THE IMPACT OF CONSUMER INSECURITY ON PRODUCT EVALUATION

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ABSTRACT

This two essay dissertation explores the impact that various types of consumer insecurity have on response to and evaluation of products. Consumer insecurity has long been noted as an influence on consumption behavior; however, this research examines it from two specific angles – materialism level and economic insecurity level of the consumer. Literature suggests that one of the major antecedents of materialism is insecurity. Therefore, Essay 1 focuses on the impact that consumers' materialism levels have on the evaluation of a sustainable luxury product. Five experiments demonstrate that although the product is originally valued less than its traditional counterpart, positioning it as essentially providing the same status benefits as its non-sustainable counterpart increased its value amongst materialistic consumers. Promoting the ethicality of the sustainable luxury product actually hurt its valuation amongst consumers high in materialism. Essay 2 examines the effect that economic insecurity has on consumer response to products. This research suggests that economically insecure consumers notice the brand gendered characteristics of products more so in comparison to more economically secure consumers. Initial support is also found for an association between more economically insecure consumers and a preference for gendered products. The results of both essays demonstrate the noticeable effects that feelings of insecurity have on consumer responses to products.

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CHAPTER 1

INTRODUCTION

Insecurity is broadly characterized as having a general sense of doubt and uncertainty about one's self. In the consumer psychology literature, research suggests that insecurity is linked to a bevy of observable consumer behavior (Rindfleisch, Burroughs, & Wong, 2009). One of the most notable outcomes of consumer insecurity as it relates to marketing is its manifestation through consumer materialism. Research suggests that materialistic individuals tend to be more insecure in comparison to other consumers (Rindfleisch et al., 2009). Materialism has received a considerable amount of attention over the last two decades and continues to be an important topic of research as well as conversation. Western cultures have long been imbued with the notion of materialism and it seems to be increasing as the years go by (DeAngelis, 2004). Another form of insecurity is that of economic insecurity, or concerns about one's current and future financial well-being.

This two essay dissertation examines the impact of both of these types of consumer insecurity on consumer product evaluation. The recent great recession has likely increased feelings of economic insecurity due to unemployment levels and increased wealth disparity. In western societies, such as the United States, levels of insecurity are also on the rise due to various sources that are responsible for consumer persuasion (Vail, 1999; Glassner, 1999). For example, research suggests that consumers form strong connections with brands in order to safeguard against feelings of insecurity (Rindfleisch et al., 2009). Materialism has been characterized as an "outward manifestation of deeper unmet needs and psychological insecurities" (Rindfleisch et al.,

2009). Indeed, Burroughs et al. (2013) describe the motivation for materialism as the failure to meet a core set of individual needs thus leading to a state of insecurity and psychological discomfort. Consumers who live in a materialistic society may try to meet these needs (tangible, social, or self) with material objects. Research clearly suggests a strong relationship between insecurity and materialism. Overall, materialism has been heavily linked to a multitude of negative consequences. A meta-analysis on materialism and well-being suggests that this negative link may be explained by a poor psychological need satisfaction (Dittmar, Bond, Hurst, & Kasser, 2014). The study of materialism is important to consumer research not only because it has become deeply embedded in American culture and society, but also due to the fact that it heavily influences our consumption decisions and well-being.

Therefore, the two essays of this dissertation are linked by similar underlying motivations of consumers that influence their behavior. Essay 1 focuses on materialistic consumers, or those who, the literature has shown, tend to be more insecure (e.g., suffering from low self-esteem). Essay 2 focuses on consumers who are economically insecure (e.g., are in lower socioeconomic classes or have experienced financial hardship). Both of these sources of feelings of insecurity, we will show, have demonstrable effects on consumer responses to products.

The concept of materialism has been examined through multiple lenses. Some scholars consider it to be a trait (Belk, 1984; 1985) associating it with envy, possessiveness, and non-generosity. Still other researchers view it as a value (Richins & Dawson, 1992; Burroughs & Rindfliesch, 2002). We adopt the viewpoint of Richins and Dawson (1992) that materialism is an individual value defined as "a set of centrally held

beliefs about the importance of possessions in one's life." Indeed, "materialism as a value reflects the importance an individual places on acquisition of material possessions as an appropriate or necessary conduct to reach desired end states" (Fournier & Richins 1991). Materialists who wish to attain this desired status must possess the right kind of products and thus may try to acquire status signaling possessions.

Although a plethora of research exists on materialism, there is a paucity of research regarding the impact of consumers' materialism level on their evaluation of sustainable products. The first essay is designed to explore the relationship between luxury brands and sustainability as a function of consumer materialism levels. Consumers typically use luxury brands to display status among fellow consumers, especially among those who are more materialistic in nature. We investigate how this desire interacts with sustainable luxury products, since luxury brands are not typically associated with ethicality and sustainability, in order to evaluate if they are perceived differently among various consumer segments. Sustainability and ethicality in consumption behavior has been on the rise for quite some time. Some consumers desire products that are sustainable and produced by a fairly treated workforce. Retailers in response have altered their production materials, processes, and workforces in order to meet the need. Research has focused on multiple sustainability issues (Luchs, Naylor, Irwin, & Raghunathan, 2010; Newman, Gorlin, & Dhar, 2014); however, they generally investigate commodities such as food, clothing, or cleaning products. There exists limited literature and empirical studies on sustainable luxury products and even less on how to position the product for different types of consumer groups based on their materialism level.

Since sustainability and ethicality (e.g., fair treatment of workforce) are becoming more important to both consumers and retailers, it is important to understand the relationship between luxury brands, sustainability, and one's materialism level. We know little regarding how materialism impacts consumers' inclination for products produced sustainably. A few notable exceptions include the early work of Banerjee and McKeage (1994) who find a trivial negative correlation between materialism and environmentalism. The authors contend that materialism is generally considered to be a pro-consumption value, while environmentalism an anti-consumption value. Other evidence of anti-environmentalism exists as well. It has been noted that people with strong materialistic values care less about the environment (Kasser, 2002), use more environmental resources while playing dilemma games (Kasser & Sheldon, 2000), and lead lives that place a heavier "ecological footprint" on the planet (Kasser & Brown, 2003). This research aims to fill this gap in the literature by utilizing materialism to reveal different consumer motivations for purchasing sustainable luxury. Materialism level is used as a way to segment consumers in the sustainable luxury market to more effectively appeal to their underlying incentives in order to make the products more attractive to various groups.

In Essay 1, we evaluate the perception and acceptance of a novel sustainable luxury product – lab-grown diamonds. Findings can give guidance to luxury retailers in order to retain their status seeking consumers (i.e. high materialists) but attract new consumers (i.e. low materialists) who may be concerned more about ethicality. Results suggest that consumers are attracted to lab-grown diamonds based on their underlying motivations for the product (e.g., either status-seeking or environmental concern) and this

is dependent on whether a luxury versus a non-luxury retailer promotes the product. This essay will expand the luxury literature by including implications for sustainable luxury products as well as add to the burgeoning literature on environmentalism. The results will also give guidance to luxury retailers who may want to launch sustainable products.

Because consumer insecurity is associated with various behavioral outcomes, we believe it is a worthwhile endeavor to further explore its impact in the consumer behavior realm. While we acknowledge that insecurity can take on several forms (e.g., personal, social, or physical), in Essay 2 we focus on yet another type - *economic* insecurity. In economic terms, it is defined as "the anxiety produced by possible exposure to adverse economic events and by the anticipation of the difficulty to recover from them" (Bossert & D'Ambrosio, 2013). From the sociology point of view, economic insecurity can be defined as "the risk of economic loss faced by workers and households as they encounter the unpredictable events of social life" (Western, Bloome, Sosnaud, &Tach, 2012). We adopt this definition in our research and focus our analysis on the household as the unit of measure.

Since the economic recession in 2008, the economy has struggled to come back. Although economic indicators suggest that the economy has recovered, many Americans feel left behind in the recovery effort with a less than optimal view of their personal finances and economic future (Hacker, Huber, Nichols, Rehm, & Craig, 2012). Therefore, economic insecurity is an interesting and relevant concept to explore as it pertains to consumer product evaluation.

Economic insecurity has been linked with several negative outcomes. For instance, people who feel more economically insecure trust political figures less (Wroe,

2016). In the consumer research literature, little empirical evidence exists for how economic insecurity impacts consumption. Consumers have been known to adapt their behavior in response to macroeconomic events such as the economy's state (Lamey, Deleersnyder, Dekimpe, & Steenkamp, 2007; Deleersnyder, Dekimpe, Sarvary, & Parker, 2004; Millet, Lamey, & Van den Bergh, 2012). However, there is a shortage of research that analyzes perceived economic insecurity at the household level and how it impacts consumer behavior. In addition, much is known about why consumers favor brands and develop brand relationships, but less is understood about the relationship between consumers' state of insecurity and their brand preferences.

The goal of the second essay is to uncover if and how positioning products on particular brand characteristics appeals to certain consumers and furthermore compensates for consumers' feelings of economic insecurity. We do this by employing the concept of brand gender which is defined as "the set of human personality traits associated with masculinity and femininity applicable and relevant to a brand" (Grohmann, 2009). Brand gender is receiving increased attention in the brand literature (e.g., Hirschman, 2014); however few empirical studies exist regarding brand gender's influence on choice. Essay 2 is designed to explore the notion of brand gender positioning and how economic insecurity (lower vs. higher) influences the perception and choice of products that are positioned as masculine versus feminine. We propose that consumers with high economic insecurity are more attracted to products positioned on the basis of gender (masculine or feminine). We also investigate whether manipulated economic insecurity states impact product evaluation. This research aims to explore compensatory action and whether the products consumers seek out while insecure versus

secure differ. Our findings lend support for the notion that more economically insecure consumers do notice the gendered characteristics of products more and give a slight preference towards these products.

Overall, materialism and economic insecurity play a large role in our everyday actions and decisions. Since materialism and economic insecurity are on the rise in many Western societies, it is important to understand how these aspects impact product choice and evaluation from a consumer well-being angle. Also, marketers may be interested to know how to effectively position products to appeal to different levels of consumer insecurity. While much is known about the influence of materialism on our consumption behavior, little is understood in regards to how it impacts the presentation of sustainable luxury products and how luxury brands can promote sustainable items effectively. In addition, brand gender is relatively new to the branding personality literature and much can be discovered as to how positioning products as masculine versus feminine influences product perception and choice in consumers with different states of economic insecurity. As this research suggests, consumer insecurity has noticeable effects on consumer responses to products. We hope to add to these important literatures with the research stream we propose on the effect materialism and economic insecurity have on the evaluation of sustainable luxury products and brand gender positioning.

CHAPTER 2

ESSAY 1: THE EFFECTS OF MATERIALISM AND LUXURY BRANDING ON CONSUMER ACCEPTANCE OF LAB-GROWN DIAMONDS

Over the past few years, an influx of new *synthetic* products has emerged in the market, designed to be equally as good as, if not better than, their traditional counterparts. However, while they appear to be similar in many respects, further investigation reveals that these products are not produced in conventional ways – they are actually laboratory-produced reproductions of the real article. One relevant example is lab-grown leather, affectionately dubbed "victimless leather" (Hepburn, 2015). Lab-grown leather is produced from cultured animal cells resulting in no harm to animals and the environment (Murray, 2015).

Whether it is for sustainability (earth-friendly) reasons, ethicality (fair treatment of animals or workers) reasons, or to compensate for a lack of supply, these products are making their way to markets worldwide. Modern science and technology have given us the ability to create these innovative products in response to some of the issues we face around sustainability. But, with more and more synthetic products entering the market, the question becomes, is the consumer market ready for them? In particular, how will consumers of luxury brands view these products -- will they accept and ultimately purchase them? Will their acceptance be determined by how such products are positioned and what consumers' motivations are?

This research explores the perception and acceptance of a novel synthetic product that has recently become available to more consumers – lab-grown diamonds. Diamonds are generally considered a luxury type of product. Typically, consumers are drawn to a

luxury product for its ability to symbolize prestige, success, and status. How would consumers perceive lab-grown diamonds, especially in light of the fact that mined diamonds may have a certain mystique (i.e. scarcity, exclusivity, pulled from deep inside the earth, etc.) which translates to higher perceived value? One advantage is that a lab-grown diamond is virtually indistinguishable from a mined diamond (Wenzel, 2007). In addition, lab-grown diamonds do not destroy the earth and no one is hurt in their creation. Should a marketer focus on the product's indistinguishability from mined diamonds or its ethicality in order to gain consumer acceptance, especially in the luxury marketplace?

Despite the recent interest in luxury brand research, there exist few empirical studies that examine the motivations of different customer segments, especially for a novel type of luxury good such as lab-grown diamonds. In this research, we examine consumer perceptions of lab-grown versus mined diamonds and alternative positioning strategies for luxury and non-luxury brands among consumers who are more versus less materialistic in nature. Research has shown that materialists are motivated to consume in order to signal to others their social status (Fournier & Richins, 1991), whereas consumers low in materialism may not be as concerned with such aspects of products.

We therefore believe that lab-grown diamonds may appeal to different segments if they are positioned so as to appeal to different purchase motivations. Our findings show that emphasizing the fact that lab-grown diamonds are indistinguishable from mined diamonds, therefore making the prestige and social status traits salient, is more appealing to consumers high in materialism. In contrast, highlighting the ethicality of the lab-grown diamonds is more attractive to consumers low in materialism whose purchase motivations are more aligned with environmentalism and societal well-being. To our

knowledge, this research is one of the first to consider the impact an individual level variable, materialism, has on the acceptance of sustainable luxury products.

Theoretical Development

Luxury Brand Buying

A luxury product is a product "for which the simple use or display of a particular branded product brings esteem to the owner, apart from any functional utility" (Vigneron & Johnson, 2004). Thus, it is primarily the psychological benefits that distinguish luxury products from non-luxury and counterfeit products (Arghavan & Zaichkowsky, 2000). Motivations to purchase luxury products include social aspects such as conspicuousness and prestige value (Vigneron & Johnson, 2004). Research on conspicuous consumption suggests that consumers consider the influence of reference groups when purchasing luxury products, which allow them to display wealth and their status in society (Veblen, 1899). Consumers in search of social representation and position may be particularly interested in the consumption of luxury brands, and thus, the social status tied to the brand is imperative (Vigneron & Johnson, 2004). Also considered within conspicuous consumption is the perception of price since a high price is usually associated with quality, an indicator of luxury (Lichtenstein, Ridgway, & Netemeyer, 1993). Therefore, conspicuous consumption serves as a motivation for purchasing luxury brands, which enables consumers to signal the social status, wealth, and prestige they have or desire.

Although luxury products are purchased for different reasons, many consumers are motivated by prestige and the ability to signal social status and success. Lab-grown diamonds are produced quite differently than mined diamonds and are relatively new to

the market. Therefore, consumers may not view them as equivalent to mined diamonds. Because lab-grown diamonds may not confer the prestige and social status as do traditional mined diamonds, but likely are recognized for being earth friendly and conflict-free, we propose that:

H1a. Lab-grown diamonds will be perceived as less valuable than traditional mined diamonds.

H1b. Lab-grown diamonds will be perceived as more ethical than traditional mined diamonds.

Although luxury products are purchased for many reasons, consumers are largely motivated by prestige and the ability to signal social status and success. Thus, if a lab-grown diamond is positioned as being indistinguishable from traditional mined diamonds, lab-grown diamonds will confer prestige and signal social status in a manner similar to traditional mined diamonds. Therefore, we propose that:

H2. Positioning lab-grown diamonds as indistinguishable from mined diamonds will enhance their evaluation.

Despite an increase in environmental and ethical concerns in society, there exists scant research on luxury branding and consumer motivations regarding environmental sustainability. Consumers purchase luxury brands to signal social status and prestige to others, so intuitively luxury brands may not be associated with societal concerns. Achabou and Dekhili (2013) explored the relationship between sustainable practices and luxury brand products. Their findings suggest that even though consumers are concerned with the environment, their primary criteria for purchasing luxury brands remain product

quality and prestige of the brand. Because consumers seek different economic and psychological benefits with luxury products such as social perceptions, image, and quality (Vigneron & Johnson, 2004) in comparison to commodities, luxury brands probably tend not to be strongly associated with sustainability and ethicality.

We propose that when the ethicality of a product is emphasized (i.e., good for the earth and mankind), consumers may focus on how virtuous the product is and may perceive it to be more appealing versus no mention of it at all. Also, emphasizing the ethical nature of the product reduces its commercialization, which may also lead to a better evaluation of the product. This may be especially true for low materialism consumers who are more interested in the environmental aspect of the product and less interested in signaling their social status to others. A further discussion on materialism will follow in the next section. We predict that:

> **H3:** Positioning lab-grown diamonds as ethical (i.e. better for the earth and social welfare) will enhance their evaluation, especially for consumers low in materialism.

We expect lab-grown diamonds to be perceived as more ethical; therefore a luxury-branded lab-grown diamond may confer the benefits of consumer perceptions of ethicality and sustainability to such products. In other words, the ordinarily weak association between luxury brands and ethicality may be offset by a luxury brand's promotion of an earth-friendly, conflict-free (i.e., lab-grown) diamond. We thus propose that:

H4. Luxury (versus non-luxury) brands will benefit more, in terms of consumers' ethical perceptions of lab-grown diamonds.

Although luxury brands can be used by consumers to signal their status to others, they can also be used by consumers to enhance their self-identity (Holt, 1995). The concept of the 'extended self' as defined by Belk (1988) is the idea that consumers believe their possessions are part of their identity. On an individual level, materialism may play a significant role in the possession and appreciation of luxury brands. Materialists, for whom possessions play a central part in their lives (Belk, 1984), may use luxury brands to not only increase status amongst relevant reference groups, but also to satisfy personal happiness. Wiedmann et al. (2007) developed a comprehensive framework to include the many dimensions of luxury value perception and created a scale to measure luxury value cross-culturally. Looking at the individual, the authors take into consideration materialistic values because materialism defines the importance of material objects in consumers' lives. They propose that consumers' level of materialism and the luxury value perception of a luxury product are positively correlated. But the level of materialism of luxury buyers is not homogeneous in nature.

Materialism

It is well known that materialism measures the importance of possessions in consumers' lives (Richins & Dawson, 1992). Materialistic consumers make possessions a central part of their lives which in turn can be sources of both satisfaction and dissatisfaction (Belk, 1984). The importance of material possessions varies among consumers with different levels of materialism (Richins, 1994). According to Fournier and Richins (1991), "materialists view the world through a lens focused on possessions,

and they evaluate themselves and others in terms of what is owned." Materialists place higher value on socially visible products because they signal status. The use of one's possessions to signal status and success to others has been noted as an important motivation of materialists in their use and acquisition of possessions (Fournier & Richins, 1991).

Furthermore, because materialists strive for a life of material complexity, they may be less focused on nature and environmental concerns (Richins & Dawson, 1992). A recent study found a negative relationship between materialism and environmental beliefs (Kilbourne & Pickett, 2007). Thus, less materialistic consumers should value environmentalism more highly. Thus, when the ethical nature of the product is made salient, we predict that lab-grown diamonds will be more appealing to consumers lower in materialism.

If luxury brands are perceived as more ethical due to an association with environmentally friendly products such as lab-grown diamonds, does this mean that luxury brands that emphasize the ethical or environmental benefits of such products will be most successful in the marketplace? We propose that such a positioning strategy may actually backfire for consumers who are more highly materialistic. As previously discussed, brands provide a means by which consumers attain their self-identity goals; they can also allow consumers to communicate to others their actual or desired identities (Kirmani, 2009). This can be especially true for luxury brands. Materialists use luxury brand names to symbolize status, as well as signal their wealth and success. Thus high materialists should find lab-grown diamonds more compelling if they learn they are visually indistinguishable from (and therefore confer the same social signaling benefits

as) mined diamonds. In contrast, making the ethical nature of the lab-grown diamond salient will result in lower perceptions of prestige and value for high materialists (i.e., backfire). Therefore, we propose that:

> **H5:** An indistinguishability [ethical] positioning of luxury branded lab-grown diamonds will enhance [reduce] acceptance among high materialism consumers.

A conceptual model for the proposed theories can be found in Appendix A. We next describe five studies to test these hypotheses.

Study 1: Exploring consumer perceptions of lab-grown versus traditional mined diamonds

The purpose of study 1 was to begin to explore consumers' perceptions about lab-grown versus traditional mined diamonds. We expected that, in comparison to traditional mined diamonds, lab-grown diamonds would be viewed as economically inferior (as less prestigious and less valuable), but as ethically superior (as more socially responsible and earth-friendly). Thus we test H1a and H1b in this study. If obtained, such results would have implications for how lab-grown diamonds might be effectively positioned in the marketplace.

Method

Sample and design

Eighty-seven undergraduates (M_{age} = 19.8, 48% female) participated in exchange for course credit. They were randomly assigned to one of two conditions – viewing a diamond described as either mined *(n=45)* or lab-grown *(n=42)*.

Stimuli and procedure

All participants read a description of the diamond they were about to evaluate (see Appendix B). In the mined condition, a short paragraph described the diamond as a traditional diamond extracted from a mine. In the lab-grown condition, a short paragraph described the diamond as a diamond grown in a laboratory. Next, participants viewed and evaluated an actual "diamond" ring (see Figure 1) for as long as they liked and then completed a short survey in which they provided an estimate of the value of the diamond ring, evaluated its prestige, and described the type of purchaser of such a product. Participants were told the diamond they were viewing while making these evaluations was the same type as in the written description they had received (either mined or lab-grown according to condition). In truth, the same diamond ring was viewed by all participants: it was a 2-carat cubic zirconia in a silver setting.

Figure 1. Study 1 Diamond Stimulus.

Results

Estimated Value

An analysis of variance (ANOVA) on the estimated retail value of the ring from \$0 - \$4,000 as a function of diamond type (mined vs. lab-grown; $F(1,85) = 13.475$, $p <$

.001) showed that participants in the lab-grown (vs. mined) condition estimated the retail value of the diamond to be about $681 lower ($M_{mined}$ = $2,767.73 vs. $M_{lab\text{-}grown}$= $2,086.67), in support of H1a.

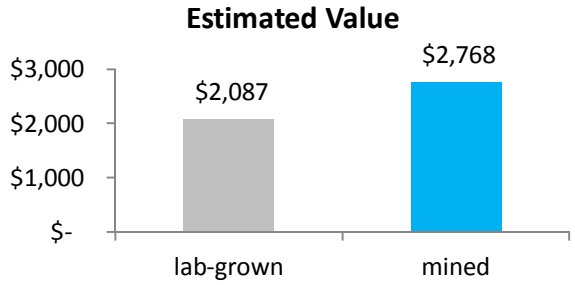

Figure 2. Estimated value of diamond observed.

Prestige

An ANOVA on prestige of the diamond ring (1=not at all, 7=very much so; $F(1,85) = 13.199$, $p < .001$) as a function of diamond type showed that participants in the lab-grown (vs. mined) condition thought the ring was less prestigious (M_{mined} = 4.51 vs. $M_{lab\text{-}grown}$= 3.57), in additional support of H1a.

Ethical Purchaser

An ANOVA on how ethical participants believed a person is who buys this diamond ring (1=not at all, 7=very much so; $F(1,85) = 7.158$, $p < .01$) indicated that those in the lab-grown (vs. mined) condition rated the buyer as more ethical (M_{mined} = 4.02 vs. $M_{lab\text{-}grown}$= 4.71), in support of H1b.

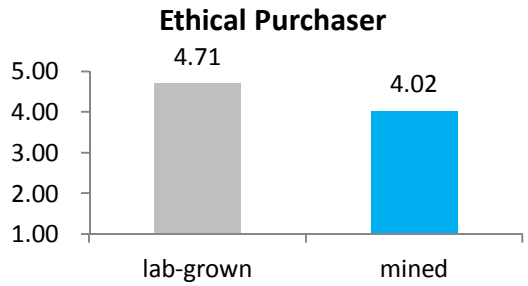

Figure 3. How ethical the purchaser of the diamond is perceived.

Discussion

Thus, as expected, the lab-grown diamond was perceived as less valuable and as less prestigious than a traditional mined diamond. A notable positive aspect of lab-grown diamonds was that purchasers of lab-grown diamonds were viewed as more ethical than purchasers of mined diamonds. These results suggest there may be at least two different approaches to successfully positioning lab-grown diamonds in the marketplace – either by boosting their economic value or by highlighting their inferred ethical qualities.

Study 2: Enhancing consumer evaluations of synthetic diamonds via a "no one will know" positioning strategy

In study 2, we examine whether a positioning strategy that emphasizes the indistinguishability of lab-grown diamonds from mined diamonds in terms of appearance would enhance perceptions of lab-grown diamonds. More specifically we position lab-grown diamonds on the basis of "others will not know" (i.e., will not be able to tell the difference visually) versus a control condition. In this study (and in study 3), participants receive information about only lab-grown diamonds, with the manipulation focusing on how positioning such products might enhance their perceived value.

Method

Sample and design

We recruited 80 adult participants from Amazon's Mechanical Turk (M_{age} = 38.5, 51% female) for a small cash payment. They were randomly assigned to one of two positioning conditions: others will not know (*n=43)* or control (*n=37)*.

Procedure

Participants were asked to read an advertisement for man-made diamonds. In the others will not know condition, information was added that explained how indistinguishable man-made diamonds are from mined diamonds, and that virtually no one can tell the difference (see Appendix C). Participants estimated the current retail value of a ring with a man-made diamond. In addition, participants were shown a picture of a diamond ring and were told it was a man-made diamond. They assessed on a 5-point scale (from 1 = poor to 5 = excellent) the diamond on the four traditional measures of diamond quality (the four C's): cut, color, carat, and clarity.

Manipulation Check

We asked participants to rate how different the appearance of a man-made diamond is from that of a mined diamond (1 = very different in appearance; 10 = no difference in appearance). An ANOVA on this measure as a function of diamond positioning (will not know versus control; $F(1,78) = 5.144$, $p < .05$) showed that those in the others will not know (vs. control) condition reported less difference in appearance ($M_{control}$ = 7.54 vs. $M_{willnotknow}$ = 8.61). Thus the manipulation worked as intended.

Results

Estimated Value

An ANOVA on estimated value as a function of positioning ($F(1,78) = 4.465$, $p < .05$) indicated that participants estimated the value of the man-made diamond to be about $463 more in the others will not know versus control condition ($M_{willnotknow}$ = $2,231.12 versus $M_{control}$ = $1,767.51), in support of H2. This result shows how the lower perceived value of man-made diamonds can be enhanced via positioning strategy.

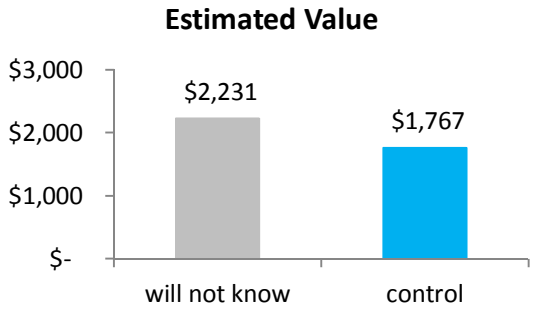

Figure 4. Estimated value of diamond per positioning.

Physical Appearance

The four traditional characteristics of diamond evaluation (4 C's: color, cut, clarity, carats) were averaged to create an overall quality score for the diamond ($\alpha = .58$). An ANOVA ($F(1,78) = 4.193$, $p < .05$) on this measure as a function of positioning indicated that participants in the others will not know (vs. control) condition perceived the physical (or sensory) characteristics of the man-made diamond to be better ($M_{control}$ = 3.69 vs. $M_{willnotknow}$ = 3.96), in support of H2. This result helps to explain why an indistinguishability positioning enhances perceived value of a man-made diamond.

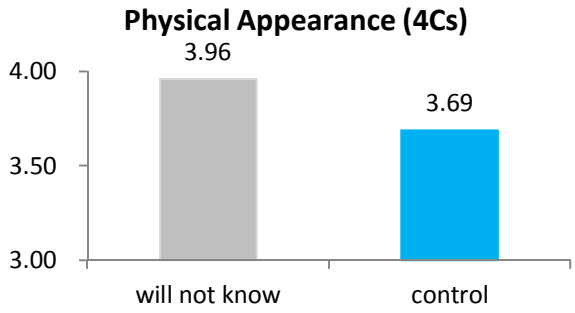

Figure 5. Physical appearance of the diamond per positioning.

Discussion

The others will not know positioning thus enhanced estimated value and physical perceptions of man-made diamonds. By emphasizing the indistinguishability of the man-made diamond to its conventional counterpart, consumers responded more positively versus the control condition.

Study 3: Enhancing consumer evaluations of lab-grown diamonds via an ethical positioning strategy

Based on the results of study 1 which suggested the one "bright spot" for synthetic diamonds is that purchasers of this product are seen as more ethical, study 3 was designed to test the effects of explicitly positioning a lab-grown diamond on an ethical basis. Thus we test an alternative positioning strategy (vs. in study 2) to enhance perceptions of man-made diamonds. We also explore the moderating effect of consumer materialism in study 3. We expected an ethical positioning would appeal in particular to consumers who are less materialistic.

Method

Sample and design

Ninety-one participants (M_{age} = 37 years; 54% male) from Amazon mTurk were paid a small cash amount to participate and were randomly assigned to one of two synthetic diamond positioning conditions: ethically positioned (*n=44)* or control (*n=47)*.

Procedure

Each participant viewed the same picture of a ring with a lab-grown diamond. The conditions differed only in terms of the news article about such diamonds that accompanied the picture of the diamond ring. The process by which such diamonds are created was described in both conditions. In the ethically positioned condition, the article also discussed reasons why such diamonds are more ethical. The control condition, in contrast, did not position the diamonds as ethical products (see Appendix D). Participants were then asked to read a hypothetical scenario about a recently engaged couple who decided to purchase an engagement ring with a man-made diamond. Participants answered several questions such as: how much they thought the couple paid for the ring (if a similar ring with a mined diamond costs $3,000). The Richins (2004) materialism scale was also administered in addition to other items including demographics.

Pre-Test

A manipulation check was conducted in a separate pre-test. Fifty three participants (M_{age} = 35 years; 60% male) were recruited from Amazon MTurk and paid a small cash amount to participate. They read the hypothetical news article (ethical vs.

control) as used in the main study and evaluated lab-grown diamonds on a set of ethical measures. The items asked participants how much they disagreed or agreed with the following two statements regarding a lab-grown diamond: 1) preserves the Earth's natural resources, and 2) reduces human injury and death (from 1=strongly disagree to 7=strongly agree). The scores from the two statements were combined to create a measure of ethicality ($r = .326$, $p < .05$). An ANOVA on this measure as a function of positioning showed that those in the ethical (vs. control) condition rated the lab-grown diamonds as more ethical ($F(1,51) = 17.352$, $p < .000$; $M_{control} = 4.74$ vs. $M_{ethical} = 5.85$).

Results

Estimated Value

We conducted a regression on how much participants estimated the couple paid for the ring as a function of the diamond's positioning (0 = control, 1 = ethical), materialism (measured continuously and mean-centered) and their interaction. Ethical positioning was significant ($b = 305.41$, $z = 2.66$, $p < .01$), materialism was significant ($b = 147.79$, $z = 2.20$, $p < .05$), and the interaction between these two variables was significant ($b = -247.64$, $z = -2.48$, $p < .05$). We examined the interaction with a spotlight analysis (Spiller, Fitzsimons, Lynch & McClelland, 2013). Among participants who were less materialistic (- 1 SD from mean of scale), the ethical (vs. control) positioning increased by about $600 the estimated value of the ring ($M_{control} = \$1{,}759$ vs. $M_{ethical} = \$2{,}388$, $p < .001$), in support of H3. Among the participants who were more materialistic (+ 1 SD from mean of scale), ethical positioning had no impact on the estimated value of the ring ($M_{control} = \$2{,}100$ vs. $M_{ethical} = \$2{,}157$, $p > .72$), also in support of H3.

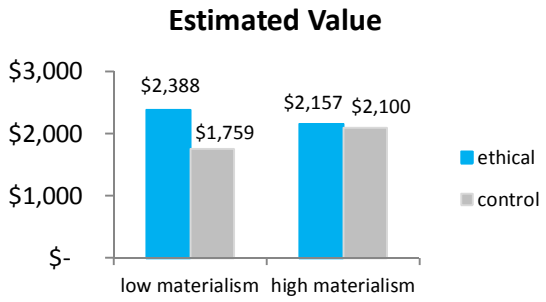

Figure 6. Estimated value of diamond per positioning and materialism level.

Discussion

Overall, the results suggest that positioning the lab-grown diamond ethically appeals to consumers who are less materialistic, but not to consumers who are more materialistic. In the next study we see whether these results are replicated in the context of luxury branding.

Study 4: The impact of luxury branding on perceptions of lab-grown versus traditional mined diamonds

In study 4, we examine what effect luxury branding has on consumer perceptions of lab-grown versus mined diamonds. To do this we manipulate whether the diamond being evaluated is from a luxury brand (i.e., Tiffany & Co.) or a non-luxury brand (i.e., Agape). In this study, as in study 1, we also manipulate whether participants are told they are evaluating a lab-grown or mined diamond. We expect that the ethical qualities associated with lab-grown diamonds will enhance the perceptions of the luxury brand more than that of the non-luxury brand (H4) – because luxury brands and the purchasers of luxury brands may generally be associated less with ethicality than purchasers of non-luxury brands.

Method

Sample, design and procedure

We recruited 169 adult participants from Amazon's Mechanical Turk (M_{age} = 36.5, 59% female) for a small cash payment. The design was a 2 (diamond type: described as mined versus lab-grown) x 2 (luxury brand: yes = Tiffany's, no = Agape) full factorial. Participants were asked to read an advertisement for a diamond ring (see Appendix E). Participants then estimated the current retail value of the diamond ring, evaluated its level of prestige, and assessed the wearer of the diamond ring on how ethical and socially responsible the person would be.

Manipulation Checks

To check whether the Tiffany & Co. brand name was considered a luxury brand, near the end of the survey we asked participants to indicate whether they would agree: "The brand of diamonds seen at the beginning of this survey was a luxury brand" (1 = disagree completely; 5 = agree completely). The results of an ANOVA as a function of brand condition indicated a significant effect of the brand seen in the advertisements ($F(1, 167) = 98.244$, $p < .001$), where participants in the luxury brand condition reported that the brand was more of a luxury brand compared to those in the non-luxury brand condition ($M_{luxury} = 4.59$ vs. $M_{non\text{-}luxury} = 3.15$). Thus, the luxury branding manipulation worked as intended.

Results

Estimated Value

An analysis of variance (ANOVA) on the estimated retail value of the ring from $0 - $6,000 as a function of luxury brand and diamond type showed that both luxury brand ($F(1, 165) = 4.63$, $p < .05$) and diamond type ($F(1, 165) = 26.79$, $p < .0001$) were significant. The interaction between these two variables was not significant ($F < 1$). Participants in the lab-grown (vs. mined) condition estimated the retail value of the diamond to be about $1,090 lower ($M_{mined}$ = $3,113 vs. $M_{lab\text{-}grown}$= $2,023), in support of H1a. Those in the luxury (vs. non-luxury) brand condition estimated the retail value of the diamond to be about $453 higher ($M_{luxury}$ = $2,795 vs. $M_{non\text{-}luxury}$= $2,341), as would be expected. Thus, we find, as in study 1, that lab-grown diamonds are estimated to be less economically valuable than mined diamonds, and this applies about equally to luxury and non-luxury brands.

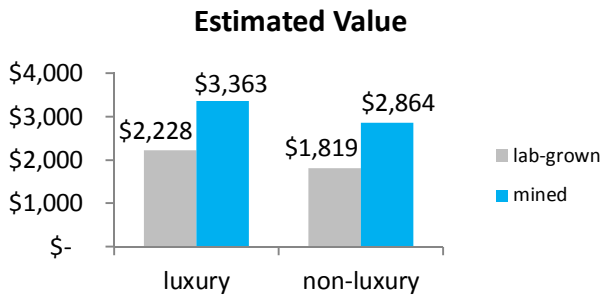

Figure 7. Estimated value of diamond per positioning.

Prestige

An ANOVA on prestige of the diamond ring ("How much do you agree that this diamond is prestigious, from 1 = disagree completely to 5 = agree completely) as a function of luxury brand and diamond type showed that diamond type was significant ($F(1, 165) = 29.46$, $p < .0001$), in support of H1a. Participants in the lab-grown (vs. mined) condition thought the ring was less prestigious ($M_{mined} = 3.85$ vs. $M_{lab\text{-}grown} = 2.93$). Neither luxury brand ($F(1, 165) = 1.79$, $p > .15$) nor the interaction ($F < 1$) was significant.

Ethical Purchaser

Participants were asked how much they agreed the wearer of this diamond ring would feel: ethical and socially responsible (1 = disagree completely to 5 = agree completely). We combined these two items as a measure of ethical purchaser ($r = .86$, $p < .0001$). An ANOVA on this measure as a function of luxury brand and diamond type showed that diamond type was significant ($F(1, 165) = 23.62$, $p < .0001$) with ethical perceptions higher for the lab-grown versus mined diamond ($M_{mined} = 3.05$ vs. $M_{lab\text{-}grown} = 3.85$), in support of H1b. Luxury brand was directionally significant ($F(1, 165) = 2.89$, $p < .10$), with the purchaser of the luxury brand seen as directionally less ethical than that of the purchaser of the non-luxury brand ($M_{luxury} = 3.31$ vs. $M_{non\text{-}luxury} = 3.59$). Qualifying these results, there was a directionally significant interaction between these two variables ($F(1, 165) = 4.39$, $p < .10$). Follow-up contrasts indicated that the lab-grown diamond increased ethical perceptions for the wearer of the luxury branded diamond ($M_{luxury/mined} = 2.74$ vs. $M_{luxury/lab\text{-}grown} = 3.88$, $p < .001$). The wearer of the non-luxury branded lab-

grown diamond was also perceived as more ethical ($M_{non\text{-}luxury/mined}$= 3.35 vs. $M_{non\text{-}luxury/lab\text{-}grown}$= 3.84, $p < .05$); however, the luxury branded lab-grown diamond received more of a boost in ethical perception in comparison. The results suggest that because a luxury brand reduces perceptions that the product is worn by an ethical consumer, the lab-grown diamond will provide more of a benefit to the luxury brand in terms of ethical perception of the wearer, in support of H4.

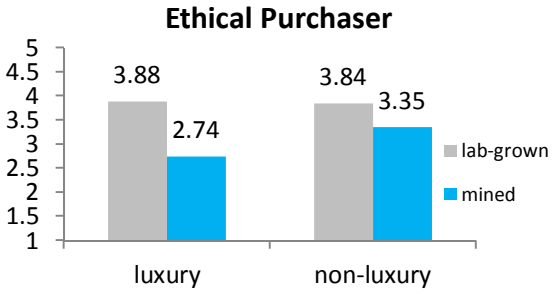

Figure 8. How ethical the purchaser of the diamond is perceived.

Discussion

The results here show that knowing that a diamond is lab-grown rather than mined generally increases perceptions that its purchaser is ethical. However, even though both luxury and non-luxury brands receive a boost in ethical perception, the luxury brand benefits more so than the non-luxury brand since it luxury brands start from a lower starting point in terms of consumer' associations of luxury brand wearers and ethicality. In study 5, we examine the effect of explicitly positioning lab-grown diamonds on an ethical basis, or on the basis of their indistinguishability from mined diamonds, to see which would be a more effective positioning strategy for consumers of luxury brands as a function of consumer motivations (i.e., differences in materialism).

Study 5: The effectiveness of alternative lab-grown diamond positioning strategies as a function of luxury branding and consumer materialism

This study was designed to evaluate the relative effectiveness of alternative positioning strategies for lab-grown diamonds. More specifically, we test the effectiveness of an "others will not know" (or indistinguishability positioning) versus an ethical positioning strategy for lab-grown diamonds, and we see which of these strategies is more effective for a luxury (versus non-luxury) brand. Moreover, we are interested here in whether the relative effectiveness of these two alternative positioning strategies holds equally for consumers scoring higher versus lower in materialism, that is, for consumers with different purchase motivations. Among high materialists, who are typically the core market segment for luxury brands, the indistinguishability positioning was expected to enhance acceptance of the luxury brand of lab-grown diamonds, whereas the ethicality positioning was expected to reduce acceptance of the luxury brand of lab-grown diamonds (i.e., backfire), in accord with H5.

Method

Sample and Design

We recruited 315 adult participants from Amazon's Mechanical Turk (M_{age} = 37, 52% female) who were paid a small cash amount to participate. Subjects were randomly assigned to one of six conditions in a 3 (positioning: ethical vs. indistinguishability vs. control) x 2 (brand: luxury vs. non-luxury) between-subjects design. The brand names used in this study were the same as those used in study 4: a luxury brand name (Tiffany & Co.) and a non-luxury brand name (Agape). We measured materialism near the end of the survey on a continuous scale using Richins (2004) materialism scale (e.g., The things

I own say a lot about how well I'm doing in life; I like to own things that impress people; α =.892).

Procedure

Participants were asked to read an advertisement about lab-grown diamonds positioned ethically, as indistinguishable from mined diamonds, or with no positioning (i.e., control; see Appendix F). For this study, brand names appeared in the diamond advertisement. Participants were asked to estimate the current retail value of a ring with a lab-grown diamond and to indicate how prestigious is a ring with a lab-grown diamond (1=not prestigious at all, 5=very prestigious).

Manipulation Check

We asked participants to indicate their agreement with the following statement: "The brand of diamonds seen at the beginning of the survey was a luxury brand" (1=disagree completely; 5=agree completely). The results of an ANOVA as a function of brand condition indicated a significant main effect of the brand seen in the advertisements ($F(1, 299)= 80.598$, $p < .000$), where participants in the luxury brand condition (Tiffany & Co.) reported that the brand was more of a luxury brand compared to those in the non-luxury brand condition ($M_{luxury}= 4.37$ vs. $M_{non\text{-}luxury}= 3.39$), as desired.

For the ethical positioning manipulation, we asked participants to indicate their agreement with the following statements that lab-grown diamonds: "do not involve mining in war zones, are earth-friendly, and are better for the earth than mined diamonds" (1=disagree completely; 5=agree completely). The responses to these statements were combined to create an overall score for the ethical measure (α =.72). The results of an

ANOVA as a function of brand condition indicated a significant main effect of the ethical positioning ($F(2, 295) = 6.118$, $p < .01$), such that participants in the ethical positioning condition reported that lab-grown diamonds are more ethical compared to those in the not know condition ($M_{ethical} = 4.57$ vs. $M_{notknow} = 4.32$, $p < .05$) and the control condition ($M_{ethical} = 4.57$ vs. $M_{control} = 4.24$, $p < .01$), as desired.

For the indistinguishability positioning manipulation, we asked participants to indicate their agreement with the following statement: "the lab-grown diamond would make it seem like I have a larger diamond without me having to tell anyone it is lab-grown" (1=disagree completely; 5=agree completely). An ANOVA on this measure as a function of positioning was conducted indicating a significant main effect ($F(2,295) = 3.559$, $p < .05$), where participants in the indistinguishability condition reported more agreement with the statement and thus more similarity between the lab-grown and mined diamonds in comparison to the control condition ($M_{notknow} = 4.21$ vs. $M_{control} = 3.83$, $p < .05$), and the ethical condition ($M_{notknow} = 4.21$ vs. $M_{ethical} = 3.88$, $p < .05$), as desired.

Results

Estimated Value

We conducted a regression on estimated value as a function of positioning (indistinguishability, ethical, control), luxury branding (yes, no), and materialism plus all possible interactions. The indistinguishability positioning was coded with a dummy variable (1,0), as was ethical positioning (1,0); the control condition served as the baseline. Luxury branding was coded with a dummy variable (1= luxury, 0 = non-luxury) as well. Materialism was measured continuously and mean-centered. The analysis

indicated no effects for indistinguishability positioning (b = 75.27, t = .459, p = .647), ethical positioning (b = 257.28, t = 1.577, p = .116), luxury branding (b = -154.39, t = -.97, p = .333), or materialism (b = 43.13, t = .326, p = .745). There were also no significant two-way interactions.

However, there was a significant three-way interaction between indistinguishability positioning, luxury branding, and materialism (b = 612.09, t = 2.316, p < .05). Specifically, the luxury brand by materialism interaction was significant in the indistinguishability positioning condition (effect = $536, t = 2.71, p < .01), but not in the ethical positioning condition (effect = $73, t = .53, p > .55). A follow-up spotlight analysis (Spiller et al., 2013) shows that among high materialists (+ 1 SD on scale), the luxury brand positioned as indistinguishable from mined diamonds increased the lab-grown diamond's estimated value by $465 (t = 2.26, p < .05) in support of H5; for low materialists (-1 SD on scale), the luxury brand positioned as indistinguishable from mined diamonds directionally reduced the lab-grown diamond's estimated value (by $426, t = -1.67, p < .10).

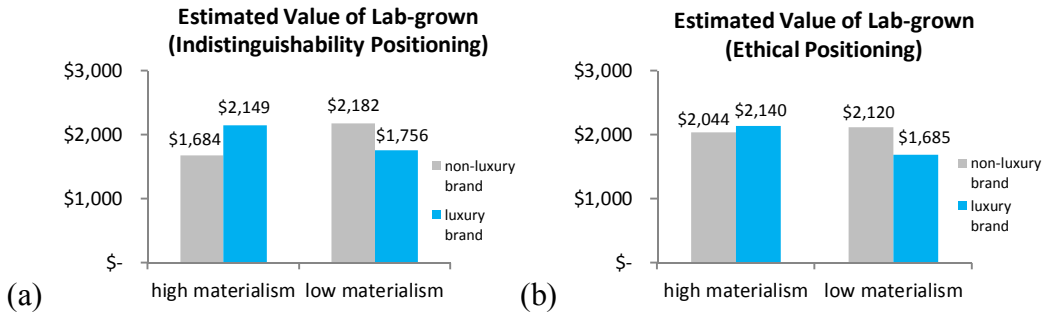

Figure 9. Estimated value of lab-grown diamond per positioning. (a) Indistinguishability positioning results. (b) Ethical positioning results.

Prestige

We conducted a similar regression on prestige as a function of positioning, luxury branding, and materialism. This analysis indicated a significant main effect for indistinguishability positioning ($b = .693$, $t = 2.088$, $p < .05$) where participants thought the diamond was more prestigious in the indistinguishable condition. In addition, there was a significant two-way interaction between the luxury branding and materialism where the diamond was perceived as more prestigious ($b = .967$, $t = 2.738$, $p < .01$) among high materialists in the luxury brand condition. Further, the results indicate a significant three-way interaction between ethical positioning, luxury branding, and materialism. For high materialists who saw the luxury branded diamond ethically positioned, the diamond was seen as *less* prestigious ($b = -1.407$, $t = -2.46$, $p < .05$), in support of H5.

Discussion

The estimated value and prestige of the lab-grown diamond were perceived to be greater among high materialists who evaluated the luxury brand with an indistinguishability positioning. This suggests that the positioning strategy of no apparent difference between the diamonds (mined vs. lab) is more effective for materialists who are evaluating lab-grown diamonds advertised by luxury brands. In contrast, high materialists saw the lab-grown diamond as *less* prestigious when it was ethically positioned by a luxury brand.

General Discussion

Our results suggest lab-grown diamonds are generally perceived by consumers to be inferior to their traditionally mined equivalents in terms of economic value and the

level of prestige they confer to the wearer. Consumers find lab-grown diamonds to be worth about 25% less than traditional diamonds. This lowered valuation, moreover, seems to be related to lower perceived prestige. On the other hand, consumers perceive those who buy lab-grown diamonds to be more ethical purchasers. Both explicit positioning strategies – ethicality and others will not know – boost the perception of the lab-grown diamonds. Our studies further show that although luxury brands are not generally associated with sustainability, a lab-grown diamond boosts the ethical perceptions of luxury brands. However, explicitly positioning lab-grown diamonds on an ethical basis can backfire, as it reduces acceptance among luxury marketers' core audience: consumers who are highly materialistic. We find an "others will not know" positioning strategy is more effective than an ethical positioning strategy for lab-grown diamonds of a luxury brand among consumers scoring high in materialism.

With these results, we provide several contributions to the literature. First, to our knowledge, this research is one of the few that examines the acceptance of sustainable, ethical luxury products. Few studies investigate the acceptance of ethical luxury (Davies, Lee, & Ahonkhai, 2012; Achabou & Dekhili, 2013), as most focus on commodities. Our studies suggest that synthetic luxury products, such as lab-grown diamonds, are initially perceived to be less economically valuable and less prestigious in comparison to their authentic counterparts (i.e. mined diamonds). However, lab-grown diamonds are considered to be more ethical (i.e. earth-friendly and conflict-free) than mined diamonds. Therefore, there are at least two ways to increase the acceptance of lab-grown diamonds: either by increasing their prestige and value or by highlighting their ethicality. Second, wearers of luxury branded lab-grown diamonds may be perceived to be more ethical.

Since wearers of luxury brands are generally not associated with environmental concerns, a lab-grown diamond from a luxury brand acts as a signal from the brand that boosts the wearer's ethicality more so than from a non-luxury brand (usually associated more with sustainability).

Finally, we contribute to the materialism and luxury literatures by focusing on alternative positioning strategies for *really new* synthetic products such as lab-grown diamonds. Our research is also one of the first to take into consideration various consumer motivations, based on the importance material possessions play in a consumer's life, on the acceptance of sustainable luxury products. By positioning a lab-grown luxury product as being indistinguishable from a traditional version, thereby making its prestige and conspicuousness traits salient, marketers of such products can appeal to materialists who value the product more in comparison to an ethical persuasion tactic. On the other hand, consumers scoring low in materialism may be attracted to the product when its ethicality is emphasized. This consumer segment is motivated more by environmental (earth-friendliness) and societal concerns (ethical treatment of workforce) and thus the ethicality of the lab-grown diamond makes the product more attractive. To our knowledge, the results of these studies are one of the first to shed light on the role materialism plays on the evaluation of luxury products that are sustainable and ethical.

The implications for luxury marketers are clear – if luxury brands intend to launch products such as lab-grown diamonds, emphasizing their ethical qualities may backfire. Claiming that the lab-grown diamond is ethical and sustainable may not necessarily be positive for their core consumer segments. Instead, such brands should focus on how such products are visibly indistinguishable from the "real thing"; in this way lab-grown

diamonds will confer on high materialists the prestige benefits they seek from a luxury brand. We imagine the same would be true for luxury brands interested in launching other new products such as lab-grown meat, lab-grown leather, etc. On the other hand, if luxury retailers wanted to attract consumers motivated by their concern for the environment and conflict-free production, the ethicality of lab-grown diamonds should be emphasized.

As with any controlled experiment, there are limitations to our findings. First, our research only examines the effects on one synthetic luxury product – lab-grown diamonds. Other synthetic luxury products should also be studied to add to the generalizability of the results. It would be interesting to discover whether certain types of luxury brands can successfully utilize an ethical positioning strategy for these types of lab-grown products. In the current research we tested only one very well-known brand name (Tiffany & Co.). But there may be luxury brands more closely associated with ethical motivations that could support an ethical positioning strategy for these types of products. Alternatively, there may be certain segments of the luxury buying population who would be compelled by an ethical positioning strategy – especially if promoted by celebrities (e.g., celebrities who drive electric vehicles).

Future research could explore consumers' environmental beliefs or levels of environmental concern instead of materialism. It would be interesting to note whether more environmentally concerned individuals would be attracted to the indistinguishability appeal or just the ethical positioning. Another fruitful avenue for research may also be to investigate what contributes to the lab-grown diamond's negativity (e.g., inauthenticity, cost, etc.) and explore alternative positioning strategies

that may counter some of these lay theories. The stimuli could also focus more broadly on other pieces of jewelry, for different occasions, such as bracelets, right-hand rings, or necklaces with lab-grown diamonds. This may also offer additional insight into other consumer target markets (e.g., men). A field study may increase the validity of the results as well. By teaming up with a jewelry retailer, studies could be conducted with actual diamond rings positioned as either mined or lab-grown and actual purchase behavior could provide a more robust dependent variable.

Finally, following a recent trend in the marketplace is the idea of green as premium. Until recently, consumers believed they had to make a trade-off when purchasing green products as environmentally friendly items were viewed as less effective, and thus inferior, in comparison to their traditional counterparts. Nowadays, consumers choose green products as a way to signal their eco-friendly status to others (Griskevicius, Tybur, &Van den Bergh, 2010). Not only do lab-grown diamonds offer a perfect opportunity for consumers to flaunt their conspicuous conservation status, but because the diamonds typically cost less than mined diamonds, it provides an interesting forum to explore this behavior. In this research, by utilizing the lab-grown diamond, the confound is removed (i.e. the diamond is either low cost/high status or low cost/ethical) which makes our findings an interesting contribution to the environmentalism literature. Additionally, other lab-grown products could be explored (e.g., lab-grown meat; Ferdman, 2015). We hope that this research provides a fruitful avenue for future endeavors in this increasingly important topic of sustainability and consumption behavior.

We found in Essay 1 that more materialistic consumers, who suffer from lower levels of self-esteem and higher levels of insecurity, tended to view the lab-grown diamonds more favorably when they were positioned as essentially providing the same status benefits as mined diamonds (i.e., indistinguishability positioning). In the next essay we continue to explore the impacts of consumer insecurity from a different perspective - one that emanates from concerns about one's economic standing and prospects. Essay 2 explores how economically insecure consumers are more likely to "see" gender cues in products and whether or not they prefer more highly gendered products versus more gender neutral products.

CHAPTER 3

ESSAY 2: THE IMPACT OF ECONOMIC INSECURITY ON THE EVALUATION OF BRAND GENDERED PRODUCTS

Although consumer confidence in the U.S. economy and one's own personal finances is not as low as it was in the recession period of 2008-2012, consumers still remain wary of the future growth of the American economy and overall job stability. A recent American poll indicated that 39% of consumers are worried about losing their jobs and 40% are living paycheck to paycheck (Martinez, Motiwala , & Sher, 2014). These percentages indicate that a feeling of economic insecurity still permeates in the minds of U.S. consumers with no real end in sight.

As more consumers struggle financially, their consumption patterns may change as well as their preference for particular brands and products. For instance, consumers with higher levels of economic insecurity may be attracted to brands that provide them with a sense of stability to offset their disadvantaged financial situation. In this research, we examine how positioning brands on the basis of gender (male versus female) impacts consumer evaluation and choice as a function of consumers' economic insecurity (i.e. how insecure they feel about their own financial situation and the economy's stability).

Research suggests that consumers in lower socioeconomic statuses tend to visually focus on human objects versus inanimate objects in comparison to consumers in higher socioeconomic statuses (Dietze & Knowles, 2016). Just as lower socioeconomic status (SES) consumers notice humans more, this research proposes that low SES consumers detect the gendered characteristics of a product more. This stronger gender

identification may lead to greater evaluation of the product and behavioral responses. We therefore propose that gender branded products will receive more attention from and be more appealing to low SES consumers who may possess higher levels of economic insecurity. We explore possible mechanisms that may explain this phenomenon such as one's perception of others as a threat or as a resource to achieve one's goal.

In the consumer research literature, little empirical evidence exists for how economic insecurity impacts consumption. Macroeconomic events such as the impact of the economy's state have been explored. However, there is a paucity of research that focuses on perceived economic insecurity at the household level as it pertains to consumer behavior. Therefore, one of the goals of this paper is to expand our knowledge on this subject and explore how high and low economic insecurity impacts consumers' evaluation of brands.

It is well established that consumers use products to express themselves or who they desire to be (Belk, 1988; Holt, 1995). Consumers from lower socioeconomic statuses, who may suffer from more economic insecurity, therefore have a need to consume or display products that may alleviate their status position and boost their social perception. Indeed, Mazzocco et al. (2012), argue that low-status groups desire high status products in order to overcome feelings of inadequacy. They contend that status objects provide a way to psychologically restore their standing in society. Thus, differences exist in the way consumers evaluate, view, and use products depending on their socioeconomic status. We examine how different brand personalities interact with various states of economic insecurity and socioeconomic statuses. More specifically, we

focus on the novel concept of brand gender personality traits by positioning products on the basis of gender characteristics.

Gender remains a significant topic in today's society. Despite the numerous advancements of women over the past several decades, there still remain important issues under debate such as the gender wage gap, an example of gender inequality. On a more positive note, the notion of brand gender has received more attention from companies in an effort to communicate their brands' stories and connect with consumers on more of an emotional level (Elejalde-Ruiz, 2015). As men are doing a greater share of the grocery shopping and meal preparation, food makers are trying to win them over by changing their packaging to signal more masculine characteristics (e.g., larger portions, darker color schemes, black labels, subtle changes in positioning; Chaker, 2013). Thus, gender is an interesting topic to both marketers and consumers.

This research aims to fill the gap in the literature by examining the effects of positioning brands as either masculine or feminine as a function of consumers' economic insecurity. To our knowledge, this is some of the first research to investigate evaluation of brand packaging in relation to consumer economic insecurity. First, we explore whether socioeconomic status (SES) can be used as a proxy for economic insecurity. Next, we examine the effects of economic insecurity. Consumers with higher levels of economic insecurity, as well as consumers with lower SES, are posited to give more attention to and thus notice the gendered characteristics of a product more in comparison to their more secure and higher SES counterparts. We also propose that consumers in a low socioeconomic status may prefer brands positioned as either masculine or feminine because they pay more attention to them. In contrast, consumers in higher socioeconomic

status classes (thus with a higher sense of economic security) will not have a stronger preference for the gendered products. We add to the extant literature on brand personalities by investigating the impact consumer economic insecurity has on brand packaging evaluation and brand preference.

In the next section, we describe relevant literature and develop a theoretical model for the hypotheses, followed by a more detailed discussion of the studies. We conclude with a discussion of expected contributions and implications of this research.

Theoretical Development

Power

Initially, we had expected that the mediating factor of the relationship between economically insecure consumers and gendered products was driven by the motivation to achieve power and a sense of control. Although empirically we could not find evidence to support such claims, we continue to believe that power and control are relevant constructs and discuss them below. We then turn our focus to the visual attention consumers give to brand gendered products as a function of their perceived economic insecurity.

Power is an important concept that impacts our lives on a daily basis. At one moment in time, we may feel like we are powerful and in control; however, one minor occurrence throughout the course of the day may impact that perception and leave us feeling powerless. Because this sense of power can change frequently, it is important to understand how the perception of power influences our behaviors and decisions. Despite its relevance, research on the role power plays in consumer behavior is limited. The majority of the marketing literature deals with power through issues of channel

negotiation and business relationships (e.g., Hunt & Nevin, 1974). Of the few studies in consumer behavior, power has been thought to greatly impact purchasing propensities. For example, low power has been shown to increase consumers' willingness to pay for products that are status related (Rucker & Galinsky, 2008).

Though not easily defined, power, in the broadest sense of the term, is generally viewed as one's capability to control or influence the behavior of another. Fiske and Berdahl (2007) describe it as "control over valued resources." The concept is well researched in many disciplines including social psychology, sociology, and economics. In the social psychology literature, French and Raven's (1959) seminal work explored different sources of power. The authors contend that power can stem from several different sources such as coercion, expertise, referent, reward or legitimacy. Sociologist Richard Emerson (1962) brought to light the relationship between power and dependence, claiming that one's dependence or reliance in terms of availability and motivation on another to accomplish specific goals is what constitutes power over another. More recently, sociologists have explored power through race inequality (Hughey, 2011). On the other hand, economists examine power through several lenses such as power in an organization (e.g., Krackhardt, 1990) as well as how government regulation impacts market power (e.g., Tirole, 2015).

Power and Consumption

In the marketing literature, power is often explored through business relationships and negotiation. For example, Hunt and Nevin (1974) investigate how coercive and noncoercive sources of power in a franchisor-franchisee channel of distribution impact the level of satisfaction with the relationship. The authors measure power by "the ability

of the franchisor, as perceived by the franchisee, to control the decision variables of the franchisee." They find that franchisees are more satisfied when franchisors rely on more noncoercive sources of power in comparison to coercive strategies that may involve potential punishment. In addition, Lusch (1976) investigated intrachannel conflict and sources of power suggesting that coercive sources increase channel conflict while noncoercive sources reduce it.

The consumer behavior literature has seen a surge in research regarding the impact consumers' sense of power has on purchase behavior and consumption (e.g., Rucker & Galinsky, 2009; Jiang, Zhan, & Rucker, 2014; Madzharov, Block, & Morrin, 2015). Power plays an important role in shaping consumers' attitudes towards products, purchase, and evaluation. Rucker and Galinsky's (2008) seminal work contends that a high need for power increases willingness to pay for status related items as a way to compensate for the feeling of low power. Therefore, status seeking consumers will desire more conspicuous items especially products that signal their wealth or place in society. Often this leads to the purchase of luxury items. Consumers are able to restore or gain power by consumption of these products. Therefore, status is one source of power. Charles, Hurst, and Roussanov (2007) find that consumers use conspicuous consumption to compensate for their low socioeconomic status. These consumers purchase more visibly conspicuous products such as jewelry, clothing, and cars. Furthermore, powerful individuals are more focused on themselves (i.e. their own desires and goals) and thus focus more on the utility of a product as opposed to its social appeal (Rucker & Galinsky, 2009). In contrast, low power individuals focus more on the status component of the product.

Consumers may engage in different activities involving consumption in order to restore their sense of power. For instance, Fiske and Berdahl (2007) show that social status may be one way to enhance power and that others may view those with status as having power. Furthermore, product consumption has been suggested as a way to signal one's status (Belk, 1982), especially high-status items that demonstrate one's status to others. Luxury products, for example, can serve as a way to signal one's wealth and status. Hence, when consumers feel powerless, they may feel the need for more status-related or luxury products as a way to restore power.

Furthermore, Jin et al. (2014) found that low-power consumers perceive stronger price unfairness when they paid more than they paid in *previous transactions*, whereas high-power consumers perceived stronger price unfairness when they paid more than *others.* In another example, Jiang et al. (2014) suggest that consumers in a more powerful state have an increased likelihood of switching brands. Therefore, these varying degrees of power seem to influence outcomes differently in regards to consumption especially if power states fluctuate or depend on the situation.

Research also suggests that a brand's identity can impact consumer performance (Brasel & Gips, 2011). In a simulated performance task, participants driving a car with Red Bull's logo (a brand associated with speed, power and carelessness) experienced a U-shaped effect on race performance. The authors attribute the brand's identity to the participants' outcomes suggesting that it worked both for and against their performance results.

Power and Status

Both power and status have been linked with many positive outcomes and are thought to be highly desirable by most people. Although power and status are similar in many ways such as the universal roles they play in social hierarchy (Magee & Galinsky, 2008), the constructs are empirically and theoretically different. For instance, status exists only to the extent to which others are willing to confer it (Bladen & Chen, 2014). Other's perceptions of one's competence are how status is gained or lost (Anderson, Brion, Moore, & Kennedy, 2012). Conversely, power is determined by the amount and value of the resources one controls (Magee & Galinsky, 2008). This constitutes a major difference in the constructs in that "although power may be conferred upon an individual by a superior, power does not need to be voluntarily conferred by all members of a collective as does status" (Hays & Bendersky, 2015). Therefore, the power individuals have and exert is determined by the resources they control. Behavioral differences exist as well. Blader and Chen (2012) suggest that high status makes people fairer in negotiations, whereas high power does not. The authors contend that status makes people more focused outwardly on each other and power makes people more focused on themselves and their independence.

Belmi and Laurin (2016) contend that one's social class may inhibit one's desire to seek advancement because low status individuals may find the necessary political behavior, such as "using connections, flattering supervisors and shamelessly promoting one's accomplishments," objectionable. Therefore, low status individuals are more unwilling to do the things they believe will help them get to a position of power. Positions of power at work may lead to such outcomes as increased status (Keltner, Gruenfeld, & Anderson, 2003). Power—asymmetric control over socially valued

resources—and status—the relative level of respect and admiration one is conferred by others (Magee & Galinsky, 2008).

Recent work from Hays and Bendersky (2015) explores the differences in status hierarchies and power hierarchies. The authors find that group members exhibit more competitive behaviors in status hierarchies as the attempt to increase their position because status hierarchies are considered to have more upward mobility and are perceived as more mutable in contrast to power hierarchies. They contend that group members may be able to better manage the perceptions of others rather than try to gain additional resources from those in power because status exists as a perception of an individual's ability to contribute to a group whereas power is a result of asymmetric control of valuable resources (Magee & Galinsky, 2008).

Bellezza and colleagues (2013) find that nonconforming behavior, such as when an individual chooses to dress down to enter a luxury boutique, makes observers perceive that individual to be of higher status and competence. These visible signs act as a way to display behavior similar to conspicuous consumption as compared to conforming behavior. Gao et al. (2016) examine the role power distance belief – consumer's acceptance of the power disparity in a social relationship – has on status consumption. They find that because high PDB consumers have a high need for status, they consume more status items when they are around others with similar or lower status.

Gruenfeld et al. (2008) found that power increases objectification, leading people to relate to social targets as though they were objects, based on the utility of their goal-relevant attributes. In the power literature, the approach/inhibition theory of power

(Keltner et al., 2003) provides reason as to the level of information processed by individuals in various states of power. According to the theory, high powered individuals have more resources and less social constraint. Therefore, they process information more automatically, at a superficial level, and have more action-oriented behavior. On the other hand, low-powered individuals have fewer resources and encounter greater social constraints and thus need to process information at a deeper level and are less action-oriented. Indeed, building on this theory, van Kleef et al. (2008) found that higher powered individuals do not recognize the emotions of others and thus exhibit lower propensity to respond emotionally to others' suffering in comparison to low powered individuals.

Given the powerlessness-induced compensatory model that low power seek to acquire and display status to others in order to compensate for their powerlessness (Rucker & Galinsky, 2008), power is suggested as the mechanism that drives the relationship between consumers and certain products. Indeed, Dubois et al. (2012) argue that low power results in consumers choosing larger sized food options. When status was important to the consumer, low powered consumers choose larger sized food options in order to display their social status. The notion of giving consumers low in power an object that either elevates their status or empowers them will satiate their need for power and give them a sense of power. Rucker and Galinsky (2008) show that consumers compensate for lack of power by the desire to acquire products associated with status. They argue that powerlessness is an aversive state in which the consumer wishes to overcome, and because status is a source of power, consumers' willing to pay increases for status related items.

Power and Control

Control is another psychological concept closely related to power. Personal control can be defined as having the ability to choose one's preferred outcomes (Averill, 1973) or by having power over others (Inesi et al., 2011). Control, in itself, comprises part of power's definition – a powerholder *controls* another's outcomes or resources (Fiske & Berdahl, 2007). The control can vary in its formality, formal (e.g., supervisor) to informal (e.g., status or social role), stability, not easily removed to unstable (e.g., elected position) and legitimacy, based on merit (legitimate) versus based on luck (illegitimate). Hence, power and control are closely related although they exist as separate and distinguishable constructs. Indeed research on control motivation contends that the powerful are more motivated to maintain control while the powerless are more motivated to restore control (Fiske & Depret, 1996).

An absence of perceived control can lead to a slew of negative outcomes such as depression and pessimism (Peterson & Seligman, 1984; Price, Choi, & Vinokur, 2002) while a perceived sense of control can lead to more positive outcomes such as self-esteem and optimism (Skinner, 1995). Individuals from high socioeconomic status are more likely to believe they can control the future (Lachman & Weaver, 1998). Furthermore, people from cultures that value power and individual agency are more likely to feel in control as well (Markus & Kitayama, 1991). Fast and colleagues (2009) suggest that social power may increase one's sense of control and lead to more actions typically associated with powerful individuals. They contend that "power holders experience control over the people and outcomes that are connected to their power" because power stems from unbalanced control over resources. The authors find that power resulted in

perceived "illusionary" control because the outcomes were both uncontrollable and unrelated to the power. The results suggest that this illusionary sense of control mediates the relationship with power explaining the many effects of feeling powerful can have on one's actions and beliefs. Furthermore, Inesi et al. (2011) suggest that power and choice are substitutes and that increasing one decreases the desire for the other. They contend that both satisfy a need for personal control. A related concept, that of economic insecurity, is discussed next.

Economic Insecurity

Despite its relevancy, there is a lack of research in the consumer behavior arena regarding the impact economic insecurity has on consumption. Traditionally, the focus has been on more macroeconomic events such as the overall impact of the economy's state. For example, Millet, Lamey and Van Den Bergh (2012) found that during economic contractions, people buy products that suggest they are more risk averse in situations involving the potential for financial losses (i.e., want to avoid risk of financial losses), with purchasing of health insurance and home insurance increasing during such periods. Products such as gambling and lotteries, which are associated with the potential for economic gains, are purchased less. Furthermore, consumers have been known to adapt their behavior in response to the economy's state. For instance, during economic downturns, consumers switch to lower-priced private labels from big named brands (Lamey et al., 2007), and postpone expensive durable purchases (Deleersnyder et al., 2004).

Economic contractions can pose a threat to people's economic security. A group of researchers developed the Economic Security Index (ESI) to track the prevalence of large economic losses in households (i.e., losses of 25% or more of available household income), by year and by state (Hacker et al. 2012). Households in Mississippi, Arkansas and Alabama were found to be most likely to have experienced economic losses from 1986 to 2010, whereas households in New Hampshire, Wisconsin and Connecticut were least likely. Research also shows that income stability declined in the U.S. from the 1970s to the 2000s (Western et al. 2012; Gittleman & Joyce, 1999; Dynan, Elmendorf, & Sichel, 2007).

In this paper, we focus on the construct of perceived economic insecurity which refers to the extent to which an individual perceives that he or she is at risk of experiencing a significant loss of income. Thus, unpredictable income loss lies at the heart of economic insecurity (Western et al., 2012). Whereas stratification research is concerned with individual workers, the unit of analysis for economic insecurity research is the household (Western et al., 2012). This is because economic insecurity, which focuses on changes in financial strength, recognizes that other household members can help to mitigate the economic impact of adverse events such as job loss or serious illness, major threats to economic security (Western et al., 2012). Another reason for focusing on the household as the unit of analysis rather than a single breadwinner is because household structures have changed significantly over time and reflect variation such as dual income households, etc. (Western et al., 2012).

The concept of economic insecurity has been studied more often outside the field of consumer behavior. For example, economic insecurity has been linked to

psychological distress and illness (Catalano, 1991). More recently, Chou et al. (2016) showed that people experiencing economic insecurity felt greater physical pain. The authors contend that the greater physical pain is induced by feelings of lack of control and more specifically a reduced sense of personal control. Economic insecurity has also been linked to low political trust in that more economically insecure individuals are less trusting of political figures (Wroe, 2016). Thus, one's sense of economic insecurity impacts judgement, physical wellness and sense of physical pain. Few studies, however, examine the effect of economic insecurity in regards to consumer behavior.

Link between Socioeconomic Status and Economic Insecurity

Over many decades, research has shown that socioeconomic status (SES) impacts various outcomes such as perception and judgment. In their classic study, Bruner and Goodman (1947) showed that objects that are socially valued are perceived larger than they are in real life. In this research, children asked to draw coins from memory drew them larger than they were, especially for higher value coins (e.g., quarters versus pennies). This tendency was found to be more pronounced for *poorer* versus wealthier children, but only when the estimates were based on memory, not when based on actual visual input (i.e., when seeing the coins; Bruner & Goodman, 1947; Carter & Schooler, 1949; Firestone & Scholl, 2013).

In the consumer behavior literature, social class has proven to be an important determinant in product evaluation and consumption behavior. The use of social stratification entered the marketing literature with the introduction of Warner's (1941) six social classes. They offered a new way to understand different consumption goals and behaviors among the groups (Coleman, 1983). For example, Munson and Spivey (1981)

found that perceptions of brands differed across social class for three product categories – automobiles, gasolines, and magazines. Results showed significant differences in user stereotypes for value-expressive products across social classes. The authors argue that at least two of the categories, automobiles and magazines, are more conspicuous and thus have the ability to communicate symbolically to others. Research in this area has also focused on whether patterns of consumption dictate social class (Holt, 1998). Thus, socioeconomic status remains an important variable in understanding consumer purchase and consumption patterns even in today's marketplace.

Research suggests a relationship between perceived economic insecurity and socioeconomic status. Although economic insecurity can be found across all levels of socioeconomic status, theorists suggest that higher levels of economic insecurity may exist among households at the lower end of the income distribution (Western et al., 2012). The authors attribute this to higher risks of income volatility, family instability, and workplace risks that generally accompany lower income families. Therefore, higher levels of economic insecurity seem to be concentrated among lower income households.

In our work, we measure and consider both consumer socioeconomic status and perceived economic insecurity to examine whether one provides a better prediction for brand gendered preferences. We further explore the correlation between these two measurements across several of our studies.

Gender

The psychology literature provides an abundant amount of foundational research on gender. The concept of gender can be defined in sociological terms as the social

construction and learning of sex-appropriate behavior (Oakley, 1972). Whereas sex describes one's biological identification as either a man (male) or woman (female), gender is associated with one's social identification as either male or female. Gender continues to be a widely debated topic in the literature as it pertains to its definition, measurement, and existence (Luyt, 2015). Researchers argue that there are some traits more commonly associated with men or women but that gender may not exist as an identity (MacInnes, 1998). Despite its controversial nature, gender has been evaluated in many ways including the commonly used assessment of gender roles (Bem's Sex-Role Inventory; Bem, 1974), gender stereotypes (Beliefs About Women Scale; Belk & Snell, 1986), and attitudes toward gender roles (Ambivalence toward Men Inventory; Glick & Fiske, 1999).

Traditionally, gender role theory has played a major part in gender research. Gender role theory can be described as a list of attributes considered to be appropriate for one sex in comparison to the other (Constantinople, 1979). A gender role identity is therefore developed after the individual associates with these attributes (Garnets & Pleck, 1979). Gender identity is a multifaceted construct that includes ones "individual knowledge of membership in a gender category, felt compatibility with his or her gender group, felt pressure for gender conformity, and attitudes toward gender group" (Egan & Perry, 2001). Originally it was believed that biological sex determined which gender identity is appropriate and functional until a shift in thinking began to critique this common belief (Pleck, 1981). In the gender literature, there has been a movement away from the gender role identity view, one that measures gender more as a trait, to a gender beliefs paradigm, one that measures gender more as an attitude (Luyt, 2015). Bem's

gender schema theory argues that gender identity can be used as a predictor for other gender-related concepts because individuals develop and exhibit traits, attitudes, and behaviors consistent with their gender identity (Bem, 1981a).

Differences in Sex

It seems logical to compare differences between males and females across many different aspects of life especially in the social sciences domain. Maccoby and Jacklin's (1974) work was some of the first to report differences between males and females in terms of cognitive domains– verbal ability, mathematical ability, and visual-spatial ability. They also concluded that from a social behavior standpoint, women tended to be less aggressive than men. However, the results of this research have been disputed and some suggest that the differences have diminished over time (Rosenthal & Rubin, 1982).

In consumer behavior literature, Meyers-Levy (1988) looked at differences in visual-spatial abilities as they relate to product categorization and Meyers-Levy and Sternthal (1991) looked as verbal abilities as they relate to elaboration of message cues. Still, other researchers contend that differences exist between male and female shopping behavior finding that men and women shop differently for the same products (Zeithaml, 1985). Product attributes have also been explored in regards to differences between men and women. Women and men appear to market themselves based on different personal attributes (Hirschman, 1987).

Masculinity and Femininity

Despite the popularity of their use, the concepts of masculinity and femininity are not clear-cut and remain unclear both theoretically and empirically. Beginning in the 1920s and extending to the 1970s, masculinity and femininity were considered and often measured as separate ends of a continued spectrum (Bem, 1981b). Individuals could be assigned a place on this spectrum and were considered either masculine or feminine. However, researchers struggled with this measurement and this bi-polar approach was met with much criticism (Constantinople, 1973). Thus, a new way of thinking was inspired regarding how to quantify such femininity and masculinity. The novel concept of "androgyny" was introduced focusing on the fact that healthy men and women could possess similar characteristics. Males and females can identify with their own traits as well as each other's traits and thus one can be labeled androgynous, or possessing both male and female characteristics (Bem, 1974). Bem's Sex-Role Identity (BSRI) scale was one of the first to introduce masculinity and femininity as two separate scales. The BSRI has become one of the most frequently used scales in the measurement of masculinity and femininity in research. Spence and Helmreich (1978) contend that characteristics associated with traits of femininity and masculinity define the essential psychological attributes that distinguish males from females.

Constantinople's (1973) generalized definition of the terms are that "they are relatively enduring traits which are more or less rooted in anatomy, physiology, and early experience, and which generally serve to distinguish males from females in appearance, attitudes, and behavior." Researchers also disagree on the dimensionality of masculinity and femininity, arguing whether they should be measured as the points of a

unidimensional bipolar scale (e.g., Freimuth & Hornstein, 1982) or two independent scales. Still others believe that people possess both masculine and feminine personality characteristics to varying degrees (Bem, 1974; Constantinople, 1973).

Despite the lack of consensus on the concepts, most psychology researchers agree that there are particular personality traits associated with masculinity and femininity respectively. For instance, Bem (1974), as part of her Bem Sex-Identity Role scale, argues that masculine traits can be described as aggressive, assertive, competitive, dominant, and self-reliant. Meanwhile, feminine trait items can be described as affectionate, compassionate, gentle, shy, and understanding. Furthermore, the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1974) suggests masculine traits of dominance and self-assertion and feminine traits of nurturance and interpersonal warmth.

Gender in Consumer Behavior

In the consumer behavior literature, Golden et al. (1979) were some of the first to investigate the influence of sex role self-concept on the masculine and feminine perception of products. The authors find that the sexual image associated with a product remains bi-polar – either a strong masculine or feminine identity or an equally weak one. Furthermore, the gender of the product seems to be related to which sex most often uses the product. A review of more than thirty studies in the consumer research literature conducted between 1963-2001 indicates that gender identity is associated with several marketing outcomes (e.g., shopping behavior) when it is carefully conceptualized (Palan, 2001). However, sex identity oftentimes played a more significant role. The author posits that gender identity is a multifactorial construct and thus for it to be useful in research,

the multiple facets of gender identity (e.g., roles, traits, attitudes) should be measured simultaneously.

In other evidence, Fischer and Arnold (1994) found that both gender identity and gender role attitudes explained differences in Christmas shopping involvement. Respondents with stronger feminine identities had greater psychological identification with the shopping task when it came to involvement and enjoyment. Furthermore, Moisio et al. (2013) looked at the effect do-it-yourself (DIY) home improvement projects have on men's identity and their perception of domestic masculinity (i.e. in the home) as a function of their social class. The authors contend that upper class consumers view DIY projects as a welcome alternative to their corporate routines that lack "corporeal tasks, challenges, and measurable outcomes." It is a response to their occupations that focus more on mastery and abstract thinking. In contrast, lower class consumers view DIY projects as a way to provide for their families and overcome their "subordinated positions in the workplace."

Gender Stereotypes

Another topic prevalent in the gender literature is that of gender stereotypes. Early investigations indicated sets of personality traits associated with men and women. Warmth and expressiveness were more closely linked to women, whereas competence and rationality were more characteristic of men (Broverman, Vogel, D. Broverman, Clarkson, & Rosenkrantz, 1972; Rosenkrantz, Vogel, Bee, I. Broverman, & D. Broverman, 1968). Deaux and Lewis (1983) later posited that gender stereotypes are multifaceted containing components such as traits, role behaviors, occupations and physical appearance that pertain to either men or women.

Haines and colleagues (2016) attempted to measure whether stereotypes of men and women remain the same as they did decades ago despite women's increased participation in athletics, the work force, and profession education. The authors find that the stereotypes for both men and women - including traits, social roles, occupation and physical characteristics - are still as strong today as they were in the original study conducted roughly thirty years prior.

Cultural influences on gendered perceptions are widespread. For example, people associate healthier, low calorie and diet foods with women more than with men (Counihan, 1999; Millman, 1980). Indeed, Zhu, Brescoll, Newman and Uhlmann (2015) found that activating gender-based stereotypes influenced food preferences. When the authors packaged a blueberry muffin in a box with pictures of football players (masculine prime) rather than in a box with ballerinas (feminine prime) or a field (neutral prime), they found that the muffin was preferred more in the masculine packaging if labeled "Mega Muffin" (i.e., unhealthy) or in the feminine packaging if labeled "Health Muffin" (i.e., healthy) compared to other conditions. Aspara and Van Den Bergh (2014) found that consumers with greater index finger to ring finger digit ratios, which are an indicator of exposure to prenatal testosterone, prefer more masculine versus more feminine products. Specifically, they found that males with smaller digit ratios (i.e., higher testosterone in utero) were more likely to choose regular Coke (masculine) from a vending machine over Diet Coke (feminine) or Coke Zero (neutral).

Gender and Color

Color, as it pertains to gender, has been a topic widely explored in the consumer literature. Danger (1969) created a color association list that suggests blue is associated with masculinity and pink with femininity. Indeed, research supports these claims that darker and colder colors (e.g., gray, brown, black, green, and blue) are associated with masculinity, whereas lighter and warmer colors (e.g., red, yellow, orange, purple, light blue, and light red) are associated with femininity, with white a gender neutral color (Aspara & Van Den Bergh, 2014). The authors find that in addition to consumers with greater index finger to ring finger digit ratios (an indicator of exposure to prenatal testosterone) preferring more masculine products, they are also more likely to wear shirts with more masculine colors (i.e. gray, brown, black, green, blue versus red, yellow, orange, purple, light blue, light red). In addition, Puntoni, Sweldens, and Tavassoli (2011) found that the color pink is an activator of female gender identity. Some colors, therefore, are more strongly associated with masculinity and femininity giving them the ability to invoke different gender identities.

Despite its controversial nature, gender has a strong potential to be meaningful in the field of consumer behavior. Few studies have examined a brand's gender as it relates to consumer economic insecurity, however. We hope to contribute to this gap in the literature with this work. Next, we explore the brand gender literature to further develop our hypotheses.

Brand Personality

Consumers rely on the use of brands in consumption for a myriad of reasons. Brands provide a symbolic device or a signal of quality, therefore reducing the risk and

search cost for consumers (Keller, 2007). Much of the brand literature has focused on how consumers' knowledge of brands impacts preference (see Keller 2003 for a review) as well as how brands bias consumer evaluation of products (Allison & Uhl, 1964; Hoch & Ha, 1986; Hoyer & Brown, 1990). A growing stream of research has also focused on the personality of the brand, or the set of human characteristics associated with the brand, as a way to connect with consumers. Aaker's seminal work (1997) offered consumer researchers a theoretical framework for measuring brand personality dimensions. Aaker contends that there are five dimensions of brand personality – sincerity, competence, excitement, ruggedness, and sophistication. Since the introduction of her model, brand personalities have been shown to spill over into consumer impression formation (Fennis & Pruyn, 2007), "rub off" on consumers (Park & John, 2010), and have been used to describe the development of brand relationships with consumers (Fournier, 1998; Fournier & Alvarez, 2012).

Brand Gender

Despite the ability to measure the five major dimensions of brand personality, Aaker's scale did not capture the dimension of gender. Grohmann (2009) argued that because these traits were readily accessible by consumers (i.e. consumers were able to describe a brand as being either male or female) and no scale in the consumer behavior literature included them, a new scale should be developed. To fill this void, Grohmann (2009) introduced the masculine brand personality (MBP) and feminine brand personality (FBP) scale to the brand personality literature. Consequently, there has been recent interest in extending brand personality research to include gender as a dimension. For example, Lieven et al. (2011) suggest that a prominent brand gender leads to higher brand

equity. The authors also find evidence that dimensions of brand logos (e.g., edged versus curved) can dictate the perception of brand gender. Indeed, bold and more angular logo shapes increase perceptions of brand masculinity.

Hirschman (2014) has identified several brands that exemplify the meaning of masculinity, but has also found evidence that brands can be successfully repositioned from one gender to the other. Indeed, one effective way of altering the gender image of a product is to vary the spokesperson (Iyer & Debevec, 1989). There has also been a considerable amount of work in the area of sex role identity, a reflection of a consumers' perception of their own masculinity or femininity, and the gender of a product (Gentry, Doering, & O'Brien, 1978; Sirgy, 1982). For example, Grohmann (2009) finds support that the congruence between the brand's personality and one's self concept enhances consumer responses to the brand in the form of increased trust, purchase intent, and loyalty. Therefore, the gender of the brand can have a significant impact on consumer behavior when it comes to perception, evaluation, and even purchase.

From an individual perspective, however, what types of consumers prefer more masculine or more feminine branded products? We evaluate this question by manipulating the gender characteristics of a seemingly gender neutral product, bottled water, through its advertising claims and packaging. Person perception theories suggest that gender is one of the first characteristics one observes and processes when encountering someone new (Dion, Berscheid, & Walster, 1972). Since physical appearance is often used as one of the first basis on which gender of another person is judged (Deaux & Lewis, 1984), appearance can be a strong guide of product gender identification. Despite the gains in equality women have achieved in society, the general

perception of masculine branded products may still be more powerful and stronger than feminine branded products which are known for being more smooth, classy, and stylish. We posit that one's socioeconomic status, as well as one's level of economic insecurity, plays an important role in the evaluation and preference of brand gendered products.

Motivational Selectivity

Because people's cognitive processing resources are limited, they must restrict their attention to a small proportion of the stimuli to which they are exposed (Millet & Van Den Bergh, 2012). Consequently, people will devote more processing to goal-relevant stimuli. Consumers from lower socioeconomic statuses, with arguably less economic resources, may therefore be attracted to different stimuli in comparison to consumers with more economic resources. Many theorists posit that people with relatively low socioeconomic status are more focused on others whereas people with relatively high socioeconomic status are more focused on themselves (Dubois, Rucker, & Galinsky, 2015; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Stephens, Markus, & Phillips, 2014). For example, Piff et al. (2010) found that participants playing a dictator game allocated fewer resources to others as they increased their position in the social hierarchy. The authors also found behavioral similarities in other contexts such as donations where making participants feel they were in a lower socioeconomic status increased their willingness to give to others. In addition, Banerjee and Duflo (2007) suggest that poorer individuals, in comparison to wealthier individuals, give a higher proportion of their resources to goods consumed socially, such as weddings and other community events. Therefore as one's position in a social hierarchy rises, one has less

concern for others. In contrast, the lower one's position, the more concern one has for others.

In a similar vein, Dubois and colleagues (2015) found that individuals in lower social classes are more likely to behave unethically when the behavior will help *another* person in comparison to individuals in higher social classes who are more likely to behave unethically if the behavior benefits the *self*. Furthermore, Dietze and Knowles (2016) observed that lower social class individuals pay more visual attention to humans and faces in comparison to individuals in higher social classes. The authors base their findings on motivational relevance, which is the degree to which others can be rewarding, threatening, or otherwise worth attending to. This line of research suggests that people of lower economic means pay more attention to other people, whereas people of higher economic means pay more attention to themselves. If so, then it seems plausible that people of lower economic means may notice people-related attributes of products more so than do people of higher economic means.

We therefore propose that consumers with lower socioeconomic status, and thus more economic insecurity, may have more concern for others and pay more attention to human characteristics. As a result, they may also pay more attention to humans and human characteristics because they perceive others to be either a threat to them or a potential source of resources. Hence, we posit that more gender branded products, whether masculine or feminine in nature, will be more noticed by and be more appealing to those with lower socioeconomic status (SES) or higher levels of economic insecurity. Because gendered packaging communicates a fundamental characteristic of humans,, low

SES (or high economic insecure) people will pay more attention to it and perceive it more strongly. Therefore, we propose that:

> H1: The masculine and feminine characteristics of packaging will be more salient to low (vs. high) socioeconomic status and economically insecure (vs. secure) consumers.

These feelings of economic insecurity, however, may put consumers in a negative state which they wish to overcome. Consumers may seek and find ways to compensate for their insecurities. Indeed, research suggests that consumers use conspicuous consumption to compensate for their low socioeconomic status (Charles, Hurst, & Roussanov, 2007). These consumers purchase more visibly conspicuous products such as jewelry, clothing, and cars. Therefore, status seeking consumers will desire more conspicuous items especially products that signal their wealth or place in society. As such, evolutionary psychology research suggests that attractiveness is influenced by physical features whereby desirable male traits include status, strength and the ability to protect others (Buss, 1989; Buss & Schmitt, 1993). A masculine appearance of strength and status is considered attractive (Etcoff, 2000). In a brand context, Lieven et al. (2015) find that masculinity and femininity perceptions of brands are strong predictors of brand equity. Masculine branded products are associated with dominance, sturdiness and aggression while feminine branded products are associated with tenderness and compassion (Grohmann, 2009). Thus, a masculine branded product could represent the dominance and status low SES consumers crave in order to compensate for their economic insecurities. A feminine branded product could represent the comfort, compassion and support these consumers also need to overcome their insecurities.

Consumers with lower SES or higher levels of economic insecurity may therefore be more attracted to brands with stronger gender perceptions because they perceive them to be resources to achieve their goals. Feelings of economic insecurity, we propose, will activate a motivational state with the desire to offset consumers' insecurity. Research suggests that even viewing certain colors can activate gender identities (Puntoni, Sweldens, & Tavassoli, 2011) so we utilize package color as one cue to gendered packaging. We further posit that economic insecurity activates gender stereotypes such that people feeling economically insecure will respond more positively to gendered product packaging, although consumers may be unaware of such influences. Indeed, this motivation to seek gendered products could be prompted by several reasons such as a response to a threat or an opportunity for reward or the achievement of a goal. Low SES consumers (or high economic insecure) may favor gendered products because they represent the dominance, strength, and status (masculine) or the support and compassion (feminine) these consumers need to overcome their insecurity. Therefore, we propose that:

> H2: Low socioeconomic (or economically insecure) consumers will prefer products with more gendered characteristics compared to high socioeconomic (or less economically insecure) consumers.

> H3: Low socioeconomic (or economically insecure) will devote more attention to and prefer products with gendered packaging characteristics because they have more motivation (e.g., to achieve a goal or thwart a threat) to do so in comparison to high socioeconomic (less economically insecure) consumers.

We next discuss five studies designed to test the relationship between economic insecurity and the evaluation of gendered products.

Study 1: Brand Gendered Advertisements

In this study, we manipulate how a product stimulus, sparkling water, is positioned: as having female personality traits or male personality traits (or is gender neutral) and see the effect this has on evaluation of product sensory characteristics and purchase intent. Also, we are interested in whether consumers' socioeconomic status (SES) moderates the tendency to detect the gender-based sensory attributes of the water. We see whether consumers perceive the strength of the male or female product traits differently depending on their socioeconomic status. We expect that the gender characteristics of the product will be more salient to lower SES consumers.

Method

Sample and Design

One hundred and thirty eight adult participants were recruited from Amazon's Mechanical Turk (M_{age} = 34.5, 51% male) for a small cash payment. They were randomly assigned to one of three conditions – a product described with female brand personality traits, male brand personality traits, or neutral brand personality traits.

Stimuli and Procedure

All participants viewed an advertisement for a new brand of sparkling water with the same picture but different ad copy (see Appendix G). In the female brand personality traits condition, the ad copy included descriptive words such as smooth, glamorous, and classy to evoke a female brand personality of the product. In the male personality traits

condition, the description consisted of words such as adventure, daring, strong, and bold, which are more closely associated with male brand personality traits (Aaker, 1997). The neutral condition described the product as pure and refreshing. Next, participants indicated their purchase intent by responding to how likely they would be to purchase this product and actively seek out this product in a store to purchase it (1=Not at all likely to 5=Very likely). Lastly, participants indicated how much they felt each of the female and male brand personality traits (Aaker 1997) accurately described the product they evaluated (1=Not at all descriptive to 5=Extremely descriptive). A full list of brand personality traits participants evaluated can be found in Appendix H. Basic demographic information was also collected, including current socioeconomic status (1=lower class, 2 = lower-middle class, 3=middle class, 4=upper-middle class, 5=upper class).

Results

Male Brand Personality

The responses to how accurately each of the male brand personality traits described the product were combined to create an overall score for male brand personality (α =.881). A regression was conducted on the perceived masculinity of the male brand personality traits as a function of gender positioning, socioeconomic status, and all possible interactions. The main effect of gender positioning for the masculine brand was significant ($b = 1.28$, $t = 2.54$, $p < .05$), however the feminine brand positioning ($b = -.203$, $t = -.417$, $p = .678$) and socioeconomic status ($b = .156$, $t = 1.14$, $p = .256$) were not significant. There was also a significant interaction between socioeconomic status and the masculine brand condition ($b = -.415$, $t = -2.18$ $p < .05$). Spotlight analysis suggests that participants who self-reported as having lower

socioeconomic statuses and who viewed the male brand positioned product (vs. female or neutral) rated the water as more masculine (M_{male} = 2.12 vs. $M_{control}$= 1.51, $p < .01$; M_{male} = 2.12 vs. M_{female}= 1.58, $p < .01$; M_{female}= 1.58 vs. $M_{control}$= 1.51, $p > .75$). No significant differences among the male, female, and gender neutral conditions emerged among participants in the middle class or upper middle class groups (all p's > .10). Thus, the masculine water appeared particularly masculine to the lower SES consumers. Table 1 displays the perception of the male brand personality by socioeconomic class.

Table 1

Male Brand Personality Perception by SES

DV: To what extent does each of the following traits accurately describe this product? Outdoorsy, masculine, Western, tough, rugged (Aaker's male brand personality subscale) IV: socioeconomic class (self reported) x water positioning (Male, Neutral, Female)				
	Male water	Neutral water	Female water	Sig. diffs
Lower class	2.12	1.51	1.58	m>f ($p < .01$), m>n ($p < .01$)
Middle class	1.90	1.65	1.86	ns
Upper middle class	1.67	1.78	2.14	m<f

Female Brand Personality

The responses to how accurately each of the female brand personality traits described the product were combined to create an overall score for perceived femininity of the female brand personality (α =.824). A regression was conducted on female brand personality traits as a function of gender positioning, socioeconomic status, and all possible interactions. The main effect of gender positioning for male was not significant (b = .590, t = 1.23, p = .221), the main effect of female positioning was significant (b= 1.17, t = 2.53, $p < .05$), and the main effect of socioeconomic status was marginally

significant (b = .249, t = 1.92, p = .057). In addition, the interaction between the male brand and status was not significant (F(6,126) = 1.666, p > .13).

The interaction between the female brand and socioeconomic status was significant (b = -.445, t = -2.49, p < .05). Follow up contrasts indicate that of the participants in the lower socioeconomic statuses, those who viewed the feminine bottle rated the product as more female (M_{female} = 3.66 vs. $M_{control}$= 3.21, p < .05). Thus, the feminine water appeared particularly feminine to the lower SES consumers. Table 2 displays the perception of the female brand personality by socioeconomic class.

Table 2

Female Brand Personality Perception by SES

DV: To what extent does each of the following traits accurately describe this product? Upper class, Glamorous, Good looking, Charming, Feminine, Smooth (Aaker's female brand personality subscale) IV: socioeconomic class (self reported) x water positioning (Female, Neutral, Male)				
	Female water	Neutral water	Male water	Sig. diffs
Lower class	3.66	3.21	3.40	f > n (p < .05)
Middle class	3.47	3.64	3.39	ns
Upper middle class	3.49	3.43	3.40	ns

Both the male and female brand personalities were perceived significantly more extremely gendered among the low socioeconomic status group. Thus, low SES consumers were more likely to perceive the masculinity and femininity of gendered brand personalities in comparison to high SES consumers in support of H1. In other words, low SES consumers are more sensitive to the gender cues communicated by branded products.

Purchase Intent

Directionally, low SES participants indicated a stronger desire to purchase and seek out the masculine branded product in comparison to the feminine branded product (see Table 3) although the difference is not significant. This is only tentative evidence of greater preference for male (vs female) positioned water among low SES consumers; thus H2 is not supported.

Table 3

Purchase Intent by SES

DV: buy = how likely are you to purchase this product/ actively seek out this product in a store to purchase it IV: socioeconomic class (self reported) x water positioning (Male, Neutral, Female)				
	Male water	Neutral water	Female water	Sig. diffs
Lower class (low SES)	2.92	2.54	2.51	ns (m > f) p = .21
Middle class	2.82	2.66	2.81	ns
Upper middle class	2.73	2.77	3.11	ns (f > m)

Discussion

This study explored the impact of positioning a product based on gender-specific brand personality traits on perceptions of the product. Our findings suggest that when a product is positioned with feminine or masculine traits (i.e. exhibits attributes related to either female or male brand personality traits), socioeconomic status may influence the perceptual salience of gender-specific brand personality traits. Specifically, the results indicated that lower class consumers are more likely to perceive gender-based brand personality from sensory cues in advertisements. According to the results, we also show a

possible relationship between preference for more masculine products among low SES consumers although no significant difference was established.

Based on the promising results of study 1, we further explore the relationship between consumer SES and preference for more feminine or masculine positioned products. In study 2, we manipulate the actual product instead of its advertisement copy points in order to position the bottled water as masculine, feminine, or gender neutral. We also measure economic insecurity levels of the participants.

Study 2: Brand Gendered Packaging

In this study, we manipulate how a product stimulus, bottled water, is positioned: as having female personality traits or male personality traits (or is gender neutral) and see the effect this has on willingness to pay as well as perceived gendered characteristics. In order to depict gendered characteristics, in this study we introduce more control, and manipulate only the packaging color of the bottled water. We also introduce the concept of economic insecurity and measure participants' perceived level of insecurity. We are interested in whether consumers' economic insecurity moderates their tendency to detect the gender-based sensory attributes of the water and overall product evaluation although we also measure participants' socioeconomic status as well.

Pre-test

Sample and Design

A pretest was conducted to measure the degree to which various bottle colors impacted perceptions of masculinity and femininity. Three hundred and twelve adult participants from Amazon's Mechanical Turk (M_{age} = 32, 51% female) were recruited for a small cash payment. Each participant saw a single bottle, which appeared in one of 13 colors: gray, brown, black, green, dark blue, red, light red, yellow, orange, purple, light blue, pink, or white (see Appendix I for bottle images). We chose to test these 13 colors based on prior research, which has shown that specific colors are associated with gender. More specifically, Aspara and Van Den Bergh (2014) found that darker and colder colors (such as gray, brown, black, green, and blue) are perceived as more masculine, whereas lighter colors and warmer colors (such as red, yellow, orange, purple, light blue, and light red) are perceived as more feminine. We thus included these colors as well as a white bottle. The white bottle was considered the control or baseline color because white is generally perceived as gender neutral (Aspara & Van Den Bergh, 2014).

Procedure

Participants were told they would be evaluating a package design for a new brand of bottled water. While viewing the bottle, participants indicated the extent to which they thought the packaging appeared masculine (1 = Not at all masculine to 9 = Very masculine) and feminine (1 = Not at all feminine to 9 = Very feminine). Participants were also asked how powerful the product would make them feel (1 = Not at all powerful to 9

= Very powerful) after imagining buying and consuming it. Participants also completed items such as demographic questions.

Results

Masculinity

The results of an ANOVA on the masculinity measure as a function of bottle color was significant ($F(12, 299) = 4.71$, $p < .0001$). Follow up comparisons show that three of the colors differed in perceived masculinity from the baseline white. Dark blue ($M_{darkblue} = 6.00$ vs. $M_{white} = 4.83$, $p < .05$) and black ($M_{black} = 6.00$ vs. $M_{white} = 4.83$, $p < .05$) were perceived as *more* masculine than white. In contrast, pink was the only color perceived as *less* masculine than white ($M_{pink} = 3.16$ vs. $M_{white} = 4.83$, $p < .01$).

Femininity

A similar ANOVA was conducted on the femininity measure as a function of bottle color, which was significant ($F(12, 299) = 4.37$, $p < .0001$). Pink was the only color perceived as (directionally) more feminine than white ($M_{pink} = 5.64$ vs. $M_{white} = 4.70$, $p < .10$). Two colors were perceived as significantly less feminine than white, specifically: gray ($M_{gray} = 2.82$, $p < .001$ vs. white) and brown ($M_{brown} = 2.91$, $p < .001$ vs. white).

Masculinity Dominance

For each color, we subtracted its femininity rating from its masculinity rating to create a masculinity dominance score. An ANOVA on this measure as a function of color was significant ($F(12, 299) = 6.40$, $p < .0001$). White, the baseline color, was near zero

(score = 0.13), as desired. Only one color scored significantly lower on this measure than white: pink (score = -2.48, $p < .01$). Four colors scored significantly higher on this measure than white: green (score = 3.04, $p < .001$), brown (score = 2.43, $p < .01$), dark blue (score = 2.00, $p < .05$), and black (score = 2.04, $p < .05$).

Table 4

Masculinity and Femininity Pre-test Results for Bottle Colors

Bottle Color	**Masculine**	**Feminine**	**Powerful**	**Masc-Fem**
White	4.82	5.31	3.92	0.13
Pink	3.16	6.50	3.63	-2.48
Purple	4.68	4.87	4.53	-0.36
Yellow	4.04	4.82	2.94	-0.76
Red	4.52	3.76	3.65	0.64
Orange	5.17	4.71	4.06	0.87
Light Red	4.84	4.63	3.63	0.52
Light Blue	4.87	4.19	3.63	0.45
Green	5.86	2.50	3.00	3.04
Gray	5.12	3.93	4.07	1.08
Brown	5.34	2.42	3.08	2.43
Dark Blue	6.00	3.88	5.44	2.00
Black	6.00	4.33	4.75	2.04

Feeling of Power

We conducted an ANOVA on feeling of power after imagined consumption as a function of bottle color, which was significant ($F(12, 299) = 2.51$, $p < .01$). We wanted to compare the effect of the color pink versus the other colors. Those in the pink bottle condition reported they felt less powerful than those in the dark blue ($M_{darkblue}$= 5.20 vs.

M_{pink}= 3.76, p < .01) and black ((M_{black}= 4.83 vs. M_{pink}= 3.76, p < .05) bottle color conditions. Based on the bottle color pretest results, we chose dark blue as the masculine packaging color and pink as the feminine packaging color for use in the study.

Method (Main Study)

Sample and Design

Two hundred and nine adult participants were recruited from Amazon's Mechanical Turk (M_{age} = 31.7, 52% male) for a small cash payment. They were randomly assigned to one of three bottled water conditions – feminine branded packaging, masculine branded packaging, or neutral branded packaging.

Stimuli and Procedure

Participants were told that they would be evaluating a potential package design for a new brand of bottled water. Based on the results of the pre-test, the bottle in the feminine branded packaging condition was pink, the bottle in the masculine branded packaging condition was dark blue, and the bottle in the neutral condition was white. After viewing the package design, participants were asked to indicate how much they would be willing to pay for a 16 ounce bottle of the water (on a scale from $0 - $4). Lastly, participants were instructed to evaluate the product's gender characteristics by indicating how much they felt each of the female and male brand personality traits accurately described the product they evaluated (1=Not at all descriptive to 5=Extremely descriptive). A full list of brand personality traits (Grohmann, 2009) evaluated can be found in Appendix J. We also collected measures of economic insecurity by asking the question: "How likely do you feel you or another member of your household will

experience the following events within the next year: a) job loss, b) large reduction in pay, c) serious illness, d) divorce or marital separation, or e) bankruptcy (1= Very Unlikely, 5 = Very Likely). These measures were adapted from the work of Western et al. (2012) who suggest that insecurity can derive from income loss related to job loss, family dissolution, and poor health. Similar measures were used in other studies reporting financial insecurity (Bricker, 2016). Basic demographic information was also collected, including socioeconomic status, gender and how often they consumed bottled water.

Results

Willingness to pay

We conducted a regression on willingness to pay as a function of gender branded packaging (feminine, masculine, neutral), and economic insecurity plus all possible interactions. We also controlled for gender and bottled water consumption. The feminine branded packaging was coded with a dummy variable (1,0), as was masculine packaging (1,0); the control condition served as the baseline. Economic insecurity was measured continuously and mean-centered. The analysis indicated no main effects for feminine branded packaging ($b = -.068$, $t = -.767$, $p = .444$), masculine branded packaging ($b = -.091$, $t = -1.037$, $p = .301$), or economic insecurity ($b = -.147$, $t = -1.502$, $p = .135$).

There was, however, a significant two-way interaction between the masculine branded packaging and economic insecurity ($b = .426$, $t = 2.755$, $p < .01$). Follow up contrasts indicated that participants who were less economically insecure were willing to pay less for the blue bottle in comparison to the control bottle ($M_{darkblue} = .84$, $M_{white} =$

1.07, p = < .05). There was no significant two-way interaction between the feminine branded packaging and economic insecurity (b= .206, t =1.620, p =.107).

Table 5

Willingness-to-pay for bottled water by economic insecurity

DV: Who much are you willing to pay for a 16 oz. bottle of this water ($0 - $4)? IV: economic insecurity x water positioning (Female, Neutral, Male)				
	Female water	Neutral water	Male water	Sig. diffs
Low Insecurity	.9686	1.072	.8370	n>m (p =.03)
Medium Insecurity	.9917	1.006	.9557	ns
High Insecurity	1.0254	.9109	1.129	ns

Male Brand Personality

The responses to how accurately each of the male brand personality traits described the product were combined to create an overall score for male brand personality (α =.919). We conducted a similar regression to the one above on the perceived masculinity of the male brand personality traits as a function of gender branded packaging (feminine, masculine, neutral), and economic insecurity plus all possible interactions. We again controlled for gender and bottled water consumption. The analysis indicated no effects for masculine branded packaging (b = .131, t = .835, p = .405), or economic insecurity (b = -.007, t = -.039, p = .969). The analysis, however, indicated an effect for feminine branded packaging (b = -.415, t = -2.614, p < .05).

There was also a directionally significant two-way interaction between the masculine branded packaging and economic insecurity (b = .532, t = 1.921, p = .056). Follow up contrasts indicated that participants who were more economically insecure

perceived the masculine water as more male in comparison to the control water ($M_{darkblue}$ = 2.62, M_{white} = 2.15, p = .053) and more male in comparison to the female water ($M_{darkblue}$ = 2.62, M_{female} = 1.86, p < .01). This result replicates that of study 1 and supports H1. There was no significant two-way interaction between the feminine branded packaging and economic insecurity (b= .200, t =.878, p = .381).

Table 6

Male Brand Personality Perception by Economic Insecurity

DV: Indicate how much you feel each of the male brand personality traits accurately describes the product you evaluated: IV: economic insecurity x water positioning (Female, Neutral, Male)				
	Female water	Neutral water	Male water	Sig. diffs
Low Insecurity	1.68	2.10	2.06	n>f (p =.02)
Medium Insecurity	1.76	2.10	2.29	n>f (p =.03)
High Insecurity	1.88	2.10	2.62	m>n (p =.03)

Female Brand Personality

The responses to how accurately each of the female brand personality traits described the product were combined to create an overall score for female brand personality (α =.926). We conducted a similar regression to the one above on the perceived femininity of the female brand personality traits as a function of gender branded packaging (feminine, masculine, neutral), and economic insecurity plus all possible interactions. The analysis indicated no effects for the interaction between branded packaging and economic insecurity (all p's > .18).

Socioeconomic status was also included in separate regression models; however, SES was not a significant predictor of any of the dependent variables. A correlation

matrix between participants' SES and economic insecurity can be found in Appendix K. We find evidence that participants who rated themselves as more economically secure were less willing to pay for male personality branded water compared to the female branded or control water. In addition, more economically insecure participants perceived the masculine branded characteristics as more extremely gendered.

In this study we found additional evidence for the increased salience of gender cues, in the form of product packaging color, replicating the results of study 1. The evidence regarding product preference was more equivocal, however. In the next study, we utilize a taste test of the bottled water in order to examine whether the masculinity or femininity of the bottle influences consumer perceptions of their own strength. We also further explore whether socioeconomic status impacts the perceived gender characteristics of the bottled water.

Study 3: Taste Test of Brand Gendered Products

In study 3, we sought to understand whether tasting a brand gendered product, such as bottle water, would impact consumers' evaluation of their physical strength as well as the perception of the gendered characteristics of the product as a function of their socioeconomic status. We also gave participants a chance to choose between a masculine or feminine prize at the end of the study in exchange for their participation.

Pre-test

Sample and Design

A pre-test was conducted to measure the degree to which two pens (one red, one black) were perceived to be masculine and feminine. Sixty-two adult participants from Amazon's Mechanical Turk (M_{age} = 31, 61% female) were recruited for a small cash payment. Each participant saw two pens, one black and one red in a digital image (see Appendix L). They were asked "Which pen looks more masculine" and "Which pen looks more feminine" (red pen/black pen). Participants overwhelmingly thought the black pen looked more masculine (89.4%) and the red pen looked more feminine (87.9%). They were informed both pens have the same color INK (that is, they write in the same color). They were then shown just the black pen and asked to imagine using the black pen and indicate to what extent it would make them feel: powerful, in control, influential (1 = not at all to 5 = very much; $\alpha = .96$). They were then shown the red pen and asked the same questions ($\alpha = .95$). We conducted a paired t-test on the difference between how powerful imagining using the black pen made participants feel ($M_{BlackPen} = 3.24$) compared to imagining using the red pen ($M_{RedPen} = 2.82$; $t(61) = 3.40$, $p < .001$) which was significant. Participants felt that using the black pen would make them feel more power than using the red pen. Finally, participants completed demographic questions. Based on these results, we decided to offer black and red pens as gifts for the taste test. We expected that participants who came from lower socioeconomic status and therefore may have a higher desire to compensate for their lower status would be more likely to choose a black pen rather than a red pen as a gift for survey completion.

Method

Sample and Design

To increase the generalizability of our results, we set up a table at a college move-in day fair in Pennsylvania and offered participants a free stylus in return for their participation in the study. Eighty adults (42 men, 38 women; M_{age} = 24.5) were randomly assigned to one of two conditions (masculine vs. feminine packaging).

Stimuli and Procedure

Participants were told that they were partaking in a taste test for a new brand of bottled water. All participants actually tasted and evaluated the same bottled water, Deer Park® 100% Natural Spring Water. The water was presented in plain, white cups to disguise the actual brand and prevent its familiarity from influencing evaluation. Bottled water was chosen because it is a product that is gender neutral as well as non-allergenic. Participants were presented with one of the two package depictions on a large foam board. The masculine package depicted a bottle of water with a dark blue label and the hypothetical new brand name "Ravello." The feminine package depicted a bottle of water with the same hypothetical new brand name "Ravello," but with a pink label. See Appendix L for stimuli.

After sampling the water, participants were instructed to give their feedback on the water by completing a short survey. The survey included questions on the evaluation of the water (e.g., purchase intent, liking, quality, etc.) to simulate a product taste test task. To evaluate the perception of their physical strength, we also asked participants to indicate how difficult or easy would it be for them to move heavy items at this time (1 =

very difficult; 7 = very easy) since it was move-in day for college students. We also asked how much the packaging appeared masculine or feminine (1 = not at all, 7 = very much). Lastly, we collected demographic information such as age, gender, economic insecurity measures (from study 2), and current household socioeconomic status.

Results

Choice of Pens

We conducted a logistic regression on choice of pen (red versus black) as a function of gender branded packaging (feminine vs. masculine), and socioeconomic status plus all possible interactions and controlled for age and gender. The analysis indicated no significant effects for gender branded packaging, socioeconomic status, or for the interactions between the packaging condition and socioeconomic status (all p's > .25).

Masculinity

We conducted a regression on how much the packaging appeared masculine as a function of gender branded packaging (feminine vs. masculine), and socioeconomic status plus all possible interactions and with covariates controlling for age and gender. The analysis indicated no significant effects for gender branded packaging, socioeconomic status, or for the interaction between the packaging condition and socioeconomic status (all p's > .15).

Femininity

We conducted a regression on how much the packaging appeared feminine as a function of gender branded packaging (feminine vs. masculine), and socioeconomic status plus all possible interactions and with covariates controlling for age and gender. The analysis indicated a significant effect for gender branded packaging ($b = 3.91$, $t = 2.92$, $p < .01$), but no significant effect for socioeconomic status ($b = .502$, $t = 1.52$, $p = .132$). However there was a significant interaction between the packaging condition and socioeconomic status ($b = -1.11$, $t = -2.51$, $p < .05$). Follow up contrasts indicated that consumers among the lower SES who viewed the feminine package perceived the female bottle to be more feminine in comparison with the masculine bottle ($b = 1.67$, $t = 2.89$, $p < .01$).

Table 7

Femininity of Package by Socioeconomic Status

DV: how much the packaging appeared feminine: IV: SES x water positioning (Female, Male)				
	Female water		Male water	Sig. diffs
Low Status	4.91		3.24	f>m (p =.01)
Middle Status	4.32		3.69	f>m (ns)
Upper Status	3.72		4.14	m>f (ns)

Heavy Items

We conducted a regression on how easy or difficult it is to move heavy items as a function of gender branded packaging (feminine vs. masculine), and socioeconomic status plus all possible interactions and controlled for age and gender. The analysis indicated a significant effect for gender branded packaging ($b = 2.57$, $t = 2.03$, $p < .05$), socioeconomic status ($b = .690$, $t = 2.36$, $p < .05$), and the interaction between the

packaging condition and socioeconomic status (b = -.843, t = -2.04, p < .05). Follow up contrasts indicated that of the participants who reported themselves to be in lower socioeconomic statuses, those in the feminine condition perceived that they could more easily move heavy items (b = 1.78, t = 2.04, p < .05). Surprisingly, of the participants who reported themselves to be in higher socioeconomic statuses, those in the feminine condition directionally perceived that it would be more difficult to move heavy items in comparison (b = -1.72, t = -1.84, p < .10). This result ran contrary to our expectations.

Table 8

Easy or difficult to move heavy items by Socioeconomic Status

DV: Indicate how easy or difficult it would it be for you to move heavy items right now (1=very difficult, 7=very easy) IV: socioeconomic status x water positioning (Female vs. Male)				
	Female water		Male water	Sig. diffs
Low SES	5.03		4.12	f > m (p = .0912)
Medium SES	4.89		4.78	f>m (p=.7786)
High SES	4.75		5.45	m>f (p=.1927)

Discussion

In sum, we observed that those who self-reported that they are in lower socioeconomic statuses perceive to have greater physical strength, and thus are able to move heavy items more easily, after consuming the feminine packaged bottled water. In contrast, those who self-reported that they are in higher socioeconomic statuses perceived themselves to have less physical strength after consuming the feminine packaged bottle water. We view this as evidence that suggests lower SES consumers perceive a greater sense of strength and power through the consumption of feminine branded products – a result contrary to our expectations. Moreover, higher SES consumers felt less powerful

after the consumption of feminine branded products. We did find evidence that lower SES consumers perceived the female bottle to be more feminine in comparison to the masculine bottle which replicates the findings of study 1. Economic insecurity was included in additional regression models; however it was not found to be significant. A correlation matrix between participant SES and economic insecurity can be found in Appendix M.

In the next study, rather than measure participants' perceived level of economic insecurity, we manipulate it. We explore whether manipulating participants' sense of economic insecurity has an impact on their evaluation and choice of gendered products.

Study 4: Manipulation of Economic Insecurity

The previous three studies focused on the measurement of participants' self-reported feelings of economic insecurity as well as socioeconomic status. In study 4, we sought to manipulate the feeling of one's economic insecurity instead of measuring it. We expected that participants made to feel more economically insecure would be more sensitive to the gendered characteristics of the product as well as prefer the more masculine packaged product in comparison to those made to feel less economically insecure.

Method

Sample and Design

One hundred and seventy five undergraduate students were recruited from an introductory marketing course (M_{age} = 20.35, 56% male) and participated in the study in

exchange for course credit. They were randomly assigned to one of the two conditions – high economic insecurity or low economic insecurity.

Stimuli and Procedure

Participants were told that they would be participating in two separate studies – the first was a writing task and the second was a product evaluation task. Depending on their randomly assigned condition, participants were asked to read a news article that described the future economy and their future prospects of job employment as either pessimistic and challenging (high economic insecurity) or optimistic and not challenging (low economic insecurity). See Appendix N for news articles. Next, participants were instructed to write a short essay about how an average college student at their university would feel as he or she prepares to enter the job market. The manipulation was adapted from recent economic insecurity research (Chou, Parmar, & Galinsky, 2016).

As part of the second task, participants were told that they were going to evaluate the packaging of a new brand of bottled water. Two packaging options, a blue bottle or a pink bottle, were displayed and the participant was asked to view the packaging for as long as he or she would like (see Appendix I for bottles). The bottles were the same package designs utilized in study 2 as dark blue was pre-tested to look more masculine and pink was pre-tested to look more feminine. The presentation of the bottles was randomly assigned and counterbalanced to control for order effects. Participants were asked to choose which bottle they preferred. They next were asked to indicate how powerful, strong, in control and dominant they would feel after consuming the water from the package they selected (1=Not at all, 9 = Very much). Lastly, participants

indicated how likely they would be to purchase this product (1=Extremely unlikely, 9=Extremely likely) and how much they would be willing to pay for a 16oz. bottle of the product they chose on a sliding scale from $0-$4. Basic demographic information was also collected, including socioeconomic status.

Manipulation check

We asked participants to indicate the state of the economy based on what they read in the article (1 = negative; 7 = positive). The three measures, the economy is weaker/stronger, worse than before/better than before, and unfavorable/favorable, were combined to create an overall assessment of the economy's state ($\alpha = .951$). An ANOVA on this measure as a function of economic insecurity condition (high insecure versus low insecure; $F(1,174) = 38.431$, $p < .001$) showed that those in the high insecure condition reported the economy to be in a worse state in comparison to those in the low insecure condition ($M_{high} = 2.71$ vs. $M_{low} = 4.15$). Thus the manipulation worked as intended.

Results

Product Choice

We conducted a logistic regression on product choice (blue bottle vs. pink bottle) as a function of economic insecurity condition, and socioeconomic status plus all possible interactions. The analysis indicated no significant effects for socioeconomic status ($b = -.3227$, $z = -1.27$, $p = .204$), insecurity condition ($b = -1.639$, $z = -1.44$, $p = .149$), or the interaction between the insecurity condition and socioeconomic status ($b = .6829$, $z = 1.936$, $p = .053$). Follow up contrasts indicated that of the participants who reported themselves to be in higher socioeconomic statuses, those in the high insecurity condition

had a stronger preference for their choice (54%) in comparison to those in the low insecurity condition (28%; $b = 1.108$, $z = 2.43$, $p < .05$).

Purchase Intent

We conducted a regression on purchase intent as a function of economic insecurity condition, and socioeconomic status plus all possible interactions. The analysis indicated no significant effects for socioeconomic status ($b = .1124$, $t = .4840$, $p = .629$), condition ($b = 1.395$, $t = 1.322$, $p = .1879$), or for the interaction between the condition and socioeconomic status ($b = -.4702$, $t = -1.446$, $p = .15$).

Power

We combined the measures of powerful, strong, in control, and dominant into one measure to assess how powerful participants felt after having imagined consuming the water from the package in which they selected ($\alpha = .965$). We then conducted a regression on power as a function of economic insecurity condition, and socioeconomic status plus all possible interactions. The analysis indicated no significant effects for socioeconomic status ($b = .1820$, $t = .6859$, $p = .4937$), condition ($b = -.0297$, $t = -.0247$, $p = .9804$), or for the interaction between the condition and socioeconomic status ($b = .1060$, $t = .2853$, $p = .7757$).

Willingness to Pay

We conducted a regression on the willingness to pay for the bottle chosen as a function of economic insecurity condition, and socioeconomic status plus all possible

interactions. The analysis indicated a significant effect for socioeconomic status ($b = .2029$, $t = 3.192$, $p < .05$), condition ($b = 1.0657$, $t = 2.78$, $p < .01$), and the interaction between the condition and socioeconomic status ($b = -.2927$, $t = -2.479$, $p < .05$). Follow up contrasts indicated that of the participants who reported themselves to be in lower socioeconomic statuses, those in the high insecurity condition were willing to pay more for their choice ($b = .4202$, $t = 2.77$, $p < .01$) in comparison to those in the low insecurity condition ($M_{high} = 1.75$, $M_{low} = 1.33$).

Discussion

By manipulating economic insecurity in contrast to simply measuring it, we achieved a different view of how insecurity plays a role in the evaluation of gendered products. Although purchase intent, power, and product choice outcomes were not significantly different between conditions, those in the high economic insecure condition showed stronger preference for their choice directionally. Furthermore, low SES participants in the high economic insecure condition were willing to pay more for their product choice in comparison to low SES participants in the low economic insecure condition. Directionally, low SES participants in the high economic insecure condition also indicated higher purchase intent in comparison to low SES participants in the low economic insecure condition. Therefore, it may be the interaction between one's socioeconomic status and a sense of economic insecurity that matters in the evaluation of a gendered product. We find evidence that lower socioeconomic status coupled with high economic insecurity results in differences in willingness to pay, purchase intent and product choice.

The goal of the next study is explore the possible mechanisms that may be responsible for the relationship between low SES (high economic insecure) consumers and their detection of gender characteristics and preference for gendered products. We therefore examine whether these consumers give more visual attention to gendered products.

Study 5: Moderating Role of SES on the Visual Attention to Gendered Products

In this study, we were interested in examining the effect consumer socioeconomic status has on the location and amount of attention given to gendered products. We predict that consumers who are in the lower socioeconomic statuses will pay more attention to gendered products (male and female) and may prefer masculine products in comparison to neutral products.

Method

Sample and Design

We recruited one hundred and fifty seven adult participants from Amazon mTurk (M_{age} = 34.44, 61% female) who received a small monetary reward for their participation. This study was conducted on a within-subjects basis, such that each participant viewed three advertisements for water: one male (blue bottle), one female (pink bottle), one neutral (purple bottle). In order to counterbalance the hypothetical brand names associated with each bottle, participants were randomly assigned to one of six conditions (each containing three different advertisements for bottle water positioned as masculine, feminine or neutral).

Procedure and Stimuli

Participants were told that they would be taking part in two unrelated studies. Their first task was to evaluate several potential brand names and advertisements for new brands of bottled water. They were also told that we were interested in capturing the exact locations of their eye gazes while they evaluated each ad. Participants were asked to click with their mouse the exact locations where their eyes were focusing. A practice ad appeared before the actual stimuli in order to offer participants a chance to familiarize themselves with the task. Participants were then presented with three ads in random order – one feminine, one masculine and one control bottled water. The feminine ad featured a pink water bottle, the masculine ad featured a blue bottle and the neutral ad featured a purple water bottle (see Appendix O for stimuli). The bottles used were pre-tested in study 2 for masculinity, femininity, and neutrality. The color purple pre-tested to be a neutral color in regards to gender according to study 2 pre-test results. Each advertisement also included four claims that were easily visible to the participant on the right side of the bottle. The claims were constant across gender condition (i.e. all masculine bottle ads contained the same four claims and so forth); however, the brand names of the bottles (Ravello, Paramount, and Pinnacle) were randomized across conditions. Thus, a participant could see a masculine bottle with the name Ravello, feminine bottle with the name Paramount, and a neutral bottle with the name Pinnacle; or a masculine bottle with the name Paramount, feminine bottle with the name Pinnacle, and neutral bottle with the name Ravello. See table 9 for the combination of advertisements in each condition.

Table 9

Combination of advertisements seen by participants per block

	Masculine Label (Blue)	Feminine Label (Pink)	Neutral Label (Purple)
Block 1	Paramount (1st)	Pinnacle (3rd)	Ravello (2nd)
Block 2	Pinnacle (1st)	Ravello (3rd)	Paramount (2nd)
Block 3	Ravello (1st)	Paramount (3rd)	Pinnacle (2nd)
Block 4	Paramount (3rd)	Ravello (1st)	Pinnacle (2nd)
Block 5	Pinnacle (3rd)	Paramount (1st)	Ravello (2nd)
Block 6	Ravello (3rd)	Pinnacle (1st)	Paramount (2nd)

Note: Each participant was randomly assigned to receive ads in one of six blocks. Number in parentheses indicates order in which image appeared.

After viewing the three advertisements and selecting the points at which their visual attention focused, participants then rated their purchase intent for each of the three bottles (how likely they were to purchase it; 1=extremely unlikely, 7 =extremely likely) and their willingness to pay for each bottle on a scale from $0-$4. They were also asked to indicate how masculine or feminine each of the bottles appeared (1=not at all, 9=very much).

Then participants were told that the next task was unrelated to the first, but in reality the second assignment served as a filler task for the third task – the ad claim recall. After participants completed the filler task, they were then asked to recall all of the claims from each advertisement they viewed in the first task for each brand of bottle water they viewed. Participants chose from a list of possible ad claims. Participants next completed the economic insecurity measures from study 2, as well as Bem's Sex-Role

Identity scale (1974) to measure gender identity (see Appendix P). Lastly, they indicated their socioeconomic status and gender. The total number of times the participant clicked on each stimulus and the location of each click (bottle top, bottle bottom, logo or ad claim) were recorded in addition to the amount of time the participant spent on each stimulus.

Results

Purchase Intent

Participants were split into two groups dependent on their socioeconomic status (SES) for ANOVA AND MANOVA analyses. Those in the low SES and lower-middle SES classes formed one group while those in the middle SES, upper-middle SES, and upper SES classes formed the other. A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on purchase intent for each of the three bottles (female, male, neutral). The results suggest that the gender of the bottle ($F(2, 154) = .936$, $p = .395$; Pillai's Trace = .01) was not a significant predictor, nor was the interaction between the bottle gender and socioeconomic status ($F(2, 154) = 2.08$, $p = .135$; Pillai's Trace = .03).

Table 10

Means of purchase intent in MANOVA analysis

DV: How likely would you be to purchase this product (1=extremely unlikely, 9=extremely likely)

IV: socioeconomic status x water positioning (Female vs. Male vs. Neutral)

	Lower SES	Higher SES	Sig. diffs
Male water	5.32	4.60	lower > higher (p = .051)
Female water	5.18	4.42	lower > higher (p = .045)
Neutral water	5.10	4.67	lower > higher (p = .241)

A follow-up analysis of variance (ANOVA) examining socioeconomic status on male bottle purchase intent, however, was marginally significant ($F(1, 155) = 3.86$, $p = .051$). Consumers in lower socioeconomic statuses indicated a greater purchase intent for the male bottle ($M = 5.32$, $SE = .28$) versus consumers in higher socioeconomic statuses ($M = 4.60$, $SE = .24$). A follow-up analysis of variance (ANOVA) examining socioeconomic status on female bottle purchase intent was also significant ($F(1, 155) = 4.07$, $p < .05$). Consumers in lower socioeconomic statuses indicated a greater purchase intent for the female bottle ($M = 5.18$, $SE = .28$) versus consumers in higher socioeconomic statuses ($M = 4.42$, $SE = .25$). A follow-up ANOVA examining socioeconomic status on neutral bottle purchase intent was not significant ($p > .24$). These results suggest that lower SES consumers prefer more gendered products, in support of H2.

Willingness to Pay

A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on willingness to pay for each of the three bottles (female, male, neutral). The results suggest that the gender of the bottle ($F(2, 154) = 1.59$, $p = .207$; Pillai's Trace = .02) was not a significant predictor, nor was the interaction between the bottle gender and socioeconomic status ($F(2, 154) = 2.01$, $p = .138$; Pillai's Trace = .03).

Total Time Spent

A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on the total time spent on evaluation of the three bottles (female, male, neutral). The results suggest that the gender of the bottle ($F(2, 154) = 1.40$, $p = .250$; Pillai's Trace = .02) was not a significant predictor, nor was the interaction between the bottle gender and socioeconomic status (F(2, 154) = .00, p = .999; Pillai's Trace = .00); thus H3 is not supported.

Total Clicks

A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on the total number of clicks on each of the three bottles (female, male, neutral). The results suggest that the gender of the bottle ($F(2, 154) = .65$, $p = .526$; Pillai's Trace = .01) was not a significant predictor, nor was the interaction between the bottle gender and socioeconomic status (F(2, 154) = 1.18, p = .310; Pillai's Trace = .02); thus H3 is not supported.

Ad Recall

A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on the number of ad claims the participant recalled correctly for each of the three bottles (female, male, neutral). The results suggest that the gender of the bottle ($F(2, 154) = 1.53$, $p = .219$; Pillai's Trace = .02) was not a significant predictor, nor was the interaction between the bottle gender and socioeconomic status (F(2, 154) = .03, p = .968; Pillai's Trace = .00).

Maleness and Femaleness

A multivariate analysis of variance (MANOVA) was conducted to examine the effect of socioeconomic status on how masculine and feminine the male and female waters were perceived to be. The results suggest that the gender of the bottle ($F(1, 155) = 4.70$, $p < .05$; Pillai's Trace = .03) was a significant predictor; however, the interaction between the bottle gender and socioeconomic status was not significant ($F(1, 155) = .78$, $p = .379$; Pillai's Trace = .01).

Appendix Q has correlations between participant SES and economic insecurity. We conducted additional analyses using the various independent variables (e.g., socioeconomic status, economic insecurity in the upcoming year, economic insecurity in the past year) and the co-variate of gender. The results are presented in the Appendix R.

Discussion

The results of this study suggest that consumers with lower socioeconomic status may have a slight preference for the gendered (versus gender neutral) products in comparison to their higher socioeconomic status counterparts. Although the mixed findings for purchase intent and willingness-to-pay do not indicate a clear understanding, results suggest a relationship between low SES participants and gendered products. The mixed results may indicate that gendered products can either provide a positive (opportunity for reward) or negative (threat) prospect for more economically insecure consumers. Some participants may find that the masculine branded product can offer them the stability and protection they seek whereas others may view them as a threat. The

feminine branded products may offer comfort and assistance to some, but for other participants they do not provide them with the security they need. This may explain why the results of this study are mixed. The self-reported nature of the visual attention to each stimulus may also present a limitation to this study. Requiring participants to click where their eye focused may not have provided a true indication of their visual attention.

General Discussion

Overall, the combined results of the five studies shed light onto the relationship between economically insecure (and low SES) consumers and their attentiveness and preference for gendered products. In study 1, we demonstrate that low SES consumers are able to perceive gender based positioning through the product's advertisements better than high SES consumers. Moreover, low SES consumers seem to prefer masculine based products over feminine based products. Study 2 provides further exploration into the relationship between masculine products and SES; however, we focus on whether one's economic insecurity has an effect. We find that participants with higher levels of economic insecurity perceive the male branded product to be more masculine. We also show that participants who are more economically secure are willing to pay less for masculine branded products. Study 3 demonstrates that low SES consumers perceive the female product to be more feminine. Lastly, studies 4-5 support the relationship between low SES consumers and various marketing variables. When low SES participants felt more economically insecure, they were willing to pay more for the product of their choice (study 4). Similarly, low SES consumers had higher purchase intent for gendered products (study 5).

Although we are not able to consistently replicate findings across all studies, we establish initial support for the relationship between economic insecurity and brand gendered products. Our results suggest a pattern in the relationship that shows both low SES and economically insecure consumers notice the brand gendered characteristics of products more so in comparison to more economically secure and high SES consumers. We also demonstrate an association between preference, willingness to pay, and purchase intent for gendered products among the low SES and more insecure consumers. Low SES (high economic insecure) consumers have a slight preference towards gendered products indicating a stronger willingness to pay for them and greater purchase intent.

With this research, we build on extant literature in the economic insecurity and brand gender areas. To our knowledge, the literature on economic insecurity and brand preference is scarce and we hope that the findings of these studies will add to this promising area of research. Brand gender is also a new avenue for research that we wish to contribute to with our findings. We next conclude with a discussion of the expected contributions and implications of this dissertation research.

CHAPTER 4

RESEARCH CONTRIBUTIONS, IMPLICATIONS, AND LIMITATIONS

The expected results of this dissertation research enrich our understanding of consumer behavior by exploring the relationship between individual consumer values (i.e. economic insecurity and materialism) and brands, an underexplored area in the consumer behavior literature (Rindfleisch et al., 2009). First, this research focuses on the influence of materialism level on consumer evaluation of sustainable products. Sustainability has become an increasingly significant issue in consumption behavior, yet we know little about consumer response and acceptance of sustainable *luxury* products. Materialism provides an insightful variable to explore this relationship as it reveals consumer motivation and desire for the product. This research also focuses on levels of economic insecurity and the impact on brand evaluation. Insecurity has been posited as one of the roots of materialism; however, we know little of how economic insecurity impacts consumers decision and purchase.

Overall, this two-essay dissertation examines both the materialistic consumer who desires status through luxury brand consumption as well as the consumer who satiates the need for security through gender branded products. The first essay suggests that although lab-grown diamonds are generally perceived by consumers to be inferior to their traditionally mined equivalents in terms of economic value and the level of prestige, consumers perceive those who buy lab-grown diamonds to be more ethical purchasers. We also show that luxury brands are not generally associated with sustainability, but a lab-grown diamond boosts the ethical perceptions of luxury brands. Explicitly positioning

lab-grown diamonds on an ethical basis can backfire, however, as highly materialistic consumers are not nearly as persuaded by this message as they are with an "others will not know" positioning strategy for lab-grown diamonds of a luxury brand. Hence, consumer materialism level may be utilized as a way to segment consumers and effectively position sustainable luxury products based on consumers' motivation for the product.

To our knowledge, this is one of the first empirical studies to explore consumer acceptance of a sustainable luxury product. Further, the research contributes to the burgeoning literature on environmentalism. Our research is also one of the first to take into consideration various consumer motivations, based on materialism levels, on the acceptance of sustainable luxury products. The implications for luxury marketers are that emphasizing the ethical qualities of a lab-grown product may backfire for their core consumer segments. Instead, such brands should focus on how such products are visibly indistinguishable from the traditional diamond in order to confer on the prestige benefits consumers seek from a luxury brand.

The second essay examines consumers' economic insecurity and the desire for gender branded products. Results of several of our studies show that low SES (high economic insecure) consumers notice the gendered characteristics of products more so than high SES (less economic insecure) consumers. Our findings suggest that consumers with a higher level of economic insecurity and low SES prefer gender branded products over neutral branded products. Low SES (high economic insecure) consumers have a slight preference towards gendered products indicating a stronger willingness to pay for

them and greater purchase intent. We argue that this relationship is mediated by motivational selectivity or the desire to pay attention to something that may be threatening or otherwise helpful. To our knowledge, this is one of the first research efforts to explore the influence economic insecurity has on consumers' preference of brand gendered products. This research will contribute to the economic insecurity and consumption literature with this novel phenomenon. The findings will also contribute to the emerging literature stream on brand personality, especially brand gender. By understanding this relationship, additional research can examine other consumer factors that contribute to a preference for male versus female branded products, such as brand attachment or materialism level.

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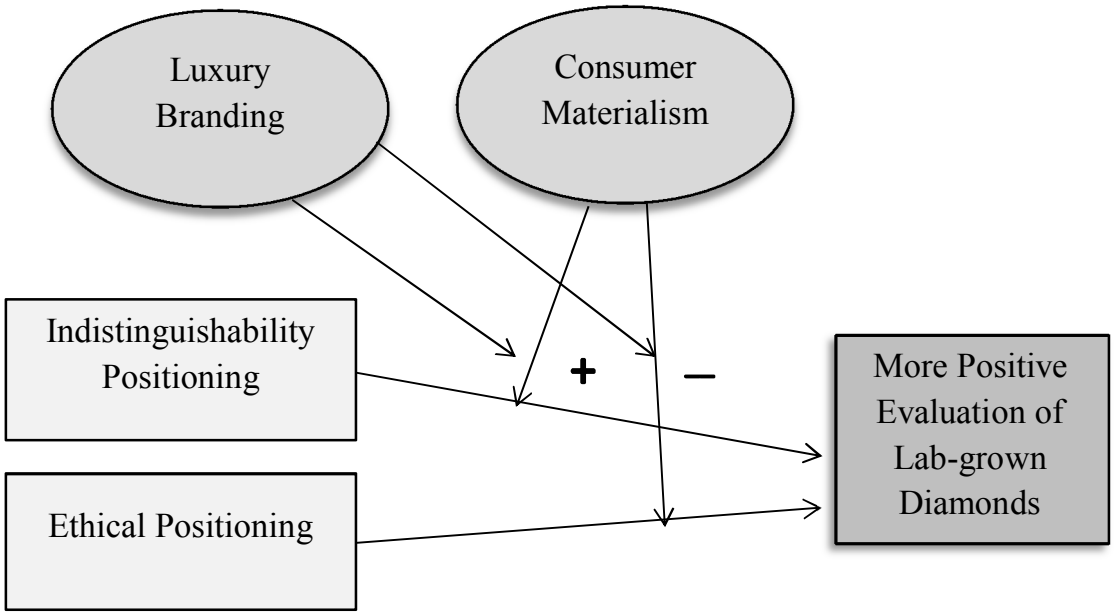
APPENDIX A

ESSAY 1: CONCEPTUAL MODEL



APPENDIX B

ESSAY 1: STUDY 1 MINED VERSUS LAB-CREATED DIAMOND PRODUCT DESCRIPTIONS

MINED DIAMOND RING

The product you are about to evaluate is a ring with a traditional mined diamond. Removed from the earth by traditional mining procedures, mined diamonds are created by geologic processes that occur at great depths within the Earth.

LABORATORY-CREATED DIAMOND RING

The product you are about to evaluate is a ring with a lab-created diamond. Created by scientists using high-temperature, high-pressure chambers, lab-created diamonds have the same physical and chemical properties as traditional mined diamonds.

APPENDIX C

ESSAY 1: STUDY 2 ADVERTISEMENT WITH OTHERS WILL NOT KNOW POSITIONING [MANIPULATION IN BRACKETS]

MAN-MADE DIAMONDS FROM AGAPE

Have you heard of man-made diamonds? For hundreds of years science has tried to create a perfect synthetic diamond. Finally, 21st-century technology has made that prospect a reality. Is a man-made diamond right for you?

There are many reasons to purchase synthetic, man-made diamonds instead of the mined variety. For one thing, man-made diamonds can cost from 30-50% less than mined diamonds of comparable size and quality. So if you were thinking of purchasing a 1 carat mined diamond, you could purchase a 1.5 carat man-made diamond of the same cut, clarity, and color for about the same price.

[Will anyone know you are wearing a man-made diamond? Man-made diamonds are virtually indistinguishable from mined diamonds, so no one can tell the difference. When you wear or display a man-made diamond, no one will ever know that it did not come from a diamond mine.]

Man-made diamonds – the world's best kept secret. Order yours today.

AGAPE | DIAMONDS

APPENDIX D

ESSAY 1: STUDY 3 NEWS ARTICLES [ETHICAL VERSUS CONTROL MANIPULATION IN BRACKETS]

It seems nearly impossible to watch TV or open a newspaper without seeing something about man-made diamonds. For hundreds of years science has tried to create a perfect synthetic diamond. Finally, 21st-century technology has made that prospect a reality. This ultimately begs the question – is a manmade diamond unromantic?

Man-made diamonds are created in high-temperature, high-pressure chambers that reproduce the conditions in the earth's crust. The result is carbon atoms arranged in the structure of a diamond crystal and diamonds that are every bit as magical as the ones created naturally millions of years ago and mined today. Lab diamonds are chemically and optically identical to natural diamonds – even experts can't tell the difference.

As far as the creation of a man-made diamond, it takes one synthetic diamond maker four days to grow a diamond of an average 2.5 carats. The process begins by placing a microscopic diamond grain into a 4,000-pound machine about the size of a kitchen oven. Under hundreds of thousands of pounds of pressure and at temperatures as high as 2,700 degrees Fahrenheit, the nugget grows, one atom at a time. It uses about 20 kilowatt-hours per carat.

[Ethical: There are many reasons to purchase synthetic diamonds instead of the mined variety. For example, there are the issues of "blood diamonds," forced child labor, and other disturbing diamond facts. Reports suggest that millions have died or suffered major injuries all for the sake of a diamond. Socially conscious celebrities such as Gwyneth Paltrow, Minnie Driver, and Angelina Jolie wear only synthetic diamonds to the many gala events they attend. Lab diamonds reduce the destruction of the Earth's resources resulting from the overmining of natural diamonds. Mining removes several hundred tons of earth to extract one carat worth of diamond.]

[Control: There are many reasons to purchase synthetic, man-made diamonds instead of the mined variety. For example, man-made diamonds typically cost a lot less than the mined variety. This can save the diamond consumer a considerable amount of money, which can either be saved or used on the setting of the ring or to upgrade to a more precious metal (e.g., platinum rather than silver or gold). They can also be ordered to fit the consumer's wishes in terms of size and shape. Moreover, man-made diamonds are virtually indistinguishable from mined diamonds, so no one can tell the difference.]

Man-made diamonds usually cost about 30% less than natural diamonds of comparable size and quality. Good synthetic diamonds are virtually indistinguishable from the mined variety and they cost thousands of dollars less.

APPENDIX E

ESSAY 1: STUDY 4 ADVERTISMENTS [WRITTEN MANIPULATION IN BRACKETS]

Embrace a sparkling masterpiece.

[Mined: A traditional mined diamond created by geologic processes that occur at great depths within the Earth and extracted using traditional mining techniques.]

[Lab: A lab-created diamond grown by scientists using high-temperature, high-pressure chambers resulting in the same physical and chemical properties as traditional mined diamonds.]

[Non-luxury brand:] AGAPE | DIAMONDS

[Luxury brand:] TIFFANY & CO.

APPENDIX F

ESSAY 1: STUDY 5 ADVERTISEMENTS [OTHERS WILL NOT KNOW VERSUS ETHCIAL VERSUS CONTROL MANIPULATION IN BRACKETS]

LABORATORY-GROWN DIAMONDS

Have you heard of lab-grown diamonds? For hundreds of years science has tried to create a perfect synthetic diamond. Finally, 21st-century technology has made that prospect a reality. Lab-grown diamonds are created in high-temperature, high-pressure chambers that reproduce the conditions in the earth's crust resulting in carbon atoms arranged in the same structure as a natural diamond. Is a laboratory-grown diamond right for you?

There are many reasons to purchase synthetic, lab-grown diamonds instead of the mined variety. For one thing, lab-grown diamonds cost about half the price of mined diamonds of comparable size and quality. So if you were thinking of purchasing a 1 carat mined diamond, you could purchase nearly a 2 carat lab-grown diamond of the same cut, clarity, and color for about the same price.

[Control: Lab-grown diamonds are produced by several different companies. Producers are located in various countries around the world. They sell lab-grown diamonds to U.S. jewelry retailers. Currently about thirty U.S. retailers stock lab-grown diamonds.]

[Ethical: Lab-grown diamonds are eco-friendly and conflict-free. Traditional diamond mining removes several hundred tons of earth to extract one carat worth of diamond and are often mined in war zones with forced labor. Lab-grown diamonds destroy virtually no natural resources and require minimal labor to produce.]

[Others Will Not Know: Lab-grown diamonds are virtually indistinguishable from mined diamonds. Traditionally mined diamonds look the same as lab-grown diamonds, so no one can tell the difference. When you wear or display a lab-grown diamond, no one will ever know that it did not come from a diamond mine.]

Lab-grown diamonds – the world's best kept secret. Order yours today.

[Non-luxury brand:] AGAPE | DIAMONDS

[Luxury brand:] TIFFANY & CO. NEW YORK SINCE 1837

APPENDIX G

ESSAY 2: STUDY 1 SPARKLING WATER STIMULI

Female

Why be still when you can sparkle.

Ravello Natural Sparkling Water

Smooth and stylish for your classy palate.

Male

Why be still? Be bold. Be daring. Be strong.

Ravello Natural Sparkling Water

Quench your thirst for adventure.

Neutral

Quench your thirst.

Ravello Natural Sparkling Water

100% pure and refreshing.

APPENDIX H

ESSAY 2: STUDY 1 BRAND PERSONALITY TRAITS (AAKER 1997)

Female

- Upper class
- Glamorous
- Good looking
- Charming
- Feminine
- Smooth

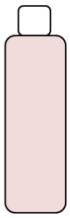
Male

- Outdoorsy
- Masculine
- Western
- Tough
- Rugged

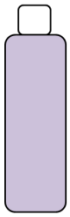
APPENDIX I

ESSAY 2: STUDY 2 PRE-TEST WATER BOTTLE STIMULI

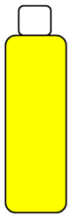
Pink



Purple



Yellow



Red

Orange

Light Red

Light Blue

Green

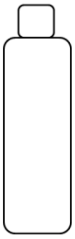
Gray

Brown

Dark Blue

Black

White



APPENDIX J

ESSAY 2: STUDY 2 MASCULINE/ FEMININE BRAND PERSONALITY SCALES (GROHMANN 2009)

Please rate how well each of the following adjectives describes the brand. 1 = Not at all Descriptive, 9 = Extremely Descriptive
Masculine Brand Personality (MBP)
Adventurous
Aggressive
Brave
Daring
Dominant
Sturdy
Feminine Brand Personality (FBP)
Expresses tender feelings
Fragile
Graceful
Sensitive
Sweet
Tender

APPENDIX K

ESSAY 2: STUDY 2 CORRELATION MATRIX FOR SES AND ECONOMIC INSECURITY

		Current SES	Economic insecurity in the past year	Economic insecurity in the upcoming year
Current SES	Pearson Correlation	1	-.170*	-.096
	Sig. (2-tailed)		.014	.166
	N	211	210	210
Economic insecurity in the past year	Pearson Correlation	-.170*	1	.517**
	Sig. (2-tailed)	.014		.000
	N	210	210	210
Economic insecurity in the upcoming year	Pearson Correlation	-.096	.517**	1
	Sig. (2-tailed)	.166	.000	
	N	210	210	210

APPENDIX L

ESSAY 2: STUDY 3 PEN AND WATER BOTTLE STIMULI

Pens

Female

Male

Water Bottles

Female

Male

APPENDIX M

ESSAY 2: STUDY 3 CORRELATION MATRIX FOR SES AND ECONOMIC INSECURITY

Correlations			
		Economic insecurity in the upcoming year	Current SES
Economic insecurity in the upcoming year	Pearson Correlation	1	-.007
	Sig. (2-tailed)		.948
	N	83	80
Current SES	Pearson Correlation	-.007	1
	Sig. (2-tailed)	.948	
	N	80	80

APPENDIX N

ESSAY 2: STUDY 4 ECONOMIC INSECURITY MANIPULATION

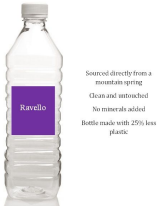
Many economists have a much worse [better] outlook on today's economy than they had a decade ago. It is true that according to a recent poll, more than 3.5 million Americans work at or below the minimum wage. Moreover, research conducted by the Bureau of Labor Statistics suggests that more than 300,000 recent college grads are working minimum wage jobs, a figure that is twice as high as it was merely 10 years ago.

Moreover, this may affect some college grads more than others. In particular, students who do not graduate from top 10 national universities (e.g., Princeton and Harvard) may fare significantly worse than those who do those who do not [students who graduate from top state universities (e.g., University of Maryland and Temple) may fare significantly better on the job market than those who do not.]These college grads have a much more difficult time finding jobs. Some statistics suggest that it could be almost twice as difficult for them to find employment. And when they do find jobs, they are not compensated very well. [These college grads have a much easier time finding jobs. Some statistics suggest that it could be almost twice as easy for them to find employment. And when they do find jobs, they are well-compensated.]

*Note: Manipulation in brackets [low insecurity]

APPENDIX O

ESSAY 2: STUDY 5 WATER BOTTLE ADVERTISEMENTS

Masculine Label (Blue)	Feminine Label (Pink)	Neutral Label (Purple)
		
		
		

APPENDIX P

ESSAY 2: STUDY 5 BEM'S SEX ROLE IDENTITY SCALE

Please indicate the extent to which each of the following items describes you: 1=Never, 7= Always

Male Roles

- Defends own beliefs
- Independent
- Has leadership abilities
- Strong personality
- Forceful
- Dominant
- Aggressive
- Assertive
- Willing to take a stand
- Willing to take risks

Female Roles

- Affectionate
- Warm
- Compassionate
- Gentle
- Tender
- Sympathetic
- Sensitive to needs of others
- Soothe hurt feelings
- Understanding
- Loves children

APPENDIX Q

ESSAY 2: STUDY 5 CORRELATION MATRIX FOR SES AND ECONOMIC INSECURITY

		Current SES	Economic insecurity in the past year	Economic insecurity in the upcoming year
Current SES	Pearson Correlation	1	-.031	-.187*
	Sig. (2-tailed)		.697	.019
	N	157	157	157
Economic insecurity in the past year	Pearson Correlation	-.031	1	.518**
	Sig. (2-tailed)	.697		.000
	N	157	157	157
Economic insecurity in the upcoming year	Pearson Correlation	-.187*	.518**	1
	Sig. (2-tailed)	.019	.000	
	N	157	157	157

APPENDIX R

ESSAY 2: STUDY 5 ADDITIONAL ANALYSES RESULTS

Purchase Intent

	Female Bottle F(2, 156) = 4.28, p = .016					Male Bottle F(2, 156) = 5.89, p = .003				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	5.47	.91		6.03	.000	5.93	.88		6.71	.000
Current SES	-.56	.22	-.20	-2.51	.013	-.66	.22	-.24	-3.06	.003
Gender	.46	.38	.10	1.20	.232	.44	.37	.09	1.20	.232

	Neutral Bottle F(2, 156) = 3.93, p = .022				
Variable	*b*	SE	β	*t*	*p*
Constant	5.40	.87		6.19	.000
Current SES	-.50	.21	-.18	-2.33	.021
Gender	.47	.37	.10	1.29	.199

	Female Bottle F(2, 156) = 1.86, p = .159					Male Bottle F(2, 156) = 1.64, p = .198				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	4.39	.78		5.63	.000	4.42	.77		5.77	.000
Econ Insecurity	-.31	.25	-.10	-1.25	.215	-.24	.24	-.08	-.99	.325
Gender	.53	.39	.11	1.39	.168	.55	.38	.12	1.45	.150

	Neutral Bottle F(2, 156) = 2.70, p = .071				
Variable	*b*	SE	β	*t*	*p*
Constant	4.67	.74		6.29	.000
Econ Insecurity	-.41	.24	-.14	-1.73	.086
Gender	.53	.37	.11	1.43	.154

Purchase Intent

	Female Bottle F(2, 156) = 4.32, p = .015					Male Bottle F(2, 156) = 4.26, p = .016				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	4.89	.76		6.45	.000	5.00	.74		6.72	.000
Past Yr Econ Insecurity	-.60	.24	-.20	-2.53	.012	-.58	.234	-.20	-2.48	.014
Gender	.58	.38	.12	1.54	.127	.59	.371	.12	1.58	.116

	Neutral Bottle F(2, 156) = 5.15, p = .007				
Variable	*b*	SE	β	*t*	*p*
Constant	5.05	.72		6.99	.000
Past Yr Econ Insecurity	-.64	.23	-.22	-2.80	.006
Gender	.58	.36	.36	1.62	.107

Willingness To Pay

	Female Bottle F(2, 156) = 3.54, p = .031					Male Bottle F(2, 156) = 3.51, p = .032				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	.77	.25		3.05	.003	.95	.24		4.03	.000
Current SES	-.01	.06	-.01	-.09	.933	-.05	.06	-.07	-.88	.378
Gender	.28	.11	.21	2.63	.009	.24	.10	.19	2.38	.018

	Neutral Bottle F(2, 156) = 3.87, p = .023				
Variable	*b*	SE	β	*t*	*p*
Constant	.91	.19		4.66	.000
Current SES	-.09	.06	-.12	-1.50	.135
Gender	.26	.10	.21	2.66	.009

Willingness To Pay

	Female Bottle F(2, 156) = 4.52, p = .012					Male Bottle F(2, 156) = 3.60, p = .030				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	.92	.21		4.32	.000	.91	.20		4.57	.000
Econ Insecurity	-.09	.07	-.11	-1.37	.174	-.06	.06	-.08	-.98	.330
Gender	.27	.11	.20	2.58	.011	.24	.10	.19	2.43	.016

	Neutral Bottle F(2, 156) = 4.97, p = .008				
Variable	*b*	SE	β	*t*	*p*
Constant	.91	.19		4.66	.000
Econ Insecurity	-.09	.06	-.12	-1.50	.135
Gender	.26	.10	.21	2.66	.009

	Female Bottle F(2, 156) = 4.32, p = .015					Male Bottle F(2, 156) = 4.26, p = .016				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	4.89	.76		6.45	.000	5.00	.74		6.72	.000
Past Yr Econ Insecurity	-.60	.24	-.20	-2.53	.012	-.58	.234	-.20	-2.48	.014
Gender	.58	.38	.12	1.54	.127	.59	.371	.12	1.58	.116

	Neutral Bottle F(2, 156) = 5.15, p = .007				
Variable	*b*	SE	β	*t*	*p*
Constant	5.05	.72		6.99	.000
Past Yr Econ Insecurity	-.64	.23	-.22	-2.80	.006
Gender	.58	.36	.36	1.62	.107

Total Clicks

	Female Bottle F(2, 156) = 3.98, p = .021					Male Bottle F(2, 156) = 6.61, p = .002				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	3.49	1.06		3.31	.001	3.68	1.01		3.64	.000
Current SES	-.23	.26	-.07	-.91	.367	-.31	.25	-.10	-1.24	.216
Gender	1.13	.44	.20	2.56	.012	1.16	.42	.22	2.74	.007

	Neutral Bottle F(2, 156) = 2.99, p = .053				
Variable	*b*	SE	β	*t*	*p*
Constant	3.69	1.00		3.71	.000
Current SES	-.20	.24	-.07	-.84	.403
Gender	.91	.42	.17	2.19	.030

	Female Bottle F(2, 156) = 4.09, p = .019					Male Bottle F(2, 156) = 6.61, p = .002				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	3.32	.89		3.72	.000	3.80	.85		4.50	.000
Econ Insecurity	-.29	.28	-.08	-1.02	.312	-.58	.27	-.17	-2.15	.033
Gender	1.14	.44	.21	2.60	.010	1.16	.42	.22	2.78	.006

	Neutral Bottle F(2, 156) = 6.95, p = .001				
Variable	*b*	SE	β	*t*	*p*
Constant	4.43	.82		5.40	.000
Econ Insecurity	-.75	.26	-.22	-2.89	.004
Gender	.87	.41	.17	2.15	.033

Total Clicks

	Female Bottle F(2, 156) = 5.60, p = .004					Male Bottle F(2, 156) = 7.71, p = .001				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	3.75	.87		4.31	.000	3.95	.83		4.77	.000
Past Yr Econ Insecurity	-.54	.27	-.15	-1.98	.050	-.68	.26	-.20	-2.59	.011
Gender	1.19	.44	.21	2.73	.007	1.24	.41	.23	2.99	.003

	Neutral Bottle F(2, 156) = 8.62, p = .000				
Variable	*b*	SE	β	*t*	*p*
Constant	4.59	.80		5.72	.000
Past Yr Econ Insecurity	-.86	.25	-.26	-3.40	.001
Gender	.97	.40	.19	2.43	.016

Total Time Spent

	Female Bottle F(2, 156) = .08, p = .919					Male Bottle F(2, 156) = 2.36, p = .098				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	22.73	16.25		1.40	.164	20.68	5.68		3.64	.000
Current SES	-1.48	3.96	-.03	-.37	.709	-2.72	1.38	-.16	-1.97	.051
Gender	.87	6.81	.01	.13	.899	1.66	2.38	.06	.70	.485

	Neutral Bottle F(2, 156) = 1.27, p = .283				
Variable	*b*	SE	β	*t*	*p*
Constant	17.24	6.46		2.67	.008
Current SES	-1.93	1.57	-.10	-1.23	.222
Gender	2.37	2.71	.07	.88	.383

Total Time Spent

	Female Bottle F(2, 156) = .02, p = .978					Male Bottle F(2, 156) = .56, p = .570				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	19.31	13.73		1.41	.162	11.23	4.85		2.32	.022
Econ Insecurity	-.52	4.34	-.01	-.12	.905	.82	1.54	.04	.54	.593
Gender	1.10	6.78	.01	.16	.871	2.28	2.40	.08	.95	.343

	Neutral Bottle F(2, 156) = .721, p = .488				
Variable	*b*	SE	β	*t*	*p*
Constant	13.54	5.48		2.47	.014
Econ Insecurity	-1.11	1.73	-.05	-.64	.524
Gender	2.63	2.70	.08	.97	.333

	Female Bottle F(2, 156) = .25, p = .783					Male Bottle F(2, 156) = .56, p = .572				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	23.41	13.54		1.73	.086	11.31	4.79		2.36	.020
Past Yr Econ Insecurity	-2.89	4.26	-.06	-.68	.499	.80	1.51	.04	.53	.597
Gender	1.23	6.76	.02	.18	.856	2.17	2.39	.07	.91	.365

	Neutral Bottle F(2, 156) = .70, p = .497				
Variable	*b*	SE	β	*t*	*p*
Constant	13.38	5.41		2.47	.014
Past Yr Econ Insecurity	-1.04	1.70	-.05	-.61	.543
Gender	2.77	2.70	.08	1.03	.306

Ad Recall

	Female Bottle F(2, 156) = .03, p = .971					Male Bottle F(2, 156) = .14, p = .867				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	-.98	.74		-1.34	.183	-1.61	.80		-2.01	.046
Current SES	.04	.18	.02	.22	.828	.10	.20	.04	.53	.600
Gender	-.03	.31	-.01	-.08	.933	.05	.34	.01	.16	.877

	Neutral Bottle F(2, 156) = .68, p = .508				
Variable	*b*	SE	β	*t*	*p*
Constant	-.76	.70		-1.09	.278
Current SES	.05	.17	.03	.31	.760
Gender	-.32	.29	-.09	-1.08	.280

	Female Bottle F(2, 156) = .79, p = .455					Male Bottle F(2, 156) = .11, p = .896				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	-1.31	.62		-2.11	.036	-1.48	.68		-2.19	.030
Econ Insecurity	.25	.20	.10	1.25	.212	.10	.21	.04	.46	.647
Gender	-.01	.31	.00	-.03	.980	.04	.33	.01	.13	.899

	Neutral Bottle F(2, 156) = .980, p = .378				
Variable	*b*	SE	β	*t*	*p*
Constant	-.33	.59		-.56	.574
Econ Insecurity	-.16	.19	-.07	-.83	.408
Gender	-.34	.29	-.10	-1.18	.239

Ad Recall

	Female Bottle F(2, 156) = .01, p = .994					Male Bottle F(2, 156) = .22, p = .802				
Variable	*b*	SE	β	*t*	*p*	*b*	SE	β	*t*	*p*
Constant	-.88	.61		-1.42	.157	-1.07	.67		-1.60	.112
Past Yr Econ Insecurity	.00	.19	.00	.02	.988	-.14	.21	-.05	-.66	.511
Gender	-.03	.31	-.01	-.11	.913	.04	.33	.01	.11	.915

	Neutral Bottle F(2, 156) = .82, p = .444				
Variable	*b*	SE	β	*t*	*p*
Constant	-.80	.58		-1.37	.172
Past Yr Econ Insecurity	.11	.18	.05	.61	.546
Gender	-.33	.29	-.09	-1.14	.258

Femaleness

	Female Bottle F(2, 156) = 3.56, p = .031				
Variable	*b*	SE	β	*t*	*p*
Constant	5.19	.81		6.43	.000
Current SES	-.44	.20	-.18	-2.25	.026
Gender	.40	.34	.09	1.17	.243

	Female Bottle F(2, 156) = 1.18, p = .309				
Variable	*b*	SE	β	*t*	*p*
Constant	3.65	.69		5.28	.000
Econ Insecurity	.13	.22	.05	.61	.546
Gender	.50	.34	.12	1.45	.149

	Female Bottle F(2, 156) = 2.37, p = .097				
Variable	*b*	SE	β	*t*	*p*
Constant	4.50	.68		6.64	.000
Past Yr Econ Insecurity	-.35	.21	-.13	-1.65	.102
Gender	.49	.34	.12	1.45	.149

Maleness

	Male Bottle F(2, 156) = .30, p = .739				
Variable	*b*	SE	β	*t*	*p*
Constant	4.59	.80		5.72	.000
Current SES	-.14	.20	-.06	-.70	.485
Gender	.09	.34	.02	.26	.794

	Male Bottle F(2, 156) = .12, p = .887				
Variable	*b*	SE	β	*t*	*p*
Constant	4.06	.68		5.97	.000
Econ Insecurity	.08	.22	.03	.35	.727
Gender	.12	.34	.03	.37	.715

	Male Bottle F(2, 156) = 2.33, p = .100				
Variable	*b*	SE	β	*t*	*p*
Constant	4.96	.66		7.50	.000
Past Yr Econ Insecur	-.44	.21	-.17	-2.13	.035
Gender	.13	.33	.03	.38	.704