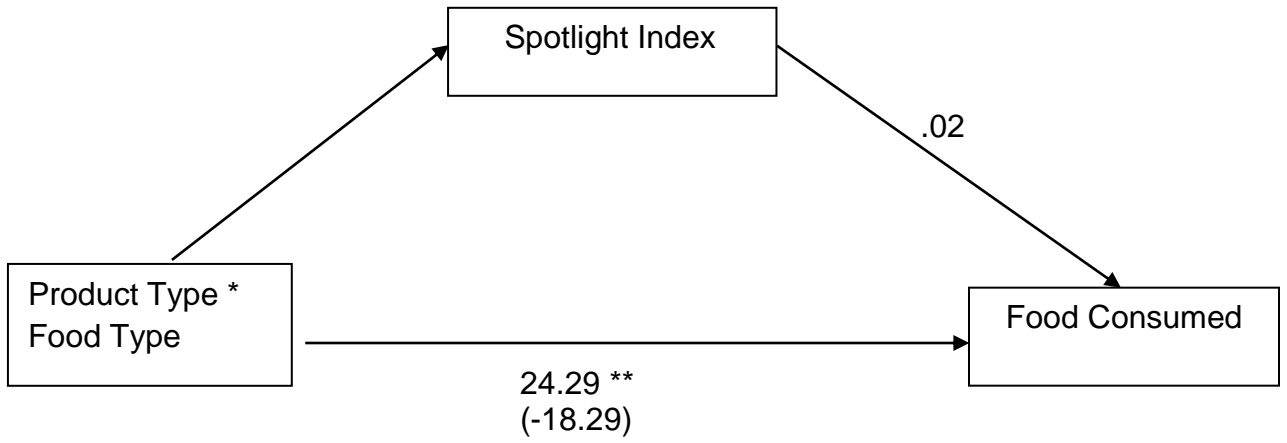
STUDY 2: EFFECTS OF LUXURY USE ON FOOD CONSUMPTION





**FIGURE 4**

**STUDY 2: MEDIATION ANALYSIS**



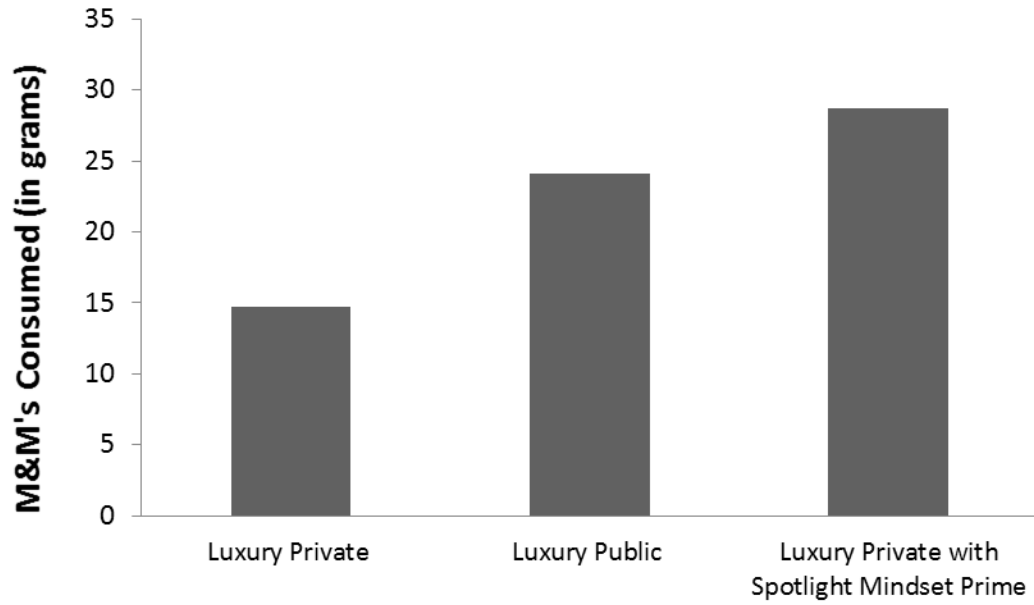
Note: Coefficients are unstandardized

\*\*\* $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

**FIGURE 5**

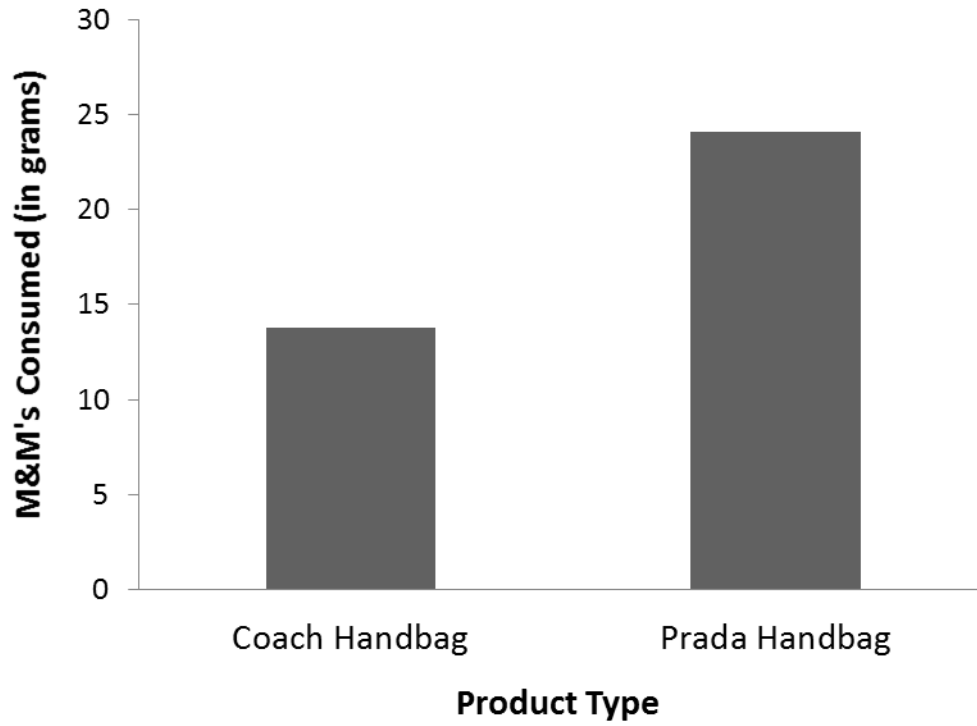
STUDY 3: EFFECT OF CONSUMPTION CONTEXT AND SPOTLIGHT MINDSET

PRIME ON M&M'S CONSUMPTION



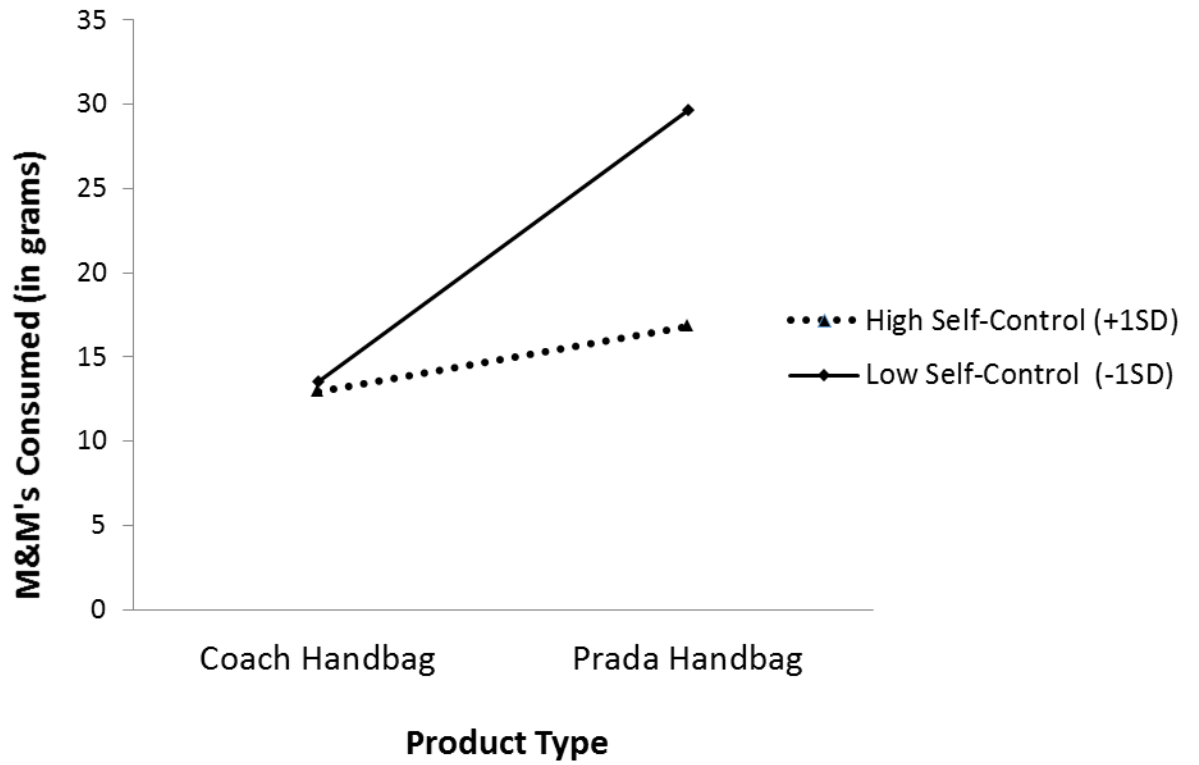
**FIGURE 6**

STUDY 4: EFFECT OF LUXURY USE ON M&M'S CONSUMPTION



**FIGURE 7**

STUDY 4: EFFECT OF LUXURY USE AND TRAIT SELF-CONTROL  
ON M&M'S CONSUMPTION



## CHAPTER IV

### SUMMARY AND FUTURE RESEARCH DIRECTIONS

Prior research has examined people's attitudes, preferences, and motivations for desiring luxury goods, but we know little about what happens when consumers actually use luxury products. My dissertation examines the psychological and behavioral effects of luxury consumption, and asks the question: Does using a luxury product influence the way a person feels and behaves? Two essays of my dissertation examining what happens DURING and AFTER the consumption experience of a luxury product.

The first essay demonstrates that the experiences of using a luxury product boosted women's self-perceptions of social status, and this state then triggered self-interested behaviors, with women making choices to benefit themselves. I found that most of the time self-interested behavior manifested as selfish behavior, such as women taking more money for themselves and donating less money to charity in private. However, I found that self-interested behavior manifested as generous behavior when the situation explicitly afforded people an opportunity to enhance their reputation by acting generously. For example, I found that wearing luxury products led women to donate more money to charity when donations were made in public in front of other people. Note that the types of selfish and generous behavior assessed across six studies all constitute self-interested behavior. Both selfish and generous behavior benefitted the person by either enabling them to acquire more resources or by enabling them to gain a boost in reputation. Indeed, both selfish and generous behaviors were triggered by an increased sense of social status that resulted from consuming luxury goods.

The second essay examines how using luxury products reduces individuals' ability to exert self-control in food consumption. Across four experiments, I found that using a luxury good in public elicits a spotlight mindset, where consumers feel they are a focus of attention and need to manage their behavior in front of others. This mindfulness requires self-regulation resources, and depletion of these resources reduces one's ability to exert self-control in subsequent situations (such as resisting tasty but unhealthy food). I found this luxury self-control effect for different premium luxury brands (Louis Vuitton, Prada, Burberry) and different acquisition settings (luxury good is given versus chosen). Further, I found that the effect is stronger for public (vs. private) luxury usage, for premier (vs. affordable) luxury goods, and for individuals with low (vs. high) trait self-control. Taken together, the results of Essay 2 show that luxury consumption can have unanticipated negative consequences—it can lower your ability to exert self-control in everyday life.

In summary, ten studies across two essays provide novel and compelling evidence that using luxury goods affects how consumers feel and behave. Below, I discuss the contribution of the findings and suggest avenues for future research.

### **Potential Significance and Contribution**

I make two major contributions. First, to my knowledge, my dissertation is the first examination of how luxury consumption affects individuals in terms of its psychological and social consequences. I have developed a new experimental paradigm to examine the effects of luxury consumption within a lab setting, opening up a new area for research in my field. I provide luxury goods (handbags, scarves) to research participants, ask them to use it in a naturalistic setting (walking around campus), and then

evaluate the consequences of this experience through subsequent tasks (eating candy, donating to charity).

Second, my research will be the first to show negative psychological and behavioral consequences of using luxury goods. Although there are obvious financial costs for luxury consumption, I shed light on ways that luxury consumption negatively affects the psychological functioning and well-being of individuals. For example, using luxury products leads people to engage in self-interested behaviors, which suggest that there are significant interpersonal and societal consequences of luxury consumption. Furthermore, using luxury products also decreases one's ability to exert self-control, which is needed for many day-to-day situations, such as curbing overeating, engaging in exercise, and resisting overspending for one's budget.

### **Limitations and Future Directions**

Although all the studies in my dissertation were focused on women, I expect that luxury consumption should also have similar effects on men. In fact, given that previous research has shown that men exhibit a stronger preference for signaling power and status (Hays 2013; Melnyk and Osselaer 2012), it is reasonable to argue that the effects demonstrated in my dissertation should even be stronger among male consumers. Future research can expand the product type to be more male relevant and explore how luxury consumption can influence male consumers' social behaviors. For example, thinking about possible consequences associated with the spotlight mindset for male consumers suggests some interesting topics. Prior research has suggested that men use luxury goods as a way to signal to prospective mates that they have financial resources to be a good provider for the family. Presumably, this signal is appealing to women, which makes the

male a more desirable partner (Griskevicius et al. 2007; Sundie et al. 2011). However, an interesting possibility is that men using luxury goods are also more mindful and more careful about their behavior in front of others. If this results in more “gentlemanly” behavior—being more polite and more gracious—these behaviors can also be very appealing to a prospective mate. As this example suggests, the spotlight mindset may also trigger positive behaviors, in contrast to the more negative behaviors I highlight in my dissertation.

A limitation of the current studies is that participants engaged in luxury consumption for only 15 minutes due to the experimental nature of the studies. On one hand, this procedure shows the robustness of the obtained luxury effects given that they emerged in such a short period of time. On the other hand, it opens up several interesting avenues for future research. For example, if consumers use luxury goods for a longer period of time, would they become habituated to the experience and cease to show the negative effects I observed? Similarly, all the subjects in the experiments were undergraduate students from the business school. Although the subject population is pretested to be luxury consumers, they still are likely to own relatively fewer and less expensive luxury products compared to affluent consumers, who own and frequently use high-end luxury goods. Future research is needed to examine the repeated consumption of luxury goods and the effects of luxury consumption among consumers with different social economic backgrounds.

Third, the findings across all ten experiments indicate that, on average, participants who used a luxury product exhibited more self-interested behaviors (Essay 1) and less self-control (Essay 2). It is notable that the observed effects were quite strong,



regardless of the participants' initial attitudes and desires for luxury products. Future research is needed to explore how individual differences can moderate the effects. For example, the role of the audience may be an important factor that affects preferences for luxury consumption (e.g., Berger and Ward 2010; Han et al. 2010; Wang and Griskevicius 2014), so it is possible that consumers' feelings elicited by the luxury consumption experiences are affected by the audience they are in front of.

Another interesting avenue for future research is to consider the level of conspicuousness of the luxury product. Past research has suggested that luxury products can be conspicuous or inconspicuous (Berger and Ward 2010), and luxury brands can be loud or quiet (Han et al. 2010). As discussed earlier, all the products used in my experiments were pretested to be well liked by the population I studied, and included both relative conspicuous/loud and inconspicuous/quiet luxury products. Therefore, I observed the effects of luxury consumption across different types of luxury products. Future research can explore whether using a quiet versus a loud luxury product might affect the types of psychological responses and behavioral consequences I observed in my studies.

Finally, another limitation of the current studies is that they relied on women from one culture – the United States. Given that the phenomena of consuming luxury goods has persisted across history and human cultures, the fundamental psychological states and consequences of luxury consumption are likely to generalize to consumers in other cultures. However, culture will, of course, play an important role in determining the kind of behaviors people engage in to enhance reputation or to create a good impression. In fact, there is reason to believe that luxury consumption might even have stronger effects

in non-Western cultures where the hierarchy of society is more salient. Therefore, we might expect consumers in such cultures to experience even stronger feelings of higher perceived status (Essay 1) or impression management concerns (Essay 2).

## References

- Berger, Jonah and Morgan Ward (2010), "Subtle Signals of Inconspicuous Consumption," *Journal of Consumer Research*, 37 (December), 555-69.
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals," *Journal of Personality and Social Psychology*, 93 (1), 85-102.
- Han, Young Jee, Joseph C. Nunes, and Xavier Drèze (2010), "Signaling Status with Luxury Goods: The Role of Brand Prominence," *Journal of Marketing*, 74 (July), 15-30.
- Hays, Nicholas A. (2013), "Fear and Loving in Social Hierarchy: Sex Differences in Preferences for Power versus Status," *Journal of Experimental Social Psychology*, 49(6), 1130-1136.
- Melnyk, Valentyna, and Stijn MJ van Osselaer (2012), "Make Me Special: Gender Differences in Consumers' Responses to Loyalty Programs," 23(3), 545-559.
- Sundie, Jill M., Douglas T. Kenrick, Vladas Grikevicius, Joshua M. Tybur, Kathleen D. Vohs, and Daniel J. Beal (2011), "Peacocks, Porsches, and Thorstein Veblen: Conspicuous Consumption as a Sexual Signaling System," *Journal of Personality and Social Psychology*, 100 (4), 664-80.
- Wang, Yajin and Vladas Griskevicius (2014), "Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women," *Journal of Consumer Research*, 40 (February), 834-54.

## BIBLIOGRAPHY

- Aiken, Leona S. and Stephen G. West (1991), *Multiple Regression: Testing and Interpreting Interactions*. Thousand Oaks, CA: Sage.
- Archer, John (2006), "Testosterone and Human Aggression: An Evaluation of the Challenge Hypothesis," *Neuroscience and Biobehavioral Reviews*, 30, 319-45.
- Bagwell, Laurie S. and B. Douglas Bernheim (1996), "Veblen Effects in a Theory of Conspicuous Consumption," *The American Economic Review*, 86, 3 (Jun), 349-73.
- Banfield, Jane F., Carrie L. Wyland, C. Neil Macrae, Thomas F. Munte, and Todd F. Heatherton (2004), "The Cognitive Neuroscience of Self-Regulation," in *The Handbook of Self-Regulation*, eds. Roy F. Baumeister and Kathleen D. Vohs, New York: Guilford, 62-83.
- Baumeister, Roy F., Ellen Bratslavsky, Mark Muraven, and Dianne M. Tice (1998), "Ego Depletion: Is the Active Self a Limited Resource?" *Journal of Personality and Social Psychology* 74 (5), 1252-65.
- Baumeister, Roy F., and Mark R. Leary (1995), "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological Bulletin*, 117 (3), 497-529.
- Baumeister Roy F. and Todd F. Heatherton (1996), "Self-Regulation Failure: An Overview," *Psychological Inquiry*, 7 (1), 1-15.
- Baumeister Roy F., Todd F. Heatherton, and Dianne M. Tice (1994), *Losing Control: How and Why People Fail at Self-Regulation*. San Diego, CA: Academic Press.
- Baumeister Roy F., Kathleen D. Vohs, and Dianne M. Tice (2007), "The Strength Model of Self-Control," *Current Directions in Psychological Science*, 16 (6), 351-55.

- Belk, Russell W. (1985), "Trait Aspects of Living in the Material World," *Journal of Consumer Research*, 12 (December), 265-80.
- Belk, Russell W., Kenneth D. Bahn, and Robert N. Mayer (1982), "Developmental Recognition of Consumption Symbolism," *Journal of Consumer Research*, 9 (June), 4-16.
- Berger, Jonah and Morgan Ward (2010), "Subtle Signals of Inconspicuous Consumption," *Journal of Consumer Research*, 37 (December), 555-69.
- Boksem, Maarten A. S., Pranjal H. Mehta, Bram Van den Bergh, Veerie van Son, Stefan T. Trautmann, Karin Roelofs, Ale Smidts, and Alan G. Sanfey (2013), "Testosterone Inhibits Trust but Promotes Reciprocity," *Psychological Science*, 24(11), 2306-14.
- Carver, Charles S. and Michael F. Scheier (2001), *On the Self-Regulation of Behavior*. New York: Cambridge University Press.
- Charles, Kerwin Kofi, Erik Hurst, and Nikolai Roussanov (2009), "Conspicuous Consumption and Race," *The Quarterly Journal of Economics*, 124 (2), 425-67.
- Chartrand, Tanya L., Joel Huber, Baba Shiv, and Robin J. Tanner (2008), "Nonconscious Goals and Consumer Choice," *Journal of Consumer Research*, 35 (August), 189-201.
- Cole, Douglas and Ira Chaikin (1990). *An Iron Band upon the People – The Law Against the Potlatch on the Northwest Coast*, Seattle, WA: University of Washington Press.
- Cottrell, Catherine A., Steven L. Neuberg, and Norman P. Li (2007), "What do People Desire in Others? A Sociofunctional Perspective on the Importance of Different

- Valued Characteristics,” *Journal of Personality and Social Psychology*, 92(2), 208-31.
- D’Arpizio, Claudia (2013), “Luxury Goods Worldwide Market Study, Fall 2013,” Bain & Company, accessed April 27, 2014, <http://www.bain.com/publications/articles/luxury-goods-worldwide-market-study-fall-2013.aspx>
- D’Arpizio, Claudia (2014), “Luxury Goods Worldwide Market Study, Winter 2014,” Bain & Company, accessed April 27, 2014, <http://www.bain.com/publications/articles/luxury-goods-worldwide-markey-study-winter-2014.aspx>
- Forbes (2013), “The World’s Most Valuable Brands,” Thomson Reuters Fundamentals via FactSet Research System, accessed April 27, 2014, [http://www.forbes.com/powerful-brands/list/#page:1\\_sort:6\\_direction:asc\\_search:releases/worldwide-luxury-goods-continues-double-digit-annual-growth.aspx](http://www.forbes.com/powerful-brands/list/#page:1_sort:6_direction:asc_search:releases/worldwide-luxury-goods-continues-double-digit-annual-growth.aspx)
- Dabbs, James M. and Marian F. Hargrove (1997), “Age, Testosterone, and Behavior Among Female Prison Inmates,” *Psychosomatic Medicine*, 59, 477-80.
- Dabbs, James M. and Robin Morris (1990), “Testosterone, Social Class, and Antisocial Behavior in a Sample of 4,462 Men,” *Psychological Science*, 209-11.
- de Graaf, John, David Wann, and Thomas H. Naylor (2001). *Affluenza: The All-Consuming Epidemic*. San Francisco, CA: Berrett-Koehler.
- de Ridder, Denise T. D., Gerty Lensvelt-Mulders, Catrin Finkenauer, F. Marijn Stok, and Roy F. Baumeister (2012), “Taking Stock of Self-Control: A Meta-Analysis of How Trait Self-Control Relates to a Wide Range of Behaviors,” *Personality and Social Psychology Review*, 16(1), 76-99.

- DeWall, C. Nathan, Roy F. Baumeister, Nicole L. Mead and Kathleen D. Vohs (2011), "How Leaders Self-Regulate Their Task Performances: Evidence That Power Promotes Diligence, Depletion, and Disdain," *Journal of Personality and Social Psychology*, 100 (1), 47-65.
- DeWall, C. Nathan, Roy F. Baumeister, and Kathleen D. Vohs (2008), "Satiated With Belongingness? Effects of Acceptance, Rejection, and Task Framing on Self-Regulatory Performance," *Journal of Personality and Social Psychology*, 95 (6), 1367-82.
- Dreze, Xavier and Joseph C. Nunes (2009), "Feeling Superior: The Impact of Loyalty Program Structure on Consumers' Perceptions of Status," *Journal of Consumer Research*, 35 (April), 890- 905.
- Dubois, David and Nailya Ordabayeva (in press), "Social Hierarchy, Social Status, and Status Consumption," in *The Cambridge Handbook of Consumer Psychology*, eds. Michael Norton, Derek Rucker, and Cait Lambertson.
- Dunbar, Robin I.M. (1998), "The Social Brain Hypothesis," *Evolutionary Anthropology*, 6, 178-90.
- Eastman, Jacqueline K., Ronald E. Goldsmith, and Leisa Reinecke Flynn (1999), "Status Consumption in Consumer Behavior: Scale Development and Validation," *Journal of Marketing Theory and Practice*, 7(Summer), 41-52.
- Euromonitor (2013), "Global Luxury Goods Sales Exceed US\$318 Billion," accessed January 14, 2014, [www.marketwired.com/press-release/global-luxury-goods-sales-exceed-us318-billion-1838681.htm](http://www.marketwired.com/press-release/global-luxury-goods-sales-exceed-us318-billion-1838681.htm).

- Fenigstein, Allan (1979), "Self-Consciousness, Self-Attention, and Social Interaction," *Journal of Personality and Social Psychology*, 37, 75-86.
- \_\_\_\_\_ (1984), "Self-Consciousness and the Overperception of Self as a Target," *Journal of Personality and Social Psychology*, 47, 860-70.
- Fenigstein, Allan, Michael F. Scheier, and Arnold H. Buss (1975), "Public and Private Self-Consciousness: Assessment and Theory," *Journal of Consulting and Clinical Psychology*, 43 (4), 522-27.
- French, John R. P. Jr. and Bertram Raven (1959), *The Bases of Social Power*, Ann Arbor, MI: University of Michigan Press.
- Froming, William J. and Charles S. Carver (1981), "Divergent Influence of Private and Public Self-Consciousness in a Compliance Paradigm," *Journal of Research in Personality*, 15, 159-71.
- Fitzsimons, Gráinne M, Tanya L. Chartrand, and Gavan Fitzsimons (2008), "Automatic Effects of Brand Exposure on Motivated Behavior: How Apple Makes You "Think Different"," *Journal of Consumer Research*, 35 (June), 21-35.
- Fuchs, Christoph, Emanuela Prandelli, Martin Shreier, and Darren W. Dahl (2013), "All That Is Users Might Not Be Gold: How Labeling Products as User Designed Backfires in the Context of Luxury Fashion Brands," *Journal of Marketing*, 77 (September), 75-91.
- Galinsky, Adam D., Deborah H Gruenfeld, and Joe C. Megee (2003), "From Power to Action," *Journal of Personality and Social Psychology*, 85 (3), 453- 466.
- Galinsky, Adam D., Joe C. Magee, M. Ena Inesi, and Deborah H. Gruenfeld (2006), "Power and Perspective Not Taken," *Psychological Science*, 17 (2), 1068-74.



- Gilovich, Thomas, Victoria Husted Medvec, and Kenneth Savitsky (2000), "The Spotlight Effect in Social Judgment: An Egocentric Bias in Estimates of the Salience of One's Own Actions and Appearance," *Journal of Personality and Social Psychology*, 78 (2), 211-22.
- Gilovich, Thomas and Kenneth Savitsky (1999), "The Spotlight Effect and the Illusion of Transparency: Egocentric Assessments of How We Are Seen by Others," *Current Directions in Psychological Science*, 8 (6), 165-68.
- Griskevicius, Vladas and Douglas T. Kenrick (2013), "Fundamental Motives for Why We Buy: How Evolutionary Needs Influence Consumer Behavior," *Journal of Consumer Psychology*, 23(3), 372-386.
- Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Strategic Costly Signals," *Journal of Personality and Social Psychology*, 93 (1), 85-102.
- Griskevicius, Vladas, Joshua M. Tybur, and Bram Van den Bergh (2010) "Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation," *Journal of Personality and Social Psychology*, 98, 392-404.
- Gurven, Michael, Wesley Allen-Arave, Kim Hill, and Magdalena Hurtado (2000), "'It's a Wonderful Life': Signaling Generosity among the Ache of Paraguay." *Evolution and Human Behavior* 21(4), 263-82.
- Grinote, Ana (2007), "Power and Goal Pursuit," *Personality and Social Psychology Bulletin*, 33 (8), 1076-87.

- Han, Young Jee, Joseph C. Nunes, and Xavier Drèze (2010), "Signaling Status with Luxury Goods: The Role of Brand Prominence," *Journal of Marketing*, 74 (July), 15-30.
- Hardy, Charlie L. and Mark Van Vugt (2006), "Nice Guys Finish First: The Competitive Altruism Hypothesis," *Personality and Social Psychology Bulletin*, 32, 1402-13.
- Hayes, Andrew F. (2012), "PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling [White paper]," Retrieved from <http://www.afhayes.com/>
- Hays, Nicholas A. (2013), "Fear and Loving in Social Hierarchy: Sex Differences in Preferences for Power versus Status," *Journal of Experimental Social Psychology*, 49(6), 1130-1136.
- Heatherton, Todd F. (2011), "Neuroscience of Self and Self-Regulation," *The Annual Review of Psychology*, 62, 363-90.
- Hofmann, Wilhelm, Roy F. Baumeister, Georg Forster, and Kathleen D. Vohs (2012), "Everyday Temptations: An Experience Sampling Study of Desire, Conflict, and Self-Control," *Journal of Personality and Social Psychology*, 102 (6), 1318-35.
- Interbrand (2013), "Best Global Brands 2013," accessed January 14, 2014, [www.interbrand.com/en/best-global-brands/2013/Best-Global-Brands-2013.aspx](http://www.interbrand.com/en/best-global-brands/2013/Best-Global-Brands-2013.aspx).
- Iredale, Wendy, Mark Van Vugt, and Robin Dunbar (2008), "Showing Off in Humans: Male Generosity as a Mating Signal," *Evolutionary Psychology*, 6(3), 386-92.
- Irmak, Caglar, Lauren G. Block, and Gavan J. Fitzsimons (2005), "The Placebo Effect in Marketing: Sometimes You Just Have to Want It to Work," *Journal of Marketing Research*, 42 (November), 406-09.

- Jones, Liz (2008), "The Luxury Brand with a Chequered Past, Burberry's Shaken off Its Chav Image to Become the Fashionistas' Favourite Once More," Mail Online, accessed February 10, 2014, <http://www.dailymail.co.uk/femail/article-1023460/Burberrys-shaken-chav-image-fashionistas-favourite-more.html>.
- Jones, Lyle V. (1952), "Tests of Hypotheses: One-Sided vs. Two-Sided Alternatives," *Psychological Bulletin*, 49 (1), 43-6.
- Kasser, Tim (2002). *The High Price of Materialism*. Mass.: MIT Press.
- Kasser, Tim and Richard M. Ryan (2001), "Be Careful What You Wish For: Optimal Functioning and the Relative Attainment of Intrinsic and Extrinsic Goals," in *Life Goals and Wellbeing: Towards a Positive Psychology of Human Striving*, eds. Peter Schmuck and Kennon M. Sheldon, Goetingen, Germany: Hogrefe & Huber, 116-31.
- Kenrick, Douglas T., Vladas Griskevicius, Steven L. Neuberg, and Mark Schaller (2010), "Renovating the Pyramid of Needs: Contemporary Extensions Built Upon Ancient Foundations," *Perspective on Psychological Science*, 5(3),292-314.
- Krendl, Anne C. and Todd F. Heatherton (2009), "Self Versus Others/Self-Regulation," in *Handbook of Neuroscience for the Behavioral Sciences*, eds. Gary G. Berntson and John T. Cacioppo, Hoboken, NJ: Wiley, 859-78.
- Kuksov, Dmitri and Ying Xie (2012), "Competition in a Status Goods Market," *Journal of Marketing Research*, 49(October), 609-23.
- Leary, Mark R. (1999), "Making Sense of Self-Esteem," *Current Directions in Psychological Science*, 8 (1), 32-35.

- Lee, Jaehoon and L. J. Shrum (2012), "Conspicuous Consumption versus Charitable Behavior in Response to Social Exclusion: A Differential Needs Explanation," *Journal of Consumer Research* 39 (October), 530-44.
- Lindberg, Nina, Pekka Tani, Bjorn Appelberg, Hannu Naukkarinen, Ranan Rimon, Tarja Porkka-Heiskanen, and Matti Vrikkunen (2003), "Human Impulsive Aggression: A Sleep Research Perspective," *Journal of Psychiatric Research*, 37, 313-24.
- Magee, Joe C. and Adam D. Galinsky (2008), "Social Hierarchy: The Self-Reinforcing Nature of Power and Status," *The Academy of Management Annals*, 2(1), 351-98.
- Maner, Jon K., Matthew T. Gailliot, David A. Butz, and B. Michelle Peruche (2007), "Power, Risk, and the Status Quo: Does Power Promote Riskier or More Conservative Decision Making?" *Personality and Social Psychology Bulletin*, 33(4), 451-62.
- Maner, Jon K. and Nicole L. Mead (2010), "The Essential Tension Between Leadership and Power: When Leaders Sacrifice Group Goals for the Sake of Self-Interest," *Journal of Personality and Social Psychology*, 99 (3), 482-97.
- Mazzocco, Philip. J., Derek D. Rucker, Adam D. Galinsky, and Eric T. Anderson (2012), "Direct and Vicarious Conspicuous Consumption: Identification with Low-Status Groups Increase the Desire for High-Status Goods," *Journal of Consumer Psychology*, 22, 520-28.
- Melnyk, Valentyna, and Stijn MJ van Osselaer (2012), "Make Me Special: Gender Differences in Consumers' Responses to Loyalty Programs," 23(3), 545-559.

- Melnyk, Valentyna, Stijn MJ van Osselaer and Tammo HA Bijmolt (2009), "Are Women More Loyal Customers Than Men? Gender Differences in Loyalty to Firms and Individual Service Providers," *Journal of Marketing*, 73(4), 82-96.
- Mick, David G. (1996), "Are Studies of Dark Side Variable Confounded by Socially Desirable Responding? The Case of Materialism," *Journal of Consumer Research*, 23 (2), 106-119.
- Miller, Geoffrey F. (2007), "Sexual Selection for Moral Virtues," *Quarterly Review of Biology*, 82, 97-125.
- Murdock, George Peter (1970), "Rand and Potlatch among the Haida," *Yale University Publications in Anthropology*, 13, New Haven, CT: Human Relations Area Files Press.
- Muraven, Mark, Dianne M. Tice, and Roy F. Baumeister (1998), "Self-Control as a Limited Resource: Regulatory Depletion Patterns," *Journal of Personality and Social Psychology*, 74 (3), 774-89.
- Nelissen, Rob M.A. and Marijn H.C. Meijers (2012), "Social Benefits of Luxury Brands as Costly Signals of Wealth and Status," *Evolution and Human Behavior*, 32(5), 343-55.
- Ordabayeva, Nailya and Pierre Chandon (2011), "Getting ahead of Joneses: When Equality Increases Conspicuous Consumption Among Bottom-Tier Consumers," *Journal of Consumer Research*, 38 (June), 27-41.
- Park, Ji Kyung and Deborah Roedder John (2014), "I Think I Can, I Think I Can: Brand Use, Self-Efficacy, and Performance," *Journal of Marketing Research*, 51(April), 233-47.

- Paton, Elizabeth (2013), "Prada Sales Climb 29% in a Year," *Financial Times*, accessed January 14, 2014, [www.ft.com/cms/s/0/7b6bf2d0-7aa6-11e2-9cc2-00144feabdc0.html](http://www.ft.com/cms/s/0/7b6bf2d0-7aa6-11e2-9cc2-00144feabdc0.html).
- Patrick Vanessa M. and Henrik Hagtvedt (2009), "Luxury Branding," *The Handbook of Brand Relationships*. NY: Society for Consumer Psychology, 267-80.
- Phau, Ian and Gerard Prendergast (2000), "Consuming Luxury Brands: The Relevance of the 'Rarity Principle'," *Journal of Brand Management*, 7 (5), 366-75.
- Phillips, Jordan (2012), "The Lure of Luxe: Climbing The Luxury Consumption Pyramid," North Charleston, SC: CreateSpace Independent Publishing Platform.
- Piff, Paul K. (2014), "Wealth and the Inflated Self Class, Entitlement, and Narcissism," *Personality and Social Psychology Bulletin*, 40(1), 34-43.
- Piff, Paul K., Michael W. Kraus, Stéphane Côté, Bonnie Hayden Cheng, and Dacher Keltner (2010) "Having Less, Giving More: The Influence of Social Class on Prosocial Behavior," *Journal of Personality and Social Psychology*, 99(5), 771-84.
- Piff, Paul K, Daniel M. Stancato, Stephane Cote, Rodolfo Mendoza-Denton, and Dacher Keltner (2012), "Higher Status Class Predicts Increased Unethical Behavior," *Proceedings of the National Academy of Science*, 109(11), 4086-91.
- Plourde, Aimee M. (2008), "The Origins of Prestige Goods as Honest Signals of Skill and Knowledge," *Human Nature*, 19 (4), 374-88.
- Preacher, Kristopher J. and Andrew Hayes (2008), "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediation Model," *Behavior Research Method*, 40 (3), 879-91.

- Raichle, Katherine A., Alan J. Christensen, Shawna Ehlers, Patricia J. Moran, Lucy Karnell, and Gerry Funk (2001), "Public and Private Self-Consciousness and Smoking Behavior in Head and Neck Cancer Patients," *Annals of Behavioral Medicine*, 23 (2), 120-24.
- Redden, Joseph P. and Kelly L. Haws (2013), "Healthy Satiation: The Role of Decreasing Desire in Effective Self-Control," *Journal of Consumer Research*, 39 (February), 1100-14.
- Richins, Marsha L. (1987), "Media, Materialism, and Human Happiness," *Advances in Consumer Research*, 14 (1), 352-56.
- (1994), "Special Possessions and the Expression of Material Values," *Journal of Consumer Research*, 21 (December), 522-33.
- Richins, Marsha L. and Scott Dawson (1992), "A Consumer Values Orientation for Materialism and its Measurement: Scale Development and Validation," *Journal of Consumer Research*, 19 (December), 303-16.
- Ridgeway, Cecilia L. and Henry A. Walker (1995), "Status Structure," in Karen S. Cook, Gary Alan Fine, and James S. House, eds. *Sociological Perspectives on Social Psychology*. Needham Heights: Allyn and Bacon.
- Roberts, Andrew (2013), "LVMH to Adjust Vuitton Strategy amid Stable Leather Sales Growth," *Bloomberg News*, accessed January 14, 2014, [www.bloomberg.com/news/2013-01-31/lvmh-full-year-profit-increases-13-on-gains-in-u-s-and-asia.html](http://www.bloomberg.com/news/2013-01-31/lvmh-full-year-profit-increases-13-on-gains-in-u-s-and-asia.html).

- Rucker, Derek D., David Dubois, and Adam D. Galinsky (2011), "Generous Paupers and Stingy Princes: Power Drives Consumer Spending on Self versus Others," *Journal of Consumer Research*, 37 (April), 1015-29.
- Rucker, Derek D. and Adam D. Galinsky (2009), "Conspicuous Consumption Versus Utilitarian Ideals: How Different Levels of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45(3), 549-55.
- Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to Acquire: Powerlessness and Compensatory Consumption," *Journal of Consumer Research*, 35(2), 257-67.
- (2009), "Conspicuous Consumption versus Utilitarian Ideals: How Different Level of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45(3), 549-55.
- Rucker, Derek D., Adam D. Galinsky, and David Dubois (2012), "Power and Consumer Behavior: How Power Shapes Who and What Consumers Value," *Journal of Consumer Psychology*, 22, 352-68.
- Saad, Gad and John G. Vongas (2009), "The Effect of Conspicuous Consumption on Men's Testosterone Levels," *Organizational Behavior and Human Decision Processes*, 110, 80-92.
- Scheier, Michael F. (1980), "Effects of Public and Private Self-Consciousness on the Public Expression of Personal Beliefs," *Journal of Personality and Social Psychology*, 39 (3), 514-21.
- Schor, Juliet B. (2004), *Born to Buy*, New York: Scribner.



- Semmann, Dirk, Hans-Jürgen Krambeck, and Manfred Milinski (2005), "Reputation is Valuable Within and Outside One's Own Social Group," *Behavioral Ecology and Sociobiology*, 57(6), 611-16.
- Sivanathan, Niro and Nathan C. Pettit (2010), "Protecting the Self through Consumption: Status Goods as Affirmational Commodities," *Journal of Experimental Social Psychology*, 46, 564-70.
- Smith, Eric Alden and Rebecca Bird (2000), "Turtle Hunting and Tombstone Opening: Public Generosity as Costly Signaling," *Evolution and Human Behavior*, 21(4), 245-61.
- Solomon, Michael R. (1983), "The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective," *Journal of Consumer Research*, 10 (December), 319-29.
- Sparshott, Jeffrey (2014), "What Products Drove Consumer Spending? Luxury Items, Mostly," *The Wall Street Journal*, accessed February 11, 2014, <http://blogs.wsj.com/economics/2014/01/22/what-products-drove-consumer-spending-luxury-items-mostly/>
- Statista (2014), "Value of the Personal Luxury Goods Market Worldwide From 1995 to 2013," The Statistics Portal, accessed September 2014, <http://www.statista.com/statistics/266503/value-of-the-personal-luxury-goods-market-worldwide/>
- Stellar, Jennifer E., Vida M. Manzo, Michael W. Kraus, and Dacher Keltner (2012), "Class and Compassion: Socioeconomic Factors Predict Responses to Suffering," *Emotion*, 12 (3), 449-59.

- Stiff, Chris and Mark Van Vugt (2008), "The Power of Reputations: The Role of Third Party Information in the Admission of New Group Members," *Group Dynamics: Theory, Research, and Practice* 12, 155-66.
- Sundie Jill M., Douglas T. Kenrick, Vladas Grikevicius, Joshua M. Tybur, Kathleen D. Vohs, and Daniel J. Beal (2011), "Peacocks, Porsches, and Thorstein Veblen: Conspicuous Consumption as a Sexual Signaling System," *Journal of Personality and Social Psychology*, 100 (4), 664-80.
- Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone, "High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success," *Journal of Personality*, 72 (2), 271-324.
- Tice, Dianne M., Ellen Bratslavsky, and Roy F. Baumeister, (2001), "Emotional Distress Regulation Takes Precedence Over Impulse Control: If You Feel Bad, Do It!" *Journal of Personality and Social Psychology*, 80(1), 53-67.
- Van Vugt, Mark and Charlotte L. Hardy (2009), "Cooperation for Reputation: Wasteful Contributions as Costly Signals in Public Goods," *Group Processes Intergroup Relations*, 13(1), 101-11.
- Veblen, Thorstein (1899), *The Theory of the Leisure Class*, New York: Penguin.
- Vigneron, Franck and Lester W. Johnson (2004), "Measuring Perceptions of Brand Luxury," *Brand Management*, 11 (July), 484-506.
- Vohs, Kathleen D. and Todd F. Heatherton (2000), "Self-Regulatory Failure: A Resource-Depletion Approach," *Psychological Science*, 11 (3), 249-54.
- Vohs, Kathleen D. and Roy F. Baumeister (2004), "Understanding Self-Regulation: An Introduction," in *Handbook of Self-Regulation: Research, Theory, and*

- Applications*, eds. Roy F. Baumeister and Kathleen D. Vohs, New York: Guilford, 1-9.
- Vohs, Kathleen D., Roy F. Baumeister, and Natalie J. Ciarocco (2005), "Self-Regulation and Self-Presentation: Regulatory Resource Depletion Impairs Impression Management and Effortful Self-Presentation Depletes Regulatory Resources," *Journal of Personality and Social Psychology*, 88 (4), 632-57.
- Vohs, Kathleen D. and Todd F. Heatherton (2000), "Self-Regulatory Failure: A Resource-Depletion Approach," *Psychological Science*, 11 (3), 249-54.
- Wachtel, Paul L. and Sidney J. Blatt (1990), "Perceptions of Economic Needs and of Anticipated Future Income," *Journal of Economic Psychology*, 11(3), 403-15.
- Wang, Yajin and Vladas Griskevicius (2014), "Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women," *Journal of Consumer Research*, 40 (February), 834-54.
- Watson, David, Lee A. Clark, and Auke Tellegen (1988), "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales," *Journal of Personality and Social Psychology*, 54 (6), 1063-70.
- Wedekind, Claus and Victoria A. Braithwaite (2002), "The Long-Term Benefits of Human Generosity in Indirect Reciprocity," *Current Biology*, 12(12), 1012-15.
- Wernerfelt, Birger (1990), "Advertising Content When Brand Choice is a Signal," *The Journal of Business*, 63 (1), 91-8.
- Wilcox, Keith, Hyeong Min Kim, and Sankar Sen (2009), "Why Do Consumers Buy Counterfeit Luxury Brands?" *Journal of Marketing Research*, 46 (April), 247-59.

- Wong, Jimmy and Sharon Shavitt (2010), "Be Rude to Me and I Will Buy a Rolex: Effects of Culture Orientation on Responses to Power Threat in a Service Setting," *Advances in Consumer Psychology*, 2, 95.
- Zak, Paul J., Robert Kuzban, Sheila Ahmadi, Ronald S. Swerdloff, Jang Park, Levan Efremidze, Karen Redwine, Karla Morgan, and William Matzner (2009), "Testosterone Administration Decreases Generosity in the Ultimatum Game," *PLoS One*, 4 (12), e8330.
- Zitek, Emily M., Alexander H. Jordan, Benoit Monin, and Frederick R. Leach (2010), "Victim Entitlement to Behave Selfish," *Journal of Personality and Social Psychology*, 98(2), 245-55.