The Influence of Subjective Socioeconomic Status

on Consumption Decision Making

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Abstract

The Influence of Subjective Socioeconomic Status on Consumption Decision Making
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This dissertation investigates the influence of subjective socioeconomic status (SSES) on consumers' decision making in conspicuous, impulsive, and compulsive consumption. It comprises three essays. The first essay examines whether and how SSES impacts conspicuous consumption decisions. Two studies reveal that SSES drives consumers' conspicuous purchases via a sense of entitlement, and that this effect of SSES is stronger for consumers who are higher in trait achievement vanity. The second and third essays probe the impact of SSES on consumers' impulsive and compulsive buying decisions. The second essay posits that SSES drives both impulsive and compulsive buying through a sense of entitlement and price sensitivity. Such wellbeing-detrimental effect of SSES is expected to get worse in more materialistic consumers. In contrast, the third essay proposes a consumer wellbeing-beneficial process, that is, SSES buffers both impulsive and compulsive buying through a sense of control. This effect of SSES is predicted to get stronger in consumers who have a greater perceived power. These hypothesized relationships between SSES and impulsive and compulsive buying are tested and supported by results from both one cross-sectional study and one experimental study in each essay. In line with previous literature, this dissertation shows that SSES predicts consumer decisions consistently and independently from objective socioeconomic status (OSES).

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Contributions of Authors

The research idea of this thesis was originally inspired by my readings in Dr. Bianca Grohmann's PhD seminar course The Meaning and Management of Brands. Throughout this thesis project, Dr. Grohmann gave me very helpful guidance, from the conceptual development to experimental designs to data analysis to the writing and preparation of the manuscripts to the financial support for data collection. The idea of the second and third essays was presented as a working paper coauthored with Dr. Grohmann in the 2022 Association for Consumer Research Conference held in Denver, Colorado.

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Introduction

Social status (or socioeconomic status, SES, social position, social class; these terms are used interchangeably throughout this dissertation) generally refers to the relative position an individual occupies in a certain social structure typically reflected by prestige and influence and grounded in the possession of or control over privileged or socially desirable resources (e.g., wealth, education) (Groysberg et al., 2011; Hollingshead, 1975; Rhee & Choi, 2017). Having started mainly from research in sociology and psychology (Bernstein, 1960; Bourdieu, 1987; Cattell, 1942; Hollingshead & Redlich, 1958; Kohn, 1959; Lenski, 1954), discussions around social status have been growing in marketing research over decades, relating to a wide range of topics such as market segmentation (Shavitt et al., 2016), advertising persuasion (Grier & Deshpandé, 2001), service performance (Yagil & Medler-Liraz, 2019), consumer ethnocentrism (Caruana, 1996), information search (Hugstad et al., 1987), shopping patterns (Rich & Jain, 1968), purchase evaluation criteria (William, 2002), spending behavior (Martineau,1958; Slocum & Mathews, 1970), object valuation (O'Guinn et al., 2015), budgeting and investing (Henry, 2005), alcohol drinking (Järvinen et al., 2014), green consumption (Yan et al., 2021), and donation allocation (Vieites et al., 2022). Social status can be understood from both objective and subjective perspectives, and discrepancy exists between them (Coburn & Edwards, 1976; Goyder, 1975). Past studies in marketing have focused on the objective social status (i.e., OSES) and the subjective social status (i.e., SSES), namely consumers' perceived social status, has been underexplored. The present dissertation pinpoints a few consumer buying scenarios that may relate to SSES and aims to advance our understanding of its role in consumption decision making.

The first essay "Subjective Socioeconomic Status and Conspicuous Consumption" examines whether and how SSES contributes to conspicuous consumption, a consumption scenario named by Thorstein Veblen (1899) to depict ostentatious acquisitions or possessions aimed for status signaling. The flaunters of status items were only limited to the wealthy noble or elite of society at the beginning but nowadays also include more low-income people. Substantial discussions about OSES and conspicuous consumption in literature indicate that consumers from the bottom of social hierarchy (i.e., low OSES) tend to consume conspicuously for status compensation or social comparison (Bloch et al., 2004; Griskevicius et al., 2010; Ordabayeva & Chandon, 2011). However, consumer behavior literature has paid little attention to the relationship between SSES and conspicuous consumption and the finding is limited to that the use of conspicuous items leads to an elevated SSES (Corneo & Jeanne, 1997; Shukla, 2008). That is, SSES is mostly seen as an outcome of conspicuous consumption (Corneo & Jeanne,

1997; Shukla, 2008) instead of its antecedent. This essay aims to fill the gap by delving into its antecedental role in conspicuous consumption. Across two studies that respectively measure SSES as an individual difference trait (Study 1) and experimentally manipulate SSES as a situationally triggered state (Study 2), this essay demonstrates that SSES is positively associated with conspicuous consumption through the sense of entitlement. This antecedental effect of SSES on conspicuous consumption is stronger in consumers with more achievement vanity. The impact of SSES stands independent of OSES. Managerially, these findings illuminate to marketers the importance of collecting and leveraging SSES-related consumer information besides typical OSES-related data.

Apart from the insights into how marketers can leverage SSES to optimize business strategies, our research seeks to add to consumer welfare by digging into the role of SSES in consumers' wellbeing-concerning buying decisions. The second essay "Subjective Socioeconomic Status: A Driver for Impulsive and Compulsive buying" investigates whether and how SSES relates to two consumer wellbeing-detrimental shopping behaviors – impulsive and compulsive buying. Specifically, we propose that SSES contributes to both impulsive and compulsive buying decisions, and these relationships are explained by the sense of entitlement and price sensitivity. Moreover, results show that the more materialistic one consumer is, the stronger the driving effect of SSES is. From the perspective of consumer wellbeing, these results alert consumers, especially those who have inflated SSES but stay in disadvantageous financial status, to the risks of eliciting or worsening financial difficulties due to their impulsive and compulsive purchases.

The third essay "From Subjective Socioeconomic Status to Impulsive and Compulsive Buying: A Control-based Process" is a continuing research effort in probing the relationship between SSES and impulsive and compulsive buying. According to the duality of the human mind in reasoning (i.e., dual-process theory, Evans, 2003, 2008; Osman, 2004), people go through two unique systems of thinking and make different and often opposing decisions. Drawing on this theory, we believe that there is an opposing psychological process from SSES to impulsive and compulsive buying decisions. That is, besides intuitively following the desire for impulsive and compulsive purchases, consumers can also control or suppress the urge to buy. This essay thus investigates the decision-making process of why consumers hold back from their desires for impulsive and compulsive purchases. Results from two studies consistently demonstrate an inhibitory process from SSES to both impulsive and compulsive buying through the sense of control. This psychological process of suppressing desires for impulsive and compulsive purchases is more pronounced among people with stronger perceived power.

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Essay 1 - Subjective Socioeconomic Status and Conspicuous Consumption

Abstract

Substantial discussions regarding socioeconomic status and conspicuous consumption in the marketing literature prominently focus on objective socioeconomic status (OSES). However, whether and how one's subjective socioeconomic status (SSES) contributes to conspicuous consumption remains unexamined. This research proposes that 1) SSES exerts a positive impact on conspicuous consumption, 2) the sense of entitlement mediates this effect, and 3) the effect of SSES is stronger in consumers with greater achievement vanity. Two studies that measure SSES as an individual difference trait (Study 1) and experimentally manipulate SSES as a situationally triggered state (Study 2) support these predictions. The effect of SSES on conspicuous consumption remains consistently independent of OSES.

Keywords: subjective socioeconomic status, sense of entitlement, achievement vanity, conspicuous consumption

Introduction

Understanding socioeconomic status (hereinafter referred to as SES) matters (Carey & Markus, 2016). Reflecting real or perceived socioeconomic disparities in societies, SES impacts cognitive development in childhood (Buckhalt et al., 2007; Hackman & Farah, 2009), academic performance at school (Bradley & Corwyn, 2002; Malecki & Demaray, 2006; Sirin, 2005), physical and mental health (e.g., cancer, Bradley et al., 2002; obesity, McLaren, 2007; mental illnesses, Hudson, 2005), financial decision making (Caplan & Schooler, 2007; Griskevicius et al., 2013; Zimmerman & Katon, 2005), political attitudes and engagement (Brown-Iannuzzi et al., 2017), etc. Consumption is shaped by SES as well (e.g., Kamakura & Mazzon, 2013). Consumer behavior cannot be well understood if SES is not considered (Shavitt et al., 2016), because consumers of different SES tend to go through divergent psychological processes with their unique systems of thinking and end up with varying responses, decisions, and behaviors (Carey & Markus, 2016). From a managerial perspective, SES is widely acknowledged as one of the most fundamental considerations in formulating marketing strategies, such as segmenting and targeting (Schaninger, 1981; Slocum & Mathews, 1970).

SES can be understood in both objective and subjective ways. However, the marketing literature has focused on the objective SES (hereinafter referred to as OSES) and the role of subjective SES (hereinafter referred to as SSES) in consumption remains underexplored. As perception often plays a notable role in decision making (e.g., Brown & Groeger, 1988; VanRullen & Thorpe, 2001; Yee & San, 2011), we believe that understanding how an individual perceives his or her own socioeconomic position matters no less than understanding where an individual actually stands in a social hierarchy. More research is thus warranted to think outside the box of OSES and probe how individual consumers may perceive, live, and experience SES in their own ways and how the perceived SES (i.e., SSES) may influence their cognitive, affective, and behavioral outcomes.

In response to the call, this paper delves into the influence of SSES on consumer decision making in conspicuous purchases. As the first research to directly probe the relationship between SSES and conspicuous consumption, this paper generates both theoretical and managerial contributions. Theoretically, it contributes to the marketing literature on conspicuous consumption by unveiling SSES as one antecedental contributor to conspicuous consumption and the sense of entitlement as the underlying psychological mechanism. Second, it provides researchers with a more nuanced understanding about how the effect of SSES on conspicuous consumption varies as a function of one's personality trait - achievement vanity. Managerially, this study illuminates to marketing practitioners the

significance of consumers' SSES in their consumption decision making and the potential of reducing excessive dependence on OSES in marketing effort.

Conceptual Background and Hypotheses

Socioeconomic Status

Socioeconomic status (i.e., "SES"), also referred to as social standing, social position, social class, social rank(ing), and social status in the literature, is an individual difference or demographic variable discussed in research fields such as education, psychology, sociology, and pathology. The SES literature relates to academic achievement (Malecki & Demaray, 2006; Ollendick et al., 1992), psychological well-being (Adler et al., 2000; Kessler, 1979), diseases (Marmot et al., 1987; Singh-Manoux et al., 2003), obesity (Goodman et al., 2003; Pavela et al., 2016), violence (Greitemeyer & Sagioglou, 2016; Heimer, 1997), alcohol addiction (Huckle et al., 2010; Van Oers et al., 1999), racism and discrimination (Dunbar & Simonova, 2003; Krieger et al., 1993), etc. In consumer research (Kamakura & Mazzon, 2013), SES is linked to diverse topics, including conspicuous consumption (Eastman & Goldsmith, 1999; Husic & Cicic, 2009; Kastanakis & Balabanis, 2012; O'Cass & McEwen, 2004). The literature distinguishes individual SES from aggregated SES (e.g., family-based or neighborhood-based SES; Berger & Brooks-Gunn et al., 2005; Caldas & Bankston, 1997), especially in education and child development research. Individual-level SES can be understood from an objective or subjective perspective. The literature has considered objective and subjective SES as distinct for decades (Coburn & Edwards, 1976; Jackman & Jackman, 1973). Individual-level SES is the focus of this research.

Objective and Subjective Socioeconomic Status

The literature refers to objective socioeconomic status (i.e., OSES) in terms of social status, social position, social class, social standing, or socioeconomic status. Despite lack of an unanimously accepted definition, OSES generally means the actual position of an individual in the social structure based on his or her possession of or control over competitive social resources typified by wealth, power, and social prestige (Mueller & Parcel, 1981; Sirin, 2005). Subjective socioeconomic status (i.e., SSES), also called subjective social identification (Goyder, 1975), is the perceived or felt social status (Coburn & Edwards, 1976; Garbarski, 2010; Gianaros et al., 2007; Wyatt & Gilbert, 1998). It refers to the belief or perception of one's own position in the socioeconomic hierarchy (Davis, 1956; Jackman & Jackman, 1973). Like OSES, SSES is examined in research disciplines such as psychology, pathology, sociology, and health studies (e.g., Demakakos et al., 2008; Goodman et al., 2003, 2007; Operario et al., 2004; Senn et al.,

2014; Singh-Manoux et al., 2003, 2005a, 2005b).

Since actual socioeconomic situation often plays a role in one's self-placement in a social hierarchy, OSES and SSES are correlated (Hout, 2008; Lindemann & Saar, 2014). However, compared to OSES, SSES is a more complex concept due to the involvement of self-perception. One's self-perception is often inaccurate and biased (Mabe & West, 1982) due to its subjectivity, typically either self-enhanced or self-diminished (John & Robins, 1994). The accuracy of one's diagnosis concerning a certain aspect (e.g., performance, ability, status) can be affected by various factors, such as status inconsistency (Lenski, 1954; Malewski, 1963), internal locus of control (Mabe & West, 1982), social comparison (Collins, 1996), self-evaluation instruction (Hewitt, 2011), age and gender (Beyer, 1990; Salley et al., 2010), or experience and feedback (Urban & Urban, 2020). The conceptual discrepancy between OSES and SSES has been empirically verified in literature. For instance, in national surveys conducted in the US between 1945 and 1969, Goyder (1975) documents a declining congruence between OSES and SSES. Investigating the OSES-SSES interrelation, Coburn and Edwards (1976) find that the commonly used predictors of OSES, such as education, occupation, and income, can only explain a minor part of the variance (no more than 32%) in SSES.

Due to this discrepancy, OSES and SSES differ in their predictive validities for individual-based cognitive, attitudinal, and behavioral outcomes. Researchers in health and education tend to regard SSES as a better measure of social status at the individual level than OSES. Compared to OSES, Adler et al. (2000) find that SSES has a more consistent and stronger association with an individual's psychological and physiological functioning in their study on social class and health. Singh-Manoux and colleagues (2005) document with a sample of middle-aged individuals that, although both OSES and SSES are separately and significantly related to health outcomes and health status change, as composite global measures of social status, only SSES is a consistent predictor when both are included in the model. In higher education research, Rubin and colleagues (2014) propose to incorporate the subjective self-definitions of social class (i.e., SSES) into the measurement of SES for students, in line with the increasing emphasis on SSES by psychological and sociological researchers. Notwithstanding, the potential influence of SSES, relative to the widely used OSES, on consumer behavior remains underexplored and the present work seeks to advance knowledge by investigating SSES and conspicuous consumption.

Socioeconomic Status and Conspicuous Consumption
Originating from Veblen's (1899) portrayal of the leisure class of the 19th century, conspicuous

consumption refers to a consumption phenomenon wherein consumers purchase and show off expensive products for the purpose of impression management, such as gaining or maintaining social prestige or image through status-laden or luxury brands (Han et al., 2010; Nunes et al., 2011; O'cass & Frost, 2002), and impressing others with showy spending (Bellezza & Berger, 2020; Sundie et al., 2011; Wang & Griskevicius, 2014). A substantial body of literature examines conspicuous consumption (see a recent meta-analytic review, Kumar et al., 2022) and its antecedents, such as pride (Griskevicius et al., 2007; McFerran et al., 2014; Septianto et al., 2021), need for uniqueness and social comparison (Jebarajakirthy & Das, 2021; Latter et al., 2010), prestige seeking (Griskevicius et al., 2010; Shukla, 2008), and public self-consciousness (Balabanis & Stathopoulou, 2021).

Regarding the relationship between social status and conspicuous consumption, studies generated two major findings. One focuses on OSES and establishes that consumers from the bottom of the social pyramid (i.e., low OSES) prefer status-signaling conspicuous spending for reasons such as "keeping up with the Joneses" (Bloch et al., 2004; Ordabayeva & Chandon, 2011) or associating themselves with those of high social status (Griskevicius et al., 2010; Han et al., 2010). The other involves the perception of one's social status, namely SSES, and regards elevated SSES as a desirable consequence of conspicuous consumption (Corneo & Jeanne, 1997; Shukla, 2008). However, no studies to date have investigated whether and how SSES influences conspicuous consumption. The current work aims to fill the gap. We postulate that SSES positively relates to conspicuous consumption. This prediction builds on previous studies. In four studies on pride and social status, Bolló et al. (2018) find a consistent positive effect of SSES, measured or manipulated, on authentic pride via prestige. That is, the higher SSES, the greater perceived prestige and subsequent authentic pride. According to McFerran et al. (2014), authentic pride drives one's desire for luxury brands or purchases that are visible and conspicuous (i.e., costly and status- or prestige-laden). Taken together, these findings suggest that SSES, as a source of authentic pride, positively influences consumers' preference or desire for conspicuous items like noticeable luxury brands. In Singh-Manoux et al.'s (2003) work on subjective social status, there is conceptual overlap between OSES and SSES, and, more importantly, SSES entails two distinctive indicators – "satisfaction with standard of living and feeling of financial security regarding the future" (p. 1321). An individual who feels belonging to a higher social status group (i.e., higher SSES) feels more satisfied with life and more financially secure regarding the future. Just as high OSES indicates actual wealth or resource availability and abundance (Corneo & Jeanne, 2001), high SSES impacts people's perceptions of resource availability and abundance, and thus affordability of conspicuous and often expensive products. As a result, consumers of high SSES are more likely to

consume conspicuously than those with low SSES. Therefore, we hypothesize:

H1: SSES positively relates to conspicuous consumption.

The Mediating Role of Sense of Entitlement

Entitlement refers to an individual's sense or perception of "deserving more and being entitled to more than others" (Campbell et al., 2004, p. 31). It can be a personality trait or a psychological state (i.e., sense of entitlement or state entitlement; Zitek et al., 2010). Building on the literature, we propose that the sense of entitlement mediates the relationship between SSES and conspicuous consumption. On the one hand, the literature explicitly suggests a positive relationship between social status and entitlement. Across five studies with both university and national samples, Piff (2014) consistently shows that an individual with a higher social status, regardless of OSES or SSES, tends to have a stronger sense of entitlement and, consequently, appear more narcissistic. More support lies in Martin et al.'s (2016) study on childhood social status, and Côté et al.'s (2021) study on both current and childhood social status. Notwithstanding evidence for the positive SES-entitlement link, none of these studies has manipulated SSES experimentally. To provide evidence of a causal relationship between SESS and conspicuous consumption, the current research experimentally tests whether situationally evoked SSES increases feelings of entitlement. On the other hand, the literature suggests that the sense of entitlement can be a positive antecedent to conspicuous consumption. Viewing both entitlement and conspicuous consumption as two kinds of money attitudes held by adolescent consumers, Gudmunson and Beutler (2012) empirically confirm that these two concepts are positively correlated ($r = .34$). More direct support comes from Wu et al.'s (2017) finding that the feeling of entitlement triggered by winning a competition drives consumer preference for high-status (versus low-status) products that are more conspicuous in nature. As such, we have reason to expect that the sense of entitlement induced by high SSES increases consumers' desire for conspicuous products. Taken together, we hypothesize:

H2: The sense of entitlement mediates the relationship between SSES and conspicuous consumption.

The Moderating Role of Achievement Vanity

According to Netemeyer et al. (1995), vanity arises from two domains: physical appearance and personal achievement. Since social status is typically more relevant to personal achievement than physical appearance, the current research focuses on the achievement domain of vanity. Achievement vanity refers to "an excessive concern for, and/or a positive (and perhaps inflated) view of, one's personal achievement" (Netemeyer et al., 1995, p. 612). It is conceptually correlated with conspicuous

consumption. In Netemeyer et al.'s (1995) discussion of achievement vanity, they explicitly acknowledge that conspicuous consumption, along with materialism, could be "behavioral manifestations of achievement vanity" (p. 623). Indeed, it is common to see that consumers with achievement vanity signal their accomplishment through flaunting their material possessions or consumption experiences, especially those costly or conspicuous ones (Belk, 1985; Richins & Dawson, 1992). Moreover, literature supports the positive relationship between achievement vanity and conspicuous consumption. Studies of both Hung et al. (2011) and Sharda and Bhat (2019) investigate antecedents of luxury brand consumption, one typical form of conspicuous consumption (Kumar et al., 2022), and confirm that vanity, especially achievement vanity, serves as an antecedent to purchase intention for conspicuous luxury products. In other words, the impact of achievement vanity is aligned with the predicted effect of SSES on conspicuous consumption. As vanity is positively correlated with entitlement (Netemeyer et al., 1995; Raskin & Terry, 1988; Reidy et al., 2008), we expect that among individuals of high SSES, the higher one's achievement vanity is, the more entitled one feels, and consequently the more likely one makes conspicuous purchases. Alternatively, we can expect that the positive relationship between sense of entitlement and conspicuous consumption is stronger among consumers with higher achievement vanity. Hence, we hypothesize:

H3: Achievement vanity moderates the indirect effect of SSES on conspicuous consumption, such that a) the relation between SSES and the sense of entitlement strengthens as achievement vanity increases, and/or b) the effect of the sense of entitlement on conspicuous consumption strengthens as achievement vanity increases.
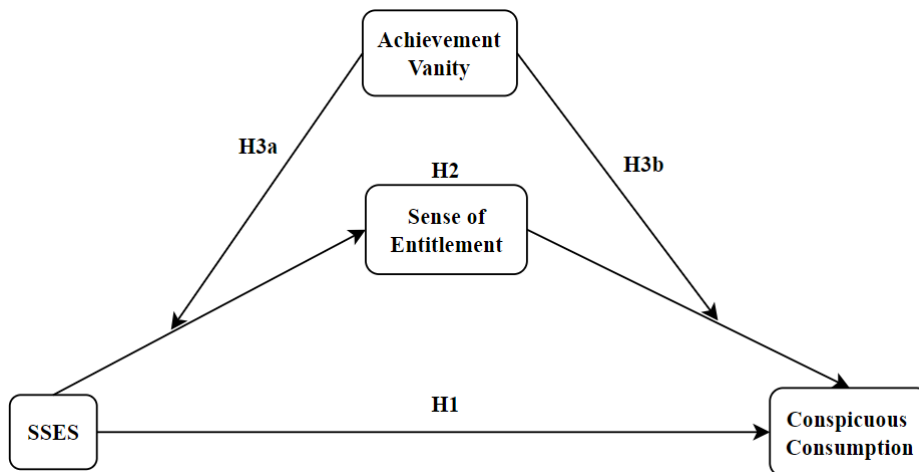
Figure 1.1. Conceptual framework

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Study 1

Study 1 tests the associations between SSES, the sense of entitlement, achievement vanity, and conspicuous consumption (H1-H3) with a sample of American participants.

Participants and Procedure

A sample of 348 adults (188 males, 160 females) recruited via Amazon Mechanical Turk completed online questionnaires on Qualtrics and provided valid responses in exchange for a monetary reward (US$ 0.65). Among them, 173 were between 18-64 years old and 175 were between 65 and above; 226 were White/Caucasian and 122 were Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicity; 226 were married or in a domestic partnership and 122 were single or never married, widowed, divorced, or separated. After participants provided informed consent, they completed measures of achievement vanity, SSES, the sense of entitlement, conspicuous consumption, income, education, occupation, marital status, age, gender, and ethnicity.

Measures

SSES (M = 6.7, SD = 1.77) was measured on a 1 (the lowest/bottom) to 10 (the highest/top) scale by following the self-anchoring procedure (Adler et al., 2000). Participants were asked to mark the location of their self-perceived social status in a 10-rung ladder drawing. The higher participants put themselves on the ladder, the higher their SSES was. *The sense of entitlement* (α = .89, M = 4.51, SD = 1.21) was measured with the nine-item psychological entitlement scale (Campbell et al., 2004) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Conspicuous consumption* (α = .89, M = 3.29, SD = 1.15) was measured with the four-item conspicuous consumption scale (Rucker & Galinsky, 2009). Participants reported how visible/invisible, big/small, noticeable/unnoticeable, and conspicuous/inconspicuous they would prefer the brand logos to be (anchored 1 = not at all, 5 = extremely) in a scenario wherein they needed to buy a piece of high-end clothing (Lee & Shrum, 2012). *Achievement vanity* (α = .94, M = 4.92, SD = 1.24) was assessed with the 10-item achievement vanity scale (Netemeyer et al., 1995) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score of each of the sense of entitlement, conspicuous consumption, achievement vanity was generated by averaging scores for all corresponding scale items. *OSES* was indexed by income, because relative to other indicators such as education and occupation, income has been regarded as a more objective measure directly substantiating an individual's socioeconomic resources (Côté et al., 2013; Johnson et al., 2011; Krieger et al., 1997; Piff, 2014; Piff et al., 2010). Detailed information about

these variables and measurement items is included in Appendix 1.

Results and Discussions

Correlational analysis examined the associations between SSES, sense of entitlement, and conspicuous consumption while accounting for OSES. As expected, SSES was positively associated with conspicuous consumption, $r(345) = .54$, $p < .001$, providing preliminary support for H1. SSES was positively associated with sense of entitlement, $r(345) = .52$, $p < .001$, and the sense of entitlement was positively associated with conspicuous consumption, $r(345) = .74$, $p < .001$, showing initial evidence for H2. Without controlling for OSES, the zero-order correlations between the focal variables above remained identical. SSES was positively associated with OSES, $r(346) = .14$, $p = .007$. Discriminant validity between the sense of entitlement and achievement vanity was established: The constructs' square root of average variance extracted (i.e., .77 and .80, respectively; both larger than .50, Hair et al., 2011) exceeded their correlations with other constructs in the conceptual model (Fornell & Larcker, 1981).

To test H1- H3, a moderated mediation analysis was conducted by running Hayes' (2017) Model 58 of PROCESS macro with 5,000 bootstrap samples, with SSES as the predictor, achievement vanity as the moderator, the sense of entitlement as the mediator, conspicuous consumption as the criterion, and OSES as a control variable.
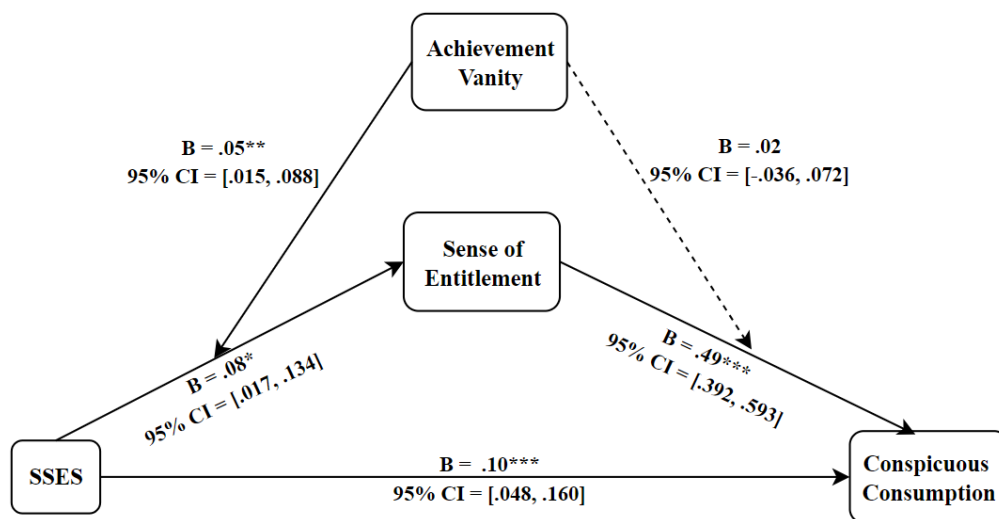
Note: *<.05; **<.01; ***<.001.

Figure 1.2. Conditional indirect effects of SSES on conspicuous consumption

Table 1.1. Model coefficients for the conditional process Model 58

		Sense of Entitlement (M)					Conspicuous Consumption (Y)			
		B	SE	p	95% CI		B	SE	p	95% CI
SSES	a_1	.08	.03	.011*	.017, .134	c'	.10	.03	.000***	.048, .160
Achievement Vanity	a_2	.70	.04	.000***	.609, .784	b_2	.18	.05	.000***	.081, .287
SSES*Achievement Vanity	a_3	.05	.02	.006**	.015, .088	-	-	-	-	-
Sense of Entitlement	-	-	-	-	-	b_1	.49	.05	.000***	.392, .593
Sense of Entitlement *Achievement Vanity	-	-	-	-	-	b_3	.02	.03	.507	-.036, .072
Constant	e_M	.36	.10	.000***	.154, .562	e_Y	3.35	.10	.000**	3.154, 3.553
				$R^2 = .59$					$R^2 = .60$	
			$F(4, 343) = 125.17, p = .000***$					$F(5, 342) = 100.98, p = .000***$		

Note: *<.05; **<.01; ***<.001.

As Table 1.1 shows, SSES was positively associated with conspicuous consumption, $B = .10$, $SE = .03$, $t = 3.66$, $p < .001$, 95% CI = [.048, .160], indicating the direct effect of SSES on conspicuous consumption predicted in H1. SSES was positively associated with the sense of entitlement, $B = .08$, $SE = .03$, $t = 2.55$, $p = .011$, 95% CI = [.017, .134], and the sense of entitlement was positively associated with conspicuous consumption, $B = .49$, $SE = .05$, $t = 9.66$, $p < .001$, 95% CI = [.392, .593]. This suggests that the higher one's SSES is, the more entitled one feels, and thus the more likely one engages in conspicuous consumption. Thus, we found evidence for the mediating role of the sense of entitlement stated in H2. As predicted in H3a, achievement vanity significantly interacted with SSES in affecting the sense of entitlement, $B = .05$, $SE = .02$, $t = 2.78$, $p = .006$, 95% CI = [.015, .088]. However, no significant interaction between the sense of entitlement and achievement vanity was found on conspicuous consumption, $B = .02$, $SE = .03$, $t = .66$, $p = .507$, 95% CI = [-.036, .072].

To probe the interactive effect of SSES and achievement vanity on the sense of entitlement, the Johnson-Neyman (1936) technique, also known as floodlight analysis (Spiller et al., 2013), was conducted with SSES and achievement vanity mean centered and the 16th, 50th, and 84th percentiles of the distribution of achievement vanity selected as the point values (i.e., -1.318, .282, and 1.182, respectively). One region of significance emerged (see Appendix 2): When achievement vanity exceeded -.303 ($B_{JN} = .06$, $SE = .03$, $t = 1.97$, $p = .05$, 95% CI = [.000, .120]; 62.9% of its distribution was located above this value), there was a significant positive relationship between SSES and the sense of entitlement and this relationship strengthened as the value of achievement vanity increased (H3a). As expected, the conditional effect of SSES on the sense of entitlement was stronger when achievement vanity was at the value of 1.182 ($B = .14$, $SE = .04$, $t = 3.80$, $p < .001$, 95% CI = [.066, .206]) than at the value of .282 ($B = .09$, $SE = .03$, $t = 3.02$, $p = .003$, 95% CI = [.031, .148]). Hence, H3a was supported. As a control variable, OSES was negatively associated with sense of entitlement, $B = -.12$, $SE = .02$, $t = -4.83$, $p <$

.001, *95% CI* = [-.163, -.069], but no significant association with conspicuous consumption emerged. Model results were consistently replicated, regardless of whether to control for OSES and other demographic variables (i.e., age, gender, ethnicity, marital status, and education) were included as control variables.

Study 2

Study 2 is an online experiment to replicate the findings of Study 1. SSES is experimentally manipulated to test the positive relationship between SSES and conspicuous consumption (H1), the mediating effect of the sense of entitlement (H2), and the moderating effects of achievement vanity (H3). Study 2 employs different measures of the sense of entitlement and conspicuous consumption.

Participants and Procedure

List-wise deleting 166 incomplete (i.e., unfinished for various reasons) and inappropriate (i.e., not following instructions about response format or content) responses, a total of 289 usable responses (113 males, 176 females; M_{age} = 34.40, age range:18-69) were collected from Amazon Mechanical Turk workers, who finished online questionnaires in exchange for a monetary reward (US$ .72). Among respondents, 187 were White/Caucasian and 102 were other ethnicities (including Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicity); 149 were married or in a domestic partnership and 140 were single or never married, divorced, or separated. After providing informed consent, participants completed the experimental manipulation of SSES and measures for the variables in this study.

Manipulation of SSES. Following Kraus et al. (2009; 2010), we manipulated SSES as follows: Participants were shown an image of a 10-rung ladder and asked to see the ladder as representing "where people stand in the United States, from the bottom rung (1= the worst off) to the top rung (10 = the best off)." They were then randomly assigned to the high SSES or low SSES condition, and received the following instructions:

> *"Imagine you are in a getting acquainted interaction with one of the people you just thought about from the very bottom/top rung of the ladder above. These people are the worst/best off (= 1/10) (i.e., having the least/most money, the least/most education, and the least/most respected jobs).*
> *Think about how the differences between you might impact what you would talk about, how the interaction is likely to go, and what you and the other person might say to each other. Then write*

down 3 to 5 full sentences (not words/phrases) you would say to that person.

NOTE: Words, phrases, general greetings, any other random responses that are irrelevant to this specific situation, or any valid but repetitive responses are not accepted. Your responses will be validated one by one."

These instructions to write about a hypothetical interaction with an individual from the top/bottom of the ladder served the purpose of boosting the efficiency of the subsequent manipulation of SSES. After the writing task, participants were asked to make social comparisons with individuals at the top/bottom of the ladder and evaluate their own socioeconomic status position on that ladder, with the following instructions:

"Now, please compare yourself to these people at the very bottom (1 = the worst off)/top (10 = the best off) of the ladder who have the least/most money, the least/most education, and the least/most respected jobs. In particular, we'd like you to think about how you are different from these people in terms of your own income, educational history, and job status. Where would you place yourself on this ladder relative to them?"

After rating their SSES on the 10-rung scale of Adler et al. (2000), participants completed measures of achievement vanity, sense of entitlement, OSES (i.e., income), conspicuous consumption, marital status, age, gender, and ethnicity.

Measures

Achievement vanity ($\alpha = .90$, $M = 3.85$, $SD = 1.37$) was assessed with the achievement vanity scale (Netemeyer et al., 1995) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score of achievement vanity was generated by averaging scores for all scale items. Sense of entitlement and conspicuous consumption were assessed with different measures in this study. *The sense of entitlement* ($M = 3.88$, $SD = 1.22$) was measured with the Me Versus Other Scale (Campbell et al., 2004). This scale includes seven diagrams representing how a person sees the self compared with others, coded on a scale ranging from 1 to 7. Each diagram has four circles in different sizes, one circle representing "me" and three representing "other". From the first to the seventh diagrams, the size of the "me" circle increases, and the size of "other" circles decreases. The bigger the "me" circle is, the more entitled a person feels. The first diagram, coded as 1, includes the smallest "me" circle but the largest "other" circles whereas the seventh diagram, coded as 7, includes the largest "me" circle and the smallest "other" circles. Treating entitlement as a state, we asked participants "at this moment, which diagram best represents how you see yourself compared with others?" *Conspicuous*

consumption (α = .89, *M* = 3.55, *SD* = 1.27) was measured with a nine-item scale combining two conspicuous consumption measures (Griskevicius et al., 2007, Study 1; Sundie et al., 2011, Study 3). Participants compared themselves to their peers regarding how much money they would spend on each of the following nine products: a new car, a new watch, a new cellphone, a new pair of dress shoes, a dinner with friends, a new jacket, a new shirt, a new pair of sunglasses, and a vacation to Europe (anchored 1 = much less, 7 = much more). The composite score for conspicuous consumption was generated by averaging the scores of all nine items. *OSES* was measured as in Study 1. Appendix 1 shows scales and items.

Results and Discussions

Manipulation check. Participates assessed their SSES as significantly higher in the high SSES condition ($n_{highSSES}$ = 158, *M* = 5.92, *SD* = 1.80) than in the low SSES condition ($n_{lowSSES}$ = 131, *M* = 5.20, *SD* = 1.74; F (1, 287) = 11.81, *p* = .001, *partial η^2* = .04, *95% CI* = [.007, .092], *observed power* = .93). Prior to analyses, SSES was dummy coded as 1 representing high SSES and 0 representing low SSES. Correlational analysis was conducted to examine the associations between SSES, the sense of entitlement, and conspicuous consumption while controlling for OSES. SSES, as a dummy coded variable (1 = high SSES, 0 = low SSES), was positively associated with sense of entitlement, *r* (286) = .14, *p* = .016; the sense of entitlement was positively associated with conspicuous consumption, *r* (286) = .42, *p* < .001. When treated as a scale variable, SSES was positively associated with sense of entitlement, *r* (286) = .39, *p* < .001, and conspicuous consumption, *r* (286) = .37, *p* < .001; the sense of entitlement was positively correlated with conspicuous consumption, *r* (286) = .42, *p* < .001. This is consistent with H1. Regardless of SSES being a dummy variable or a scale variable, identical correlation patterns were also found in zero-order correlation analysis without accounting for OSES. SSES as a scale variable was positively associated with OSES, *r* (287) = .38, *p* < .001.

To test both mediation and moderation, Hayes' (2017) Model 58 of PROCESS macro with 5,000 bootstrapping samples was run with the dummy SSES as the predictor (high = 1, low = 0), achievement vanity as the moderator, sense of entitlement as the mediator, conspicuous consumption as the outcome variable, OSES and gender (male = 1, female = 0) as covariates. As Table 1.2 demonstrates, SSES was positively associated with the sense of entitlement, *B* = .27, *SE* = .13, *t* = 2.16, *p* = .032, *95% CI* = [.023, .519], and the sense of entitlement was positively associated with conspicuous consumption, *B* = .26, *SE* = .06, *t* = 4.33, *p* < .001, *95% CI* = [.141, .377]. Thus, H2 was supported. However, no interactive effect between SSES and achievement vanity was found on the sense of entitlement, *B* = -.07, *SE* = .09, *t* = -

.80, $p = .427$, *95% CI* = [-.258, .110], indicating no support for H3a. As predicted, achievement vanity moderated the effect of the sense of entitlement on conspicuous consumption, $B = .07$, $SE = .03$, $t = 2.16$, $p = .031$, *95% CI* = [.007, .138].
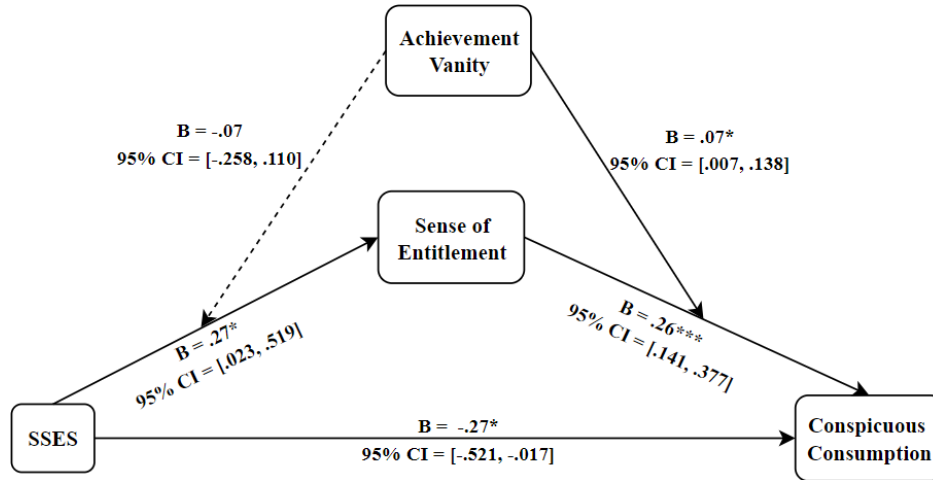
Note: *<.05; **<.01; ***<.001.

Figure 1.3. Conditional indirect effects of SSES on conspicuous consumption

Table 1.2. Model coefficients for the conditional process Model 58

		Sense of Entitlement				Conspicuous Consumption			
		B	*SE*	*p*	*95% CI*		*B*	*SE*	*p*	*95% CI*
SSES	a_1	.27	.13	.032*	.023, .519	c'	-.27	.13	.037*	-.521, -.017
Achievement Vanity	a_2	.42	.05	.000***	.326, .509	b_2	.35	.05	.000***	.250, .458
SSES*Achievement Vanity	a_3	-.07	.09	.427	-.258, .110	-	-	-	-	-
Sense of Entitlement	-	-	-	-	-	b_1	.26	.06	.000***	.141, .377
Sense of Entitlement *Achievement Vanity	-	-	-	-	-	b_3	.07	.03	.031*	.007, .138
Constant	e_M	-.21	.14	.129	-.475, .061	e_Y	3.39	.14	.000**	3.108, 3.665
		$R^2 = .27$					$R^2 = .31$			
		$F (5, 283) = 20.58, p = .000***$					$F (6, 282) = 21.37, p = .000***$			

Note: *<.05; **<.01; ***<.001.

Using the Johnson-Neyman (1936) technique, achievement vanity was mean centered and the 16th, 50th, and 84th percentiles of the distribution of achievement vanity were taken as point values, which were 1.506, .054 and 1.354, respectively. Results reveal a significant positive effect of the sense of entitlement on conspicuous consumption when achievement vanity was -1.464 ($B_{JN} = .15$, $SE = .08$, $t = 1.97$, $p = .05$, *95% CI* = [.000, .307]) and above (i.e., 84.1% of its distribution) and this effect intensified

as achievement vanity increased (H3b). As predicted, this effect of the sense of entitlement on conspicuous consumption was stronger when achievement vanity was scored 1.354 ($B = .36$, $SE = .07$, $t = 4.82$, $p < .001$, $95\%\ CI = [.211, .503]$) than .054 ($B = .26$, $SE = .06$, $t = 4.40$, $p < .001$, $95\%\ CI = [.145, .381]$). Thus, H3b was supported. Among covariates, although no statistically significant impact of OSES was discovered, we found gender difference in the sense of entitlement, $B = .28$, $SE = .13$, $t = 2.19$, $p = .029$, $95\%\ CI = [.029, .537]$, namely, men felt more entitled than women, in line with literature (Major, 1989; Major et al., 1984). These results remained consistent whether to control for other demographic variables (e.g., age, ethnicity, and education) or not. To provide additional evidence for the hypotheses, we reran Model 58 with scaled SSES as the predictor. Results remained consistent regardless of including OSES as a covariate or not. This suggests that SSES consistently predicts conspicuous consumption independent of OSES. Overall, Study 2 provides experimental evidence supporting H1, H2, and H3b.

General Discussion

SSES remains underexamined in marketing research. To contribute to knowledge on the influence of SSES on consumption, this research investigated the relationship between SSES and conspicuous consumption. Results supported that SSES positively relates to conspicuous consumption. The effect of SSES was mediated by the sense of entitlement and achievement vanity as a trait variable emerged as a moderator of this relationship. Findings were consistent across correlational and experimental studies, and results were robust when different measures of focal variables were employed. The effect of SSES on conspicuous consumption was found independent of that of OSES.

Theoretical Contributions

This research has two theoretical contributions. First, it directly adds to the SES literature by elucidating the impact of SSES on consumption. Unlike OSES that is assessed with objective indicators (e.g., income, Piff, 2014; education, Stephens et al., 2007), SSES is expressed by consumers themselves (i.e., by placing themselves in a symbolic 10-rung SES social ladder; Adler et al., 2000). In this research, SSES is treated as a construct of social identity, independent of OSES. This research finds consistent support for an effect of SSES on consumption decisions. Furthermore, as past studies of SSES concentrate on its impact upon human health (e.g., Goodman et al., 2003, 2007; Singh-Manoux et al., 2003, 2005b), the current investigation extends the research on SSES impact to the consumption domain. To our knowledge, this is possibly the first research in the consumer domain that specially focuses on

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SSES and its impact on consumption decision making. It opens further opportunities for research on SSES and its role in different marketing and consumption contexts.

Second, this research contributes to conspicuous consumption literature by revealing a novel antecedent to conspicuous consumption. Literature finds that people at the bottom of the socioeconomic pyramid tend to engage in purchases of luxury or status-laden goods for the purpose of boosting their social status or self-esteem (Christen & Morgan, 2005; Kastanakis & Balabanis, 2014; Mazzocco et al., 2012; Srivastava et al., 2020). The phenomenon of "keeping up with the Joneses" has been explained as "compensatory" in its nature (Rucker & Galinsky, 2008). This suggests that people use consumption of conspicuous goods to compensate for their social position that they feel associated with inferiority or powerlessness. The current work provides a different explanation for the phenomenon: People consume conspicuously because they perceive themselves to possess high social status and thus feel entitled to acquire, own, and consume conspicuous items. As this process arises independently of OSES, this research suggests that conspicuous consumption decisions may be elicited by the perception (i.e., SSES) rather than the reality (i.e., OSES) of one's own socioeconomic situation. An optimistic perception of social status, regardless of the actual socioeconomic resources, can be sufficient to justify one's conspicuous consumption. These findings offer a more nuanced understanding of how social status may contribute to consumers' conspicuous consumption decisions.

Managerial Implications

One managerial implication of this research lies in highlighting the value of learning about consumers' SSES. This is particularly important for product and brand management associated with conspicuous consumption (e.g., status-signaling products or luxury brands). In collecting consumer information, marketers traditionally focus on objective or easy-to-quantify socioeconomic data, for instance, income. However, how consumers perceive their socioeconomic conditions, instead of the actual socioeconomic resources consumers have access to, seems to play a significant role in conspicuous consumption decisions. This implies that regardless of OSES, there may be market segments of high SSES consumers that are open to ostentatious purchases, even if their OSES may suggest otherwise. By considering SSES, organizations can potentially reach additional market segments characterized by positive attitudes towards or purchase intention for conspicuous products.

Furthermore, drawing upon the finding about the moderating role of achievement vanity, marketers of conspicuous products can also incorporate consumers' concern for and view of personal achievement as an additional segmentation criterion for better targeting. The current research demonstrates that

consumers who not only perceive themselves as high (versus low) in SSES, but also care about personal achievements (vs. low achievement vanity) are most likely to opt for conspicuous purchases. Such consumers are therefore an attractive target market segment for conspicuous goods or services.

Limitations and Future Directions

This research has several limitations. First, conspicuous consumption was measured with purchase likelihood or desire for products in scenario-based studies instead of actual purchase decisions. To validate the current findings, future research that includes actual choice behaviors or sales data could be beneficial. Another limitation of this research relates to the measure of OSES. Although the measure of SSES considered all of three indicators (i.e., income, education, and occupation), the measure of OSES captured income only (e.g., Piff, 2014). This is because substantial studies consistently include income as a crucial indicator for OSES (e.g., Johnson et al., 2011; Krieger et al., 1997; Piff, 2014; Piff et al., 2010). Nevertheless, according to Coburn and Edwards (1976), occupation and education contribute more to the OSES-SSES discrepancy than income, due to the historical manual/non-manual distinction in profession (i.e., manual workers vs. white-collar workers) and social origins (e.g., sex, immigrant status, religion, and region of birth). Depending on which indicator(s) researchers use to estimate participants' OSES and participants use to subjectively locate themselves in the social hierarchy (i.e., SSES), and the weight(s) put on the selected indicator(s), the discrepancy between OSES and SSES may result in divergent results concerning people's thought and behavior in specific contexts (e.g., Bacharach et al., 1993). Although findings were robust when single-item measures of income or education served as indicators of OSES, future research into the predictive validity of OSES that is based on multiple indicators would make an important contribution to the literature. In addition, research on how the choice of measures may influence the OSES-SSES discrepancy and what outcomes such discrepancy may lead to in consumption would be a fruitful avenue for future inquiries.

Finally, this research revealed an independent effect of SSES on conspicuous consumption decisions regardless of OSES. This suggests that there is a financial risk for consumers high in SSES but low in OSES. When they base their buying on how well-off they feel they are rather than on how well off they actually are, they are more likely to take risks, overspend, or purchase items they cannot afford. A future research avenue may address whether and under what circumstances SSES motivates behaviors that could be detrimental to consumer well-being, such as risk taking, impulsive or compulsive buying, what psychological mechanism(s) may operate, and whether there are effective interventions that help maintain consumers' positive perspective on their own SSES while mitigating possible drawbacks.

Transition from Essay 1 to Essay 2

This dissertation aims to advance our understanding of the potential influence of subjective socioeconomic status (SSES) on consumers' decision making in different consumption scenarios. The first essay delves into whether and how an individual consumer's SSES contributes to his or her conspicuous consumption decisions. Two studies provide consistent evidence for the effect of SSES on conspicuous consumption through the sense of entitlement and the moderating role of trait achievement vanity in this relationship. From a theoretical standpoint, this work adds to the social status literature by investigating the role of underexamined SSES, rather than widely studied OSES, in the consumption domain and contributes novel insights to the conspicuous consumption literature by uncovering SSES as a positive antecedent, the sense of entitlement as the underlying psychological mechanism, and achievement vanity as a catalyst in driving conspicuous consumer behavior, independent of OSES. From a managerial perspective, the essay suggests that marketers, especially those of conspicuous status goods, consider paying more attention to collecting, analyzing, and applying consumers' perceptions of their social status (in addition to OSES) to better predict consumers' consumption choices.

From the perspective of consumer wellbeing, the first essay also alerts consumers, especially those who have inflated SSES in conjunction with a disadvantaged financial status, to the financial risks of engaging in conspicuous consumption in the absence of the necessary economic means. To further explore such consequences of SSES, the second essay examines the impact of SSES on impulsive and compulsive buying, both of which have a potentially negative impact on consumer well-being.

Essay 2 - Subjective Socioeconomic Status: A Driver for Impulsive and Compulsive Buying

Abstract

Against the background of an increasing emphasis on consumer well-being in a mass consumption era, the second essay of this dissertation examines the impact of subjective socioeconomic status (SSES) on impulsive and compulsive buying decisions that influence consumers' well-being. Specifically, we propose that SSES drives impulsive and compulsive buying decisions, and this effect is mediated by a sense of entitlement and price sensitivity. Moreover, this effect of SSES is more pronounced among more materialistic consumers.

Keywords: subjective socioeconomic status, sense of entitlement, price sensitivity, materialism, impulsive and compulsive buying

Introduction

Along with today's commodity abundance and rise of consumerism, material acquisition has generated concerns and risks to people's economic and mental wellbeing while enhancing convenience and life quality. Among well-being threatening behaviors in consumption, impulsive and compulsive buying (Japutra et al., 2019; Kukar-Kinney et al., 2016) are prevalent. According to an annual survey conducted by OnePoll that involves 2,000 American customers of a shopping platform called Slickdeals (2022), 64% of American adult shoppers reported a spending increase in their impulsive purchases in 2022. The study finds that an average shopper spent $314 monthly in 2022 on impulse shopping, indicating an increase by $38 compared to 2021 and $131 compared to 2020. In a meta-analysis of 40 studies that include over 32,000 participants from multiple countries (e.g., the US, Germany, France, Hungary), Maraz et al. (2016) conclude a compulsive buying prevalence of around 5% on average, meaning that one among 20 adults in the population is a compulsive shopper. Not limited to the US and Europe, impulsive and compulsive buying have also been observed in other countries such as the UK (Dittmar, 2005a; Fenton-O'Creevy et al., 2018), China (He et al., 2018; Zhou & Wong, 2004), and India (Badgaiyan & Verma, 2014; Suresh & Biswas, 2020).

This prevalence makes impulsive and compulsive buying concerning and widely researched. Literature establishes that these behaviors lead to various personal struggles, such as credit card misuse (Omar et al., 2014), increased debt (Achtziger et al., 2015), cognitive dissonance (Imam, 2013), feelings of guilt, shame, regret, anxiety, and frustration (O'Guinn & Faber, 1989; Saleh, 2012; Yi & Baumgartner, 2011), depression (Lejoyeux et al., 1995), lower self-esteem and sense of loss of control (Hanley & Wilhelm, 1992; O'Guinn & Faber, 1989). These consequences threaten consumers' financial and psychological welling. Hence, it is important to understand what drives consumers' impulsive and compulsive buying. Despite substantial literature in this regard, no studies have investigated the role of subjective social status in impulsive and compulsive consumption. This research aims to fill this void.

Conceptual Background and Hypotheses

Subjective Socioeconomic Status

Subjective socioeconomic status (hereinafter referred to as SSES) refers to the subjective assessment of one's own socioeconomic status, namely the perceived position relative to others in social hierarchy (Davis & Blake, 1956; Jackman & Jackman, 1973). It is a self-evaluative measure of socioeconomic status, different from objective socioeconomic status (hereinafter referred to as OSES) that is typically

discussed in literature and indicated by factors such as wealth or income, occupation, and education (Coburn & Edwards, 1976; Adler et al., 2000). SSES has been extensively discussed, particularly in health studies over the past few decades. For instance, SSES is empirically validated as a core and better predictor of health status and change in physical, psychological, and social functioning compared to OSES (Adler et al., 2000; Singh-Manoux et al., 2003; 2005b). Demakakos et al. (2008) show that among older people, SSES is significantly associated with specific physical and mental illnesses, such as hypertension, diabetes, high-density lipoprotein cholesterol, and depression, and that SSES fully or partially explain associations between some OSES measures (e.g., education, occupation) and self-rated and clinical health measures. Notwithstanding, whether and how SSES shapes impulsive and compulsive buying, both of which closely concern people's financial and psychological well-being in the consumption domain, remains unclear and is the focus of the current research.

Subjective Socioeconomic Status, Impulsive Buying, and Compulsive Buying

Impulsive buying, a behavioral manifestation of impulse-control disorder (i.e., ICD, American Psychiatric Association, 2013) in consumption context, describes spontaneous, impetuous, "thoughtless" and "unplanned" purchase behavior (Weinberg & Gottwald, 1982, p. 44), or an irresistible urge to immediately make a purchase (Rook, 1987; Rook & Fisher, 1995). Different from deliberate and planned purchases, impulsive buying is often deemed emotional and reactive (Eysenck et al., 1985; Rook, 1987), arousing, irrational, and unreflective (Kacen & Lee, 2002), and associated with high levels of affective activation and low levels of cognitive or impulse control (Weinberg & Gottwald, 1982). The more impulsive a buyer is, the more likely the buyer is preoccupied with a desire for an immediate purchase when facing temptations, and the less likely he or she can control the self to delay gratification from acquisition (Hoch & Loewenstein, 1991). The literature has documented a variety of correlates or antecedents of impulsive buying (for a review, see Amos et al., 2014). As Amos et al.'s (2014) meta-analysis of 63 articles on impulsive buying identifies, there are three types of antecedents to impulsive buying: dispositional, situational, and socio-demographic. Dispositional factors refer to individual differences, such as consumer impulsiveness (Punj, 2011; Puri, 1996), sensation seeking (Zuckerman, 1993), variety seeking tendencies (Sharma et al., 2010), need for arousal (Sun & Wu, 2011), need for touch (Peck & Childers, 2006), shopping enjoyment (Beatty & Ferrell, 1998), independent-interdependent self-concept (Kacen & Lee, 2002), and susceptibility to influence (Luo, 2005). Situational factors can be shopping environment-related stimuli such as salient information that encourages touch (Peck & Childers, 2006), product characteristics such as a product's hedonic nature or sale price (Kacen et al., 2012), consumers' affective states such as extreme moods (Flight et al., 2012),

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or peers' presence in shopping occasions (Luo, 2005). Socio-demographic factors include demographic and socioeconomic variables, such as gender (Dittmar et al., 1995), age, income, and socioeconomic status (Wood, 1998). Although Wood's (1998) work focuses on the relationship between socioeconomic status and impulsive buying, it involves only OSES (measured by family income and education). Whether and how SSES relates to impulsive buying remains unknown.

Compulsive buying, a behavioral manifestation of obsessive-compulsive disorder (i.e., OCD, American Psychiatric Association, 2013) in consumption context, refers to an obsession and preoccupation with buying (Ridgway et al., 2008), or "chronic, repetitive purchasing" that is very hard to control "after its detrimental effects are recognized" (O'Guinn & Faber,1989, p. 149). As a form of dysfunctional and disruptive consumer behavior (Dittmar, 2005), compulsive buying is a potential cause of detrimental financial, emotional, or behavioral consequences. These include financial debt (Faber & O'Guinn, 1989; 1992), anxiety, frustration, and perceived loss of control (Faber & O'Guinn, 1989), lower levels of self-concept clarity and well-being (Reeves et al., 2012), and compulsive hoarding (Frost et al., 2002). Various factors contribute to compulsive buying, including familial influences such as family structure (Roberts et al., 2006), parents' impulsive buying tendency (Roberts, 1998), and earlier-in-life family disruptions (Grougiou et al., 2015), shopping motivations such as hedonic pleasure seeking, social comparison, and deal proneness (Kukar-Kinney et al., 2016), consumers' beliefs about the (in)consistency of personal traits (Japutra & Song, 2020) and attitudes toward money (Roberts & Jones, 2001), and fashion (Park & Burns, 2005), environmental factors such as credit card availability (Lo & Harvey, 2011) and stress (Roberts & Roberts, 2012), personality traits such as narcissism (Rose, 2007), self-discrepancies and materialistic values (Dittmar, 2005a), and socio-demographics such as gender (Shoham & Brenčič, 2003), age and income (d'Astous et al., 1990), education, and marital status (Khare, 2013). Research linking SSES and compulsive buying remains scarce, however.

Marketing literature has historically treated impulsive buying and compulsive buying as distinct constructs (Flight et al., 2012; Sneath et al., 2009). D'Astous (1990) regards them as two different behaviors located at the extremes of the urge-to-buy behavioral continuum, as they differ in the strength of the shopping tendency from mild to severe (Kwak et al., 2006). DeSarbo and Edwards (1996) argue that the major theoretical difference between impulsive buying and compulsive buying lies in their underlying motives. One's impulsive purchases are triggered primarily by external factors such as culture (Kacen & Lee, 2002), in-store shopping environment (Tendai & Crispen, 2009), and sales promotions (Bandyopadhyay et al., 2021), whereas one's compulsive purchases are stimulated mainly by internal factors such as narcissism (Rose, 2007), depression (Mueller et al., 2011), materialistic values

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(Reeves et al., 2012), conscientiousness (Wang & Yang, 2008), and fixed mindset (Japutra & Song, 2020). In other words, impulsive buying is acute, spontaneous, result-oriented, product or situation centric, and more about seeking excitement and immediate gratification, while compulsive buying is recurring, intrusive, additive, rigid, and more about avoiding adverse feelings (Flight et al., 2012; Hirschman, 1992; Ridgway et al., 2008; Rook, 1987; Rook & Fisher, 1995).

Nevertheless, consumers may engage in both impulsive and compulsive buying. Conceptually overlapped (Japutra et al., 2019; Ridgway et al., 2008), both buying behaviors are unplanned and spontaneous, manifesting an urge to buy (Flight et al., 2012). Among the four elements of impulsivity that impulsive buying features, three (i.e., urgency, lack of perseverance, and lack of premeditation) positively correlate with compulsive buying (Billieux et al., 2008). Moreover, past research (e.g., Flight et al., 2012; Sun et al., 2004) has directly verified a positive relationship between impulsive and compulsive buying. As such, we believe that SSES relates to both buying behaviors in a similar manner.

The Mediating Role of Sense of Entitlement

According to Campbell et al. (2004, p. 31), psychological entitlement refers to a feeling or perception of "deserving more and being entitled to more than others." Although Campbell et al. (2004) conceptualized entitlement as an intrapsychically pervasive and stable trait explaining individual differences across situations (Grubbs & Exline, 2016; Raskin & Terry, 1988), the literature demonstrates inconsistent and mixed perspectives on the trait-state characteristic of entitlement (for a review, see Jordan et al., 2017). Concurring with researchers such as Lerner (1987) and Feather (2003), we hold that entitlement entails the property of being a malleable state or attitude depending on specific contexts or factors on two theoretical bases. One is the trait activation theory (Tett & Guterman, 2000), suggesting that certain personality traits have the latent potential to be temporarily activated, such as self-esteem (Heatherton & Polivy, 1991; Rosenberg, 1986) and anxiety (Endler & Kocovski, 2001); the other is Fleeson's (2001) structure- and process-integrated perspective of personality, regarding a personality trait as the density distributions of temporarily fluctuated states over time.

Contextualized in this research, we propose the sense of entitlement mediates the relationships of SSES with both impulsive and compulsive buying. On the one hand, we expect that SSES positively relates to the sense of entitlement, namely the higher one's SSES is, the more entitled one feels. This SSES-entitlement link has been validated by the study of Piff (2014). On the other hand, we expect the sense of entitlement promotes both impulsive and compulsive buying based on the narcissism literature from which entitlement originates. A meta-analysis by Vazire and Funder (2006) documents a strong positive

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relationship between narcissism and impulsivity that has been empirically confirmed as a trait predictor of both impulsive buying (Lucas & Koff, 2014; Sun & Wu, 2011) and compulsive buying (Black et al., 2012; Williams & Grisham, 2012). Rose (2007) finds that a narcissistic individual tends to have less impulsive control and thus more chance to make compulsive purchases. Given that entitlement is conceptually rooted in narcissism research (Emmons, 1984; 1987) and highly or at least moderately correlated with narcissism ($r = .50$, Campbell et al., 2004, p. 33), we infer that as a parallel to narcissism, entitlement is positively correlated with both impulsive and compulsive buying. Taken together, we hypothesize:

H1: SSES is positively associated with a) impulsive buying and b) compulsive buying, and this relationship is mediated by the sense of entitlement.

The Mediating Role of Price Sensitivity

Price sensitivity reflects to what extent consumers are sensitive to price changes or differences for a given product (Wakefield & Inman, 2003), or how consumers feel about paying the price for a product (Goldsmith & Newell, 1997). Price sensitivity differs among individuals as a chronically developed personality trait. Some people prefer buying items at promotion prices than others regardless of income or wealth. These price-sensitive consumers are often loyal patrons of discounted merchandise. Price sensitivity also differs in contexts as a situation-specific state of an individual (Wakefield & Inman, 2003). For example, consumers become more price sensitive when they shop for a functional purpose (e.g., buying paper towels) versus a hedonic one (e.g., buying ice cream), and for private consumption (e.g., consumption alone) versus public consumption (e.g., consumption with others) (Wakefield & Inman, 2003). Price sensitivity is also influenced by factors such as market competition and availability of additional information (Huber et al., 1986), product involvement, consumer innovativeness, and brand loyalty (Goldsmith & Newell, 1997), price advertising (Kaul & Wittink, 1995), non-price advertising positioning strategies (Kalra & Goodstein, 1998), brand credibility (Erdem et al., 2002), consumers' income levels (Wakefield & Inman, 2003), local-global identity in relation to the local-global origin of a brand (Gao et al., 2017), and power distance belief (Lee et al., 2020). Notwithstanding, the impact of SSES on price sensitivity remains unexamined. We argue that SSES is negatively associated with price sensitivity, because regardless of the actual socioeconomic status (i.e., OSES), the higher one's SSES is, the more competitive resources (certainly including financial ones) one feels to possess (Kraus et al., 2009), the less sensitive one is to price changes. Thus, we hypothesize:

H2: SSES is negatively associated with price sensitivity.

Since price-sensitive consumers are hesitant, irresolute, and dubious in money spending (Yamauchi & Templer, 1982), we expect that price sensitivity is negatively related to both impulsive and compulsive buying. This prediction is supported by Roberts and Jones (2001) who investigate how American college students' money attitudes and credit card use influence their compulsive buying behavior, Norum (2008) who examines the role of time preference and credit card use in compulsive buying, Lo and Harvey (2011) who probe the effects of credit card availability on compulsive buying in Europe and Far East, and Kukar-Kinney et al. (2012) who inspect the role of price in compulsive buying. As compulsive shoppers are often also impulsive buyers (Faber & O'Guinn, 1992), a negative relationship between price sensitivity and impulsive buying is also expected and, indeed, supported by literature. Martínez and Montaner (2006) show that impulsive consumers are prone to in-store promotions at the point of sale, indicating that impulsive consumers are price sensitive. Additional support is found in studies of Vishnu and Raheem (2013) that investigate factors of impulsive buying behavior and Muratore (2016) that explore the role of price in teenagers' impulsive buying. As such, we expect that the associations between SSES and both impulsive buying and compulsive buying are mediated by price sensitivity.

H3: SSES is positivity associated with a) impulsive buying and b) compulsive buying, and this relationship is mediated by price sensitivity.

The Sequential Mediation by Sense of Entitlement and Price Sensitivity

According to Lange et al.'s (2019) status-seeking account of psychological entitlement, individuals with a greater sense of entitlement are characterized by a motivation to attain status. Given that status-laden purchases are often costly (Griskevicius et al., 2007, 2010), consumers' pursuit of these items indicates their willingness to pay for premium prices. That is, the more entitled a consumer feels, the less price sensitive the consumer is. Hence, we expect that the sense of entitlement and price sensitivity serve as sequential mediators explaining the positive effects of SSES on both impulsive and compulsive buying.

H4: SSES is positivity associated with a) impulsive buying and b) compulsive buying, and this relationship is sequentially mediated by the sense of entitlement and price sensitivity.

The Moderating Role of Materialism

Materialism refers to a personality trait or cultural orientation that centralizes the value of materials, represented by pursuing acquisition and possession as a means to happiness and success (Belk, 1985; Richins, 1994; Richins & Dawson, 1992). As a construct that has been discussed for a few decades, materialism has been linked to a wide range of topics in literature, including impulsive and compulsive

buying. A positive association between materialism and impulsive buying has been found by studies of Badgaiyan and Verma (2014), Yoon and Kim (2016), and Barakat (2019). Likewise, literature also suggests a positive relationship between materialism and compulsive buying (Islam et al., 2017; Mueller et al., 2011; Xu, 2008; Yurchisin & Johnson, 2004). Notably, Dittmar (2005b) identifies materialistic value endorsement as the strongest predictor of compulsive buying behavior compared to age and gender.

The well-established positive associations between materialism and each of impulsive and compulsive buying in literature are in line with the positive effects of sense of entitlement on both buying behaviors. Indeed, Krekels and Pandelaere (2015) demonstrate that materialism is moderately or highly positively associated with entitlement (e.g., r = .36 and .50, p < .01, with materialism assessed with two different measures). Thus, considering the influence of materialism, we expect that the indirect effects of the sense of entitlement on both impulsive and compulsive buying would be intensified at higher levels of materialism. Put differently, among consumers who are high in materialism, the differences in probability of engaging in impulsive and compulsive buying among more and less entitled consumers will be magnified. As such, we hypothesize:

H5: Materialism moderates the effect of sense of entitlement on a) impulsive buying and b) compulsive buying, such that the effect of sense of entitlement is strengthened as materialism increases.

By examining how tightness-looseness attitudes towards money and material values jointly influence consumption patterns, Tatzel (2002) shows that consumers who are loose with money (i.e., low in price sensitivity) and high in materialism are exhibitionists and big spenders that enjoy spending, and in contrast, those who are tight with money (i.e., high in price sensitivity) and low in materialism are price-aversive savers or non-spenders. Lying in between big spenders and non-spenders are bargain hunters or value seekers who are tight with money and high in materialism and experience buyers who are loose with money and low in materialism. Drawing on these findings and the consistently replicated positive effects of materialism on both impulsive and compulsive buying (e.g., Islam et al., 2017; Yoon & Kim, 2016), we predict that materialism interacts with price sensitivity to influence impulsive and compulsive buying. Specifically, the more materialistic consumers are, the stronger the effects of price sensitivity on impulsive and compulsive buying. Hence, we hypothesize:

H6: Materialism moderates the effect of price sensitivity on a) impulsive buying and b) compulsive buying, such that the effect of price sensitivity is stronger when materialism increases.
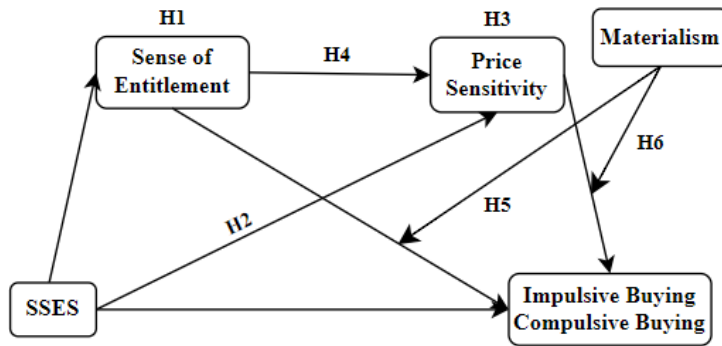
Figure 2.1. Conceptual framework

Study 1

Study 1 examines the associations between SSES, the sense of entitlement, price sensitivity, impulsive and compulsive buying with a sample of US consumers. It aims to preliminarily test the hypotheses about the relationships between SSES and impulsive and compulsive buying (H1) and the mediating roles of the sense of entitlement and price sensitivity (H2 - H4).

Participants and Procedure

A sample of 226 adults recruited via Amazon Mechanical Turk completed online questionnaires and provided valid responses in exchange for a monetary reward (US$ 0.78). Among them, 123 were female and 103 were male; their age ranged from 18 to 66, and the mean of age was 35.8; 184 were White/Caucasian, and 42 were Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicities; 163 were married or in a domestic partnership, and 63 were single or never married, widowed, divorced, or separated. After providing informed consent, participants completed the measures of SSES, the sense of entitlement, price sensitivity, impulsive buying, compulsive buying, income, education, marital status, age, gender, and ethnicity.

Measures

SSES ($M = 6.71$, $SD = 2.22$) was measured on a 1 (the lowest/bottom) to 10 (the highest/top) scale by following the self-anchoring procedure (Adler et al., 2000). Participants marked the location of their self-perceived social status on a 10-rung ladder drawing. The higher the ladder rung is, the higher one's SSES is. *The sense of entitlement* ($\alpha = .95$, $M = 4.61$, $SD = 1.63$) was measured with the nine-item psychological entitlement scale (Campbell et al., 2004) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Price sensitivity* ($\alpha = .79$, $M = 4.16$, $SD = 1.51$) was assessed with the five-item scale of price consciousness (Lichtenstein et al., 1993) on a seven-point Likert scale

(anchored 1 = strongly disagree, 7 = strongly agree). *Impulsive buying tendency* (α = .92, *M* = 4.35, *SD* = 1.51) was measured with the nine-item buying impulsiveness scale (Rook & Fisher, 1995) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Compulsive buying tendency* (α = .90, *M* = 4.24, *SD* = 1.66) was assessed with the seven-item compulsive buying scale (Faber & O'Guinn, 1992) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score for these variables was generated by averaging scores for all corresponding scale items. *OSES* was indexed by income, because as a resource-based measure, income captures objective differences in people's socioeconomic standing (Côté et al., 2013; Krieger et al., 1997; Piff, 2014; Piff et al., 2010). Appendix 1 shows details.

Results and Discussion

Correlations. Correlation analysis was conducted to examine the associations between SSES, the sense of entitlement, price sensitivity, impulsive buying, compulsive buying, and OSES. As expected, SSES was positively associated with the sense of entitlement, $r(226) = .61$, $p < .001$, impulsive buying, $r(226) = .52$, $p < .001$, and compulsive buying, $r(226) = .63$, $p < .001$, but negatively associated with price sensitivity, $r(226) = -.53$, $p < .001$. Sense of entitlement was negatively associated with price sensitivity, $r(226) = -.55$, $p < .001$; price sensitivity was negatively associated with impulsive buying, $r(226) = -.59$, $p < .001$, and compulsive buying, $r(226) = -.63$, $p < .001$. SSES was positively associated with OSES, $r(226) = .31$, $p < .001$. These results offer preliminary evidence for the predicted associations between these variables.

Table 2.1. Descriptive statistics and correlations

	M	*SD*	1	2	3	4	5
1 SSES	6.71	2.22	1				
2 Sense of Entitlement	4.61	1.63	.61***	1			
3 Price Sensitivity	4.16	1.51	-.53***	-.55***	1		
4 Impulsive Buying	4.35	1.51	.52***	.61***	-.59***	1	
5 Compulsive Buying	4.24	1.66	.63***	.67***	-.63***	.82***	1
6 OSES	3.49	1.62	.31***	.19**	-.12	.11	.09

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

In collinearity diagnostics we tested multicollinearity among the independent variables in the proposal models and found all variance inflation factors (i.e., VIF) statistics ranged between 1 and 2 and tolerance above .60. This suggests no multicollinearity according to the criteria of Allison (1999) that VIF should

be less than 2.5 and tolerance above .40. Moreover, for the latent variables in the conceptual models, Cronbach α and composite reliability were all larger than .70 (Hair et al., 2011), average variance extracted larger than .50 (Hair et al., 2011), and the square root of average variance extracted larger than the correlations (Fornell & Larcker, 1981). This suggests adequate convergent and discriminant validities of these observed variables.

SSES and Impulsive Buying

Mediations. To test the psychological processes underlying the path from SSES to impulsive buying solely through the sense of entitlement (H1a), solely through price sensitivity (H3a), and sequentially through the sense of entitlement and price sensitivity (H4a), we performed mediation analyses using Model 6 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. In this model, SSES was included as the predictor, the sense of entitlement and price sensitivity as mediators, impulsive buying as the criterion, and OSES as a control variable. As Figure 2.2 shows, SSES was positively associated with the sense of entitlement, $B = .44$, $SE = .04$, $t = 10.80$, $p < .001$, 95% $CI = [.362, .524]$, and impulsive buying, $B = .11$, $SE = .05$, $t = 2.44$, $p = .02$, 95% $CI = [.021, .198]$, and as expected in H2, negatively associated with price sensitivity, $B = -.22$, $SE = .05$, $t = -4.61$, $p < .001$, 95% $CI = [-.310, -.124]$. Results supported mediations solely by the sense of entitlement (H1a), $B = .14$, $BootSE = .04$, 95% $CI = [.069, .226]$, solely by price sensitivity (H3a), $B = .07$, $BootSE = .03$, 95% $CI = [.025, .124]$, and sequential mediation by both the sense of entitlement and price sensitivity (H4a), $B = .05$, $BootSE = .02$, 95% $CI = [.020, .083]$. Thus H1a, H2, H3a, and H4a were supported. These mediation results remained consistent when not controlling for OSES. No statistically significant associations between OSES and other variables in the model were found. Results were replicated when the model controlled for demographic variables, including age, gender, marital status, ethnicity, and education.

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.
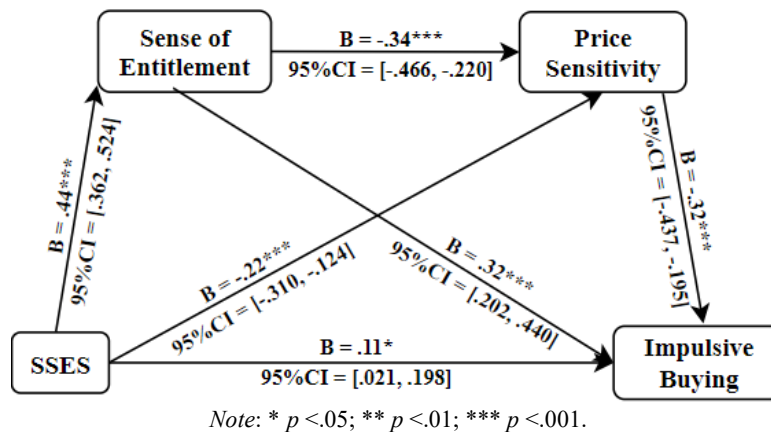
Figure 2.2. Indirect effects of SSES on impulsive buying

SSES and Compulsive Buying

Mediations. To test mediations by the sense of entitlement and price sensitivity separately (H1b, H2, H3b) and sequentially (H4b), we ran Model 6 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. SSES was included as the predictor, the sense of entitlement and price sensitivity as mediators, compulsive buying as the criterion, and OSES as a covariate. As Figure 2.3 shows, SSES was positively associated with the sense of entitlement, $B = .44$, $SE = .04$, $t = 10.80$, $p < .001$, *95% CI =* [.362, .524], and compulsive buying, $B = .22$, $SE = .04$, $t = 5.10$, $p < .001$, *95% CI =* [.136, .307], and as predicted in H2, negatively associated with price sensitivity, $B = -.22$, $SE = .05$, $t = -4.61$, $p < .001$, *95% CI =* [-.310,- .124]. Bootstrapping results supported mediations solely through the sense of entitlement (H1b), $B = .16$, *BootSE =* .04, *95% CI =* [.087, .237], solely through price sensitivity (H3b), $B = .07$, *BootSE =* .03, *95% CI =* [.028, .124], and sequentially through the sense of entitlement and price sensitivity (H4b), $B = .05$, *BootSE =* .02, *95% CI =* [.020, .086]. In line with past studies (e.g., Norum, 2008), OSES was negatively associated with compulsive buying, $B = -.11$, $SE = .05$, $t = -2.39$, $p = .02$, *95% CI =* [-.201, -.019]. Model results remained consistent when the model controlled for OSES or other demographic variables (i.e., age, gender, marital status, ethnicity, and education).
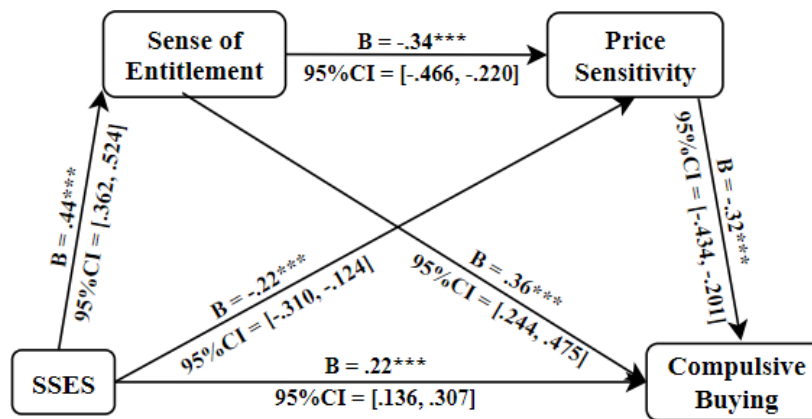
Note: * *p* <.05; ** *p* <.01; *** *p* <.001.

Figure 2.3. Indirect effects of SSES on compulsive buying

In summary, Study 1 found initial support for the hypothesized psychological process from SSES to both impulsive buying and compulsive buying. That is, the mediations by the sense of entitlement and price sensitivity separately and sequentially were supported.

Study 2

Given the correlational nature of Study 1 design, Study 2 aims to provide experimental evidence for the

hypothesized psychological process from SSES to both impulsive and compulsive buying via the sense of the sense of entitlement and price sensitivity (H1- H4). SSES is manipulated in an experimental design and materialism is examined as a moderator (H5 - H6).

Participants and Procedure

Participants were invited via Amazon Mechanical Turk to complete online experimental surveys in exchange for a monetary reward (US$ 0.72). With 155 incomplete responses (i.e., unfinished surveys for various reasons such as surpassing completion time, failing attention checks, and disregarding response requirements) removed, 228 usable responses were retained for data analysis. Among them, 143 were female and 85 were male; their age ranged from 18 to 67 with a mean of 33.5; 153 were White/Caucasian, and 75 were Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicities; 112 were married or in a domestic partnership, and 116 were single or never married, widowed, divorced, or separated. In the survey, participants first provided consent to participation and then completed the manipulation of SSES and the measures of the other variables in this study.

Manipulation of SSES. Following Kraus et al.'s (2009; 2010) studies, SSES was manipulated as follows: First, participants were shown an image of a 10-rung ladder representing "where people stand in the United States, from the bottom rung (1 = the worst off) to the top rung (10 = the best off)." They were then randomly assigned in either high SSES or low SSES condition, coupled with the following instructions:

> "*Imagine you are in a getting acquainted intenAaq2raction with one of the people you just thought about from the very bottom/top rung of the ladder above. These people are the worst/best off (=1/10) (i.e., having the least/most money, the least/most education, and the least/most respected jobs).*
> *Think about how the differences between you might impact what you would talk about, how the interaction is likely to go, and what you and the other person might say to each other. Then write down (directly type) 3 to 5 full sentences (not words/phrases) you would say to that person. NOTE: Words, phrases, general greetings, any other random responses that are irrelevant to this specific situation, or any valid but repetitive responses are not accepted. Your responses will be validated one by one.*"

The task of writing a hypothetical interaction with an individual from either the top or bottom of the social ladder aimed to boost the subsequent manipulation of SSES. Subsequently, participants were

asked to compare themselves with that individual and then locate their own position on that ladder.

> "*Now, please compare yourself to these people at the very bottom (1=the worst off)/top (10=the best off) of the ladder who have the least/most money, the least/most education, and the least/most respected jobs. In particular, we'd like you to think about how you are different from these people in terms of your own income, educational history, and job status. Where would you place yourself on this ladder relative to them?*"

After rating their SSES for a manipulation check, participants answered questions to measure the sense of entitlement, price sensitivity, materialism, impulsive buying, compulsive buying, income, education, occupation, marital status, age, gender, and ethnicity.

Measures

SSES ($M = 5.21$, $SD = 1.97$) was measured on a 1 (the lowest/bottom) to 10 (the highest/top) scale by following the self-anchoring procedure (Adler et al., 2000), in which participants were asked to mark the location of their self-perceived social status in a 10-rung ladder drawing. *The sense of entitlement* ($M = 3.91$, $SD = 1.23$) was measured with the Me Versus Other Scale (Campbell et al., 2004). As a visual measure, this scale includes seven diagrams representing how a person sees the self, compared with others, correspondingly coded on a scale ranging from 1 to 7. Each diagram has four circles of different sizes, one representing "me" and three "other." The first diagram (coded as 1) includes the smallest "me" circle but the largest "other" circles, representing the least sense of entitlement whereas the seventh diagram (coded as 7) includes the largest "me" circle and the smallest "other" circles, representing the greatest sense of entitlement. Treating entitlement as a situational state rather than a dispositional trait, we asked participants "at this moment, which diagram best represents how you see yourself compared with others?" *Price sensitivity* ($\alpha = .84$, $M = 5.13$, $SD = 1.44$) was assessed with the five-item scale of price consciousness (Lichtenstein et al., 1993) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). However, since price sensitivity was used as a situational state in this study, we also added "at this moment" to the measurement questions. *Materialism* ($\alpha = .83$, $M = 3.61$, $SD = 0.91$) was measured with the 18-item materialism scale (Richins & Dawson, 1992). This scale consists of a six-item success subscale, a five-item happiness subscale, and a seven-item centrality subscale. *Impulsive buying* ($\alpha = .93$, $M = 3.44$, $SD = 1.53$) was measured with the nine-item scale (Rook & Fisher, 1995) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Compulsive buying* ($\alpha = .89$, $M = 2.76$, $SD = 1.48$) was assessed with the seven-item compulsive buying scale (Faber & O'Guinn, 1992) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 =

strongly agree). The composite score for each of these variables was generated by averaging scores of all corresponding scale items. *OSES* was measured as in Study 1. Appendix 1 shows details.

Results and Discussion

Manipulation Check. Participates reported significantly higher SSES in the high SSES condition ($n_{highSSES}$ = 106, *M* = 5.80, *SD* = 1.73) than those in the low SSES condition ($n_{lowSSES}$ = 122, *M* = 4.70, *SD* = 2.02; *F* (1, 226) = 19.04, *p* < .001***, *partial η^2* = .08, *95% CI* = [.024, .151], *observed power* = .99). In the analyses, SSES was dummy coded as 1 representing high SSES and 0 representing low SSES.

Correlations. A bivariate correlational analysis examined associations between SSES, the sense of entitlement, price sensitivity, impulsive buying, and compulsive buying. As expected, SSES, as a scale variable, was positively associated with the sense of entitlement, *r* = .46, *p* < .001, impulsive buying, *r* = .17, *p* = .009, and compulsive buying, *r* = .24, *p* < .001, but negatively associated with price sensitivity, *r* = .32, *p* < .001. The sense of entitlement was negatively associated with price sensitivity, *r* = -.23, *p* = .001, but positively associated with impulsive buying, *r* = .11, *p* = .09, and compulsive buying, *r* = .24, *p* < .001. Consistent with literature (e.g., Yoon & Kim 2016; Yurchisin & Johnson, 2004), materialism was positively associated with impulsive buying, *r* = .40, *p* < .001, and compulsive buying, *r* = .46, *p* < .001. These results provide initial support for some of the hypothesized relationships.

SSES and Impulsive Buying

Mediations. To test mediations between SSES and impulsive buying solely through the sense of entitlement (H1a), solely through price sensitivity (H3a), and sequentially through the sense of entitlement and price sensitivity (H4a), we performed mediation analyses using Model 6 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. The dummy SSES was included as the predictor, the sense of entitlement and price sensitivity as mediators, impulsive buying as the criterion, and OSES as a covariate. Results show neither a significant mediation solely through the sense of entitlement, *B* = .01, *BootSE* = .04, *95% CI* = [-.058, .099], nor a significant mediation solely through price sensitivity, *B* = -.10, *BootSE* = .08, *95% CI* = [-.264, .075], but a significant sequential mediation through the sense of entitlement and price sensitivity, *B* = .05, *BootSE* = .03, *95% CI* = [.009, .120]. H1a and H3a were not supported, but H4a was supported. No significant association between SSES and price sensitivity was found, *B* = .22, *SE* = .19, *t* = 1.14, *p* = .26, *95% CI* = [-.157, .589], suggesting no support for H2. To obtain further evidence for the sequential mediation through the sense of entitlement and price sensitivity, another mediation analysis was performed by reversing the order of mediators (i.e., putting price sensitivity first and the sense of entitlement second) in Model 6 of the PROCESS macro

(Hayes, 2017) with 5,000 bootstrapping samples, with OSES as a covariate. The serial indirect effect by price sensitivity and the sense of entitlement was not statistically significant, B = -.001, $BootSE$ = .004, 95% CI = [-.010, .006]. The indirect effect remained insignificant when OSES was not controlled for. This finding provides additional support for our prediction of sequential mediation by the sense of entitlement and price sensitivity (H4a).

Moderation by Materialism. To test moderation hypotheses (i.e., H5a and H6a), we ran Model 88 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples by including materialism as a moderator and OSES as a covariate in the model. We found no significant moderation of materialism on the mediation from SSES to impulsive buying through the sense of entitlement (*index of moderated mediation* = .01, *BootSE* = .05, *95% CI* = [-.090, .125]), and the mediation from SSES to impulsive buying through price sensitivity (*index of moderated mediation* = -.03, *BootSE* = .04, *95% CI* = [-.121, .024]). Thus, H5a was not supported. However, the moderation of materialism on the path from price sensitivity to impulsive buying in the serial mediation (H6a) was statistically significant (*index of moderated mediation* = .02, *BootSE* = .01, *95% CI* = [.0001, .0514]).

To further investigate the interactive effect of price sensitivity and materialism on impulsive buying, we applied the Johnson-Neyman (1936) technique with materialism mean centered. The 16th, 50th, and 84th percentiles of the distribution of materialism (i.e., -.874, .108, .748) were selected to identify the region(s) of significance (Hayes, 2017). Results demonstrate a significant effect of price sensitivity on impulsive buying when materialism was at the value of -1.113 (B_{JN} = -.20, SE = .10, t = -1.97, p = .05, *95% CI* = [-.394, .000]) and above (i.e., 86.8% of its distribution) and this effect strengthened as materialism increased (H6a). As predicted, the effect of price sensitivity on impulsive buying was stronger when materialism was scored .748 (B = -.48, SE = .08, t = -6.04, p < .001, *95% CI* = [-.632, -.321]) than .108 (B = -.38, SE = .06, t = -6.01, p < .001, *95% CI* = [-.505, -.256]) and -.874 (B = -.23, SE = .09, t = -2.64, p = .009, *95% CI* = [-.406, -.059]). Thus, H6a was supported. OSES was negatively associated with impulsive buying, B = -.08, SE = .04, t = -1.99, p = .048 < .05, *95% CI* = [-.160, -.001]. The estimated path coefficients are presented in Figure 2.4. Model results remained consistent when OSES and other demographic variables (i.e., age, gender, ethnicity, marital status, and education) were controlled for.
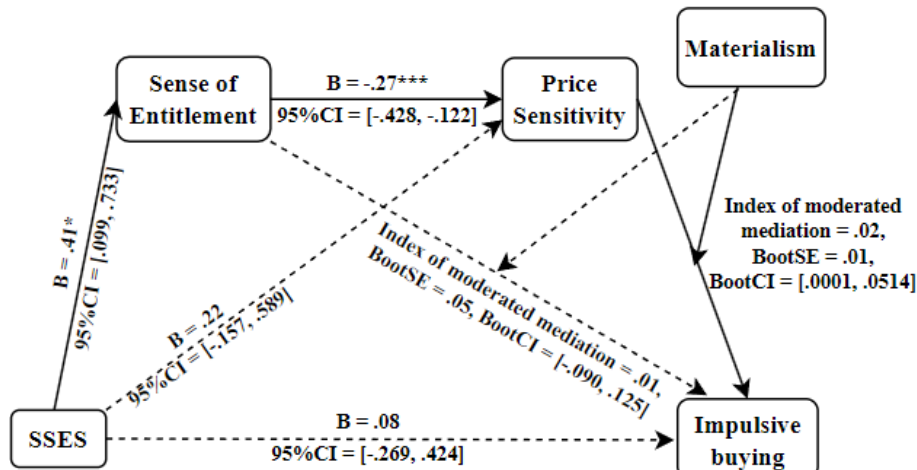
Note: * p <.05; ** p <.01; *** p <.001.

***Figure 2.4. Conditional indirect effects of SSES on impulsive
buying***

SSES and Compulsive Buying

Mediations. To test the mediating effects of the sense of entitlement and price sensitivity (i.e., H1b, H3b, and H4b) on the relationship between SSES and compulsive buying, we conducted mediation analyses using Model 6 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. The dummy SSES was included as the predictor, the sense of entitlement and price sensitivity as mediators, compulsive buying as the criterion, while controlling for OSES. Results show a significant mediation solely through the sense of entitlement, $B = .07$, *BootSE* = .05, *95% CI* = [.002, .181], and a significant serial mediation through the sense of entitlement and price sensitivity, $B = .05$, *BootSE* = .03, *95% CI* = [.007, .120], but no significant mediation solely through price sensitivity, $B = -.09$, *BootSE* = .08, *95% CI* = [-.260, .073]. Thus, H1b and H4b were supported but H3b was not supported. No significant association between SSES and price sensitivity was found, $B = .22$, *SE* = .19, $t = 1.14$, $p = .26$, *95% CI* = [-.157, .589], indicating no support for H2. Regarding the covariate OSES, no significant relationships with other variables in the model were found. Rerunning the same model without controlling for OSES, results remained consistent. As an additional check, we reran the mediation analysis above in Model 6 with the sequence between the sense of entitlement and price sensitivity reversed. The serial mediation effect became insignificant, $B = -.01$, *BootSE* = .01, *95% CI* = [-.020, .011], providing additional support for H4b. The mediation solely through the sense of entitlement remained consistently significant, $B = .08$, *BootSE* = .05, *95% CI* = [.004, .181], supporting H1b.

Moderation by Materialism. We further included materialism as a moderator in Model 88 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples model for a testing of both

moderation predictions (H5b and H6b), with OSES controlled for. As shown in Figure 2.5, no significant interaction between the sense of entitlement and materialism was found: *the index of moderated mediation* = .03, *BootSE* = .05, *95% CI* = [-.063, .135]. Thus, H5b was not supported. However, we found a significant interaction of materialism and price sensitivity on compulsive buying in the serial mediation: *the index of moderated mediation* = .02, *BootSE* = .01, *95% CI* = [.001, .053].

To further probe this conditional process from SSES to compulsive buying, we employed the Johnson-Neyman (1936) technique with materialism mean centered. The 16th, 50th, and 84th percentiles of the distribution of materialism (i.e., -.874, .108, .748) were selected to identify the region(s) of significance (Hayes, 2017). We found a significant effect of price sensitivity on compulsive buying when materialism was at the value of -1.082 (B = -.18, SE = .09, t = -1.97, p = .05, *95% CI* = [-.355, .000]) and above (i.e., 86.4% of its distribution) and this effect intensified as materialism increased (H6b). As expected, the negative relationship between price sensitivity and compulsive buying was stronger when materialism was at the value of .748 (B = -.43, SE = .07, t = -6.01, p < .001, *95% CI* = [-.576, -.291]) than at the values of .108 (B = -.34, SE = .06, t = -5.94, p < .001, *95% CI* = [-.458, -.230]) and -.874 (B = -.21, SE = .08, t = -2.56, p = .011, *95% CI* = [-.366, -.048]). H6b was thus supported. No significant association of OSES with variables in the model was found. When the model controlled for OSES or other demographic variables (i.e., age, gender, ethnicity, marital status, and education), results remained consistent. This supports the predictive power of SSES independent of OSES and these variables.

Note: * p <.05; ** p <.01; *** p <.001.
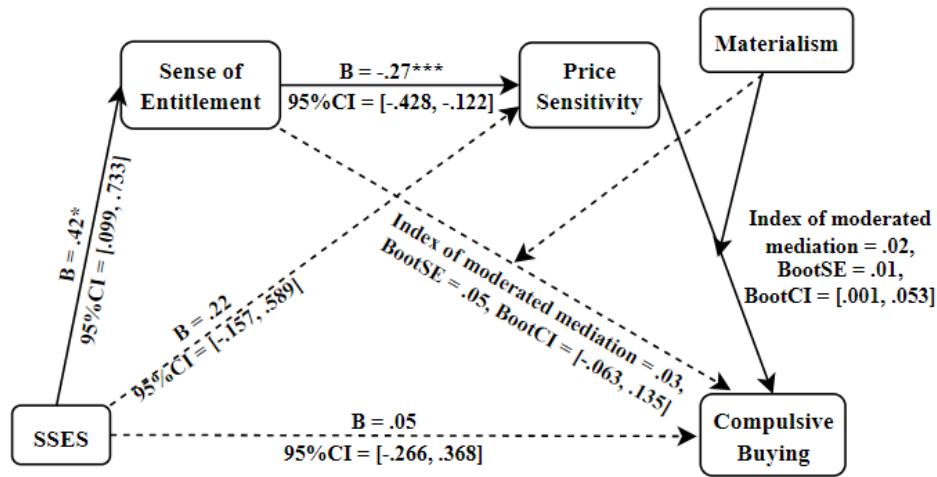
Figure 2.5. Conditional indirect effects of SSES on compulsive buying

General Discussion

Theoretical Contributions

This research has three theoretical contributions. First, it enhances our understanding of the potential role of SSES in the consumption domain. Whereas a substantial number of health and psychological studies have examined the role of SSES, research on SSES in the marketing domain remains scarce and warrants attention. For instance, although SSES was mentioned in Brick et al.'s (2017) investigation into the effects of resources on brand and interpersonal connections, it was included only in one of their four studies. The current work contributes preliminary insights into SSES research by examining whether and how SSES as an individual-based social identification construct shapes consumers' impulsive and compulsive buying tendencies.

Second, by adding empirical support, the current research extends results of a distinctive and independent impact of SSES relative to OSES from the health domain (e.g., Adler et al., 2000; Cohen et al., 2008) to the consumption domain. It adds to the SES literature by validating the consistent and independent predictability of SSES relative to OSES in the consumer behavior context. This research uncovers that the relationships between SSES and other variables in the present work remain consistent, whether or not OSES is controlled for. This aligns with findings regarding the unique role of SSES in other research fields (e.g., health; Adler et al., 2000).

Third, this research advances the literature on consumer well-being related to impulsive and compulsive buying. This may be one of first studies to uncover SSES as a distinct driver for consumers' impulsive and compulsive buying decisions and it elucidates the underlying psychological mechanism for the influence of SSES. Moreover, our work illuminates that an individual's materialistic values moderate the effect of SSES on consumers' impulsive and compulsive buying, in that it magnifies the impact of SSES on the impulsive and compulsive buying tendencies among materialists.

Practical Implications

By documenting the process underlying the SSES effects on impulsive and compulsive buying tendencies, this research suggests that consumer decisions that are potentially harmful to their emotional and financial wellbeing are influenced by their perception of own social status. Whereas marketing practitioners' may recognize the importance of collecting and leveraging consumers' information about SSES in marketing efforts, eliciting SSES (e.g., by inducing social comparison), collecting consumers' materialistic values, or even signaling situational materialism cues (Bauer et al., 2012) in order to boost

impulsive and compulsive purchase decisions, we propose that the findings have important social wellbeing implications. By identifying SSES as a contributor to both impulsive and compulsive buying that impair consumer wellbeing, consumers could become more aware of how detrimental inflated SSES perceptions can be and begin to recognize what psychological mechanism they go through in the decision-making process. Being mindful about their own thinking, consumers are thus likely to consciously remind themselves of remaining objective about their social status, curbing impulsivity or compulsiveness in consumption, and reducing possible psychological and financial risks.

Limitations and Future Directions

This research has two important limitations. One is that OSES was operationalized as income only. Although income remains a widely used and core indicator of OSES (e.g., Anderson et al., 2012; Piff et al., 2010), the exclusion of other potential indicators in the measure of OSES may influence the findings to some extent, for example, due to status inconsistency, social mobility, and role conflict (Blalock, 1967; Segal et al., 1970; Stryker & Macke, 1978). The effects of SSES were observed regardless of whether income or education were controlled for. Future research could nonetheless explore whether adding indicators (e.g., profession) to income to index OSES would also support the current findings. Another limitation lies in the samples recruited from Amazon Mechanical Turk. In both studies, data was collected from the same population (i.e., the Americans) through one single source rather than multiple sources. This may compromise the generalizability of the research findings.

In addition, future studies may also investigate if there is any other consumer dispositional characteristic like materialism that may moderate the SSES effect on consumers' buying decision making. For example, as narcissistic people tend to have less impulse control and are often impulsive and compulsive shoppers (Cai et al., 2015; Rose, 2007), narcissism likely magnifies the impact of SSES on consumption. Meanwhile, situational factors that can stimulate or intensify consumers' shopping desire are also interesting to look into, for instance, product or store attractiveness (Chan et al., 2017; Karbasivar & Yarahmadi, 2011) and peer pressure (Fernandes & Panda, 2018).

Transition from Essay 2 to Essay 3

The second essay examined whether and how subjective socioeconomic status (SSES) influences consumers' impulsive and compulsive buying decisions. SSES related positively to both impulsive and compulsive buying tendencies and these relationships were mediated by the sense of entitlement and price sensitivity. Findings were consistent across two studies. According to the duality of the human mind in reasoning (i.e., dual-process theory, Evans, 2003, 2008; Osman, 2004), people can go through two unique systems of thinking or reasoning processes and make different and often opposing decisions. This is also true for consumers' decision making in the context of impulsive and compulsive buying. Apart from the psychological process of SSES driving impulsive and compulsive buying decisions through the sense of entitlement and price sensitivity that essay 2 has uncovered, there may be alternative processes linking SSES to impulsive and compulsive buying. Based on dual process theory, the third essay explores one such (opposing) process from SSES to impulsive and compulsive buying that has the potential to mitigate this relationship.

Essay 3 - From Subjective Socioeconomic Status to Impulsive and Compulsive Buying: A Control-based Process

Abstract

According to the dual-process theory of mind, people have two distinct cognitive systems underlying reasoning, and these can lead to opposing outcomes. Apart from intuitively following the desire for impulsive and compulsive purchases, consumers can often control or suppress the urge to buy. Inspired by this notion, this essay investigates the decision-making process that would hold consumers back from impulsive and compulsive purchases. Results from two studies demonstrate an inhibitory process model from SSES to both impulsive and compulsive buying through the sense of control. This psychological process of suppressing desires for buying is more pronounced when the perceived power is stronger. This essay sheds light on the role of SSES as an antecedent to consumers' impulsive and compulsive buying. It contributes to theory and practice on consumer wellbeing.

Keywords: subjective socioeconomic status, sense of control, perceived power, impulsive and compulsive buying

Introduction

The human mind is fluid. One moment, we may long for McDonald's vanilla ice cream, while we are on our way to the gym the next. Research suggests that humans have two distinct types of cognitive systems (Evans, 2003, 2008; Osman, 2004) for reasoning and decision making: One is intuitive, irrational, autonomous, and experiential while the other is analytical, rational, reflective, and self-regulatory. These different styles of processing have been identified and studied in psychological studies for over one century (e.g., James, 1890; Freud, 1900/1953) to explain conflicting decisions (e.g., Liu & Shrum, 2009). This is also true of decision making in impulsive and compulsive consumption. Besides following self-indulgent desires for impulsive or compulsive purchases, people have the option of putting wants behind by employing self-regulation resources (Vohs & Faber, 2007). Literature documents various factors that can serve as self-regulation resources to restrain these indulgent consumption tendencies, such as behavioral stop signs (Veling et al., 2013), self-control exercises (Sultan et al., 2012), shopping alone (versus shopping with others, Wang et al., 2020), dispositional mindfulness (Park & Dhandra, 2017), and emotional regulation (Williams & Grisham, 2012). Nevertheless, whether and how one's perceived social status has a similar role in consumers' impulsive and compulsive buying decisions, namely as a source for self-regulation resources exerting a socially favorable impact on impulsive and compulsive buying, remains mysterious. This paper aims to fill this gap. Specifically, we posit that one's perceived social status lessens impulsive and compulsive buying tendencies through generating a sense of control and that such lessening effect is stronger among people who have more perceived power.

Conceptual Background and Hypotheses

Subjective Socioeconomic Status, Impulsive and Compulsive Buying

Subjective socioeconomic status (hereinafter referred to as SSES) is defined as the evaluation of one's own socioeconomic status, that is, the self-placement relative to others in social hierarchy (Davis & Blake, 1956; Jackman & Jackman, 1973). It has been widely examined in health studies and deemed a stronger predictor of people's health than objective socioeconomic status (hereinafter referred to as OSES) that was measured with variables such as occupation, education, personal or household income (Adler et al., 2000; Demakakos et al., 2008; Singh-Manoux et al., 2003; 2005b). However, the influence of SSES, relative to OSES, on consumer behavior remains underexamined. For a better understanding, this paper delves into the role of SSES in impulsive and compulsive shoppers' decision making. As a spontaneous shopping behavior (Weinberg & Gottwald, 1982), impulsive buying manifests a strong

desire to make an immediate purchase without much forethought when spotting an item in the marketplace (Rook, 1987; Rook & Fisher, 1995). That is to say, the more impulsive a shopper is, the less likely he or she can control the self with rationality and resist the urge to buy things when facing temptations. Different from impulsive shoppers, compulsive shoppers are obsessed with repeating purchases, and this obsession persists even though the shoppers are aware of the negative consequences such as financial hardship and psychological stress (O'Guinn & Faber,1989; Ridgway et al., 2008). Although treated as distinct constructs in marketing literature (D'Astous, 1990; DeSarbo & Edwards, 1996; Sneath et al., 2009), impulsive buying and compulsive buying have conceptual overlap and are positively correlated (Flight et al., 2012; Japutra et al., 2019; Ridgway et al., 2008). Hence, we expect that SSES relates to both buying behaviors in the same fashion.

Dual Process Theory of Mind

When it comes to human reasoning and decision making, cognitive and social psychologists have revealed two distinctive types of thought processes (Evans, 2003, 2008; Osman, 2004), which have received substantial empirical validation over years. Each type of processing plays a unique role and leads to divergent responses and decisions. The Type 1 process is evolutionarily ancient, instinctive, and intuitive in nature, characterized by fast, automatic, associative, effortless, experiential, and unstructured processing that relies on content-specific heuristics such as similarity, representativeness, beliefs, and affect (Evans, 2003, 2008). In contrast, the Type 2 process is evolutionarily recent, analytical, and hypothetical in nature, featured by slow, conscious, effortful, rational, and structured processing that monitors and regulates intuitive responses (Evans & Over, 1996; Sloman, 1996; Stanovich & West, 2000; Tversky & Kahneman, 1974). Notably, the Type 2 process employs the central working memory and allows hypothetical thinking that the Type 1 process lacks. In other words, the Type 2 processing enables us to build abstract mental models or simulate imaginary scenarios, and thus can inhibit the intuitive or default responses generated by the Type 1 processing (Evans, 2003). Literature has widely used this dual perspective of reasoning to explain how our mind processes information and makes decisions (e.g., Gerrard et al., 2008; Ivanoff et al., 2008; Reyna, 2004), especially in opposing ways. For instance, with a dual-process model Liu and Shrum (2009) find that interactivity in online marketing communications can facilitate or inhibit persuasion depending on factors such as website users' level of experience and task involvement. Wilcox and colleagues (2011) uncover dual processes from incidental pride to consumer choices in consumption, that is, incidental pride leading to indulgent choices when triggering a sense of achievement and virtuous choices when generating self-awareness.

Likewise, drawing upon the dual-process theory of reasoning, we believe that SSES affects consumers' decision making in impulsive and compulsive purchases through dual processes, namely, in conflicting directions: one is prompting, the other is hindering. As a preliminary examination, this paper only explores the process of SSES hindering both impulsive and compulsive buying, which manifests the inhibitory capability of the Type 2 thinking (Evans, 2003). Specifically, we posit that SSES impedes both impulsive and compulsive buying when it elicits a sense of control, and such inhibitory process is more pronounced in consumers who have greater perceived power.

The Mediating Role of Sense of Control

The sense of control refers to one's belief that the self has control over or capability of shaping states and results (Kraus et al., 2009; Lachman & Weaver, 1998). Our prediction about the sense of control mediating the effects of SSES on both impulsive and compulsive buying finds support in past studies. On the one hand, literature suggests that one's social status, regardless of OSES or SSES, is a positive correlate of the sense of control. Lachman and Weaver (1998) examine income-based social class differences in the sense of control and find that the high-income group reported the most sense of control while the low-income group reported the least sense of control. Likewise, Gallo et al. (2005) show that lower occupation-based social class indicates less perceived control. Mittal and Griskevicius (2014) identify a positive association between family resource-based social status and the sense of control. Notably, Kraus et al. (2009) directly validate the positive relationship between SSES and the sense of control across four studies. Specifically, as lower social class possess less available resources and inferior rank in social hierarchy, people of lower SSES generate a lower sense of control, which more likely leads to external attribution of social outcomes (Kraus et al., 2009).

On the other hand, negative relationships between the sense of control and both impulsive and compulsive buying are expected, because both impulsive and compulsive purchases are often employed as strategies of restoring or enhancing the sense of control in the face of control-threatening feelings such as insecurity, depression, fear, uncertainty, and anxiety (DeSarbo & Edwards, 1996; Mittal & Griskevicius, 2014; Moulding & Kyrios, 2006; Sneath et al., 2009). The literature provides convergent evidence for this argument. For instance, Sneath et al. (2009) disclose that perceived lack of control over a traumatic event (e.g., hurricane) drove impulsive and compulsive buying behaviors through increasing stress and depression. Mittal and Griskevicius (2014) uncover that economic uncertainty reduced people's sense of control and in turn led to more impulsive responses or behaviors, for instance, preference for smaller but more immediate money rewards to bigger but more delayed ones. These

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findings consistently indicate that the lower one's sense of control is, the more likely one performs impulsive and compulsive purchases. Taken together, we hypothesize that SSES impedes both impulsive and compulsive buying through the sense of control. That is, the higher one's SSES is, the higher one's sense of control is, and the less likely one makes wellbeing-detrimental decisions of impulsive and compulsive buying.

H1: SSES suppresses a) impulsive buying, and b) compulsive buying through the sense of control.

The Moderating Role of Perceived Power

Power is defined by Keltner et al. (2003, p. 265) as "an individual's relative capacity to modify others' states by providing or withholding resources or administering punishments". Power is characterized by the control over desirable resources, including material ones such as food and money (Bowles & Gintis, 1992), and immaterial ones such as knowledge (Foucault, 1980), freedom (Patton, 1989), information (Pettigrew, 1972), rewards and punishments (Foucault, 2007). As a psychological state, perceived power, also known as a sense of power (Anderson et al., 2012), manifests one's perceived capability to shape results through control over scarce and competent resources (Keltner et al., 2003). The perceived power can emerge from socioeconomic resources that indicate one's social status (Rucker & Galinsky, 2008), just as SSES describes one's perceived socioeconomic status that is indicated by advantageous resources such as income and education (Adler et al., 2000). Hence, we have reason to believe that perceived power functions in a similar fashion to SSES in affecting both impulsive and compulsive buying through eliciting a sense of control. In other words, we expect that perceived power interacts with SSES in influencing the control-based buffer mechanism for impulsive and compulsive consumption. Specifically, as power manifests control (Keltner et al., 2003), we infer that the buffering impact of SSES on both impulsive and compulsive buying is stronger in people with more perceived power and weaker in those with less perceived power. As such, we hypothesize:

H2: Perceived power moderates the process of SSES buffering a) impulsive buying and b) compulsive buying through the sense of control, such that the effect of SSES on the sense of control is stronger among consumers with more perceived power.

According to Sneath et al. (2009), when people perceive a lack of control due to adverse events such as natural disasters, they feel stress and depression and in turn, resort to impulsive and compulsive buying as a strategy to cope with negative affect and restore their sense of control. However, we believe that one's power status, whether it is actual or perceived, can make a significant difference among people who perceive a lack of control. Specifically, we infer that a low level of perceived power can increase

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the chance of both impulsive and compulsive buying for those with perceived lack of control, whereas a high level of perceived power can decrease such chances among these people. In the same vein, we assert that among people with a strong sense of control, a high level of perceived power can strengthen the buffering impact on impulsive and compulsive buying while a low level of perceived power can weaken such effect. Altogether, we hypothesize:

H3: Perceived power moderates the effect of the sense of control on a) impulsive buying and b) compulsive buying, such that these effects are stronger among consumers with more perceived power.
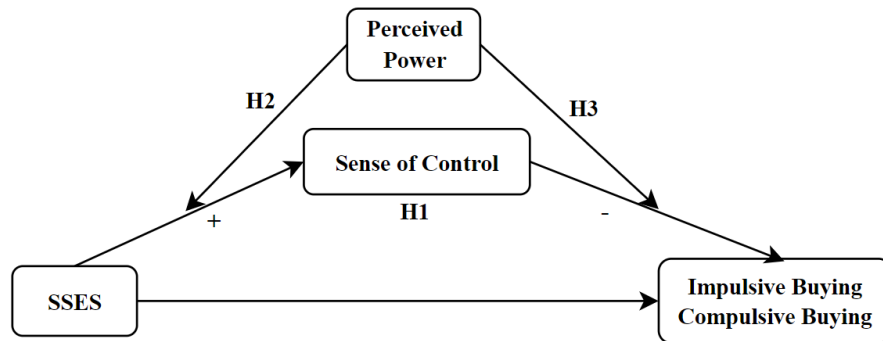
Figure 3.1. Conceptual framework

Study 1

Study 1, as a cross-sectional study, aims to tests the associations between SSES, the sense of control, impulsive buying, and compulsive buying (i.e., H1) with data collected from a sample of American consumers.

Participants and Procedure

A sample of 300 adults were recruited via Amazon Mechanical Turk to complete online surveys in exchange for a monetary reward (US$ 0.82). With 48 incomplete responses removed due to failed attention checks, 252 complete responses were retained for analysis. Among participants, 123 were male and 129 were female; their age ranged from 21 to 77 with a mean of 43.7; 196 were White/Caucasian, and 56 were Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicities; 154 were married or in a domestic partnership, and 98 were single or never married, widowed, divorced, or separated. In the survey, participants first provided informed consent and then answered questions that were designed to measure SSES, sense of control, impulsive buying, compulsive buying, income, education, occupation, marital status, age, gender, and ethnicity.

Measures

SSES (M = 5.39, SD = 1.70) was measured on a 1 (the lowest/bottom) to 10 (the highest/top) scale by following the self-anchoring procedure (Adler et al., 2000), in which participants mark the location of their self-perceived social status on a 10-rung ladder drawing. The higher the chosen ladder rung is, the higher one's SSES is. *The sense of control* (α = .88, *M* = 5.62, *SD* = 1.04) was measured with the four-item personal mastery scale (Lachman & Weaver, 1998) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Impulsive buying tendency* (α = .94, *M* = 2.72, *SD* = 1.43) was measured with the nine-item buying impulsiveness scale (Rook & Fisher, 1995) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). *Compulsive buying tendency* (α = .88, *M* = 2.42, *SD* = 1.42) was assessed with the seven-item compulsive buying scale (Faber & O'Guinn, 1992) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score for each of these variables was generated by averaging scores of all corresponding scale items. *OSES* was assessed with income, as previous research indicates that it expresses differences in people's objective resources that determine their social status (Côté et al., 2013; Krieger et al., 1997; Piff, 2014; Piff et al., 2010). Appendix 1 provides more details.

Results and Discussion

Correlations. Correlation analysis was conducted to examine the associations between SSES, the sense of control, impulsive buying, and compulsive buying. As expected, SSES was positively associated with the sense of control, *r* (250) = .31, *p* < .001, impulsive buying, *r* (250) = .23, *p* < .001, and compulsive buying, *r* (250) = .17, *p* = .006. The sense of control was negatively associated with impulsive buying, *r* (250) = -.08, *p* = .220, and compulsive buying, *r* (250) = -.08, *p* = .200. These results show preliminary support for H1.

Table 3.1. Descriptives statistics and correlations

	M	*SD*	1	2	3	4
1 SSES	5.39	1.70	1			
2 Sense of Control	5.62	1.04	.31***	1		
3 Impulsive Buying	2.72	1.43	.23***	-.08	1	
4 Compulsive Buying	2.42	1.42	.17**	-.08	.71***	1
5 OSES	3.86	1.97	.53***	.22***	-.07	-.15*

Note: * *p* <.05; ** *p* <.01; *** *p* <.001.

Variance inflation factors (i.e., VIF) ranged between 1 and 2 and tolerance above .60. This suggests no multicollinearity according to the criteria of Allison (1999) that VIF should be less than 2.5 and tolerance above .40. Moreover, for the latent variables in the conceptual model, Cronbach α and

composite reliability were larger than .70 (Hair et al., 2011), the average variance extracted larger than .50 (Hair et al., 2011), and the square root of average variance extracted larger than the correlations (Fornell & Larcker, 1981). This suggests adequate convergent and discriminant validities.

SSES and Impulsive Buying

Mediation through the Sense of Control. To test the psychological process from SSES to impulsive buying through the sense of control (H1a), we performed a mediation analysis using Model 4 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. SSES was included as the predictor, the sense of control as the mediator, and impulsive buying as the criterion, and OSES as the covariate. As shown in Figure 3.2, results reveal a statistically significant negative indirect effect from SSES to impulsive buying through the sense of control, $B = -.03$, $BootSE = .02$, 95% $CI = [-.080, -.001]$, supporting H1a. Specifically, as the literature indicates (Kraus et al., 2009), SSES was positively associated with the sense of control, $B = .17$, $SE = .04$, $t = 3.84$, $p < .001$, 95% $CI = [.081, .251]$, and the sense of control was negatively associated with impulsive buying, $B = -.21$, $SE = .09$, $t = -2.41$, $p = .02$, 95% $CI = [-.377, -.038]$. OSES was negatively associated with impulsive buying, $B = -.19$, $SE = .05$, $t = -3.74$, $p < .001$, 95% $CI = [-.289, -.090]$. Consistent results were obtained by running Model 4 without controlling for OSES, providing extra support for H1a and suggesting the consistent predictability of SSES independent of OSES.
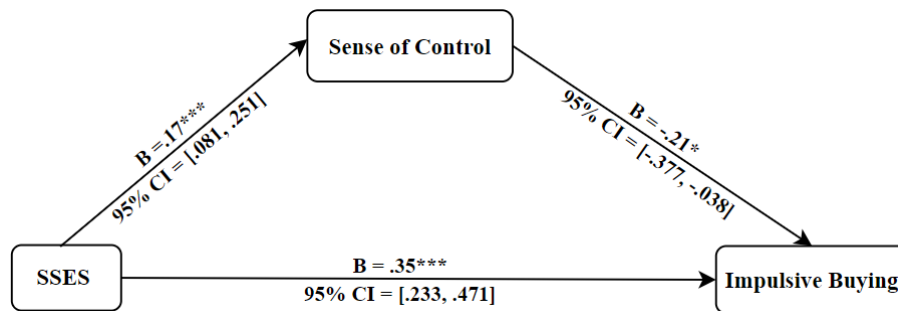
Note: * *p* <.05; ** *p* <.01; *** *p* <.001.

Figure 3.2. The indirect effect of SSES on impulsive buying

SSES and Compulsive Buying

Mediation through the Sense of Control. To test mediation of the path between SSES and compulsive buying through the sense of control (H1b), we performed a mediation analysis using Model 4 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. SSES was included as the predictor, the sense of control as the mediator, compulsive buying as the criterion, OSES (Hout, 2008) as a covariate. As shown in Figure 3.3, we found a significant negative indirect effect from SSES to

compulsive buying through the sense of control, $B = -.03$, $BootSE = .02$, 95% $CI = [-.0741, -.0001]$, supporting H1b. Specifically, SSES was positively associated with the sense of control, $B = .17$, $SE = .04$, $t = 3.84$, $p < .001$, 95% $CI = [.081, .251]$, and the sense of control was negatively associated with impulsive buying, $B = -.18$, $SE = .09$, $t = -2.08$, $p = .04$, 95% $CI = [-.347, -.009]$. In contrast with the positive association of SSES with compulsive buying, OSES was negatively associated with compulsive buying, $B = -.23$, $SE = .05$, $t = -4.60$, $p < .001$, 95% $CI = [-.332, -.133]$. By running Model 4 without controlling for OSES, we acquired consistent results about the relationships among SSES, the sense of control, and compulsive buying. This provides additional evidence for the predictive power of SSES.

Sense of Control

$B = .17^{***}$
95% $CI = [.081, .251]$

95% $CI = [-.347, -.009]$
$B = -.18^{*}$

SSES

$B = .32^{***}$
95% $CI = [.203, .440]$
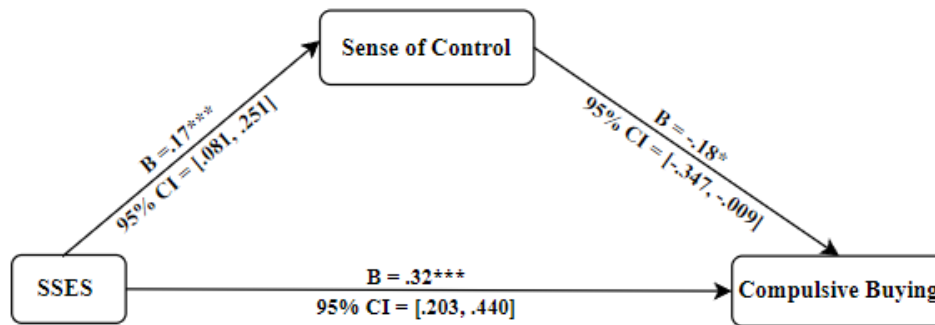
Compulsive Buying

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Figure 3.3. The indirect effect of SSES on compulsive buying

Hence, Study 1 found initial support for the hypothesized relation between SSES and impulsive buying and compulsive buying mediated by the sense of control. As this study was correlational in nature, the next study tests the robustness of these findings with an experimental design.

Study 2

With an experimental design, Study 2 aims to seek experimental evidence for the hypotheses (H1 - H3). Specifically, SSES is manipulated in this study to test the process model from SSES to impulsive and compulsive buying through the sense of control (H1) and the moderating effects of perceived power on the process (H2 - H3).

Participants and Procedure

A total of 280 online questionnaires were distributed to respondents who were residing in the United States and randomly recruited via Amazon Mechanical Turk in exchange for a monetary reward (US$ 0.82). Among them, 54 were unfinished responses due to failed attention checks or surpassing the time limit for completion of the survey; 43 participants failed to follow manipulation instructions on response

format and content and provided incomplete or inappropriate responses to manipulation questions. With these responses listwise deleted, a total of 183 valid responses were retained. Among these respondents, 98 were female and 85 were male; their age ranged from 19 to 75, and the mean of age was 40.3; 149 were White/Caucasian, and 34 were Hispanic/Latino, Asian/Pacific Islander, Black/African, Native/Indian, and multiple/other ethnicities; 121 were married or in a domestic partnership, and 62 were single or never married, widowed, divorced, or separated. In the online experiment, participants first provided informed consent, and then completed the manipulation of SSES and the measures of variables in this study.

Manipulation of SSES. SSES was manipulated by following the approach of Kraus et al.'s (2009; 2010) studies. Participants were randomly assigned into low SSES and high SSES conditions. On a 10-rung ladder representing where people stand in the United States from the bottom rung (1 = the worst off) to the top rung (10 = the best off), they were asked to mark their own position after comparing themselves with a person who they believe was at the top or bottom of the ladder. Specifically, participants were presented with instructions below.

> *"Imagine you are in a getting acquainted interaction with one of the people you just thought about from the very bottom/top rung of the ladder. These are the worst/best off (i.e., having the least/most money, the least/most education, and the least/most respected jobs). Think about how the differences between you might impact what you would talk about, how the interaction is likely to go, and what you and the other person might say to each other. Then write down (directly type) 3 to 5 full sentences (not words/phrases) you would say to that person.*
> *... ...*
> *Now compare yourself to these people at the very bottom (1 = the worst off) /top (10 = the best off) of the ladder who have the least/most money, the least/most education, and the least/most respected jobs. In particular, we'd like you to think about how you are different from these people in terms of your own income, educational history, and job status. Where would you place yourself on this ladder relative to them?"*

After rating their SSES for manipulation check, participants answered a series of questions to measure the sense of control, perceived power, impulsive buying, compulsive buying, income, education, occupation, marital status, age, gender, and ethnicity.

Measures

The sense of control ($\alpha = .97$, $M = 3.80$, $SD = 1.84$) was measured with the eight-item scale of perceived

constraints (Lachman & Weaver, 1998) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). A composite score of sense of control was generated by averaging all reverse-coded scale items of perceived constraints. *Impulsive buying* (α = .95, *M* = 3.67, *SD* = 2.04) was measured with a three-item impulsive buying scale (Ridgway et al., 2008) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The higher the rating score is, the more impulsive the purchase is. The composite score for impulsive buying was computed by averaging the item scores. *Compulsive buying* (α = .86, *M* = 3.72, *SD* = 1.56) was assessed with the seven-item compulsive buying scale (Faber & O'Guinn, 1992) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score for compulsive buying was generated by averaging scores of all scale items. *Perceived power* (α = .85, *M* = 4.25, *SD* = 1.33) was assessed with the eight-item sense of power scale (Anderson & Galinsky, 2006) on a seven-point Likert scale (anchored 1 = strongly disagree, 7 = strongly agree). The composite score for perceived power was generated by averaging scores of all scale items. *OSES* was measured as in Study 1. Appendix 1 shows details.

Results and Discussion

Manipulation Check. Participants reported significantly higher SSES in the high SSES condition ($n_{highSSES}$ = 98, *M* = 8.56, *SD* = 1.60) than in the low SSES condition ($n_{lowSSES}$ = 85, *M* = 3.04, *SD* = 2.25; *t* = 18.86, *p* < .001, *95% CI* = [4.947, 6.105], *observed power* = .99). SSES was dummy coded as 1 representing high SSES and 0 representing low SSES.

Descriptive Statistics and Correlations. The means and standard deviations of all variables and Pearson's correlations (*r*) among them were calculated and presented in Table 3.2, considering SSES as a scale variable. As expected, SSES and the sense of control were positively correlated (*r* = .35, *p* < .001), and the sense of control was negatively correlated with impulsive buying (*r* = -.01, *p* = .85) and compulsive buying (*r* = -.47, *p* < .001). Perceived power was positively associated with SSES (*r* = .44, *p* < .001) and the sense of control (*r* = .55, *p* < .001).

Table 3.2. Descriptives statistics and correlations

	M	SD	1	2	3	4	5
1 SSES	5.99	3.37	1				
2 Sense of Control	3.80	1.84	.35***	1			
3 Perceived Power	4.25	1.33	.44***	.55***	1		
4 Impulsive Buying	3.67	2.04	.46***	-.01	.16*	1	
5 Compulsive Buying	3.72	1.56	.06	-.47***	-.13	.68***	1
6 OSES	3.40	1.97	-.02	.07	.00	.03	.05

Note: * $p <.05$; ** $p <.01$; *** $p <.001$.

SSES and Impulsive Buying

Mediation through Sense of Control. To test the prediction that SSES impedes impulsive buying through the sense of control (H1a), we performed a mediation analysis using Model 4 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. Dummy SSES was included as the predictor, the sense of control as the mediator, impulsive buying as the criterion, and OSES as a covariate. Results show a significant mediation through the sense of control, $B = - .24$, *BootSE* $= .10$, *95% CI* $= [- .452, - .037]$, supporting H1a. Specifically, SSES was positively associated with the sense of control, $B = 1.26$, *SE* $= .26$, $t = 4.88$, $p < .001$, *95% CI* $= [.750, 1.766]$. This finding replicated those of Kraus et al. (2009) and Lachman and Weaver (1998). The sense of control was negatively associated with impulsive buying, $B = -.19$, *SE* $= .08$, $t = -2.37$, $p = .02$, *95% CI* $= [-.349, -.032]$, consistent with the literature (e.g., Sneath et al., 2009). The direct effect of SSES on impulsive buying was statistically significant, $B = 1.85$, *SE* $= .30$, $t = 6.26$, $p < .001$, *95% CI* $= [1.267, 2.433]$. OSES had no statistically significant impact on either the sense of control, $B = .09$, *SE* $= .07$, $t = 1.37$, $p = .17$, *95% CI* $= [-.039, .219]$, or impulsive buying, $B = .08$, *SE* $= .07$, $t = 1.08$, $p = .28$, *95% CI* $= [-.063, .217]$. Results of the predicted relationships remained consistent when not controlling for OSES.

Moderation by Perceived Power. We included perceived power as a moderator for a test of both mediation and moderation in Model 58 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples. OSES was included as a covariate. The estimated path coefficients and results are presented in Figure 3.4 and Table 3.3. Perceived power moderated the indirect effect of SSES on the sense of control, $B = .62$, *SE* $= .18$, $t = 3.41$, $p < .001$, *95% CI* $= [.261, .975]$. To explore moderation effects further, we applied the Johnson-Neyman (1936) technique with perceived power mean centered. The 16th, 50th, and 84th percentiles of its distribution were taken as point values, corresponding to -.999, .001, and 1.251, to identify region(s) of significance. Results show a significant positive relationship between SSES and the

sense of control when perceived power was at the value of -.146 ($B = .48$, $SE = .24$, $t = 1.97$, $p =. 05$, *95% CI* = [.000, .951]) and above (i.e., 55.2% of its distribution) and a strengthening trend of this relationship as perceived power increases (H2a). As anticipated, this relationship was stronger when perceived power was at the value of 1.251 ($B = 1.34$, $SE = .34$, $t = 3.98$, $p <. 001$, *95% CI* = [.674, 2.00]) than at the value of .001 ($B = .57$, $SE = .24$, $t = 2.35$, $p =. 05$, *95% CI* = .092, 1.041]), suggesting that the more powerful one perceives, the stronger the effect of SSES on the sense of control becomes. Thus, H2a was supported. However, no significant moderation effect of perceived power on the path from sense of control to impulsive buying was found ($B = -.01$, $SE = .05$, $t = -.08$, $p = .94$, *95% CI* = [-.110, .101]), suggesting no support for H3a. Model results remained consistent regardless of whether OSES and demographic variables (e.g., age, marital status, ethnicity) were controlled for in the model.
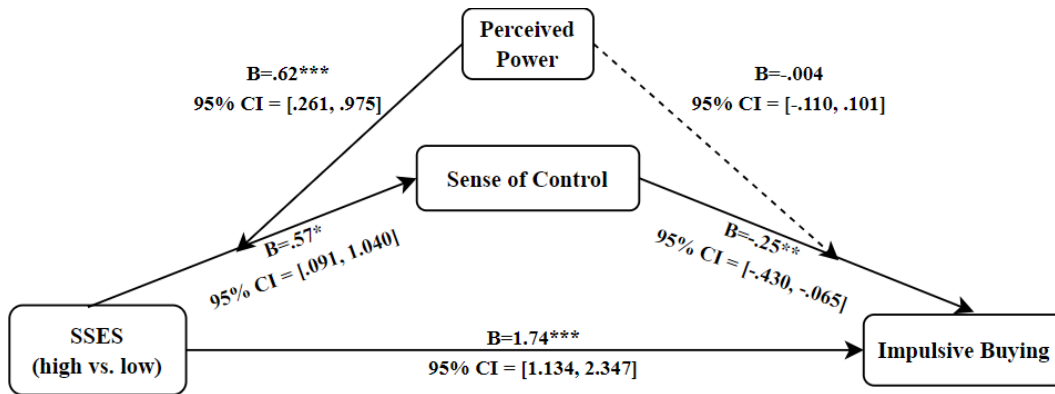
Note: * *p* <.05; ** *p* <.01; *** *p* <.001.

Figure 3.4. Conditional indirect effect of SSES on impulsive buying

Table 3.3. Model coefficients for the conditional process Model 58

		Sense of Control (M)					Impulsive Buying (Y)			
		Coeff	*SE*	*p*	*95% CI*		*Coeff*	*SE*	*p*	*95% CI*
SSES (X)	a_1	.57	.24	.02*	.091, 1.040	*c'*	1.74	.31	.000***	1.134, 2.347
Perceived Power (W)	a_2	.37	.13	.005**	.113, .619	b_2	.17	.13	.19	-.084, .427
SSES*Perceived Power (X*W)	a_3	.62	.18	.000***	.261, .975	-	-	-	-	-
Sense of Control (M)	-	-	-	-	-	b_1	-.25	.09	.008**	-.430, -.065
Sense of Control*Perceived Power (M*W)	-	-	-	-	-	b_3	-.004	.05	.94	-.110, .101
OSES	-	.09	.06	.101	-.018, .204	-	.08	.07	.29	-.065, .219
Constant	e_M	-.78	.27	.005**	-1.320, -.244	e_Y	2.48	.35	.000***	1.792, 3.169
		$R^2 = .36$					$R^2 = .19$			
		$F_{(4, 178)} = 25.55, p = .000***$					$F_{(5, 177)} = 8.23, p = .000***$			

Note: * *p* <.05; ** *p* <.01; *** *p* <.001.

SSES and Compulsive Buying

Mediation through Sense of Control. We conducted a mediation analysis using Model 4 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping samples to test the mediation effect of the sense of control (H1b) on the relationship between SSES and compulsive buying. Dummy SSES was included as the predictor, the sense of control as the mediator, compulsive buying as the criterion, and OSES as covariate. Results show a statistically significant indirect effect of SSES on compulsive buying through the sense of control, *B* = -.58, *BootSE* = .13, *95% CI* = [-.843, -.334], indicating the process of SSES hindering compulsive buying via the induced sense of control. H1a was thus supported. As expected and consistent with literature, we found a positive relationship between SSES and the sense of control, *B* = 1.26, *SE* = .26, *t* = 4.88, *p* < .001, *95% CI* = [.750, 1.766], and a negative relationship between the sense of control and compulsive buying, *B* = -.46, *SE* = .06, *t* = -7.95, *p* < .001, *95% CI* = [-.576, -.347]. Besides, the direct effect of SSES on compulsive buying was also statistically significant, *B* = .65, *SE* = .21, *t* = 3.05, *p* = .003, *95% CI* = [.229, 1.071]. We found no statistically significant impact of OSES on either the sense of control, *B* = .09, *SE* = .07, *t* = 1.37, *p* = .172, *95% CI* = [-.039, .219], or compulsive buying, *B* = .08, *SE* = .05, *t* = 1.55, *p* = .123, *95% CI* = [-.022, .181]. Results of Model 4 remained consistent when OSES was not controlled for.

Moderation by Perceived Power. By including perceived power as a moderator, we tested both mediation and moderation in Model 58 of the PROCESS macro (Hayes, 2017) with 5,000 bootstrapping

samples and OSES included as a covariate. Test results were reported in Figure 3.5 and Table 3.4. Perceived power moderated the path from SSES to the sense of control, $B = .62$, $SE = .18$, $t = 3.41$, $p < .001$, $95\% CI = [.261, .975]$. Using the Johnson-Neyman (1936) technique, perceived power was mean centered and the 16th, 50th, and 84th percentiles of its distribution (i.e., -.999, .001, and 1.251) were selected. We found a significant effect of SSES on the sense of control when perceived power was -.146 ($B = .48$, $SE = .24$, $t = 1.97$, $p = .05$, $95\% CI = [.000, .951]$) and above (i.e., 55.2% of its distribution) and the strengthening trend of the effect as perceived power increased (H2b). As expected, this positive effect of SSES on the sense of control was more pronounced when perceived power was at the value of 1.251 ($B = 1.34$, $SE = .34$, $t = 3.98$, $p < .001$, $95\% CI = [.674, 2.002]$) than at the value of .001 ($B = .57$, $SE = .24$, $t = 2.35$, $p = .02$, $95\% CI = [.092, 1.041]$). Thus, H2b was supported.

Perceived power also moderated the path from the sense of control to compulsive buying, $B = -.08$, $SE = .04$, $t = -2.11$, $p = .04$, $95\% CI = [-.155, -.005]$. In applying the Johnson-Neyman (1936) technique, perceived power was mean centered and the 16th, 50th, and 84th percentiles of its distribution were selected as point values, i.e., -.999, .001, and 1.251. We found a significant effect of the sense of control on compulsive buying when perceived power was scored - 2.85 ($B = -.27$, $SE = .13$, $t = -1.97$, $p = .05$, $95\% CI = [-.532, .000]$) and above (i.e., 96.2% of its distribution) and an intensification of this effect with increasing perceived power (H3b). As expected, the negative effect of the sense of control on compulsive buying was stronger when perceived power was at a greater value of 1.251 ($B = -.59$, $SE = .08$, $t = -7.89$, $p < .001$, $95\% CI = [-.743, -.446]$) than at the values of .001 ($B = -.49$, $SE = .07$, $t = -7.50$, $p < .001$, $95\% CI = [-.624, -.364]$) and -.999 ($B = -.41$, $SE = .08$, $t = -5.12$, $p < .001$, $95\% CI = [-.574, -.255]$). Hence, H3b was also supported. No statistically significant impact of OSES on either the sense of control, $B = .09$, $SE = .06$, $t = 1.65$, $p = .10$, $95\% CI = [-.018, .204]$, or compulsive buying, $B = .06$, $SE = .05$, $t = 1.27$, $p = .21$, $95\% CI = [-.036, .166]$, was found. Model results remained consistent regardless of whether OSES and demographic variables (e.g., age, gender) were controlled for.

Perceived Power

B=.62*** 95% CI = [.261, .975]

B=-.08* 95% CI = [-.155, -.005]

Sense of Control

B=.57* 95% CI = [.091, 1.040]

B=-.49*** 95% CI = [-.624, -.364]

SSES (high vs. low)

B=.58** 95% CI = [.144 , 1.007]
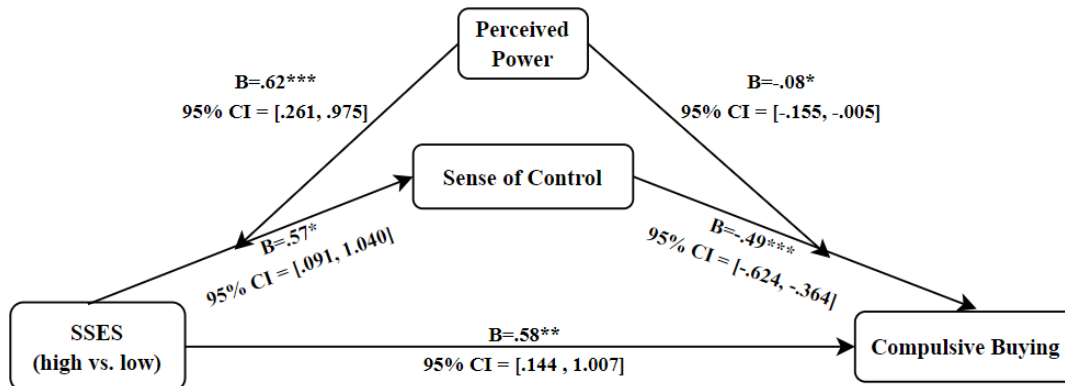
Compulsive Buying

Figure 3.5. Conditional indirect effect of SSES on compulsive buying

Table 3.4. Model coefficients for the conditional process Model 58

		Sense of Control (M)				Compulsive Buying (Y)			
		Coeff	SE	p	95% CI		Coeff	SE	p	95% CI
SSES (X)	a_1	.57	.24	.02*	.091, 1.040	c'	.58	.22	.009**	.144, 1.007
Perceived Power (W)	a_2	.37	.13	.005**	.113, .619	b_2	.15	.09	.10	-.030, .334
SSES*Perceived Power (X*W)	a_3	.62	.18	.000***	.261, .975	-	-	-	-	-
Sense of Control (M)	-	-	-	-	-	b_1	-.49	.07	.000***	-.624, -.364
Sense of Control*Perceived Power (M*W)	-	-	-	-	-	b_3	-.08	.04	.04*	-.155, -.005
OSES	-	.09	.06	.101	-.018, .204	-	.06	.05	.21	-.036, .166
Constant	e_M	-.78	.27	.005**	-1.320, -.244	e_Y	3.30	.25	.000***	2.806, 3.787
		$R^2 = .36$					$R^2 = .29$			
		$F_{(4, 178)} = 25.55, p = .000***$					$F_{(5, 177)} = 14.62, p = .000***$			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

General Discussion

To examine the role of SSES in consumption, this research investigated the relationships between SSES and both impulsive and compulsive buying tendencies. Drawing upon the dual-process theory of mind (Evans, 2003, 2008; Osman, 2004), we predicted that SSES impedes impulsive and compulsive purchases. We suggested that SSES lessens the desire for impulsive and compulsive purchases through generating a sense of control. We also hypothesized such a mitigating effect of SSES on impulsive and compulsive consumption increases with a greater perceived power. Two studies found consistent evidence to support these predictions.

Theoretical Contributions

The research provides theoretical value in two ways. First, it is another effort to extend scholarly

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attention to SSES from health and psychological studies (e.g., Adler et al., 2000; Cohen et al., 2008) to consumer research. We add to the SSES literature by exploring a novel perspective on how SSES impacts consumer buying decisions. Inspired by the dualistic perspective of human reasoning, this research examines one process of SSES buffering both impulsive and compulsive buying tendencies via a sense of control. Across two distinctively designed (i.e., measurement and experimental) studies, it substantiates that SSES can benefit consumer wellbeing by inducing a sense of control, which in turn reduces impulsive and compulsive buying tendencies. We also find that perceived power moderates the effect of SSES on both impulsive and compulsive shopping. The findings echo past studies (e.g., Piff et al., 2010) in terms of the consistency and independence of SSES as a measure of SES relative to OSES.

Secondly, this work contributes to the consumer wellbeing literature by advancing the understanding of the relationship between SSES and two potentially harmful consumer behaviors - impulsive buying and compulsive buying. This essay confirmed the prediction that the desire for impulsive and compulsive purchases is buffered to the extent that SSES elicits a sense of control. This implies that consumers' decision making in consumption is context-specific in the sense that it depends on what psychological mechanism is activated.

Practical Implications

By explicating the relationship between SSES and impulsive and compulsive consumption, which potentially harm consumer wellbeing (O'Guinn & Faber,1989; Ridgway et al., 2008), this essay sheds light on the possibility of ameliorating impulsive and compulsive buying through adjusting consumers' perceptions. This knowledge could be incorporated into social marketing campaigns, for instance, the increasingly popular corporate social responsibility campaigns (Smith & Alcorn, 1991). As a result, consumers could be made more aware of the importance of recognizing their own control in decision making for emotional and financial wellbeing. Corporate social marketing practices could also be rewarding for firms or brands because they generate trust, satisfaction, credit, and loyalty (Bloom et al., 2006) and may subsequently boost brand image, reputation, loyalty, and equity as well (Hoeffler & Keller, 2002). Compared with short-term profit-oriented persuasion techniques, genuine investments in consumer wellbeing are forward-looking and long-term oriented for lasting competency in profitability.

This essay also contributes to social welfare in terms of people's mental health. Both impulsive and compulsive buying have been long linked to psychiatric disorders and have been referred to as "impulsive control disorder" (known as ICD, e.g., Lejoyeux et al., 2002) and "obsessive-compulsive disorder" (known as OCD, e.g., Pauls et al., 1995), respectively, or as "impulsive-compulsive disorders"

(e.g., Weintraub et al., 2009) overall. By revealing impulsive and compulsive buying decision making from a control-based perspective, this research offers a better understanding of what psychological process consumers go through in reducing impulsive and compulsive purchases and what factor adds to this regulatory effect. This provides policy makers or social welfare influencers with guidance on how to support consumers by emphasizing the role of rationality, mindful consumption, and mental health.

Limitations and Future Directions

One limitation of the current research concerns the measurement of outcome variables - impulsive and compulsive buying. Although well-established scales are used to measure each variable, they represent behavioral tendencies or purchase intentions only, instead of actual buying behaviors. Since purchase intentions cannot always translate into consumer buying behaviors (e.g., Carrington et al., 2010), the external validity of findings of this paper is limited to some extent. As such, future research can conduct a field study to examine whether the effect of SSES remains consistent to actual impulsive and compulsive buying behaviors. Future studies can also attempt to experimentally manipulate one's perceived power status apart from manipulating SSES to further evaluate the robustness of both the process model and the moderating impact of perceived power. Besides, it would be interesting for future researchers to explore a dual process model that integrates both type 1 and type 2 processing (Evans, 2003, 2008) and probe how they operate together for the final decision making.

Concluding Remarks

A substantial body of literature (e.g., Bandura & Wood, 1989; Cox & Rich, 1964; Doll et al., 1998; Lăzăroiu et al., 2020; Smicock et al., 2006) suggests that perceptions rather than reality shape decisions. This dissertation focuses on how perceived socioeconomic status (i.e., SSES) contributes to consumer decision making in the domains of conspicuous, impulsive, and compulsive consumption.

The first essay "Subjective Socioeconomic Status and Conspicuous Consumption" examines SSES and its relationship with conspicuous consumption decisions. Literature shows that people of low social class (OSES) prefer conspicuous status items to compensate for their inferior social status (e.g., Bloch et al., 2004; Griskevicius et al., 2010; Han et al., 2010). However, due to the unique nature of SSES and the OSES-SSES discrepancy, we believe that SSES impacts consumers' decision making in conspicuous purchases in its own way. Specifically, we postulate that SSES is positively associated with conspicuous consumption through a sense of entitlement and that such impact is moderated by achievement vanity. We find support for these predictions from two studies that measure SSES as an individual difference variable (trait, Study 1) and experimentally manipulate SSES (state, Study 2) respectively. We find that regardless of OSES, consumers of higher SSES are more likely to choose conspicuous items for consumption because they feel more entitled to those flaunting fancy items, and that such effect of SSES is especially more pronounced in consumers who are higher in achievement vanity.

The second and third essay examine how SSES impacts impulsive and compulsive buying, which can potentially jeopardize consumer wellbeing. In the second essay, we propose that SSES can augment consumers' impulsive and compulsive purchases to the extent that SSES, intuitively associated with a feeling of possessing abundant resources, increases the sense of entitlement and decreases price sensitivity. This process is intuitive, associative, and experiential. This effect of SSES on impulsive and compulsive buying is stronger for those who are more materialistic. Both the cross-sectional and experimental studies support these proposed relationships.

Drawing upon the dual process theory of human reasoning in decision making (Evans, 2003, 2008; Osman, 2004), we believe that, apart from the intuitive following-the-heart decision-making process from SSES to both impulsive and compulsive buying pinpointed in the second essay, there is a more rational restraining-the-desires decision-making process explaining an oppositional impact of SSES on both impulsive and compulsive buying decisions. Hence, in the third essay, we propose that SSES can suppress impulsive and compulsive purchase decisions to the extent that it triggers a sense of control. We also posit that such buffering effect of SSES is stronger in people with greater perceived power.

These hypotheses get confirmed in both cross-sectional and experimental studies.

All three essays included in this dissertation advance our understanding of the role of perceived social position in consumer decisions. Theoretically, this dissertation advances the research on both SES and consumer behavior by examining the relationship between SSES and consumer decision making regarding three specific consumption types: conspicuous, impulsive, and compulsive purchases. SSES is a consistent and strong predictor of the three consumption behaviors, independent of the impact of OSES. This dissertation opens up a new avenue surrounding SSES as an independent and focal construct for consumer researchers to explore in future studies. From a practical perspective, this work benefits marketing practitioners by providing empirical evidence showing how consumers' perceived, rather than actual, social status, solely or interactively, affects their buying decisions. This dissertation offers novel insights into which factors are relevant to segmenting, targeting, and understanding target consumers, especially for marketers of luxury or status products. Finally, this research has important implications in promoting consumer wellbeing, as both the second and third essays center on impulsive and compulsive buying that potentially threaten people's financial and mental health. By finding evidence for dual, opponent processes linking SSES with impulsive and compulsive consumption, we move forward the understanding of the detrimental consequence of irrational thinking and the benefit of mindful consumption in hopes of ameliorating people's decision making and consumer welfare.

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Appendix 1

Variables	Measurement Items
Subjective socioeconomic status (SSES, Adler et al., 2000)	Participants are asked to mark the location of their self-perceived social status in a 10-rung ladder drawing. This ladder stands for a social status hierarchy where people at the top possess the most wealth, the best jobs and the most education and in contrast, those at the bottom hold the least wealth, the worst jobs or even no jobs, and the least education.
Objective socioeconomic status (OSES, indexed by income, e.g., Johnson et al., 2011)	$0-24,999 = 1 $25,000-44,999 = 2 $45,000-59,999 = 3 $60,000-79,999 = 4 $80,000-99,999 = 5 $100,000-119,999 = 6 $120,000-149,999 = 7 $150,000-199,999 = 8 $200,000-249,999 = 9 $250,000 and up = 10
Psychological entitlement (Campbell et al., 2004)	Measure 1: Study 1 of Essay 1; Study 1 of Essay 2 - I honestly feel I'm just more deserving than others. - Great things should come to me. - If I were on the Titanic, I would deserve to be on the first lifeboat! - I demand the best because I'm worth it. - I do not necessarily deserve special treatment. - I deserve more things in my life. - People like me deserve an extra break now and then. - Things should go my way. - I feel entitled to more of everything. Measure 2 (Me vs. Others Scale): Study 2 of Essay 1; Study 2 of Essay 2 Please write the number of the diagram (1 - 7) that best represents how you see yourself "Me" compared to others "O"?

1. O ᴹ O O
2. O O O O
3. M O O O
4. O M O O
5. M O O O
6. Me O O O
7. Me O O O
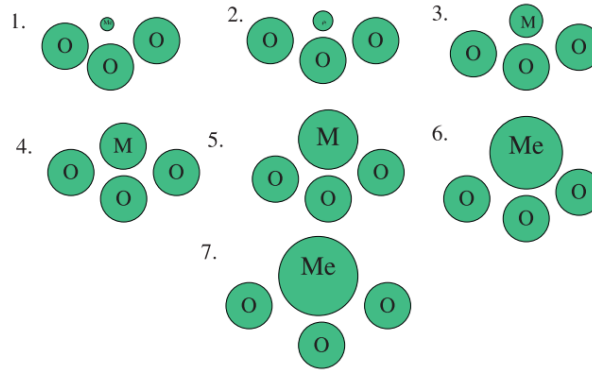
Achievement vanity (Netemeyer et al., 1995)	(Essay 1) Achievement concern • Professional achievements are an obsession to me. • I want others to look up to me because of my accomplishments. • I am more concerned with professional success than most people I know. • Achieving greater success than my peers is important to me. • I want my achievements to be recognized by others. Achievement view • In a professional sense, I am a very successful person. • My achievements are highly regarded by others. • I am an accomplished person. • I am a good example of professional success. • Others wish they were as successful as me.
Conspicuous consumption	Measure 1 (Rucker & Galinsky, 2009): Study 1 of Essay 1 • Visible – invisible • Big – small • Noticeable – unnoticeable • Conspicuous – inconspicuous Measure 2 (Griskevicius et al., 2007, Study 1; Sundie et al., 2011, Study 3): Study 2 of Essay 1 Participants compared themselves to their peers regarding how much money they would spend on each of the following nine products: a new car, a new watch, a new cellphone, a new pair of dress shoes, a dinner with friends, a new jacket, a new shirt, a new pair of sunglasses, and a vacation to Europe.
Price sensitivity (i.e., price consciousness, Lichtenstein et al., 1993)	(Essay 2) • I am not willing to go to extra effort to find lower prices. * • I will grocery shop at more than one store to take advantage of low prices. • The money saved by finding low prices is usually not worth the time and effort. * • I would never shop at more than one store to find low prices. *

	• The time it takes to find low prices is usually not worth the effort. *
Materialism (Richins & Dawson, 1992)	(Essay 2) Success • I admire people who own expensive homes, cars, and clothes. • Some of the most important achievements in life include acquiring material possessions. • I don't place much emphasis on the amount of material objects people own as a sign of success. * • The things I own say a lot about how well I'm doing in life. • I like to own things that impress people. • I don't pay much attention to the material objects other people own. * Centrality • I try to keep my life simple, as far as possessions are concerned. * • The things I own aren't all that important to me. * • Buying things gives me a lot of pleasure. • I like a lot of luxury in my life. • I put less emphasis on material things than most people I know. * • I usually buy only the things I need. * • I enjoy spending money or things that aren't practical. Happiness • I have all the things I really need to enjoy life. * • My life would be better if I owned certain things I don't have. • I wouldn't be any happier if I owned nicer things. * • I'd be happier if I could afford to buy more things. • It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.
Sense of control	Personal mastery (Lachman & Weaver, 1998): Study 1 of Essay 3 • I can do just about anything I really set my mind to. • When I really want to do something, I usually find a way to succeed at it. • Whether or not I am able to get what I want is in my own hands. • What happens to me in the future mostly depends on me. Perceived constraints (Lachman & Weaver, 1998): Study 2 of Essay 3 • Other people determine most of what I can and cannot do. • There is little I can do to change many of the important things in my life. • I often feel helpless in dealing with the problems of life. • What happens in my life is often beyond my control. • There are many things that interfere with what I want to do. • I have little control over the things that happen to me. • There is really no way I can solve all the problems I have.

	• I sometimes feel I am being pushed around in my life.
Perceived power (Anderson & Galinsky, 2006)	(Study 2 of Essay 3) In my relationships with others, • I can get people to listen to what I say. • My wishes do not carry much weight. * • I can get others to do what I want. • Even if I voice them, my views have little sway. * • I think I have a great deal of power. • My ideas and opinions are often ignored. * • Even when I try, I am not able to get my way. * • If I want to, I get to make the decisions.
Impulsive buying	Measure 1 (Rook & Fisher, 1995): Essay 2; Study 1 of Essay 3 • I often buy things spontaneously. • "Just do it" describes the way I buy things. • "I see it, I buy it" describes me. • "Buy now, think about it later" describes me. • I buy things according to how I feel at the moment. • Sometimes I am a bit reckless about what I buy. Measure 2 (Ridgway et al., 2008): Study 2 of Essay 3 • I buy things I don't need. • I buy things that I did not plan to buy. • I consider myself an impulsive purchaser.
Compulsive buying (Faber & O'Guinn, 1992)	(Essay 2; Essay 3) Please indicate how much you agree or disagree with each of the following statements below. (From strongly disagree to strongly agree) • If I have any money left at the end of the day period, I just have to spend it. Please indicate how often you have done each of the following things. (from "very often" to "never") • Felt others would be horrified if they knew of my spending habits. • Bought things even though I couldn't afford them. • Wrote a check when I knew I didn't have enough money in the bank to cover it. • Bought myself something in order to make myself feel better. • Felt anxious or nervous on days I didn't go shopping. • Made only the minimum payments on my credit cards.

Appendix 2

Essay 1 - Outputs of Process Models

Study 1: Model 58	Study 2: Model 58
Run MATRIX procedure: **************** PROCESS Procedure for SPSS Version 4.1 　Written by Andrew F. Hayes, Ph.D.　www.afhayes.com 　Documentation available in Hayes (2022). www.guilford.com/p/hayes3 **	Run MATRIX procedure: **************** PROCESS Procedure for SPSS Version 4.1 　Written by Andrew F. Hayes, Ph.D.　www.afhayes.com 　Documentation available in Hayes (2022). www.guilford.com/p/hayes3 **

<div style="display:flex">

Study 1: Model 58

```
Model : 58
  Y : CC1
  X : SSES
  M : Entitle
  W : AchVan

Covariates: Income
Sample Size: 348
**************************************************
OUTCOME VARIABLE:
 Entitle
Model Summary
     R      R-sq    MSE      F      df1     df2      p
   .7704   .5935   .6014  125.1718  4.0000
343.0000  .0000

Model
          coeff    se      t      p     LLCI    ULCI
constant  .3577  .1038  3.4467  .0006  .1536   .5618
SSES      .0754  .0296  2.5475  .0113  .0172   .1337
AchVan    .6966  .0444 15.6871  .0000  .6092   .7839
Int_1     .0513  .0185  2.7788  .0058  .0150   .0876
Income   -.1157  .0239 -4.8308  .0000 -.1628  -.0686

Product terms key:
 Int_1 :    SSES   x    AchVan
Test(s) of highest order unconditional interaction(s):
    R2-chng     F     df1     df2      p
X*W   .0092  7.7215  1.0000 343.0000  .0058
----------
   Focal predict: SSES   (X)
      Mod var: AchVan  (W)
Conditional effects of the focal predictor at values of the
moderator(s):
  AchVan   Effect    se      t      p    LLCI    ULCI
 -1.3178   .0078   .0394  .1991  .8423 -.0696   .0853
   .2822   .0899   .0298 3.0199  .0027  .0313   .1484
  1.1822   .1360   .0358 3.8044  .0002  .0657   .2064
Moderator value(s) defining Johnson-Neyman significance
region(s):
   Value   % below  % above
  -.3031  37.0690  62.9310
Conditional effect of focal predictor at values of the moderator:
  AchVan   Effect    se      t      p    LLCI    ULCI
 -3.9178  -.1255   .0797 -1.5750  .1162 -.2822   .0312
 -3.6178  -.1101   .0746 -1.4767  .1407 -.2568   .0366
 -3.3178  -.0947   .0695 -1.3626  .1739 -.2315   .0420
 -3.0178  -.0793   .0646 -1.2292  .2199 -.2063   .0476
 -2.7178  -.0640   .0597 -1.0716  .2846 -.1813   .0534
 -2.4178  -.0486   .0549  -.8841  .3773 -.1566   .0595
 -2.1178  -.0332   .0504  -.6590  .5103 -.1322   .0659
```

Study 2: Model 58

```
Model : 58
  Y : CC2
  X : SSESgrp
  M : MeOther
  W : AchVan

Covariates: Income  Gender
Sample Size: 289
**************************************************
OUTCOME VARIABLE:
 MeOther
Model Summary
     R      R-sq    MSE      F      df1     df2      p
   .5163   .2666  1.1144  20.5749  5.0000
283.0000  .0000

Model
          coeff    se      t      p     LLCI    ULCI
constant -.2072  .1360 -1.5229  .1289 -.4749   .0606
SSESgrp   .2714  .1260  2.1545  .0320  .0234   .5194
AchVan    .4178  .0464  9.0017  .0000  .3264   .5092
Int_1    -.0742  .0934  -.7948  .4274 -.2580   .1096
Income    .0280  .0308  .9080   .3646 -.0327   .0887
Gender    .2829  .1289  2.1940  .0290  .0291   .5366

Product terms key:
 Int_1 :    SSESgrp x    AchVan
Test(s) of highest order unconditional interaction(s):
    R2-chng     F     df1     df2      p
X*W   .0016   .6318  1.0000 283.0000  .4274
----------
   Focal predict: SSESgrp (X)
      Mod var: AchVan  (W)
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to
produce plot.

DATA LIST FREE/
  SSESgrp  AchVan   MeOther  .
BEGIN DATA.
   -.5467  -1.5057   -.8342
    .4533  -1.5057   -.4510
   -.5467    .0543   -.1191
    .4533    .0543    .1482
   -.5467   1.3543    .4767
    .4533   1.3543    .6476
END DATA.
GRAPH/SCATTERPLOT=
 AchVan  WITH   MeOther BY    SSESgrp.

**************************************************
```

</div>

-1.8178	-.0178	.0460	-.3871	.6990	-.1083	.0727
-1.5178	-.0024	.0419	-.0577	.9540	-.0848	.0800
-1.2178	.0130	.0382	.3397	.7343	-.0621	.0881
-.9178	.0284	.0349	.8115	.4176	-.0404	.0971
-.6178	.0437	.0323	1.3529	.1770	-.0198	.1073
-.3178	.0591	.0305	1.9379	.0535	-.0009	.1191
-.3031	.0599	.0304	1.9669	.0500	.0000	.1198
-.0178	.0745	.0296	2.5149	.0124	.0162	.1328
.2822	.0899	.0298	3.0199	.0027	.0313	.1484
.5822	.1053	.0309	3.4055	.0007	.0445	.1661
.8822	.1207	.0330	3.6605	.0003	.0558	.1855
1.1822	.1360	.0358	3.8044	.0002	.0657	.2064
1.4822	.1514	.0391	3.8685	.0001	.0744	.2284
1.7822	.1668	.0430	3.8814	.0001	.0823	.2514
2.0822	.1822	.0472	3.8641	.0001	.0895	.2750

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
   SSES     AchVan    Entitle  .
BEGIN DATA.
   -1.6954  -1.3178   -.9971
    .3046   -1.3178   -.9814
   1.4646   -1.3178   -.9723
   -1.6954    .2822   -.0217
    .3046     .2822    .1581
   1.4646     .2822    .2624
   -1.6954   1.1822    .5270
    .3046    1.1822    .7991
   1.4646    1.1822    .9569
END DATA.
GRAPH/SCATTERPLOT=
  SSES    WITH    Entitle BY    AchVan  .
```

****

OUTCOME VARIABLE:
 CC1
Model Summary

R	R-sq	MSE	F	df1	df2	p
.7721	.5962	.5413	100.9798	5.0000	342.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.3536	.1014	33.0602	.0000	3.1540	3.5531
SSES	.1041	.0284	3.6630	.0003	.0482	.1600
Entitle	.4922	.0509	9.6622	.0000	.3920	.5925
AchVan	.1840	.0525	3.5038	.0005	.0807	.2873
Int_1	.0182	.0274	.6638	.5073	-.0358	.0722
Income	-.0230	.0233	-.9853	.3252	-.0689	.0229

Product terms key:
 Int_1   :   Entitle x   AchVan
Test(s) of X by M interaction:

F	df1	df2	p
1.4740	1.0000	341.0000	.2256

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
M*W	.0005	.4406	1.0000	342.0000	.5073

  Focal predict: Entitle (M)
      Mod var: AchVan (W)
Data for visualizing the conditional effect of the focal predictor:

OUTCOME VARIABLE:
 CC2
Model Summary

R	R-sq	MSE	F	df1	df2	p
.5590	.3125	1.1315	21.3651	6.0000	282.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.3865	.1413	23.9713	.0000	3.1084	3.6646
SSESgrp	-.2688	.1280	-2.1002	.0366	-.5206	-.0169
MeOther	.2591	.0598	4.3298	.0000	.1413	.3769
AchVan	.3540	.0530	6.6823	.0000	.2498	.4583
Int_1	.0720	.0333	2.1639	.0313	.0065	.1376
Income	.0328	.0310	1.0577	.2911	-.0283	.0939
Gender	-.0238	.1312	-.1815	.8561	-.2821	.2345

Product terms key:
 Int_1   :   MeOther x   AchVan
Test(s) of X by M interaction:

F	df1	df2	p
.0830	1.0000	281.0000	.7735

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
M*W	.0114	4.6826	1.0000	282.0000	.0313

  Focal predict: MeOther (M)
      Mod var: AchVan (W)
Conditional effects of the focal predictor at values of the moderator(s):

AchVan	Effect	se	t	p	LLCI	ULCI
-1.5057	.1507	.0790	1.9079	.0574	-.0048	.3061
.0543	.2630	.0598	4.3964	.0000	.1453	.3808
1.3543	.3567	.0741	4.8160	.0000	.2109	.5025

Moderator value(s) defining Johnson-Neyman significance region(s):

Value	% below	% above
-1.4640	15.9170	84.0830

Conditional effect of focal predictor at values of the moderator:

AchVan	Effect	se	t	p	LLCI	ULCI
-2.8457	.0542	.1132	.4782	.6329	-.1688	.2771
-2.5457	.0758	.1049	.7223	.4707	-.1307	.2823
-2.2457	.0974	.0969	1.0053	.3156	-.0933	.2881
-1.9457	.1190	.0892	1.3335	.1834	-.0566	.2946
-1.6457	.1406	.0821	1.7126	.0879	-.0210	.3022
-1.4640	.1537	.0781	1.9684	.0500	.0000	.3074
-1.3457	.1622	.0756	2.1454	.0328	.0134	.3110
-1.0457	.1838	.0699	2.6278	.0091	.0461	.3215
-.7457	.2054	.0653	3.1441	.0018	.0768	.3340
-.4457	.2270	.0620	3.6617	.0003	.1050	.3491
-.1457	.2486	.0602	4.1330	.0000	.1302	.3671
.1543	.2703	.0599	4.5082	.0000	.1523	.3882
.4543	.2919	.0614	4.7551	.0000	.1710	.4127
.7543	.3135	.0643	4.8715	.0000	.1868	.4401
1.0543	.3351	.0687	4.8807	.0000	.1999	.4702
1.3543	.3567	.0741	4.8160	.0000	.2109	.5025
1.6543	.3783	.0804	4.7078	.0000	.2201	.5365
1.9543	.3999	.0873	4.5788	.0000	.2280	.5718
2.2543	.4215	.0949	4.4435	.0000	.2348	.6082
2.5543	.4431	.1028	4.3104	.0000	.2408	.6455
2.8543	.4647	.1111	4.1840	.0000	.2461	.6834
3.1543	.4863	.1196	4.0661	.0001	.2509	.7218

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

Paste text below into a SPSS syntax window and execute to produce plot.
DATA LIST FREE/
 Entitle   AchVan   CC1   .
BEGIN DATA.
  -1.3035   -1.3178   2.4165
   .1587   -1.3178   3.1012
  1.1587   -1.3178   3.5694
  -1.3035   .2822   2.6729
   .1587   .2822   3.4002
  1.1587   .2822   3.8976
  -1.3035   1.1822   2.8172
   .1587   1.1822   3.5684
  1.1587   1.1822   4.0822
END DATA.
GRAPH/SCATTERPLOT=
 Entitle WITH   CC1   BY   AchVan .
**************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
    Effect   se   t   p   LLCI   ULCI
     .1041   .0284   3.6630   .0003   .0482   .1600
Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSES   ->   Entitle   ->   CC1

   AchVan   Effect   BootSE   BootLLCI   BootULCI
  -1.3178   .0037   .0240   -.0440   .0532
   .2822   .0447   .0203   .0096   .0893
  1.1822   .0699   .0258   .0258   .1265
 Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)
   Effect1   Effect2 Contrast   BootSE BootLLCI BootULCI
   .0447   .0037   .0410   .0185   .0077   .0796
   .0699   .0037   .0662   .0302   .0122   .1294
   .0699   .0447   .0252   .0120   .0042   .0509
****
Bootstrap estimates were saved to a file
Map of column names to model coefficients:
       Conseqnt Antecdnt
 COL1   Entitle constant
 COL2   Entitle SSES
 COL3   Entitle AchVan
 COL4   Entitle Int_1
 COL5   Entitle Income
 COL6   CC1   constant
 COL7   CC1   SSES
 COL8   CC1   Entitle
 COL9   CC1   AchVan
 COL10   CC1   Int_1
 COL11   CC1   Income
******************** ANALYSIS NOTES AND ERRORS
Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: AchVan SSES Entitle
------ END MATRIX -----

DATA LIST FREE/
 MeOther   AchVan   CC2   .
BEGIN DATA.
  -.8824   -1.5057   2.8295
   .1176   -1.5057   2.9802
  1.1176   -1.5057   3.1309
  -.8824   .0543   3.2827
   .1176   .0543   3.5457
  1.1176   .0543   3.8088
  -.8824   1.3543   3.6603
   .1176   1.3543   4.0170
  1.1176   1.3543   4.3737
END DATA.
GRAPH/SCATTERPLOT=
 MeOther WITH   CC2   BY   AchVan .
**************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
    Effect   se   t   p   LLCI   ULCI
    -.2688   .1280   -2.1002   .0366   -.5206   -.0169
Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSESgrp   ->   MeOther   ->   CC2

   AchVan   Effect   BootSE   BootLLCI   BootULCI
  -1.5057   .0577   .0469   -.0122   .1694
   .0543   .0703   .0395   .0050   .1581
  1.3543   .0610   .0710   -.0625   .2214
 Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)
   Effect1   Effect2 Contrast   BootSE BootLLCI BootULCI
   .0703   .0577   .0126   .0404   -.0722   .0877
   .0610   .0577   .0032   .0861   -.1609   .1835
   .0610   .0703   -.0094   .0496   -.0991   .1011
****
Bootstrap estimates were saved to a file
Map of column names to model coefficients:
       Conseqnt Antecdnt
 COL1   MeOther constant
 COL2   MeOther SSESgrp
 COL3   MeOther AchVan
 COL4   MeOther Int_1
 COL5   MeOther Income
 COL6   MeOther Gender
 COL7   CC2   constant
 COL8   CC2   SSESgrp
 COL9   CC2   MeOther
 COL10   CC2   AchVan
 COL11   CC2   Int_1
 COL12   CC2   Income
 COL13   CC2   Gender
******************** ANALYSIS NOTES AND ERRORS
Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: AchVan SSESgrp MeOther
------ END MATRIX -----

Essay 2 - Outputs of Process Models

Study 1: Model 6 (with impulsive buying as DV)	Study 1: Model 6 (with compulsive buying as DV)

Run MATRIX procedure:
**************** PROCESS Procedure for SPSS Version 4.0
    Written by Andrew F. Hayes, Ph.D.   www.afhayes.com
   Documentation available in Hayes (2022).
www.guilford.com/p/hayes3
****
	Run MATRIX procedure:
	**************** PROCESS Procedure for SPSS Version 4.0
	    Written by Andrew F. Hayes, Ph.D. www.afhayes.com
	   Documentation available in Hayes (2022).
	www.guilford.com/p/hayes3
	**

Study 1: Model 6 (with impulsive buying as DV)

```
Model : 6
  Y : ImpBuy
  X : SSES
  M1 : Entitle
  M2 : PricCons

Covariates: Income
Sample Size: 226
********************************************************
OUTCOME VARIABLE:
 Entitle
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .6053    .3663   1.6933  64.4625  2.0000
223.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  1.6305  .2975   5.4807   .0000   1.0442   2.2168
SSES       .4427  .0410  10.7955   .0000    .3619    .5236
Income     .0013  .0563    .0223   .9822   -.1097    .1122
Standardized coefficients
          coeff
SSES1      .6049
Income     .0013
********************************************************
OUTCOME VARIABLE:
 PricCons
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .6065    .3678   1.4639  43.0576  3.0000
222.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  7.0562  .2947  23.9470   .0000   6.4756   7.6369
SSES      -.2169  .0471  -4.6088   .0000   -.3096   -.1241
Entitle   -.3428  .0623  -5.5060   .0000   -.4655   -.2201
Income     .0406  .0523    .7756   .4388   -.0625    .1437
Standardized coefficients
          coeff
SSES      -.3190
Entitle   -.3691
Income     .0435
********************************************************
OUTCOME VARIABLE:
 ImpBuy
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .6898    .4759   1.2168  50.1659  4.0000
221.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
```

Study 1: Model 6 (with compulsive buying as DV)

```
Model : 6
  Y : CompBuy
  X : SSES
  M1 : Entitle
  M2 : PricCons

Covariates: Income
Sample Size: 226
********************************************************
OUTCOME VARIABLE:
 Entitle
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .6053    .3663   1.6933  64.4625  2.0000
223.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  1.6305  .2975   5.4807   .0000   1.0442   2.2168
SSES       .4427  .0410  10.7955   .0000    .3619    .5236
Income     .0013  .0563    .0223   .9822   -.1097    .1122
Standardized coefficients
          coeff
SSES       .6049
Income     .0013
********************************************************
OUTCOME VARIABLE:
 PricCons
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .6065    .3678   1.4639  43.0576  3.0000
222.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  7.0562  .2947  23.9470   .0000   6.4756   7.6369
SSES      -.2169  .0471  -4.6088   .0000   -.3096   -.1241
Entitle   -.3428  .0623  -5.5060   .0000   -.4655   -.2201
Income     .0406  .0523    .7756   .4388   -.0625    .1437
Standardized coefficients
          coeff
SSES      -.3190
Entitle   -.3691
Income     .0435
********************************************************
OUTCOME VARIABLE:
 CompBuy
Model Summary
      R      R-sq     MSE      F       df1      df2       p
   .7716    .5953   1.1359  81.2728  4.0000
221.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
```

constant 3.6052 .5085 7.0897 .0000 2.6030 4.6073
SSES .1098 .0449 2.4444 .0153 .0213 .1983
Entitle .3208 .0605 5.3014 .0000 .2016 .4401
PricCons -.3159 .0612 -5.1621 .0000 -.4365 -.1953
Income -.0453 .0478 -.9480 .3442 -.1395 .0489
Standardized coefficients
      coeff
SSES .1616
Entitle .3458
PricCons -.3162
Income -.0486
*********************** TOTAL EFFECT MODEL

OUTCOME VARIABLE:
 ImpBuy
Model Summary

R	R-sq	MSE	F	df1	df2	p
.5265	.2772	1.6631	42.7542	2.0000		
223.0000	.0000					

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.0760	.2948	7.0414	.0000	1.4950	2.6571
SSES	.3682	.0406	9.0604	.0000	.2882	.4483
Income	-.0576	.0558	-1.0322	.3031	-.1675	.0524

Standardized coefficients
      coeff
SSES .5422
Income -.0618
************* TOTAL, DIRECT, AND INDIRECT EFFECTS
OF X ON Y *************

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_cs
.3682	.0406	9.0604	.0000	.2882	.4483	.5422

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_cs
.1098	.0449	2.4444	.0153	.0213	.1983	.1616

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.2585	.0433	.1791	.3478
Ind1	.1420	.0402	.0691	.2260
Ind2	.0685	.0255	.0249	.1242
Ind3	.0479	.0164	.0198	.0832
(C1)	.0735	.0530	-.0286	.1823
(C2)	.0941	.0474	.0032	.1907
(C3)	.0206	.0264	-.0263	.0793

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.3806	.0601	.2693	.5035
Ind1	.2091	.0579	.1029	.3302
Ind2	.1009	.0370	.0370	.1834
Ind3	.0706	.0241	.0289	.1227
(C1)	.1083	.0776	-.0416	.2676
(C2)	.1386	.0691	.0047	.2787
(C3)	.0303	.0387	-.0392	.1148

Specific indirect effect contrast definition(s):
(C1)   Ind1   minus Ind2
(C2)   Ind1   minus Ind3
(C3)   Ind2   minus Ind3
Indirect effect key:
Ind1 SSES   ->   Entitle   ->   ImpBuy
Ind2 SSES   ->   PricCons ->   ImpBuy
Ind3 SSES   ->   Entitle   ->   PricCons   ->   ImpBuy
****
Bootstrap estimates were saved to a file
Map of column names to model coefficients:

---

constant 2.8062 .4913 5.7115 .0000 1.8379 3.7744
SSES .2211 .0434 5.0974 .0000 .1356 .3067
Entitle .3596 .0585 6.1502 .0000 .2444 .4748
PricCons -.3175 .0591 -5.3704 .0000 -.4340 -.2010
Income -.1102 .0462 -2.3861 .0179 -.2011 -.0192
Standardized coefficients
      coeff
SSES .2961
Entitle .3525
PricCons -.2890
Income -.1075
*********************** TOTAL EFFECT MODEL

OUTCOME VARIABLE:
 CompBuy
Model Summary

R	R-sq	MSE	F	df1	df2	p
.6395	.4089	1.6442	77.1321	2.0000		
223.0000	.0000					

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3297	.2932	4.5357	.0000	.7520	1.9074
SSES	.4974	.0404	12.3083	.0000	.4178	.5770
Income	-.1225	.0555	-2.2077	.0283	-.2318	-.0131

Standardized coefficients
      coeff
SSES .6661
Income -.1195
************* TOTAL, DIRECT, AND INDIRECT EFFECTS
OF X ON Y *************

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_cs
.4974	.0404	12.3083	.0000	.4178	.5770	.6661

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_cs
.2211	.0434	5.0974	.0000	.1356	.3067	.2961

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.2763	.0449	.1921	.3703
Ind1	.1592	.0387	.0870	.2372
Ind2	.0689	.0250	.0281	.1238
Ind3	.0482	.0166	.0204	.0859
(C1)	.0904	.0499	-.0077	.1884
(C2)	.1110	.0446	.0246	.1993
(C3)	.0207	.0266	-.0268	.0788

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.3699	.0571	.2625	.4872
Ind1	.2132	.0506	.1174	.3152
Ind2	.0922	.0333	.0368	.1663
Ind3	.0645	.0219	.0275	.1143
(C1)	.1210	.0664	-.0105	.2497
(C2)	.1487	.0592	.0334	.2662
(C3)	.0277	.0357	-.0366	.1061

Specific indirect effect contrast definition(s):
(C1)   Ind1   minus Ind2
(C2)   Ind1   minus Ind3
(C3)   Ind2   minus Ind3
Indirect effect key:
Ind1 SSES   ->   Entitle   ->   CompBuy
Ind2 SSES   ->   PricCons ->   CompBuy
Ind3 SSES   ->   Entitle   ->   PricCons   ->   CompBuy
****
Bootstrap estimates were saved to a file
Map of column names to model coefficients:

********************* ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output:
 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

------ END MATRIX -----

Conseqnt	Antecdnt	
COL1	Entitle	constant
COL2	Entitle	SSES
COL3	Entitle	Income
COL4	PricCons	constant
COL5	PricCons	SSES
COL6	PricCons	Entitle
COL7	PricCons	Income
COL8	CompBuy	constant
COL9	CompBuy	SSES
COL10	CompBuy	Entitle
COL11	CompBuy	PricCons
COL12	CompBuy	Income

********************* ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output:
 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

------ END MATRIX -----

Study 2: Model 88 (with impulsive buying as DV)

Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0

        Written by Andrew F. Hayes, Ph.D.   www.afhayes.com

    Documentation available in Hayes (2022).

www.guilford.com/p/hayes3

****

Model : 88

  Y : ImpBuy

  X : SSESgrp

  M1 : MeOther

  M2 : PricCons

  W : Material

Covariates: Income

Sample Size: 228

****

OUTCOME VARIABLE:

 MeOther

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1840	.0338	1.4645	3.9409	2.0000	225.0000	.0208

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.3320	.1714	-1.9372	.0540	-.6696	.0057
SSESgrp	.4160	.1607	2.5882	.0103	.0993	.7327
Income	.0391	.0376	1.0411	.2989	-.0349	.1131

****

OUTCOME VARIABLE:

 PricCons

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2459	.0605	1.9746	4.8059	3.0000	224.0000	.0029

Model

	coeff	se	t	p	LLCI	ULCI
constant	.0526	.2006	.2623	.7934	-.3427	.4480
SSESgrp	.2163	.1894	1.1420	.2547	-.1569	.5894
MeOther	-.2749	.0774	-3.5513	.0005	-.4275	-.1224
Income	-.0432	.0437	-.9886	.3239	-.1294	.0429

Test(s) of X by M interaction:

	F	df1	df2	p
M1*X	.7073	1.0000	223.0000	.4012

Study 2: Model 88 (with compulsive buying as DV)

Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2

        Written by Andrew F. Hayes, Ph.D.   www.afhayes.com

    Documentation available in Hayes (2022).

www.guilford.com/p/hayes3

****

Model : 88

  Y : CompBuy

  X : SSESgrp

  M1 : MeOther

  M2 : PricCons

  W : Material

Covariates: Income

Sample Size: 228

****

OUTCOME VARIABLE:

 MeOther

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1840	.0338	1.4645	3.9409	2.0000	225.0000	.0208

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.3320	.1714	-1.9372	.0540	-.6696	.0057
SSESgrp	.4160	.1607	2.5882	.0103	.0993	.7327
Income	.0391	.0376	1.0411	.2989	-.0349	.1131

****

OUTCOME VARIABLE:

 PricCons

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2459	.0605	1.9746	4.8059	3.0000	224.0000	.0029

Model

	coeff	se	t	p	LLCI	ULCI
constant	.0526	.2006	.2623	.7934	-.3427	.4480
SSESgrp	.2163	.1894	1.1420	.2547	-.1569	.5894
MeOther	-.2749	.0774	-3.5513	.0005	-.4275	-.1224
Income	-.0432	.0437	-.9886	.3239	-.1294	.0429

Test(s) of X by M interaction:

	F	df1	df2	p
M1*X	.7073	1.0000	223.0000	.4012

```
********************************************************
*******************
OUTCOME VARIABLE:
 ImpBuy
Model Summary
      R      R-sq    MSE      F      df1     df2      p
    .5541    .3070  1.6653  13.9223  7.0000
220.0000   .0000

Model
         coeff    se      t       p      LLCI    ULCI
constant  3.6457  .1857  19.6283  .0000  3.2797  4.0118
SSESgrp   .0775   .1756   .4415   .6593  -.2686   .4237
MeOther   -.0005  .0782  -.0061   .9952  -.1546   .1537
PricCons  -.3639  .0631  -5.7655  .0000  -.4883  -.2395
Material  .5840   .0999   5.8436  .0000   .3870   .7809
Int_1     .0293   .0952   .3079   .7585  -.1583   .2169
Int_2     -.1502  .0671  -2.2390  .0262  -.2824  -.0180
Income    -.0804  .0404  -1.9884  .0480  -.1600  -.0007
Product terms key:
 Int_1  :    MeOther x     Material
 Int_2  :    PricCons x    Material

Test(s) of X by M interaction:
      F     df1     df2      p
M1*X  .7954  1.0000  219.0000   .3734
M2*X  .1298  1.0000  219.0000   .7190
Test(s) of highest order unconditional interaction(s):
    R2-chng    F     df1     df2      p
M1*W  .0003   .0948  1.0000  220.0000   .7585
M2*W  .0158   5.0130  1.0000  220.0000   .0262
----------
   Focal predict: MeOther  (M1)
      Mod var: Material  (W)
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.
DATA LIST FREE/
  MeOther   Material  ImpBuy   .
BEGIN DATA.
   -.9079   -.8736   2.9105
    .0921   -.8736   2.8844
   1.0921   -.8736   2.8584
   -.9079    .1078   3.4575
    .0921    .1078   3.4602
   1.0921    .1078   3.4629
   -.9079    .7478   3.8142
    .0921    .7478   3.8357
   1.0921    .7478   3.8571
END DATA.
GRAPH/SCATTERPLOT=
 MeOther  WITH   ImpBuy  BY     Material .
----------
   Focal predict: PricCons (M2)
      Mod var: Material (W)
Conditional effects of the focal predictor at values of the
moderator(s):
 Material  Effect    se      t      p      LLCI    ULCI
  -.8736   -.2327  .0880  -2.6442  .0088  -.4061  -.0593
   .1078   -.3801  .0632  -6.0126  .0000  -.5047  -.2555
   .7478   -.4762  .0789  -6.0363  .0000  -.6317  -.3207
Moderator value(s) defining Johnson-Neyman significance
region(s):
   Value   % below  % above
  -1.1126  13.1579  86.8421
Conditional effect of focal predictor at values of the moderator:
```

```
********************************************************
*******************
OUTCOME VARIABLE:
 CompBuy
Model Summary
      R      R-sq    MSE      F      df1     df2      p
    .6153    .3786  1.3992  19.1493  7.0000
220.0000   .0000

Model
         coeff    se      t       p      LLCI    ULCI
constant  2.7803  .1703  16.3304  .0000  2.4447  3.1158
SSESgrp   .0510   .1610   .3168   .7517  -.2663   .3683
MeOther   .1306   .0717   1.8223  .0698  -.0106   .2719
PricCons  -.3291  .0579  -5.6877  .0000  -.4431  -.2150
Material  .6785   .0916   7.4067  .0000   .4979   .8590
Int_1     .0793   .0873   .9084   .3646  -.0927   .2513
Int_2     -.1401  .0615  -2.2778  .0237  -.2613  -.0189
Income    -.0238  .0370  -.6416   .5218  -.0968   .0492
Product terms key:
 Int_1  :    MeOther x     Material
 Int_2  :    PricCons x    Material

Test(s) of X by M interaction:
      F     df1     df2      p
M1*X  2.5171  1.0000  219.0000   .1141
M2*X  1.2379  1.0000  219.0000   .2671
Test(s) of highest order unconditional interaction(s):
    R2-chng    F     df1     df2      p
M1*W  .0023   .8253  1.0000  220.0000   .3646
M2*W  .0147   5.1883  1.0000  220.0000   .0237
----------
   Focal predict: MeOther  (M1)
      Mod var: Material  (W)
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.
DATA LIST FREE/
  MeOther   Material  CompBuy   .
BEGIN DATA.
   -.9079   -.8736   2.0713
    .0921   -.8736   2.1327
   1.0921   -.8736   2.1941
   -.9079    .1078   2.6665
    .0921    .1078   2.8057
   1.0921    .1078   2.9448
   -.9079    .7478   3.0547
    .0921    .7478   3.2446
   1.0921    .7478   3.4345
END DATA.
GRAPH/SCATTERPLOT=
 MeOther  WITH   CompBuy  BY     Material .
----------
   Focal predict: PricCons (M2)
      Mod var: Material (W)
Conditional effects of the focal predictor at values of the
moderator(s):
 Material  Effect    se      t      p      LLCI    ULCI
  -.8736   -.2067  .0807  -2.5626  .0111  -.3656  -.0477
   .1078   -.3441  .0579  -5.9394  .0000  -.4583  -.2300
   .7478   -.4338  .0723  -5.9988  .0000  -.5763  -.2913
Moderator value(s) defining Johnson-Neyman significance
region(s):
   Value   % below  % above
  -1.0820  13.5965  86.4035
Conditional effect of focal predictor at values of the moderator:
```

Left column

Material	Effect	se	t	p	LLCI	ULCI
-2.3787	-.0066	.1742	-.0377	.9700	-.3498	.3367
-2.1110	-.0468	.1576	-.2969	.7669	-.3573	.2637
-1.8433	-.0870	.1413	-.6157	.5387	-.3654	.1915
-1.5757	-.1272	.1255	-1.0138	.3118	-.3745	.1201
-1.3080	-.1674	.1103	-1.5177	.1305	-.3848	.0500
-1.1126	-.1968	.0998	-1.9708	.0500	-.3935	.0000
-1.0403	-.2076	.0961	-2.1600	.0319	-.3971	-.0182
-.7726	-.2478	.0834	-2.9716	.0033	-.4122	-.0835
-.5049	-.2881	.0729	-3.9501	.0001	-.4318	-.1443
-.2372	-.3283	.0658	-4.9918	.0000	-.4579	-.1987
.0305	-.3685	.0631	-5.8434	.0000	-.4928	-.2442
.2982	-.4087	.0654	-6.2517	.0000	-.5375	-.2799
.5659	-.4489	.0722	-6.2157	.0000	-.5912	-.3066
.8336	-.4891	.0825	-5.9299	.0000	-.6517	-.3266
1.1013	-.5293	.0951	-5.5685	.0000	-.7167	-.3420
1.3690	-.5695	.1092	-5.2180	.0000	-.7847	-.3544
1.6367	-.6098	.1242	-4.9077	.0000	-.8546	-.3649
1.9044	-.6500	.1400	-4.6421	.0000	-.9259	-.3740
2.1721	-.6902	.1563	-4.4168	.0000	-.9982	-.3822
2.4398	-.7304	.1728	-4.2256	.0000	-1.0711	-.3897
2.7075	-.7706	.1897	-4.0626	.0001	-1.1444	-.3968
2.9752	-.8108	.2067	-3.9225	.0001	-1.2182	-.4034

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.
DATA LIST FREE/
  PricCons Material ImpBuy   .
BEGIN DATA.
    -1.6027   -.8736   3.2597
     .0693   -.8736   2.8707
    1.6693   -.8736   2.4985
    -1.6027   .1078   4.0691
     .0693   .1078   3.4336
    1.6693   .1078   2.8255
    -1.6027   .7478   4.5969
     .0693   .7478   3.8007
    1.6693   .7478   3.0387
END DATA.
GRAPH/SCATTERPLOT=
 PricCons WITH   ImpBuy BY   Material .
**************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************
Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.0775	.1756	.4415	.6593	-.2686	.4237

Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSESgrp -> MeOther   -> ImpBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	-.0108	.0716	-.1606	.1387
.1078	.0011	.0385	-.0724	.0871
.7478	.0089	.0448	-.0721	.1131

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	.0122	.0529	-.0903	.1249

 Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
.0011	-.0108	.0120	.0519	-.0886	.1226
.0089	-.0108	.0198	.0857	-.1464	.2026
.0089	.0011	.0078	.0338	-.0578	.0800

INDIRECT EFFECT:

Right column

Material	Effect	se	t	p	LLCI	ULCI
-2.3787	.0042	.1596	.0261	.9792	-.3105	.3188
-2.1110	-.0333	.1444	-.2308	.8176	-.3180	.2513
-1.8433	-.0708	.1295	-.5470	.5849	-.3261	.1844
-1.5757	-.1083	.1150	-.9420	.3472	-.3350	.1183
-1.3080	-.1458	.1011	-1.4423	.1506	-.3451	.0534
-1.0820	-.1775	.0901	-1.9708	.0500	-.3550	.0000
-1.0403	-.1833	.0881	-2.0808	.0386	-.3570	-.0097
-.7726	-.2208	.0764	-2.8887	.0043	-.3715	-.0702
-.5049	-.2583	.0668	-3.8648	.0001	-.3901	-.1266
-.2372	-.2958	.0603	-4.9078	.0000	-.4146	-.1770
.0305	-.3333	.0578	-5.7668	.0000	-.4472	-.2194
.2982	-.3708	.0599	-6.1885	.0000	-.4889	-.2527
.5659	-.4083	.0662	-6.1681	.0000	-.5388	-.2779
.8336	-.4458	.0756	-5.8968	.0000	-.5948	-.2968
1.1013	-.4833	.0871	-5.5470	.0000	-.6550	-.3116
1.3690	-.5208	.1000	-5.2057	.0000	-.7180	-.3236
1.6367	-.5583	.1139	-4.9025	.0000	-.7828	-.3339
1.9044	-.5958	.1283	-4.6424	.0000	-.8488	-.3429
2.1721	-.6333	.1432	-4.4216	.0000	-.9156	-.3510
2.4398	-.6708	.1584	-4.2340	.0000	-.9831	-.3586
2.7075	-.7083	.1739	-4.0739	.0001	-1.0510	-.3657
2.9752	-.7458	.1895	-3.9362	.0001	-1.1192	-.3724

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.
DATA LIST FREE/
  PricCons Material CompBuy .
BEGIN DATA.
    -1.6027   -.8736   2.4583
     .0693   -.8736   2.1127
    1.6693   -.8736   1.7820
    -1.6027   .1078   3.3444
     .0693   .1078   2.7690
    1.6693   .1078   2.2184
    -1.6027   .7478   3.9223
     .0693   .7478   3.1970
    1.6693   .7478   2.5029
END DATA.
GRAPH/SCATTERPLOT=
 PricCons WITH   CompBuy BY   Material .
**************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************
Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.0510	.1610	.3168	.7517	-.2663	.3683

Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSESgrp -> MeOther   -> CompBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	.0255	.0568	-.0732	.1586
.1078	.0579	.0421	-.0092	.1556
.7478	.0790	.0568	-.0133	.2090

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	.0330	.0482	-.0628	.1354

 Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
.0579	.0255	.0324	.0473	-.0616	.1329
.0790	.0255	.0535	.0782	-.1018	.2196
.0790	.0579	.0211	.0309	-.0402	.0867

INDIRECT EFFECT:

SSESgrp   ->   PricCons   ->   ImpBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	-.0503	.0496	-.1617	.0395
.1078	-.0822	.0728	-.2285	.0595
.7478	-.1030	.0925	-.2914	.0741

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	-.0325	.0369	-.1214	.0238

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
-.0822	-.0503	-.0319	.0362	-.1191	.0234
-.1030	-.0503	-.0527	.0598	-.1968	.0386
-.1030	-.0822	-.0208	.0236	-.0777	.0152

INDIRECT EFFECT:
SSESgrp   ->   MeOther   ->   PricCons   ->   ImpBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	.0266	.0198	.0004	.0769
.1078	.0435	.0250	.0063	.1036
.7478	.0545	.0311	.0081	.1289

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	.0172	.0134	.0001	.0514

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
.0435	.0266	.0169	.0132	.0001	.0504
.0545	.0266	.0279	.0218	.0001	.0833
.0545	.0435	.0110	.0086	.0000	.0329

********************** ANALYSIS NOTES AND ERRORS **********************

Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: Material MeOther PricCons
NOTE: Standardized coefficients not available for models with moderators.

------ END MATRIX -----

SSESgrp   ->   PricCons   ->   CompBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	-.0447	.0420	-.1329	.0344
.1078	-.0744	.0685	-.2194	.0521
.7478	-.0938	.0891	-.2912	.0644

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	-.0303	.0359	-.1217	.0184

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
-.0744	-.0447	-.0297	.0353	-.1195	.0180
-.0938	-.0447	-.0491	.0583	-.1974	.0298
-.0938	-.0744	-.0194	.0230	-.0779	.0118

INDIRECT EFFECT:
SSESgrp   ->   MeOther   ->   PricCons   ->   CompBuy

Material	Effect	BootSE	BootLLCI	BootULCI
-.8736	.0236	.0161	.0013	.0634
.1078	.0394	.0245	.0055	.1002
.7478	.0496	.0319	.0070	.1309

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
Material	.0160	.0137	.0009	.0528

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
.0394	.0236	.0157	.0134	.0009	.0518
.0496	.0236	.0260	.0222	.0015	.0855
.0496	.0394	.0103	.0087	.0006	.0338

****

Bootstrap estimates were saved to a file
Map of column names to model coefficients:

	Conseqnt	Antecdnt
COL1	MeOther	constant
COL2	MeOther	SSESgrp
COL3	MeOther	Income
COL4	PricCons	constant
COL5	PricCons	SSESgrp
COL6	PricCons	MeOther
COL7	PricCons	Income
COL8	CompBuy	constant
COL9	CompBuy	SSESgrp
COL10	CompBuy	MeOther
COL11	CompBuy	PricCons
COL12	CompBuy	Material
COL13	CompBuy	Int_1
COL14	CompBuy	Int_2
COL15	CompBuy	Income

********************** ANALYSIS NOTES AND ERRORS **********************

Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals:5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: Material MeOther PricCons

------ END MATRIX -----

Essay 3 - Outputs of Process Models

Study 1: Model 4 (with impulsive buying as DV)	Study 1: Model 4 (with compulsive buying as DV)

Run MATRIX procedure:
***************** PROCESS Procedure for SPSS Version 4.0
   Written by Andrew F. Hayes, Ph.D.   www.afhayes.com
   Documentation available in Hayes (2022).
www.guilford.com/p/hayes3
****
	Run MATRIX procedure:
	***************** PROCESS Procedure for SPSS Version 4.2
	   Written by Andrew F. Hayes, Ph.D. www.afhayes.com
	   Documentation available in Hayes (2022).
	www.guilford.com/p/hayes3
	***

Study 1: Model 4 (with impulsive buying as DV)

```
Model  : 4
  Y  : ImpBuy
  X  : SSES
  M  : SsCtrl

Covariates: Income
Sample Size:  252
*******************************************************
OUTCOME VARIABLE:
 SsCtrl
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3197    .1022    .9746   14.1771  2.0000
249.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  4.5671   .2085   21.8997   .0000   4.1564   4.9779
SSES       .1660   .0433    3.8390   .0002    .0809    .2512
Income     .0413   .0372    1.1096   .2682   -.0320    .1145
Standardized coefficients
          coeff
SSES       .2713
Income     .0784
*******************************************************
OUTCOME VARIABLE:
 ImpBuy
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3586    .1286   1.7991   12.1977  3.0000
248.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  2.7189   .4847    5.6095   .0000   1.7643   3.6735
SSES       .3520   .0605    5.8211   .0000    .2329    .4712
SsCtrl    -.2074   .0861   -2.4092   .0167   -.3770   -.0379
Income    -.1894   .0506   -3.7395   .0002   -.2891   -.0896
Standardized coefficients
          coeff
SSES       .4180
SsCtrl    -.1507
Income    -.2616
************************* TOTAL EFFECT MODEL
OUTCOME VARIABLE:
 ImpBuy
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3289    .1082   1.8338   15.1029  2.0000
249.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  1.7715   .2861    6.1925   .0000   1.2081   2.3349
```

Study 1: Model 4 (with compulsive buying as DV)

```
Model  : 4
  Y  : CompBuy
  X  : SSES
  M  : SsCtrl

Covariates: Income
Sample Size:  252
*******************************************************
OUTCOME VARIABLE:
 SsCtrl
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3197    .1022    .9746   14.1771  2.0000
249.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  4.5671   .2085   21.8997   .0000   4.1564   4.9779
SSES       .1660   .0433    3.8390   .0002    .0809    .2512
Income     .0413   .0372    1.1096   .2682   -.0320    .1145
Standardized coefficients
          coeff
SSES       .2713
Income     .0784
*******************************************************
OUTCOME VARIABLE:
 CompBuy
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3538    .1252   1.7861   11.8274  3.0000
248.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  2.5882   .4829    5.3593   .0000   1.6370   3.5394
SSES       .3216   .0603    5.3374   .0000    .2029    .4403
SsCtrl    -.1782   .0858   -2.0776   .0388   -.3472   -.0093
Income    -.2323   .0505   -4.6042   .0000   -.3317   -.1329
Standardized coefficients
          coeff
SSES       .3840
SsCtrl    -.1302
Income    -.3227
************************* TOTAL EFFECT MODEL
OUTCOME VARIABLE:
 CompBuy
Model Summary
      R      R-sq     MSE      F      df1     df2        p
   .3316    .1099   1.8099   15.3781  2.0000
249.0000   .0000

Model
          coeff     se       t        p      LLCI     ULCI
constant  1.7742   .2842    6.2427   .0000   1.2144   2.3339
```

SSES	.3176	.0593	5.3534	.0000	.2008	.4345	SSES	.2920	.0589	4.9548	.0000	.1760	.4081
Income	-.1979	.0510	-3.8809	.0001	-.2984	-.0975	Income	-.2397	.0507	-4.7303	.0000	-.3395	-.1399

Left column:

Standardized coefficients
      coeff
SSES   .3771
Income -.2734
************* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************
Total effect of X on Y
  Effect   se   t   p   LLCI   ULCI   c_cs
  .3176 .0593 5.3534 .0000 .2008 .4345 .3771
Direct effect of X on Y
  Effect   se   t   p   LLCI   ULCI   c'_cs
  .3520 .0605 5.8211 .0000 .2329 .4712 .4180
Indirect effect(s) of X on Y:
      Effect BootSE BootLLCI BootULCI
SsCtrl -.0344 .0206 -.0803 -.0013
Completely standardized indirect effect(s) of X on Y:
      Effect BootSE BootLLCI BootULCI
SsCtrl -.0409 .0246 -.0954 -.0016
********************* ANALYSIS NOTES AND ERRORS ***********************
Level of confidence for all confidence intervals in output:
  95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
------ END MATRIX -----

Right column:

Standardized coefficients
      coeff
SSES   .3487
Income -.3329
************* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************
Total effect of X on Y
  Effect   se   t   p   LLCI   ULCI   c_cs
  .2920 .0589 4.9548 .0000 .1760 .4081 .3487
Direct effect of X on Y
  Effect   se   t   p   LLCI   ULCI   c'_cs
  .3216 .0603 5.3374 .0000 .2029 .4403 .3840
Indirect effect(s) of X on Y:
      Effect BootSE BootLLCI BootULCI
SsCtrl -.0296 .0190 -.0741 -.0001
Completely standardized indirect effect(s) of X on Y:
      Effect BootSE BootLLCI BootULCI
SsCtrl -.0353 .0229 -.0899 -.0001
****
****
Bootstrap estimates were saved to a file
Map of column names to model coefficients:
    Conseqnt Antecdnt
COL1   SsCtrl constant
COL2   SsCtrl SSES
COL3   SsCtrl Income
COL4   CompBuy constant
COL5   CompBuy SSES
COL6   CompBuy SsCtrl
COL7   CompBuy Income
********************** ANALYSIS NOTES AND ERRORS
Level of confidence for all confidence intervals in output:
  95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
------ END MATRIX -----

Study 2: Model 58 (with impulsive buying as DV)	**Study 2: Model 58 (with compulsive buying as DV)**

Left column:

Run MATRIX procedure:
**************** PROCESS Procedure for SPSS Version 4.2
    Written by Andrew F. Hayes, Ph.D.   www.afhayes.com
  Documentation available in Hayes (2022).
www.guilford.com/p/hayes3
****
Model : 58
  Y : ImpBuy
  X : SSESgrp
  M : SsCtrl
  W : Power

Covariates: Income
Sample Size: 183
****
OUTCOME VARIABLE:
 SsCtrl
Model Summary

R	R-sq	MSE	F	df1	df2	p
.6040	.3648	2.1924	25.5522	4.0000	178.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.7820	.2726	-2.8688	.0046	-1.3199	-.2441
SSESgrp	.5657	.2405	2.3527	.0197	.0912	1.0402

Right column:

Run MATRIX procedure:
**************** PROCESS Procedure for SPSS Version 4.2
    Written by Andrew F. Hayes, Ph.D.   www.afhayes.com
  Documentation available in Hayes (2022).
www.guilford.com/p/hayes3
****
Model : 58
  Y : CompBuy
  X : SSESgrp
  M : SsCtrl
  W : Power

Covariates: Income
Sample Size: 183
****
OUTCOME VARIABLE:
 SsCtrl
Model Summary

R	R-sq	MSE	F	df1	df2	p
.6040	.3648	2.1924	25.5522	4.0000	178.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.7820	.2726	-2.8688	.0046	-1.3199	-.2441
SSESgrp	.5657	.2405	2.3527	.0197	.0912	1.0402

Power   .3659   .1282   2.8540   .0048   .1129   .6189
Int_1   .6175   .1809   3.4135   .0008   .2605   .9746
Income   .0930   .0563   1.6510   .1005   -.0182   .2041
Product terms key:
 Int_1   :   SSESgrp x   Power

Test(s) of highest order unconditional interaction(s):
   R2-chng   F   df1   df2   p
X*W   .0416   11.6520   1.0000   178.0000   .0008

  Focal predict: SSESgrp (X)
     Mod var: Power   (W)
Conditional effects of the focal predictor at values of the
moderator(s):

   Power   Effect   se   t   p   LLCI   ULCI
  -.9993   -.0514   .2951   -.1742   .8619   -.6338   .5310
   .0007   .5661   .2405   2.3544   .0196   .0916   1.0407
  1.2507   1.3381   .3366   3.9755   .0001   .6739   2.0023
Moderator value(s) defining Johnson-Neyman significance
region(s):
   Value   % below   % above
  -2.5532   6.0109   93.9891
   -.1464   44.8087   55.1913

Conditional effect of focal predictor at values of the moderator:
   Power   Effect   se   t   p   LLCI   ULCI
  -3.2493   -1.4409   .6263   -2.3005   .0226   -2.6768
-.2049
  -2.9335   -1.2459   .5740   -2.1705   .0313   -2.3785
-.1132
  -2.6177   -1.0508   .5226   -2.0106   .0459   -2.0822
-.0195
  -2.5532   -1.0110   .5123   -1.9734   .0500   -
2.0219   .0000
  -2.3019   -.8558   .4726   -1.8107   .0719   -1.7885   .0769
  -1.9862   -.6608   .4244   -1.5569   .1213   -1.4984   .1768
  -1.6704   -.4658   .3787   -1.2299   .2204   -1.2132   .2816
  -1.3546   -.2708   .3365   -.8047   .4221   -.9349   .3933
  -1.0388   -.0758   .2993   -.2532   .8004   -.6664   .5149
   -.7230   .1192   .2692   .4430   .6583   -.4120   .6504
   -.4072   .3143   .2487   1.2635   .2081   -.1765   .8051
   -.1464   .4753   .2409   1.9734   .0500   .0000   .9507
   -.0914   .5093   .2404   2.1186   .0355   .0349   .9836
    .2244   .7043   .2454   2.8696   .0046   .2200   1.1886
    .5402   .8993   .2631   3.4183   .0008   .3801   1.4185
    .8559   1.0943   .2911   3.7596   .0002   .5199   1.6687
   1.1717   1.2893   .3267   3.9461   .0001   .6445   1.9341
   1.4875   1.4843   .3679   4.0351   .0001   .7584   2.2103
   1.8033   1.6793   .4128   4.0681   .0001   .8647   2.4940
   2.1191   1.8744   .4605   4.0706   .0001   .9657   2.7830
   2.4349   2.0694   .5101   4.0570   .0001   1.0628   3.0759
   2.7507   2.2644   .5611   4.0355   .0001   1.1571   3.3717

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
  SSESgrp   Power   SsCtrl   .
BEGIN DATA.
    .0000   -.9993   -.8317
   1.0000   -.9993   -.8831
    .0000   .0007   -.4658
   1.0000   .0007   .1004
    .0000   1.2507   -.0084

Conditional effect of focal predictor at values of the moderator:
   Power   Effect   se   t   p   LLCI   ULCI
  -3.2493   -1.4409   .6263   -2.3005   .0226   -2.6768
-.2049
  -2.9335   -1.2459   .5740   -2.1705   .0313   -2.3785
-.1132
  -2.6177   -1.0508   .5226   -2.0106   .0459   -2.0822
-.0195
  -2.5532   -1.0110   .5123   -1.9734   .0500   -2.0219   .0000
  -2.3019   -.8558   .4726   -1.8107   .0719   -1.7885   .0769
  -1.9862   -.6608   .4244   -1.5569   .1213   -1.4984   .1768
  -1.6704   -.4658   .3787   -1.2299   .2204   -1.2132   .2816
  -1.3546   -.2708   .3365   -.8047   .4221   -.9349   .3933
  -1.0388   -.0758   .2993   -.2532   .8004   -.6664   .5149
   -.7230   .1192   .2692   .4430   .6583   -.4120   .6504
   -.4072   .3143   .2487   1.2635   .2081   -.1765   .8051
   -.1464   .4753   .2409   1.9734   .0500   .0000   .9507
   -.0914   .5093   .2404   2.1186   .0355   .0349   .9836
    .2244   .7043   .2454   2.8696   .0046   .2200   1.1886
    .5402   .8993   .2631   3.4183   .0008   .3801   1.4185
    .8559   1.0943   .2911   3.7596   .0002   .5199   1.6687
   1.1717   1.2893   .3267   3.9461   .0001   .6445   1.9341
   1.4875   1.4843   .3679   4.0351   .0001   .7584   2.2103
   1.8033   1.6793   .4128   4.0681   .0001   .8647   2.4940
   2.1191   1.8744   .4605   4.0706   .0001   .9657   2.7830
   2.4349   2.0694   .5101   4.0570   .0001   1.0628   3.0759
   2.7507   2.2644   .5611   4.0355   .0001   1.1571   3.3717

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.
DATA LIST FREE/
  SSESgrp   Power   SsCtrl   .
BEGIN DATA.
    .0000   -.9993   -.8317
   1.0000   -.9993   -.8831
    .0000   .0007   -.4658
   1.0000   .0007   .1004
    .0000   1.2507   -.0084
   1.0000   1.2507   1.3297
END DATA.
GRAPH/SCATTERPLOT=
  Power   WITH   SsCtrl BY   SSESgrp .

```
     1.0000    1.2507    1.3297
END DATA.
GRAPH/SCATTERPLOT=
 Power   WITH   SsCtrl   BY    SSESgrp .
*******************************************************
******************
OUTCOME VARIABLE:
 ImpBuy
Model Summary
     R      R-sq      MSE      F      df1      df2        p
   .4344    .1887    3.4882    8.2322    5.0000
177.0000    .0000

Model
          coeff      se      t      p      LLCI      ULCI
constant   2.4803    .3490    7.1060    .0000    1.7915    3.1691
SSESgrp    1.7407    .3075    5.6615    .0000    1.1339    2.3474
SsCtrl     -.2473    .0926   -2.6703    .0083   -.4301    -.0645
Power      .1718     .1295    1.3270    .1862   -.0837    .4273
Int_1      -.0040    .0534   -.0752    .9402   -.1095    .1014
Income     .0769     .0717    1.0721    .2852   -.0647    .2185

Product terms key:
 Int_1   :    SsCtrl   x    Power

Test(s) of X by M interaction:
      F      df1      df2        p
    .4783   1.0000  176.0000    .4901

Test(s) of highest order unconditional interaction(s):
    R2-chng      F      df1      df2        p
M*W    .0000    .0057   1.0000  177.0000    .9402
----------
  Focal predict: SsCtrl   (M)
     Mod var: Power   (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
 SsCtrl    Power     ImpBuy    .
BEGIN DATA.
   -2.0512    -.9993    4.0012
    -.3012    -.9993    3.5755
   2.3238    -.9993    2.9368
   -2.0512    .0007    4.1813
    -.3012    .0007    3.7485
   2.3238    .0007    3.0993
   -2.0512   1.2507    4.4063
    -.3012   1.2507    3.9647
   2.3238   1.2507    3.3023
END DATA.
GRAPH/SCATTERPLOT=
 SsCtrl   WITH   ImpBuy   BY     Power  .

**************** DIRECT AND INDIRECT EFFECTS OF X
ON Y ****************
Direct effect of X on Y
   Effect      se      t      p      LLCI      ULCI
   1.7407    .3075    5.6615    .0000    1.1339    2.3474

Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSESgrp   ->   SsCtrl   ->   ImpBuy
```

```
*******************************************************
******************
OUTCOME VARIABLE:
 CompBuy
Model Summary
     R      R-sq      MSE      F      df1      df2        p
   .5406    .2923    1.7672    14.6213    5.0000
177.0000    .0000

Model
          coeff      se      t      p      LLCI      ULCI
constant   3.2965    .2484    13.2695    .0000    2.8063    3.7868
SSESgrp    .5753     .2188    2.6290    .0093    .1435    1.0072
SsCtrl     -.4941    .0659   -7.4963    .0000   -.6242    -.3641
Power      .1524     .0921    1.6537    .1000   -.0295    .3342
Int_1      -.0801    .0380   -2.1072    .0365   -.1552    -.0051
Income     .0648     .0511    1.2700    .2058   -.0359    .1656
Product terms key:
 Int_1   :    SsCtrl   x    Power

Test(s) of X by M interaction:
      F      df1      df2        p
    .7346   1.0000  176.0000    .3926

Test(s) of highest order unconditional interaction(s):
    R2-chng      F      df1      df2        p
M*W    .0178    4.4403   1.0000  177.0000    .0365
----------
  Focal predict: SsCtrl   (M)
     Mod var: Power   (W)
Conditional effects of the focal predictor at values of the
moderator(s):
   Power      Effect      se      t      p      LLCI      ULCI
   -.9993    -.4141    .0808   -5.1239    .0000   -.5735    -.2546
    .0007    -.4942    .0659   -7.4976    .0000   -.6243    -.3641
   1.2507    -.5944    .0754   -7.8863    .0000   -.7431    -.4456
Moderator value(s) defining Johnson-Neyman significance
region(s):
   Value    % below   % above
   -2.8465   3.8251   96.1749
Conditional effect of focal predictor at values of the moderator:
   Power      Effect      se      t      p      LLCI      ULCI
   -3.2493    -.2338    .1484    -1.5752    .1170    -.5266    .0591
   -2.9493    -.2578    .1382    -1.8648    .0639    -.5306    .0150
   -2.8465    -.2660    .1348    -1.9735    .0500    -.5321    .0000
   -2.6493    -.2818    .1283    -2.1968    .0293    -.5350    -.0287
   -2.3493    -.3059    .1186    -2.5788    .0107    -.5400    -.0718
   -2.0493    -.3299    .1093    -3.0195    .0029    -.5455    -.1143
   -1.7493    -.3540    .1003    -3.5277    .0005    -.5520    -.1559
   -1.4493    -.3780    .0920    -4.1103    .0001    -.5595    -.1965
   -1.1493    -.4020    .0843    -4.7688    .0000    -.5684    -.2357
    -.8493    -.4261    .0776    -5.4924    .0000    -.5792    -.2730
    -.5493    -.4501    .0720    -6.2488    .0000    -.5923    -.3080
    -.2493    -.4742    .0680    -6.9760    .0000    -.6083    -.3400
    .0507    -.4982    .0657    -7.5875    .0000    -.6278    -.3686
    .3507    -.5222    .0653    -7.9986    .0000    -.6511    -.3934
    .6507    -.5463    .0669    -8.1662    .0000    -.6783    -.4143
    .9507    -.5703    .0703    -8.1083    .0000    -.7091    -.4315
   1.2507    -.5944    .0754    -7.8863    .0000    -.7431    -.4456
   1.5507    -.6184    .0817    -7.5702    .0000    -.7796    -.4572
   1.8507    -.6424    .0890    -7.2160    .0000    -.8181    -.4667
   2.1507    -.6665    .0972    -6.8597    .0000    -.8582    -.4747
   2.4507    -.6905    .1059    -6.5208    .0000    -.8995    -.4815
   2.7507    -.7146    .1151    -6.2082    .0000    -.9417    -.4874
Data for visualizing the conditional effect of the focal predictor:
```

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Power	Effect	BootSE	BootLLCI	BootULCI
-.9993	.0125	.1292	-.1545	.3611
.0007	-.1400	.0817	-.3062	.0110
1.2507	-.3376	.1645	-.6903	-.0428

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
-.1400	.0125	-.1525	.1076	-.4340	-.0221
-.3376	.0125	-.3501	.2166	-.8717	-.0125
-.3376	-.1400	-.1976	.1379	-.5142	.0365

****
****

Bootstrap estimates were saved to a file
Map of column names to model coefficients:

	Conseqnt	Antecdnt
COL1	SsCtrl	constant
COL2	SsCtrl	SSESgrp
COL3	SsCtrl	Power
COL4	SsCtrl	Int_1
COL5	SsCtrl	Income
COL6	ImpBuy	constant
COL7	ImpBuy	SSESgrp
COL8	ImpBuy	SsCtrl
COL9	ImpBuy	Power
COL10	ImpBuy	Int_1
COL11	ImpBuy	Income

*********************** ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: Power SsCtrl
------ END MATRIX -----

Paste text below into a SPSS syntax window and execute to produce plot.
DATA LIST FREE/
  SsCtrl   Power   CompBuy   .
BEGIN DATA.

-2.0512	-.9993	4.5221
-.3012	-.9993	3.7975
2.3238	-.9993	2.7106
-2.0512	.0007	4.8389
-.3012	.0007	3.9740
2.3238	.0007	2.6768
-2.0512	1.2507	5.2348
-.3012	1.2507	4.1947
2.3238	1.2507	2.6345

END DATA.
GRAPH/SCATTERPLOT=
  SsCtrl WITH   CompBuy   BY   Power   .
***************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.5753	.2188	2.6290	.0093	.1435	1.0072

Conditional indirect effects of X on Y:
INDIRECT EFFECT:
 SSESgrp   ->   SsCtrl   ->   CompBuy

Power	Effect	BootSE	BootLLCI	BootULCI
-.9993	.0213	.1829	-.2686	.4580
.0007	-.2798	.1406	-.5383	.0142
1.2507	-.7953	.1966	-1.1874	-.4262

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
-.2798	.0213	-.3011	.1016	-.5435	-.1441
-.7953	.0213	-.8166	.2572	-1.3746	-.3760
-.7953	-.2798	-.5155	.1667	-.8767	-.2263

****
****

Bootstrap estimates were saved to a file
Map of column names to model coefficients:

	Conseqnt	Antecdnt
COL1	SsCtrl	constant
COL2	SsCtrl	SSESgrp
COL3	SsCtrl	Power
COL4	SsCtrl	Int_1
COL5	SsCtrl	Income
COL6	CompBuy	constant
COL7	CompBuy	SSESgrp
COL8	CompBuy	SsCtrl
COL9	CompBuy	Power
COL10	CompBuy	Int_1
COL11	CompBuy	Income

*********************** ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output:
 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000
W values in conditional tables are the 16th, 50th, and 84th percentiles.
NOTE: The following variables were mean centered prior to analysis: Power SsCtrl
------ END MATRIX -----