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# Yielding to Temptation in Buying: Is It Simply a Matter of Self-Control?

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**Abstract** - Why do consumers yield to temptation? This article looks at two increasingly common types of consumer behavior: impulse buying (IB) and compulsive buying (CB). Specifically, we investigate the impact of self-control (SC), core self-evaluations (CSE), and satisfaction with life (SWL) on these enigmatic consumer behaviors. First, the article develops the distinctions and commonalities between IB and CB. Then, through evaluation of student and general adult samples, the impact of the above three variables on IB and CB is empirically tested. Findings suggest that SC does negatively impact both IB and CB but its relationship with these two behaviors varies across age cohorts. SC was also found to be positively associated with SWL in both samples. CSE was found to positively impact SC and negatively impact both IB and CB. SWL, however, was not found to impact IB or CB. SC also partially mediated the relationship between CSE and IB for adults but not students and partially mediated the impact of CSE (adults only) on CB. As the above results attest, the relationships examined in the present study are nuanced within a given age cohort but also across age cohorts. Future research directions and study implications and limitations are discussed.

**Keywords**- Impulse buying, compulsive buying, self-control, core self-evaluations, satisfaction with life

**Relevance to Marketing Educators, Researchers and/or Practitioners** - A deeper understanding of the role self-control plays in compulsive and impulsive buying is critical to marketing researchers and practitioners from both a consumer well-being perspective as well as from a more traditional marketing strategy approach when attempting to encourage impulse purchases. The relationship between self-control, self-evaluations, and satisfaction with life and these two enigmatic consumer behaviors, however, was found to vary across samples of

students and adults. It will behoove researchers and practitioners alike to take a careful and more nuanced approach when attempting to better understand the drivers of compulsive and impulsive buying across different age cohorts.

## Introduction

“Almost any man knows how to earn money, but not one in a million knows how to spend it”

- Henry David Thoreau

Why do we yield to temptation in making purchases? Do we really need that candy bar, plasma TV, or the latest cell phone? Hoch and Loewenstein (1991) pose these decisions as a battle between desire and self-control in determining whether an individual gives in to his or her impulses. Baumeister (2002, p. 670) further posits that “self-control failure may be an important cause of impulsive purchasing.” Two key questions in understanding why consumers yield to the lure of time-inconsistent purchases are: What leads to self-control failure? And, when is self-control important in determining whether a consumer will give in to his or her impulses? These questions are critical to understanding the distinctions and similarities between impulse buying and compulsive buying behavior.

Impulse buying and compulsive buying have been shown to be an important area of research due to the far-reaching implications for consumers, business, and society. A wide range of industry research suggests that impulse buying or unplanned purchasing represents a majority of shopping decisions. Estimates of spending on impulse purchases in the US may be as high as four to five billion dollars annually (Wuorio, 2013). Surveys suggest that 77 percent of shoppers “sometimes” or “frequently” make impulse purchases. An additional survey estimates that 74 percent of shoppers versus 65 percent made an impulse purchase in a store compared to online (Marketing Charts, 2013). Even the most conservative estimates of impulse buying suggest that 40 percent of grocery shopping trips involve unplanned purchases at an average of three items per shopping trip (Bell, Corsten, and Know, 2011). Impulse buying is a common occurrence among American consumers (Chatzky, 2005; Roberts and Manolis, 2012; Vohs and Faber 2007). As a result, marketers seek promotional tactics and store layout designs to encourage impulse buying, because it leads to increased sales without overly serious consequences for most consumers.

Although not as pervasive as impulse buying, compulsive buying has been estimated to affect between 2 – 12 percent of the US population (Black, 2007; Faber and O’Guinn, 1992; Hassay and Smith, 1996; Koran et al., 2006; Roberts 1998, 2000; Roberts and Jones, 2001). If six percent of the US adult population of 240 million people can be classified as compulsive buyers (Koran et al., 2006) , this means that over 14 million US adults are compulsive buyers. Compulsive buying has been shown to have long-term negative effects on the individual (e.g.,

bankruptcy, excessive credit card debt, interpersonal conflict, divorce, depression, and co-morbidity with other control disorders) as well as society overall (Faber and O'Guinn, 1992; Manolis, Roberts and Kashyap, 2008; Workman and Paper, 2010). These individual effects may have an increasingly negative impact on society because of growing evidence that suggests each subsequent generation is exhibiting higher levels of compulsive buying (Dittmar, 2005; Mueller et al., 2010; Roberts and Manolis, 2012). It appears that a "culture of indebtedness" has evolved. Attitudes about debt have changed dramatically – from a general abhorrence of debt to acceptance of credit as part of a modern consumer society. A likely negative outcome of such a culture of indebtedness or consumer culture is compulsive and/or impulse buying.

According to Faber (2004), impulse buying and compulsive buying are not one and the same. Compulsive buying tends to have a more internal trigger whereas impulse buying may be best understood as resulting from an interaction between personal traits and external stimuli (Flight, Rountree, and Beatty, 2012). Several studies do, however, identify self-control (or lack thereof) as an antecedent to both compulsive and impulsive buying (Faber, 2004; Claes et al., 2010; Roberts and Manolis, 2012; Verplanken and Sato, 2011; Vohs and Faber, 2007). Baumeister (2002) notes the lack of consumer behavior research that includes the self-control variable. This is particularly relevant to the present research given that personal characteristics, more so than store layout and in-store promotions, have been shown to be the main drivers of impulse buying (Bell et al., 2011). Consequently, this study attempts to close this research gap. Explicitly, this study builds on prior research to develop and then empirically test a key distinction between impulse buying and compulsive buying: the role self-control plays in each behavior. An expanded understanding of the role self-control plays in such behavior has much to offer to consumer behavior researchers (Baumeister, 2002).

## **Study Contributions**

The present study makes several important contributions to the literature. While many studies have investigated impulse buying or compulsive buying separately, the present study is the first to juxtapose both constructs as outcomes of self-control in the same study in an effort to better understand their similarities and differences.

Additionally, the study includes a measure of life satisfaction to help provide clarity as to the drivers of impulse buying and compulsive buying. The study also uses the core self-evaluation scale to better understand how one's sense of self impacts impulse and compulsive buying. The oft-used measure of self-esteem may simply be one of several traits (e.g., self-efficacy, locus of control, and neuroticism) that tap a broad, latent, higher-order trait labeled core self-evaluations (Judge et al., 2003). As such, the paper makes an important

contribution to theory by conceptualizing and empirically testing these distinctions.

Lastly, by looking at the above relationships in two decidedly distinct age groups (students and adults), the present study can provide insight into the robustness of the tested relationships. In essence, we provide a life-course study (Benmoyal-Bouzaglo and Moschis, 2009) of compulsive buying and impulse buying investigating chosen antecedents and consequences in two groups confronting different challenges at different life stages.

## **Conceptual Background**

### **The Distinction between Impulse Buying and Compulsive Buying**

Research in consumer behavior and psychology has led to the identification of distinguishing characteristics between impulse buying and compulsive buying as well as conceptual definitions of each phenomenon.

Impulse buying is defined as occurring “when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The impulse to buy is hedonically complex and may stimulate emotional conflict. Also, impulse buying is prone to occur with diminished regard for its consequences (Rook 1987, p. 191).” Impulse buying is likened to a conflict between good versus bad, control versus indulgence, willpower versus desire (cf. Hoch and Lowenstein, 1991; Roberts and Manolis, 2012; Rook, 1987). If the impulse purchase is made, desire wins over self-control in this particular battle.

Compulsive buying has been considered both an extreme form of impulse buying and a clinical problem most likely diagnosed as an impulse control disorder (O’Guinn and Faber, 1989). Many clinicians and researchers consider compulsive buying to be a function of a generalized compulsive personality trait and most likely a type of impulse control disorder (O’Guinn and Faber, 1989; Faber and O’Guinn, 1992). In fact, a new carefully validated compulsive buying scale consists of two dimensions – impulsive buying and obsessive-compulsive buying (Ridgway et al., 2008).

Based on their extensive research, O’Guinn and Faber (1989, p. 155) define compulsive buying as “chronic, repetitive purchasing that becomes a primary response to negative events or feelings. The activity, while perhaps providing short-term positive rewards, becomes very difficult to stop and ultimately results in harmful consequences.” Compulsive buying is characterized by lower self esteem, a higher propensity for fantasy, and a higher score for general compulsivity.

Both types of behavior exhibit time-inconsistent preferences (Hoch and Loewenstein, 1991). In other words, consumers may forego larger long-term rewards for immediate gratification in cases where desire wins over self-control. The primary commonalities between impulse buying and compulsive buying

center on: the departure from “normal” shopping behavior, a stronger emotional involvement in the purchase, and the inability to resist a desire. Normal shopping behavior has been typically classified according to the rational choice model: purchases are planned, and appropriate cost/benefit analyses are conducted that consider long-term effects (Hoch and Loewenstein, 1991).

While compulsive buying has some of the same features of impulse buying since it derives from an impulse disorder, compulsive buying is also distinct in several ways. Three key distinctions between impulse buying and compulsive buying have been developed conceptually. First, impulse buying is sporadic and may be relatively infrequent, while compulsive buying is chronic. In impulse buying, the urge to buy is typically triggered by a mood (Youn and Faber, 2000), an external trigger (Faber, 2004), and/or an overwhelming desire to have a specific item (Rook, 1987; Rook and Fisher, 1995). In contrast, the compulsive buyer is trapped in an ongoing cycle – feeling bad about himself/herself, buying something to improve the self-image, feeling pleasure followed by guilt (often to the point of returning or hiding the purchase). Compulsive buying in individuals has been associated with anxiety disorders, eating disorders, substance use disorders, and impulse control disorders (Black, 2001, 2007; Faber and O’Guinn, 2008).

Second, with impulse buying, a consumer desires a specific product. The consumer sees something that he or she cannot resist and gives into the impulse to buy that item: “It’s the feeling of ‘I want that, and by God I’m gonna get it!’” (female respondent describing a dress; Rook 1987, p. 193). In contrast, a compulsive buyer is driven by the need to shop and buy – often, the specific object is not important (Faber, 2004). Compulsive buyers may even dispose of, give away, return, or hide their purchases, indicating an addiction to the process of buying rather than a specific item (Faber and O’Guinn, 1992; Hassay and Smith, 1996). The internal drive is about a desire to acquire or the purchase process itself. As O’Guinn and Faber describe it (1989, p. 147): “Compulsive buyers buy not so much to obtain utility or service from a purchased commodity as to achieve gratification through the buying process itself.”

Finally, for impulse buying, a consumer is often prompted by external stimuli (Faber, 2004; Roberts and Manolis, 2012). For example, the consumer may see an advertisement or a point-of-purchase display that calls his or her attention to the product and the desire to own that item now. A male respondent put it this way: “I saw the ice cream and immediately wanted some” (Rook 1987, p. 193). Alternatively, in compulsive buying, consumers are typically motivated internally to purchase – a way to feel good about oneself. The internal trigger (psychological tension, anxiety) leads to shopping and spending as a means of escape (Desarbo and Edwards, 1996; Dittmar, 2005; Faber and O’Guinn, 2008; O’Guinn and Faber, 1989; Rodriquez-Villarino et al., 2006; Tavares et al. 2008).

These distinctions are important in understanding the relationships between an individual's self-evaluation, life satisfaction, and self-control in relationship to the propensity toward impulse buying and/or compulsive buying.

## **The Relationship with Self-Evaluation and Life Satisfaction**

**Impulse Buying.** Youn and Faber (2000) find that individuals who score higher on impulse buying are more likely to be sensitive to negative feeling states (such as “depressed feelings,” “feeling fat,” and “painful feelings”) than those scoring lower on impulse buying (all at  $p < 0.01$ ). Rook (1987) found that some respondents who had been feeling down used impulse buying as a way to make them feel better. Further support for a negative relationship between impulse buying and self evaluation is provided by Judge et al. (2005) who found that individuals with more positive self-evaluations were more likely to pursue goals for intrinsic and value-congruent reasons. These findings would indicate that individuals with lower self regard would be more prone to impulse buying as this action is spontaneous and most often contradictory to long-term goals and orientation. Therefore, more positive self-evaluations are likely to result in lower levels of impulse buying.

**H1:** Positive Self-evaluations will be negatively related to impulse buying.

Life satisfaction differs from self-evaluation in that it does not focus on psychopathology or emotional well-being, but rather on an individual's conscious judgment of his or her life based on the individual's chosen criteria (Pavot and Diener, 1993). Life satisfaction has been shown to be positively associated with self-esteem and negatively associated with neuroticism and emotionality (Diener et al., 1985). As such, life satisfaction provides a counterpart to an individual's self-evaluation by taking a more long-term or global look at the individual's perception of his or her life. Impulse purchases provide a way for individuals to relieve dissatisfaction with one's life through the temporary escape of purchasing a desired item (Faber, 2004; Youn and Faber, 2000). As a result, life satisfaction is posited to be inversely related to impulse buying.

**H2:** Life satisfaction will be negatively related to impulse buying.

**Compulsive Buying.** By definition, compulsive buying “occurs as a response to negative events or feelings” (O'Guinn and Faber 1989, p. 149). Compulsive buying is a means to alleviate or escape these feelings. Further, compulsive buyers have significantly lower self-esteem (Kyrios et al., 2004; O'Guinn and Faber, 1989; Rodriguez-Villarino et al., 2006; Workman and Paper, 2010). As Dittmar (2005, p. 832) expresses it: “Compulsive buying is characterized by the

motivation to move closer to an ‘ideal self’ through material goods.” Self discrepancies in the perceived actual versus the ideal motivate compulsive buying as a compensatory, or self-repair, behavior. Dittmar also found that compulsive buyers have more negative self-evaluations than ordinary, or “normal,” buyers. As a result, compulsive buying is hypothesized to be inversely related to self-evaluations.

**H3:** Positive Self-evaluations will be negatively related to compulsive buying.

Compulsive buying is also associated with fantasy as a means to escape from reality (O’Guinn and Faber, 1989). Research has shown that buying for compulsive buyers may serve several different functions (Faber, 2000; Faber and O’Guinn, 2008). Paramount among the functions served by compulsive buying is mood regulation (Dell’Osso et al., 2008; Dittmar, 2005; Roberts and Roberts, 2012; Rodriquez-Villarino et al., 2006; Tavares et al., 2008; Workman and Paper, 2010). In a comparison study of compulsive buyers and a matched control sample, Faber and Christensen (1996) found that compulsive buyers reported feeling more negative mood states prior to shopping than the comparison group.

Escape theory, which proposes that self-awareness can be very painful for some people, has been used to explain why compulsive buyers continue to buy despite the negative consequences it creates (Faber, 2004). To escape these negative feelings, compulsive buyers attempt to narrow their focus to a single element in their environment. This myopic focus on the here and now allows compulsive buyers to block out negative, more painful thoughts about themselves. As a result, we hypothesize that compulsive buying will be inversely related to life satisfaction.

**H4:** Life satisfaction will be negatively related to compulsive buying.

### **The Role of Self-Control**

Baumeister (2002, p. 670) defines self-control as “the self’s capacity to alter its own states and responses.” According to Hoch and Loewenstein (1991, p. 498), maintaining self-control “depends on the relative strength of the opposing forces of desire and willpower.” Thus, self-control is the ability to resist the urge or impulse to do something that is undesirable or has undesirable consequences (Tangney, et al. 2004; Baumeister, 2002). Research has shown self-control to be related to success in many areas of a person’s life (e.g., grades, marital relationships, ability to manage stress), while lack of self-control can have significant personal and societal ill effects (e.g., depression, obsession, aggression, criminal behavior) (Muraven et al., 1998; Roberts and Manolis, 2012; Tangney et al., 2004). The following describes the relationships posited for self-



control and an individual's self evaluation and life satisfaction, as well as his or her propensity toward impulse buying or compulsive buying.

**Self-Evaluation and Life Satisfaction.** Self-evaluations have been shown to be positively associated with conscientiousness, motivation, performance, and persistence in performing tasks (Erez and Judge, 2001). These characteristics all reflect some level of self-control in completing a task efficiently and effectively. As previously discussed, individuals with positive self-evaluations are more likely to pursue goals for value-congruent and intrinsic reasons (Judge et al. 2005). Tangney et al. (2004) found that self-control is positively associated with self esteem and negatively associated with measures of psychopathology. As they conclude, "Thus, people with high self-control apparently accept themselves as valuable, worthy individuals and are relatively well able to sustain this favorable view of self across time and circumstances" (p. 299). These findings lead to the following hypothesis.

**H5:** Positive Self- evaluations will be positively related to self-control.

Self-control has been variously defined but is "widely regarded as a capacity to change and adapt the self so as to produce a better, more optimal fit between self and world" (Tangney et al. 2004, p. 275). This definition suggests a link between life satisfaction and one's ability to delay gratification.

Research on self-control suggests that self-control is associated with a broad range of positive outcomes (Baumeister and Heatherton, 1996; Strayhorn, 2002). Breaking bad habits, resisting temptation, and maintaining good self-discipline all reflect an ability to control oneself.

Research on self-control has also shown a relationship between many negative outcomes and low self-control. Students with low self-control tend to have lower grades and miss class more often. In the general population, low self-control is correlated with psychopathology, lower self esteem, poorer relationships, and other negative outcomes. Given these "unhappy and undesirable outcomes in schoolwork, social life, personal adjustment, and emotional patterns (Tangney et al., 2004)," we hypothesize that individuals with higher levels of self-control will more likely report greater life satisfaction.

**H6:** Self-Control will be positively associated with Satisfaction with Life.

**Impulse Buying and Compulsive Buying.** Prior research has shown that individuals with greater self-control are more effective at saving money rather than spending it (Romal and Kaplan, 1995). Studies have shown self-control to correlate positively with the ability to manage money and negatively with fiscal excess, spending more and saving less (Baumeister and Exline, 2000; Baumeister, 2002; Mansfield et al., 2003). Finally, individuals with low self-

control have been found to be more prone to impulse buying (Baumeister, 2002; Mansfield et al., 2003; Youn and Faber, 2000).

A central component of compulsive buying is that individuals experience an inability to control this behavior. Compulsive buyers report that they feel an uncontrollable or irresistible urge to buy (Faber, 2004). Escape theory argues that self-awareness can be very painful for some people, who then attempt to narrow their attention to a single activity in their environment to avoid such feelings. Such a tendency to become immersed in self-focused experiences has been called absorption. Compulsive buyers have been found to score higher than the general population on a measure of absorption (Faber, 2004). When absorbed, negative thoughts are temporarily subdued and any self-control that might arise from self-awareness is likely absent as well. Given the above, we offer the following hypotheses.

**H7a-b:** Self-control will be negatively related to (a) impulse buying and (b) compulsive buying.

**The Mediating Role of Self-Control.** Both impulse buying and compulsive buying require consideration of self-control. Impulse buyers wage an internal conflict between desire and willpower. If desire is greater than willpower, then the consumer gives in to his or her emotional pull to the object and buys it, regardless of long-term consequences. If willpower wins, the consumer takes the time to reflect about the short- and long-term consequences of the purchase and does not buy the product if it does not merit purchase based on a cost-benefit analysis. Consumers are capable of exercising self-control and willpower often overcomes the desire to make unplanned or impulse purchases (Baumeister, 2002; Hoch and Loewenstein, 1991).

As a result, for impulse buying, self-control acts as a mediator of the influence of poor self-evaluations on impulse buying. While less positive or even negative feelings may lower an individual's self-control, their impact on one's consumption behavior can be minimized through the exercise of self-control when an individual recognizes that s/he has the resources necessary to control their buying behavior (Faber, 2004).

**H8:** The impact of self-evaluations on impulse buying will be mediated by self control.

In contrast, compulsive buying has been conceptualized as internally driven (Edwards, 1993; Desarbo and Edwards, 1996). The compulsive buyer often harbors a sense of low self-esteem. These feelings lead the consumer to compensate through buying – resulting in a temporary lift in the person's feelings and sense of self. Since these self-evaluations are directly linked to the propensity towards compulsive buying, they will not be mediated by self-control.

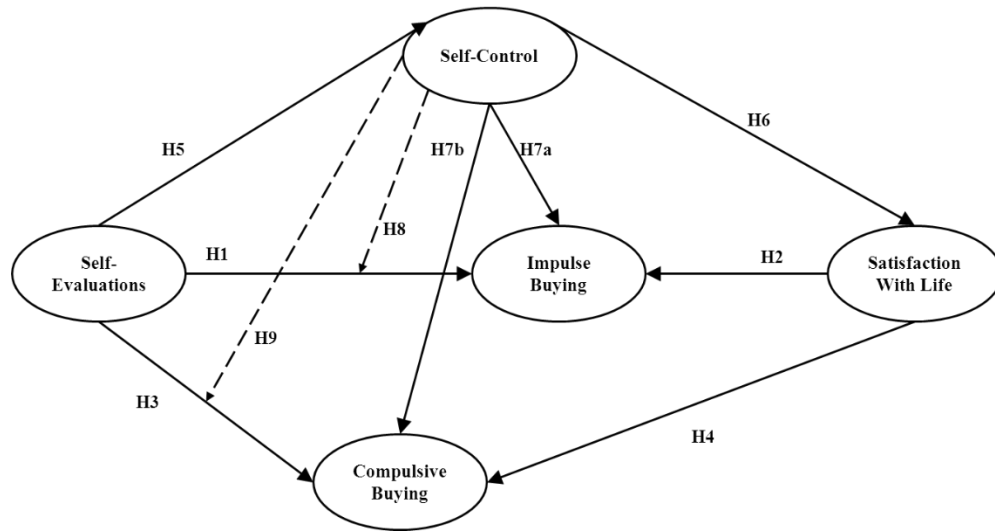
Lower self-evaluations will lead to a greater propensity for compulsive buying. Since willpower also plays a role in compulsive buying, higher levels of self-control will lead to a lesser likelihood of compulsive buying.

Faber (2004) posits that people focus their attention on a single element in their environment to avoid negative self-awareness since it is so painful to them. This cognitive narrowing “prevents consideration of long-term implications of an action, as well as of cause and effect thinking (Faber, 2004, p. 177).” Often the result of exceptionally high expectations, escape through compulsive buying allows the individual to avoid the negative feelings of not living up to his or her own expectations through the process of making a purchase. In other words, avoidance behaviors (specifically compulsive buying) become the primary response to negative events or feelings (Faber, 2004; O’Guinn and Faber, 1989). The power of these negative emotions in defining compulsive buying behavior is shown by the response of compulsive buyers to completing the sentence “I am most likely to buy myself something when ...” Among a cross-section of buyers (Belk, 1985), 20% of respondents mentioned either a positive or negative emotion. In contrast, among a sample of compulsive buyers, almost 75% used a negative emotion such as “I’m depressed” or “I feel bad about myself” (Faber et al., 1987).

The compulsive buyer has shown repeatedly the inability to exercise self-control and is frustrated by this inability. Even in the face of serious consequences such as considerable debt and disapproval or even separation or divorce from loved ones, the consumer cannot control the urge to buy. As such, the compulsive buyer does not expect a fair fight with self-control and may not even try to wage the internal battle. Negative emotions drive the need to buy, and self-control cannot overcome the power of these emotions. As stated by O’Guinn and Faber (1989, p. 148), “The individual eventually comes to view the behavior [compulsive buying] as ‘loss of control,’ creating additional anxiety and frustration, but the behavior continues despite attempts to stop or moderate it.”

**H9:** The impact of self-evaluations on compulsive buying will not be mediated by self-control.

Drawn from the above discussions, Figure 1 depicts the conceptual framework used to test the study's hypotheses. Dashed lines represent proposed mediations.



**Figure 1: Impulse and Compulsive Buying Conceptual Framework**

## Method

### Subjects

The present study used two different samples of subjects for analysis. The first sample was drawn from a web panel maintained by i.think\_inc. Panel members are recruited by e-mail solicitation and word of mouth and are offered incentives to participate in selected surveys. As questionnaires are completed, administrators use quotas (e.g., gender, income) to ensure a balanced sample of respondents that closely mirrors the U.S. adult population. Table 1 shows that the resulting sample is both large (n=403) and diverse. Further, the sample is balanced with respect to gender and exhibits good diversity in regard to age and income. The sample compares favorably with U.S. Census data, skewing a little higher in income and lower in age as might be expected from an online panel.

The second sample was students enrolled in an entry-level business course at a large, private Southwestern university. Two hundred sixty-four college students completed the self-report survey. As can be seen in Table 1, the student sample skews towards males and higher income households.

**Table 1: Sample Composition for Adult and Student Samples vs. 2010 U.S. Census**

	Student Sample (n = 264)	Adult Sample (n = 403)	U.S. Census
Gender	%	%	%
Male	54	50	49
Female	46	50	51
Income			
Under \$30,000/Under \$25,000	6*	22	28.6
\$30,000 – 49,999/\$25,000-49,999	9	31	29.3
\$50,000 – 69,999/\$50,000-74,999	13	21	19.5
More than \$70,000/More than \$75,000	72	26	22.5
Age			
18-29/15-24	100	23	17.7
30-39/25-34		24	18.1
40-49/35-44		26	20.5
50-59/45-54		17	16.9
60+/55+		10	26.8
Age and income breaks for student and adult samples / U.S. Census.			

\*Income for the student sample is based on total household income.

## Measures

**Dependent Variables.** This study used the seven-item clinical screener for compulsive buying developed by Faber and O’Guinn (1992). Rigorous scale development and validation by Faber and O’Guinn found the scale to be highly reliable ( $\alpha = 0.95$ ), one-dimensional, and valid. Responses were recorded on a Likert scale that ranged from “strongly disagree” (1) to “strongly agree” (5) for item CB1 and on a scale that ranged from “very often” (1), “Often” (2), “sometimes” (3), “rarely” (4), to “never” (5) for items CB2 – CB7. Items for all study scales were coded so that a higher score meant a higher level of the attribute being measured. See Appendix for scale items.

The 9-item impulse buying scale developed by Rook and Fisher (1995) was used in the study. The authors have shown this scale to be uni-dimensional and reliable (0.88). Responses were recorded on a 5-point Likert scale that range from “strongly disagree” (1) to “strongly agree” (5).

**Independent Variables.** Self-control was assessed using the Tangney et al. (2004) scale. This 13-item scale has been shown to have strong validity and reliability (coefficient  $\alpha = 0.83$ ; test-retest reliability = 0.87; Tangney et al., 2004). Responses were recorded on a 5-point scale that ranged from “not at all” (1) to “very much” (5).

To measure self-evaluations, the Core Self Evaluations Scale (CSES) by Judge et al. (2003) was used. In their 2002 study Judge et al. showed that measures commonly used to evaluate an individual's self regard (self-esteem, neuroticism, locus of control, and generalized self-efficacy) were strongly related and showed poor discriminant validity. As a result, Judge et al. postulated a common core construct underlying these traits. In 2003, Judge et al. developed a direct measure of this core construct – the core self-evaluations scale. The resultant 12-item scale has been shown to have validity equal to that of an optimal weighting of the four core traits and incremental validity over a 5-factor model (the four traits plus CSES). Additionally, the scale is unidimensional and reliable (coefficient alpha >0.80 over 4 studies; test-retest reliability = 0.81; Judge et al. 2003). Responses were recorded on 5-point Likert scales that ranged from “strongly disagree” (1) to “strongly agree” (5).

Life satisfaction is a “global assessment of a person's quality of life according to his chosen criteria (Shin and Johnson 1978, p. 478).” To measure this construct, Diener et al.'s (1985) satisfaction with life scale was used. This 5-item scale has been shown to have desirable psychometric properties (coefficient alpha = 0.87 and test-retest reliability = 0.82; good convergent and discriminant validity; Diener et al., 1985). Responses were recorded on 5-point Likert scales that ranged from “strongly disagree (1) to “strongly agree” (5).

## **Results**

### **The Measures and Their Psychometric Properties**

A series of Exploratory Factor Analyses (EFA) were performed to assess the psychometric properties of the scale items using the SPSS software package. The normalized varimax method and the Kaiser criteria of eigenvalues greater than 1 were used to identify items to be retained as well as confirm the factors structure (Hair et al., 1998). Items with poor loading (loadings lower than 0.5) and those loading equally on two factors were removed. Successively, the same process was carried out with new principal components analysis using the remaining items.

The results of the EFA presented in Table 1A and 1B indicated that for the Adults Sample the Kaiser-Meyer-Olkin (KMO) measure was 0.86 for Self-Control and 0.91 for Core Self Evaluation and their equivalent of 0.81 and 0.77 for Students Sample. The corresponding Bartlett's sphericity tests were 706.76 (df = 28); 1723.49 (df= 45) with a total variance extracted equal 54.28% and 61.43% respectively for the Adults Sample and the equivalent of 455.56(df=36); 421.03 (df=28) with a total variance extracted equal 56.59% and 53.58% for the Student Sample. Additionally, all the KMO measures were significant at  $P < 0.000$ . Additionally, the loadings of the items retained were all greater than 0.5. Contrary to Tangney et al. (2004) who argued that Self-Control is unidimensional, this study confirmed two dimensions namely “Discipline” and “Action” for the adults Sample and “Action” “Discipline” and “Sloth” for the

student sample. Similarly, in contrast to the Judge et al. (2003) scale findings, the results of the present study confirmed two dimensions instead of one to assess Core Self-Evaluations. They were named “Hopeless” and “Efficaciousness” for both Samples. Finally, EFA confirmed that compulsive buying, impulse buying and satisfaction with life were all represented by a single factor each.

**Table 1A: EFA and CFA of the Loads on the Exterior Model (Adult sample)**

	Confirmatory Analysis (CFA)		Factor		Exploratory Factor Analysis (EFA)	
	Loadings	t-value*	1	2		
<b>Self-Control</b>						
<i>Discipline</i>						
sc1	0.72	25.42	0.66			
sc8	0.75	21.19	0.77			
sc2	0.74	20.24	0.73			
sc7	0.77	36.11	0.71			
<i>Action</i>						
sc4	0.65	13.16				0.71
sc9	0.71	20.29				0.63
sc12	0.80	54.26				0.72
sc13	0.72	23.61				0.70
<b>Core Self-Evaluations</b>						
<i>Hopeless</i>						
Cses2	0.82	40.63	0.82			
Cses4	0.81	42.16	0.78			
Cses6	0.81	55.45	0.75			
Cses8	0.76	36.76	0.63			
Cses12	0.82	39.43	0.80			
<i>Efficacious</i>						
Cses1	0.68	16.64				0.56
Cses3	0.80	29.81				0.82
Cses5	0.73	30.94				0.77
Cses7	0.80	35.78				0.64
Cses11	0.74	24.94				0.67
*All t-value are significant at P <0.000, the KMO measure was 0.86; the Bartlett’s sphericity test = 706.76 and df = 28 with a total variance extracted = 54.28% for Self-Control. The KMO =0.91; Bartlett’s sphericity test =1723.49 and df= 45 with a total variance extracted = 61.43 for Core Self-Evaluations						

**Table 1B: EFA and CFA of the Loads on the Exterior Model (Student Sample)**

	Confirmatory Factor Analysis (CFA)		Exploratory Factor Analysis (EFA)		
	Loadings	t-value*	1	2	3
<b>Self-Control</b>					
<i>Action</i>					
Sc4	0.76	23.88	0.77		
Sc5	0.82	36.33	0.79		
Sc13	0.72	24.5	0.59		
<i>Discipline</i>					
Sc1	0.77	31.22		0.69	
Sc8	0.78	27.57		0.77	
Sc11	0.69	17.38		0.68	
<i>Sloth</i>					
Sc2	0.72	13.66			0.82
Sc3	0.78	30.64			0.63
Sc9	0.76	22.75			0.59
<b>Core Self-Evaluations</b>					
<i>Hopeless</i>					
Cses2	0.69	17.55	0.70		
Cses4	0.72	17.28	0.67		
Cses6	0.72	15.77	0.70		
Cses12	0.75	13.24	0.76		
<i>Efficacious</i>					
Cses3	0.70	14.82		0.75	
Cses5	0.76	16.86		0.78	
Cses7	0.72	16.63		0.63	
Cses11	0.74	17.37		0.68	
*All t-value were significant at $P < 0.000$ ; the KMO measure was 0.81; the Bartlett's sphericity test = 455.56 and $df = 36$ with a total variance extracted = 56.59% for Self-Control. The KMO = 0.77; the Bartlett's sphericity test = 421.03 and $df = 28$ with a total variance extracted = 53.58% for Core Self-Evaluations					

*Validity and reliability of the scales used*

The scales' validity was assessed by means of Confirmatory Factor Analysis (CFA). All items retained were restricted to load on their respective factors and the validity of individual items was established by load values greater than 0.7 (Carmines and Zeller, 1979). Tables 1A, 1B and 2 showed that the majority of the items exceeded the cutoff limit with the exception of Sc11, CSES 2 and SWL5 for the adults sample and SC11, CSES2 and SWL5 for the student sample. However, they were kept in the model following Barclay et al.'s (1995) relaxed criterion that suggests that items that improve the internal consistency with the load value closer to the threshold limit should be retained in the model.



**Table 2: EFA and CFA of the Loads on the Exterior Model**

Adult Sample				Student sample			
Factors	Loadings	t-value <sup>a</sup>	SE <sup>b</sup>	Factors	Loadings	t-value <sup>a</sup>	SD <sup>b</sup>
<b>Compulsive Buying</b>							
Cb1	0.71	24.99	0.03	Cb1	0.79	30.87	0.03
Cb2	0.76	24.84	0.03	Cb2	0.78	38.38	0.02
Cb3	0.79	37.94	0.02	Cb3	0.80	21.51	0.04
Cb4	0.69	17.80	0.04	Cb4	-	-	-
Cb5	0.71	21.55	0.03	Cb5	0.78	22.04	0.04
Cb6	0.65	18.75	0.04	Cb6	0.77	22.76	0.03
Cb7	-	-	-	Cb7	-	-	-
<b>Impulse Buying</b>							
IB1	0.79	34.49	0.02		0.74	27.41	0.03
IB2	0.81	32.27	0.02		0.87	56.21	0.02
IB3	0.87	52.78	0.02		0.89	87.73	0.01
IB4	0.83	29.74	0.03		0.87	56.48	0.02
IB5	0.84	41.95	0.02		0.83	51.78	0.02
IB6	-	-	-		-	-	-
IB7	0.76	37.46	0.02		0.71	24.21	0.03
IB8r	-	-	-		-	-	-
IB9	0.72	39.84	0.02		-	-	-
<b>Satisfaction with Life</b>							
SWL1	0.85	41.79	0.02		0.75	27.19	0.03
SWL2	0.86	69.10	0.01		0.78	42.82	0.02
SWL3	0.87	69.19	0.01		0.85	46.91	0.02
SWL4	0.82	32.18	0.03		0.74	19.56	0.04
SWL5	0.68	17.84	0.04		0.69	22.45	0.03

a: All t-values are significant at:  $p < 0.000$ ; b: SE=Standard Error

The internal consistency of the scales was assessed based on two indicators namely the Average Variance Extracted (AVE) and the composed reliability Cronbach's Alpha. The overall results presented in Table 3A and 3B indicated that AVE values were greater than the acceptable minimum threshold of 0.5 (Fornell and Larcker, 1981). In addition, the computation of Cronbach's Alpha indicated that they were all above the cutoff value of 0.7 (Nunnally and Bernstein, 1994) with the exception of the self-control dimensions in the student sample. Still, they topped the minimum satisfactory value of 0.6 to validate internal consistency (Malhotra, 2004). Consequently, the measurement scales were considered to possess high-internal consistency and reliability among the items. Moreover, convergent validity was assessed based on both the significance of t-values and the AVE. The overall, results indicated that all the t-value were highly significant ( $P < 0.000$ ). In addition, the items' coefficient exceeded the value of the Standard Error (SE) by more than double. The results of the EFA and CFA taken together provide evidence of a considerable degree of convergent validity.

**Table 3A: Structural Equation Model Fitness (Adult Sample)**

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R Square</b>	<b>Cronbach's Alpha</b>	<b>Communality</b>	<b>Redundancy</b>
Compulsive Buying	0.52	0.86	0.30	0.81	0.52	0.00
Impulse Buying	0.64	0.93	0.22	0.91	0.64	0.00
Satisfaction with life	0.67	0.91		0.87	0.67	
Discipline Factor of SC	0.55	0.83	0.27	0.73	0.55	0.11
Action Factor of SC	0.52	0.81	0.23	0.69	0.52	-0.04
Efficacious Factor of CSE	0.56	0.86		0.80	0.56	
Hopeless Factor of CSE	0.65	0.90		0.86	0.65	

**Table 3B: Structural Equation Model Fitness (Student Sample)**

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R Square</b>	<b>Cronbach's Alpha</b>	<b>Communality</b>	<b>Redundancy</b>
Compulsive Buying	0.62	0.89	0.31	0.84	0.62	0.03
Impulse Buying	0.67	0.92	0.26	0.90	0.67	-0.01
Satisfaction with Life	0.58	0.87		0.82	0.58	
Discipline factor of SC	0.56	0.79	0.17	0.61	0.56	0.03
Sloth Factor of SC	0.57	0.80	0.12	0.62	0.57	0.03
Hopeless factor of CSE	0.52	0.81		0.69	0.52	
Efficacious Factor of CSE	0.53	0.82		0.71	0.53	
Action factor of SC	0.59	0.81	0.10	0.65	0.59	0.06

To confirm that each factor represents a single dimension, discriminant validity tests were performed following Fornell and Larcker (1981) criteria. The overall results confirmed discriminant validity since the AVE by each of the dimensions was greater than the shared variance between the latent factors and all other dimensions. Moreover, the interlinear correlations or standardized covariances between latent factors were less than the square root of the AVE highlighted in bold italic in Table 4.

**Table 4: Correlations Between Factors and the Square Root of AVE**

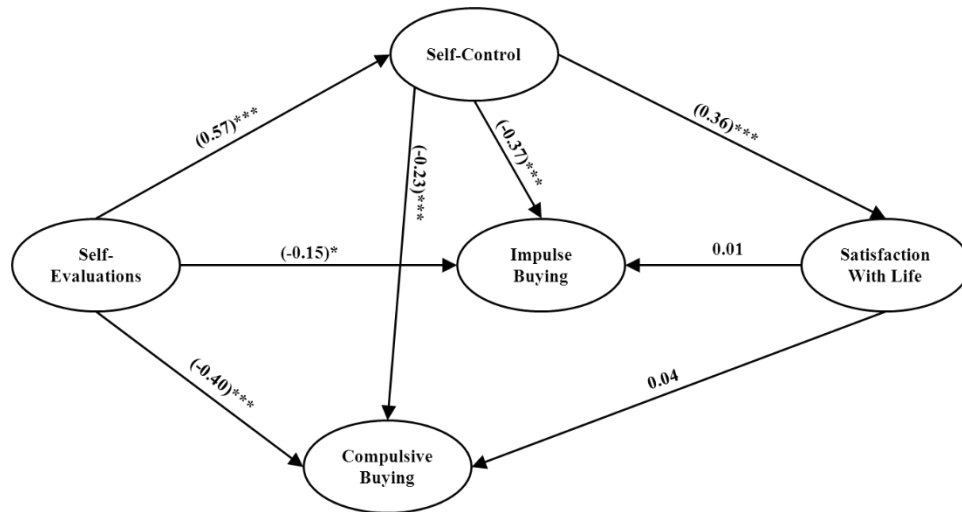
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1. Compulsive Buying</b>	<b><i>0.79/0.72</i></b>	0.63	-0.32	-0.44	0.50
<b>2. Impulse Buying</b>	0.53	<b><i>0.82/0.80</i></b>	-0.22	-0.45	-0.34
<b>3. Satisfaction with Life</b>	-0.37	-0.26	<b><i>0.76/0.82</i></b>	0.36	0.68
<b>4. Self-Control</b>	0.47	0.46	0.38	<b><i>0.59/0.64</i></b>	0.57
<b>5. Self-Evaluation</b>	-0.43	-0.33	0.63	0.40	<b><i>0.60/0.70</i></b>
<b>Notes:</b> The square roots of AVE are in <b><i>bold and italic font style</i></b> on the main diagonal. The correlations between latent variables were all significant at two-tailed ( $P < 0.01$ ). The figures above the diagonal are the correlations for Adults sample and those below are their equivalent for Students sample					

### Causal Model Estimate

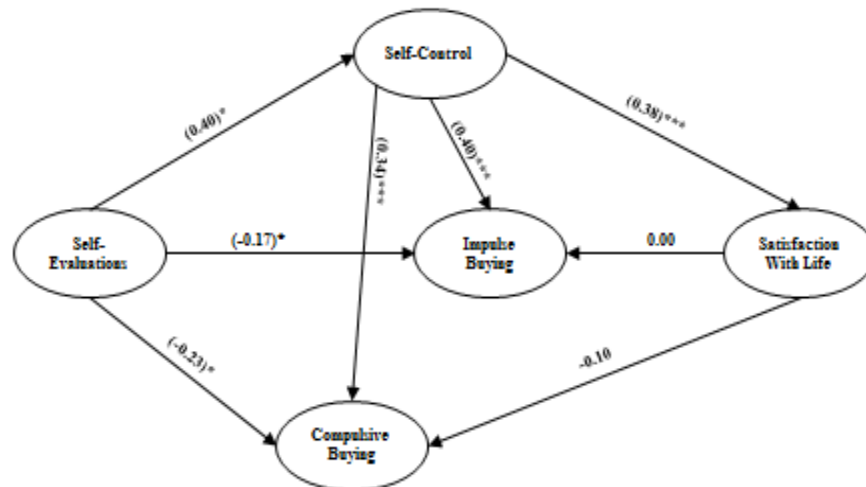
The causal model estimate was assessed by means of Partial Least Squares (PLS) with the PLS version 2.0 software package. This choice was motivated by the fact that in contrast to standard regression, (i) PLS is principally appropriate when the matrix of the predictors has more variables than observations (Tenenhaus et al. 2004), (ii) PLS can guarantee optimal prediction accuracy with no assumptions based on the distribution of the variables (Fornell and Cha, 1994), and (iii) it is very robust against multicollinearity (Cassel et al. 2000).

To assess the Structural Equation Modeling (SEM) paths, self-control and core self-evaluations were both loaded in the model as second factor order constructs with the purpose of getting the global picture of the model. Thereafter, components of those two latent constructs were also loaded in the SEM as first factor order constructs with the purpose of an in-depth analysis of the causal effects.

We preliminary computed the Goodness-of-Fit indexes (GoF) based on the explained variances of the latent dependent variables and their commonalities (see Tenenhaus et al. 2004). GoF was 0.38 for the adult sample and 0.34 for the student sample. These figures provide evidence that the proposed model exhibited a good fit to the data. Moreover, to ascertain that the parameter estimates in the SEM were stable and statistically significant, we used bootstrapping based on the 3000 re-samples. The overall results of the SEM are presented in Table 5 and summarized in Figures 2A and B.



**Figure 2A: Causal Path Results for Adult Sample**



**Figure 2B: Causal Path Results for Student Sample**

As predicted, students’ self-evaluations directly and negatively affect both impulse buying (H1) and compulsive buying (H3). Thorough analysis indicated that the “efficacious” factor of the CSES is the main component that drives the direct and negative effects. Consistent with the student sample, adults’ self-evaluations also directly and negatively affect impulse buying (H1) and compulsive buying (H3). Detailed analysis indicated that both components of self-evaluations influence compulsive buying but the “hopeless” dimension of CSE was shown to have the strongest negative effects. Additional analyses found

that, for adults, the “efficacious” dimension of CSES had the strongest negative impact on impulse buying.

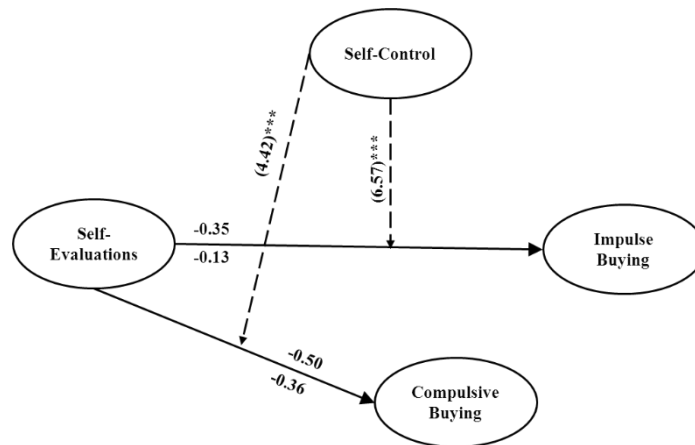
Contrary to our prediction, satisfaction with life appeared not to influence either impulse buying (H2) or compulsive buying (H4) in both samples. Moreover, the overall results confirmed in both samples that CSE is directly and positively related to self-control (H5). In-depth analysis indicated that the “efficacious” factor of the CSES is the strongest and positive predictor of adult self-control. In contrast, the “hopeless” dimension of the CSES is the strongest and positive predictor of student self-control. In support of H6, study results showed that self-control has a direct and positive impact on satisfaction with life in both samples. As predicted, self-control is also directly related to impulse buying (H7a) and compulsive buying (H7b) in both samples. Yet, thorough analysis of the student sample indicated that not all but only the “discipline” dimension of self-control directly and negatively influenced both impulse and compulsive buying. In contrast, all the components of adult self-control appeared to negatively influence impulse and compulsive buying.

**Table 5: Direct Relationship Paths Assessment for Both Adult and Student Samples**

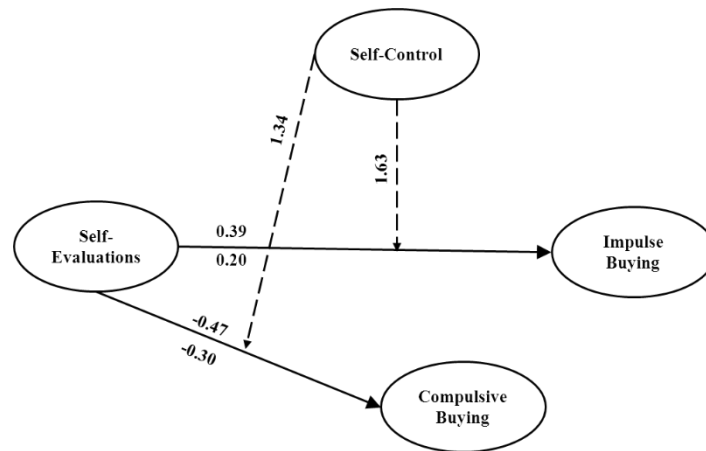
Hypothesis		ADULTS					STUDENTS				
		Path	SE <sup>a</sup>	T-value	P-value	Conclusion <sup>b</sup>	Path	SE <sup>a</sup>	T-value	P-Value	Conclusion <sup>b</sup>
<b>H1</b>	Self-Evaluation → Impulse Buying	-0.15	0.08	1.98	0.048	A*	-0.17	0.09	1.97	0.050	A*
<b>H2</b>	Satisfaction with Life → Impulse Buying	0.01	0.07	0.15	0.181	R	0.00	0.05	0.06	0.952	R
<b>H3</b>	Self-Evaluation → Compulsive Buying	-0.40	0.07	5.85	0.000	A***	-0.23	0.11	2.13	0.034	A*
<b>H4</b>	Satisfaction with Life → Compulsive Buying	0.04	0.07	0.54	0.554	R	-0.10	0.06	1.71	0.088	R
<b>H5</b>	Self-Evaluations → Self-Control	0.57	0.05	16.47	0.000	A***	0.40	0.17	2.42	0.039	A*
<b>H6</b>	Self-Control → Satisfaction with Life	0.36	0.05	7.75	0.000	A***	0.38	0.07	5.33	0.000	A***
<b>H7a</b>	Self-Control → Impulse Buying	-0.37	0.05	6.73	0.000	A***	0.39	0.08	6.08	0.000	A***
<b>H7b</b>	Self-Control → Compulsive Buying	-0.23	0.06	4.41	0.000	A***	0.34	0.07	5.06	0.000	A***

a: Standard Error; Significant at two tail: (\*) P-value < 0.05; (\*\*) P-value < 0.01 and (\*\*\*) P-value < 0.001; b: A= Accepted and R= Rejected

Finally, the mediating effects were assessed by means of Sobel testing since these tests can address mediation more directly than sequences of separate regression analysis tests that do not directly include the indirect effect in the mediation model (Preacher and Hayes, 2004). The computation results of the Sobel tests are presented in Table 6 and summarized in Figures 3A and B.



**Figure 3A: The Mediation Role of Self-Control: Sobel Test Results for Adult Sample**



**Figure 3B: The Mediation Role of Self-Control: Sobel Test Results for Student Sample**

The overall results for the adult sample showed that the relationship between core self-evaluations and impulse buying was partially mediated by self-control (H8). Given that the path coefficient between CSE and impulse buying was substantially reduced but remained significant. In contrast, the results of the student sample analysis showed the mediational role of self-control between the CSE and impulse buying was not supported. This was most likely due to the insufficient correlation between CSE and impulse buying. The

mediational role of self-control between CSE and compulsive buying (H9) was not supported as predicted for the student sample. In contrast, the results of the Sobel test for the adult sample indicated a positive mediation role for self-control between CSE and compulsive buying (H9). The direct effects, however, of CSE on compulsive buying remained significant and the path coefficient was reduced meaning there was only a partial mediation. Thus, H9 was rejected for the adult sample.

**Table 6: The Mediation Effects of Self-Control**

		ADULTS					STUDENTS				
Direct/Indirect Effects		Models <sup>a</sup> Results			Sobel tests		Models <sup>a</sup> Results			Sobel tests	
		Path	SE <sup>b</sup>	T-value	P-value	T-value	Path	SE <sup>b</sup>	T-value	P-value	T-value
<b>H8</b>	Self-Evaluation → Impulse Buying	-0.357	0.036	9.942	0.000	6.574	0.393	0.365	1.078	0.103	1.631
	Self-Evaluation → Impulse Buying	-0.136	0.054	2.500			0.209	0.138	1.514		
	Self-Evaluations → Self-Control	0.568	0.032	17.704			0.518	0.309	1.675		
	Self-Control → Impulse Buying	-0.368	0.052	7.142			0.353	0.050	7.039		
<b>H9</b>	Self-Evaluation → Compulsive Buying	-0.504	0.032	15.756	0.000	4.423	-0.477	0.206	2.312	0.178	1.346
	Self-Evaluation → Compulsive Buying	-0.369	0.042	8.810			-0.307	0.194	1.582		
	Self-Evaluations → Self-Control	0.567	0.034	16.785			-0.506	0.356	1.422		
	Self-Control → Compulsive Buying	-0.234	0.051	4.627			0.315	0.075	4.198		

a: two models are used. The first model assessed the direct path between the independent and the dependent variable. Thereafter, the mediator is included in the second model; b: Standard Error

## Discussion

Separately, an extensive body of literature exists on the topics of impulse buying, compulsive buying, and self-control. Little research, however, has looked at the interrelationships among the three constructs. Our research theoretically compares and contrasts impulse buying and compulsive buying. Further, we hypothesize and empirically demonstrate how the role of self-control differs between impulse buying and compulsive buying across different age cohorts. We also broaden the nomological net of the above variables by including the core self-evaluation and satisfaction with life constructs in the present analyses.

The decision to include two different age cohorts in the current study was justified by the nuanced results across the student and adult samples. A consistent finding across the two samples is that one's core self-evaluations, comprised of "hopeless" and "efficacious" dimensions, in the present study, were consistently (and negatively) associated with both impulse buying and compulsive buying. In the student sample, the efficacious dimension of the CSES was responsible for the negative relationships uncovered in the present analysis. As argued by Judge et al. (2013), self-efficacy shares a common core construct with locus of control and self-esteem that have both previously been found to be negatively associated with compulsive buying (Roberts, Manolis, and Pullig, 2014; Workman and Paper, 2010). It appears that a sense of efficacy is a key component in reducing the likelihood of yielding to the temptations to buy.

An interesting difference across the two samples is that the "hopeless" dimension of the CSES was the stronger driver of the negative influence of core-self evaluations on compulsive buying in the adult sample. In students, it is a sense of self-efficacy that determines the likelihood to impulsively or compulsively buy. It may be that adults use compulsive buying as a way to cope with a sense of inadequacy and a bleak future outlook. On the other end of the age spectrum, college students' compulsive and impulse buying can be better portrayed as a classic test of their ability to control their life choices.

Core self-evaluation was also found to positively impact self-control in both age cohorts. In the adult sample, the "efficacious" dimension of core self-evaluations was the strongest predictor of self-control while the "hopeless" dimension of CSES was the strongest predictor in the student sample. The above result regarding the adult sample is logical; a person who feels a sense of control over their life would be more likely to exercise self-control in their decision making and behavior. Results suggest that feelings of hopelessness were the best indicator of self-control in the student sample. A bleak outlook undermines a young person's ability (and/or desire) to exercise self-control in their daily activities.

Somewhat surprisingly, satisfaction with life was not associated with either compulsive or impulse buying across both samples. These findings lead us to question the motivation behind such consumer behaviors. Escape theory had previously been used to explain compulsive buying (Faber, 2004). The theory argues that consumers will turn to buying to block out the negative thoughts they hold about their lives. Our non-significant findings could be explained by the fact that most Americans are generally satisfied with their lives (Diener, 2013). It may be in coping with the everyday exigencies of life that people turn to impulse and compulsive buying despite being generally satisfied with their lives.

The present study found, across both the student and adult samples that those respondents who reported higher levels of self-control were found to be more satisfied with their lives than those reporting lower levels of self-control.



At its very core, self-control entails taking a longer-term perspective when making decisions. A person with high self-control forgoes smaller, more immediate rewards for longer-term, larger rewards which lead to higher levels of life satisfaction. The practice of self-control provides the strength needed to avoid the guilty pleasures and endure the grim necessities needed to live a productive and satisfying life.

The present study showed that the lack of self-control can have dire consequences in the consumer realm. As hypothesized, self-control was associated with impulse and compulsive buying across both samples. Both the “Action” and “Discipline” dimensions of self-control negatively influence impulse and compulsive buying. The relationship between self-control and impulse and compulsive buying was more nuanced for the student sample. Only the “action” dimension of self-control, which focused primarily on behavioral aspects of self-control (see items 4, 5, and 13 of the self-control scale in Appendix), was negatively associated with impulse and compulsive buying. Those students who expressed a propensity to act on their impulses, regardless of possible consequences, were more likely to buy in either a compulsive or impulsive manner.

Self-control was shown to partially mediate the CSE–impulse buying relationship for the adult sample but not in the student sample. Adult positive self-evaluation led to enhanced self-control which in turn reduced the incidence of impulse buying.

Self-control also exhibited a positive partial mediation between core self-evaluation and compulsive buying in the adult sample. One can safely conclude from the present study’s findings that self-control, in most cases, partially mediates the impact of CSE on both impulse buying and compulsive buying. The very essence of self-control (or lack thereof) is subsumed in the acts of impulse buying and compulsive buying. As the above results suggest, however, the relationships examined in the present study are nuanced within a given age cohort but also across age cohorts. The relationship between self-control, CSE and SWL and impulse buying and compulsive buying will only be fully understood when life stage is entered into the equation.

## **Study Implications**

The present study’s results provide support for Faber’s (2004) contention that impulse buying and compulsive buying are different and contribute insight into how to best address the negative outcomes associated with both. Impulse buying is generally a reaction to external stimuli that sets the stage for a battle between desire and will power (Hoch and Lowenstein 1991). The desire for a specific product is often missing for compulsive buyers. Restrictions on in-store displays, promotions, advertising, and other marketing efforts may mitigate impulse buying but fail to control compulsive buying.

Driven by a need to perpetuate a fantasy or to escape self-awareness, compulsive buyers are typically interested in the purchase process itself, not buying a specific item. Thus, measures designed to remove obvious temptation will likely be ineffective as treatments for compulsive buying. Compulsive buyers are more focused on the act or process of buying and the escape that it brings, and not on a desire to own specific goods (Faber, 2004; O'Guinn and Faber, 1989). For compulsive buyers, psychotherapy that deals with the underlying issues of the individual's sense of self would be more likely to have lasting results. Clinical research on compulsive buying tends to support this view as well (Black, 2001; 2007). As a result, a primary focus should be on diagnosis, intervention, and therapy in dealing with compulsive buying.

For impulse buying, desire reduction strategies (avoidance, postponement and distraction, and substitution) and willpower enhancement strategies (economic cost assessment, time binding, bundling of costs, higher authority, and psychic cost assessment) as proposed by Hoch and Loewenstein (1991) are more likely to be effective. These strategies force the buyer to actively consider long-term goals and manage desire versus willpower in a purchase. By strengthening the mediating power of self-control, the buyer can learn to resist many temptations.

In conclusion, the negative fallout from compulsive and impulse buying touches individuals, families, and society. The study of self-control is critical to understanding not only some of the more enigmatic aspects of consumer behavior, but also the larger issues that face society such as excessive alcohol consumption, illicit drug use, sexual infidelity, criminal behavior, and gambling. According to Baumeister and Heatherton (1996, p. 2), self-control failure is "the major pathology of the present time." It is incumbent on consumer behavior researchers not only to study how to encourage consumption but also to research the inevitable dysfunctional consumer behavior that results from such efforts.

## **Future Research Directions**

One key area for future research entails further delineation of the differences and similarities between impulse buying and compulsive buying. Are impulse buying and compulsive buying different levels of the same continuum as proposed by some researchers? If so, how does an individual move from impulse buying to compulsive buying? Or, in contrast to the continuum view, is compulsive buying rooted in psychopathology while impulse buying is merely a momentary lapse in willpower? Our research would appear to indicate the latter perspective; however, additional research is needed to fully support and explicate this view. This is particularly true given recent research findings that suggest impulse buying may be more of a function of personal characteristics than store environment (Bell, et al., 2011).

Given the need to fully understand the increasingly common “less rational” facets of consumer behavior, it is somewhat surprising that more research has not focused on the role self-control plays in impulse and compulsive buying. The current research makes a significant contribution to this cause. It appears that self-control is an important construct in understanding both impulse buying and compulsive buying – but in very different ways. More research is needed that investigates the efficacy of Escape Theory as an explanation for compulsive buying.

Research efforts that focus on the three ingredients of self-control (monitoring, ego-depletion, and conflicting standards) and their role in impulse and compulsive buying is encouraged. Although self-control has been linked to consumer outcomes on a theoretical level, until very recently, little research has attempted to empirically link self-control and consumer spending (Faber, 2004; Mansfield et al., 2003; Roberts and Manolis, 2012; Vohs and Faber, 2003; Vohs and Faber, 2007). Far too little is known about the extent of self-control problems while shopping (Baumeister, 2002).

## Appendix: List of Scale Items Used

<b>Compulsive Buying</b> (Faber and O’Guinn 1992)	
Cb1	If I have any money left at the end of the pay period, I just have to spend it. (R)
Cb2	Felt others would be horrified if they knew of my spending habits. (R)
Cb3	Bought things even though I couldn’t afford them. (R)
Cb4	Wrote a check when I knew I didn’t have enough money in the bank to cover it. (R)
Cb5	Bought myself something in order to make myself feel better. (R)
Cb6	Felt anxious or nervous on days I didn’t go shopping. (R)
Cb7	Made only the minimum payments on my credit cards. (R)
<b>Impulse Buying</b> (Rook and Fisher 1995)	
IB1	I often buy things spontaneously.
IB2	“Just do it” describes the way I buy things.
IB3	I often buy things without thinking.
IB4	“I see it, I buy it” describes me.
IB5	“Buy now, think it about it later” describes me.
IB6	Sometimes I feel like buying things on the spur of the moment.
IB7	I buy things according to how I feel at the moment.
IB8	I carefully plan most of my purchases. (R)
IB9	Sometimes I am a bit reckless about what I buy.
<b>Satisfaction with Life</b> (Diener et al. 1985)	
SWL1	In most ways, my life is close to my ideal.
SWL2	The conditions of my life are excellent.
SWL3	I am satisfied with my life.
SWL4	So far I have gotten the important things I want in life.
SWL5	If I could live my life over, I would change almost nothing.

<b>Self-Control</b> (Tangney et al. 2004)	
Sc1	I am good at resisting temptation.
Sc2	I have a hard time breaking bad habits. (R)
Sc3	I am lazy. (R)
Sc4	I say inappropriate things. (R)
Sc5	I do certain things that are bad for me, if they are fun. (R)
Sc6	I refuse things that are bad for me.
Sc7	I wish I had more self-discipline. (R)
Sc8	People would say that I have iron self-discipline.
Sc9	Pleasure and fun sometimes keep me from getting work done. (R)
Sc10	I have trouble concentrating. (R)
Sc11	I am able to work effectively toward long-term goals.
Sc12	Sometimes I can't stop myself from doing something, even if I know it is wrong. (R)
Sc13	I often act without thinking through all the alternatives. (R)
<b>Core Self-Evaluation Scale</b> (Judge et al. 2003)	
Cses1	I am confident I get the success I deserve in life.
Cses2	Sometimes I feel depressed. (R)
Cses3	When I try, I generally succeed.
Cses4	Sometimes when I fail I feel worthless. (R)
Cses5	I complete tasks successfully.
Cses6	Sometimes, I do not feel in control of my work. (R)
Cses7	Overall, I am satisfied with myself.
Cses8	I am filled with doubts about my competence. (R)
Cses9	I determine what will happen in my life.
Cses10	I do not feel in control of my success in my career. (R)
Cses11	I am capable of coping with most of my problems.
Cses12	There are times when things look pretty bleak and hopeless to me. (R)

(R) – Designates a reverse-coded item.

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