

**EXCESSIVE BUYING: THE CONSTRUCT AND
A CAUSAL MODEL**

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EXCESSIVE BUYING: THE CONSTRUCT AND A CAUSAL MODEL

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SUMMARY

This dissertation study attempts to understand excessive buying, a phenomenon of both theoretical and practical interest. I define excessive buying as "an individual type of buying behavior whereby consumers repetitively spend more than they should based on financial considerations". I develop a conceptual typology of excessive buying, building on the "time-inconsistent preferences" and automaticity theory. The new typology categorizes five specific types of excessive buying behavior: 1) habitual, 2) possessive, 3) remedial, 4) rewarding, and 5) out-of-control. Based on past literature and the typology, I generate scale items to capture the conceptual and logical variance in excessive buying. Psychometric properties of the scale are tested via Confirmatory Factor Analysis using a student and random adult sample. Nomological validity of the scale is confirmed by testing hypotheses formulated based on hedonic shopping values and the self-defeating behavior theory. The empirical analyses suggest that excessive buying results from stress, using shopping as an escape from reality, and little consideration for the potential outcomes of one's current behavior. Excessive buying leads to both financial problems and negative emotions.

CHAPTER 1

INTRODUCTION

For decades, the US economy has been growing on the back of consumer spending. Consumer spending as a percentage of Gross Domestic Product (GDP) has steadily increased since the 1970s, according to the US Bureau of Economic Analysis (BEA). The latest BEA statistics suggest that U.S. personal consumption expenditures have reached \$8.7 trillion in 2005, accounting for 70 percent of the GDP for the same year. In comparison, personal consumption expenditure was \$0.6 trillion back in 1970, 62.4 percent of the GDP. However, policymakers and marketing researchers have recently begun to view the continued increase in consumer spending with apprehension. Concerns have been raised that a growing number of American households are unable to keep up with their expenditures, resulting in a mounting level of consumer debt (e.g., O'Curry 2003; Zhang and DeVancy 1999).

Consumer debt in the US has been growing at an alarming rate in recent years. According to the Federal Reserve statistics, in April 2006, consumer credit outstanding has reached \$2.2 trillion (seasonally adjusted), 2.7 times the amount of April 1990 and 16.7 times the amount of April 1970. Consumers use credit to purchase not only merchandises for their own use but also assets with economic value, such as home equity and collectibles. Researchers further propose that the revolving component of consumer credit, 95 percent of which is generated by credit cards, is growing at an even faster rate (Durkin 2000). For example, the revolving component of consumer credit has amounted

to \$806.9 billion (seasonally adjusted) by April 2006, 3.7 and 200.2 times the amount of April 1990 and 1970, respectively.

More seriously, personal debt level has been so far beyond consumers' affordability that a surprisingly large number of US consumers are filing for bankruptcy. According to the Administrative Office of the US Courts, there were 1.66 million personal bankruptcies filed in the fiscal year 2003 alone. Since 1994 when filing totaled 837,797, personal bankruptcies have increased by 98 percent¹.

Many popular press articles suggest that excessive buying, consumers spending more than they can afford, is responsible for such increases in personal debt and the number of people filing for personal bankruptcy (e.g., Nader 2000). Furthermore, Danziger (2002) proposes that consumers who buy things they do not need are likely to incur financial problems; Warren and Tyagi (2003) suggest that even dual-income families might have to resort to filing bankruptcies if they cannot downshift their “fixed expenses”, such as housing mortgages and car payments.

Not only in the U.S., researchers in the UK and Germany have recently been concerned about the rise on excessive buying behaviors in developed economies (e.g., Dittmar 2005; Neuner, Raab and Reisch 2005). It is estimated that at least one to ten percent adults in Western developed economies have difficulty controlling shopping impulses (Dittmar 2005). Park and Burns (2005) find that even in countries where consumption is traditionally discouraged, such as in Korea, consumers have become to

¹ It should be noted, however, that the huge number of bankruptcy cases is in part attributed to the liberal regulations. Actually, personal bankruptcy figure in the US has begun to drop since the new law effective October 17, 2005. Compared to those of other countries, the US lawmakers are much more lenient toward debtors. For instance, the Islamic financing does not allow debt structure at all. Some countries especially in Asia and particular in India, farmers would commit suicide to escape personal debt due to limited options.

embrace western consumption culture wholeheartedly, leading to the prevalence of materialistic lifestyles and excessive buying behaviors. Due to its significant impact on individual consumers and society welfare and perhaps its contagious nature, excessive buying is attracting more research attention than ever.

Excessive buying has been of theoretical and practical interests to economists, marketing scholars, and psychologists (e.g., Sheth 1979; Romano 1991; Thaler 1994). Particularly, marketing researchers have conducted research on the drivers and consequences of similar behaviors such as impulsive buying, compulsive buying and time-inconsistent preferences (e.g., Rook 1987; O'Guinn and Faber 1989; Hoch and Loewenstein 1991). Nevertheless, academic research on excessive buying is limited, despite the fact that research in this area yields insights to help consumers better understand this behavior and avoid potentially detrimental consequences.

First, excessive buying has not been formally defined, which greatly hinders research progress in this field. Many scholars use the three terminologies “impulsive buying”, “compulsive buying”, and “excessive buying” interchangeably (e.g., Dittmar and Drury 2000), whereas others conceptualize excessive buying simply as spending beyond consumers’ income level (Boedecker 1999). In this dissertation, I argue that excessive buying is a unique construct. It is different from compulsive buying in the sense that excessive buyers are not necessarily pathologically ill. It is also different from impulsive buying to the extent that it happens on a regular basis. However, excessive buying does share some similarities with compulsive and impulsive buying. For instance, the three kinds of buying behaviors might all lead to personal financial crises.

I also propose that excessive buying should be defined subjectively (i.e., perception-based) as opposed to objectively (comparing to some “hard” data, such as personal income and debt information). Economists might argue against using perception-based measures in consumer studies, as they believe such measures are volatile and evasive. Nevertheless, I argue that, compared to objective measures, perception-based measures are better proxies of individuals' buying behavior, as they make purchases based on their perception (including expectations) rather than their actual income levels. In addition, two reasons lead me to preferring a perception-based definition of excessive buying: consumers repetitively spend more than they should based on financial considerations². First, a perception-based definition helps to rule out the influences of external factors (e.g., geographic locations, income expectations, and socioeconomic status) on consumers' buying behavior. For instance, individuals with higher income level generally spend more on clothes than those with lower income level. It is not how much consumers actually pay for clothes that we should worry. Rather, we should be concerned with whether they repetitively spend more than they should (given financial constraints) on clothes. Second, many consumers engage in budget planning or at least have a rough idea about how much they can afford for a product (e.g., Heath and Soll 1996; Thompson, Locander and Pollio 1990). From the perspective of marketing research design, a perception-based definition can be operationalized without infringe upon consumer financial privacy, making the research process feasible and efficient.

² Researchers might argue that an over-optimistic estimation of their ability to afford might lead consumers to buy excessively. However, most accounts of excessive buying indicate that consumers act against their long-term economic interest in full knowledge that they are doing so (e.g., Loewenstein 1996; Danziger 2002). In another word, consumers consciously know that they spend more than they should.

Second, due to a lack of definition, no instrument has been developed to measure excessive buying, making empirical investigation in this area impossible. I propose that a multi-item psychometric scale should better serve this end than “hard” data (e.g., statistics regarding consumers’ personal loan, mortgage, credit card, and personal debt information), since individuals are reluctant to directly reveal their financial privacy. However, it is acknowledged that self-report responses are vulnerable to such tendencies as wanting to appear consistent or to provide socially desirable answers (Bassili 1996). A psychometric scale to measure excessive buying will suffer from the same problems. Although using multiple items makes the scale less vulnerable to such threats compared to any single-item instrument, one should be careful when interpreting the results.

Third, researchers have offered several qualitative accounts to explain why consumers engage in excessive buying (e.g., Danziger 2002; Schor 2000), or buying behaviors with potential similar consequences, such as compulsive and impulsive buying (e.g., O’Guinn and Faber 1989; Rook 1987). Nevertheless, the narrative descriptions fall short of fully capturing the complexity of the occurrence of excessive buying. Recently, a few researchers attempt to enumerate a variety of antecedents of excessive buying using quantitative approaches (e.g., Karlsson 2003; Yurchisin and Johnson 2004; Roberts, Manolis and Tanner 2003); yet the theoretical explanations of why the antecedents are chosen are weak. In fact, diverse past research findings indicate that excessive buying can be triggered by both positive and negative motives. In this dissertation, I use hedonic shopping values and self-defeating behavior to explain how excessive buying occurs. In addition, Socially Desirable Responding (SDR) should be of particular concern in testing the relationships between excessive buying and its antecedents and consequences, as past

research finds that both compulsive and impulsive measures suffer from SDR (Mick 1996). I will use the impression management scale (Paulhus 1991) to control the impact of SDR on the proposed relationships.

The purpose of this dissertation is fourfold. First, I offer a conceptual definition of excessive buying. Building on the “time-inconsistent preferences” and automaticity theory, I specify that there are five types of excessive buying: 1) habitual, 2) out-of-control, 3) possessive, 4) remedial, and 5) rewarding excessive buying. By developing the conceptual typology, I am also able to demonstrate the relationship between excessive buying and similar constructs such as compulsive and impulsive buying. The second objective is to develop and validate a multi-item psychometric scale to measure excessive buying. I first generate a number of items to capture the conceptual and logical variance in excessive buying. Following DeVellis (1991, 2003) and Churchill (1979), I then purify the items using a student and a random adult sample. Psychometric properties (including reliability, convergent, discriminant, and nomological validity) of the 15-item excessive buying scale are eventually tested via Confirmatory Factor Analysis. Third, hypotheses regarding the antecedents and consequences of excessive buying are formulated based on hedonic shopping values and self-defeating behavior theory. Finally, I will empirically test the hypotheses and discuss the results supported by a student and a random adult sample.

Remainder of the dissertation is organized in the following order. In CHAPTER 2, past literature in related fields is critically reviewed. CHAPTER 3 provides a formal definition and conceptual typology of excessive buying. A psychometric scale of excessive buying is developed and validated in CHAPTER 4 by using a student and an

adult sample. In CHAPTER 5, I develop a nomological map for excessive buying and report empirical findings. I then conclude the dissertation with a discussion of the research findings, theoretical contributions, limitations, and directions for future research.

CHAPTER 2

LITERATURE REVIEW

Before discussing the nature, motivation, psychological mechanism, and consequences of excessive buying, it is helpful to review literature in related fields. Hoch and Loewenstein (1991) use the "time-inconsistent preference" theory³ to explain why individuals experience sudden increases in desire for a product and purchase the product at the expense of their long-term economic interest. I use this theory as a framework for my literature review. I also use this theory as a theoretic foundation to develop a typology of excessive buying in the next chapter.

According to the "time-inconsistent preference" theory, two factors influence individuals' decision to buy without regard to their long-term economic interest: desire and willpower. The desire factor explains individuals' motivation to engage in such behavior. Willpower in the original paper is conceptualized as the tactics individuals use to overcome buying impatience (Hoch and Loewenstein 1991). Based on recent findings in self-control literature, willpower should be more broadly defined as individuals' ability to control buying impatience. The ability includes two components, the tactics and intrinsic resources that individuals use to thwart unreasonable buying impulses.

The following literature review consists of three sections. The compulsive and impulsive buying literature will be reviewed in the first two sections. These two sections address the question how strong desires can motivate individuals to buy things not

³ To avoid repetition, I review this theory more in detail in the next chapter.

affordable or planned. In the third section, I review the self-control literature, which explains when and why willpower fails to function, leading to excessive purchases.

2.1 Review of Compulsive Buying Literature

Compulsive buying is defined as “one of 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.” (O’Guinn and Faber, 1989). Compulsive buying is a buying addiction, arising from psychosocial phenomena such as generalized feelings of alienation and the weakening of self-esteem. Compulsive buying is some individuals' natural response to negative emotions and reduced self-esteem. Providing an escape from the reality, compulsive buying is used to protect individuals' self-image or remedy negative emotions (Faber 2004). In the language of the "time-inconsistent preference" theory, stress, or negative emotions, or reduced self-esteem induces a desire reference point shift such that individuals feel deprived if they do not make purchases. Consequently, they are compelled to buy no matter what financial problems they will encounter in the future.

Valence, d’Astous, and Frontier (1988) conclude that compulsive buyers share some common characteristics: a) a high propensity to spend, b) making purchases activated by psychological tension (i.e., a reactive aspect), and c) post-purchase guilt. In addition, many compulsive buyers trace their problem to family histories. Current definition categorizes compulsive buying into the realm of abnormal behavior (d’Astous 1990). It is estimated that compulsive buyers comprise 10 percent (or even more) of the U.S. population, (e.g., Faber and O’Guinn 1992).

The primary motivation for compulsive buying is the alleviation of anxiety or tension through changes in arousal level or enhanced self-esteem, rather than the desire for material acquisition (O'Guinn and Faber, 1989). The buying process itself is very important to the compulsive buyers, since it facilitates positive social interaction such that consumers' self-esteem is enhanced. In addition, shopping might uplift consumers' emotions (Faber and O'Guinn 1992).

The antecedents of compulsive buying can be summarized into two groups, individual factors and situational factors. Individual factors include the compulsivity trait (e.g., Faber and O'Guinn 1988), lower self-esteem (e.g., Valence et al. 1998), ability to fantasize (e.g., Jacobs 1986), anxiety (e.g., Valence et al. 1988), attitude toward shopping (e.g., Faber and O'Guinn 1988), gender (e.g., Roberts 1998), age (e.g., d'Astous 1990), perceived social status associated with buying (e.g., d'Astous 1990), fashion orientation (Park and Burns 2005), and materialism as a value (e.g., Rindfleisch, Burroughs, and Denton 1997; Roberts et al. 2003). Situational factors include television viewing (e.g., Faber and O'Guinn 1988; Roberts 1998), family structure (e.g., Rindfleisch et al., 1997), credit card use (e.g., d'Astous 1990), and peer pressure (e.g., Roberts 1998).

Several research problems need further investigation. First, it is inappropriate to explain the behavioral differences between self-identified compulsive buyers and general population by using the personality trait of compulsivity. Actually, compulsive buying is a reflection of compulsivity in the specific context of consumption. Second, although significant relationships have been found between compulsive buying and demographic variables, such as gender and age, only anecdotal evidence rather than theoretical explanation has been given to account for those relationships. Instead, these variables

should be treated as covariates (e.g., O'Guinn and Faber 1989). Third, variables like television viewing, credit card use, and peer pressure might facilitate all kinds of buying behavior, including compulsive buying. The "special" links between compulsive buying and these variables are missing.

Several studies have demonstrated that dreadful economic and emotional consequences could occur to compulsive buyers (e.g., O'Guinn and Faber 1989; Faber and O'Guinn 1992; Roberts 1998). Compulsive buyers repetitively buy things they don't need or of no use. At the simplest level, the compulsive population develops more reliance on credit cards (e.g., Roberts 1998). They usually have more bank credit cards than general population and pay fewer of them in full each month. If the levels of debt load of both populations are compared, it is found that a larger portion of take home pay of compulsive buyers goes to pay for debts each month. In extreme cases, compulsive buyers cannot depress shopping temptations even when they are fully aware of the fact that they are broke.

Compulsive buying can lead to negative emotions as well. It is common for compulsive buyers to develop feelings of shame or guilt after their purchase. More seriously, compulsive buyers develop the feeling of frustration: they find themselves unable to control their own behaviors (e.g., O'Guinn and Faber 1989). Compulsive buyers describe not being able to stop purchasing as extraordinarily frightening and impossible for others to fully understand. In addition, feelings of alienation, legal problems, and marital difficulties are thought to be consequences of compulsive buying as well.

Summary of compulsive buying literature. Research on compulsive buying has attracted much attention since the early 1980s. Compulsive buying is an uncontrollable

response to stress and negative emotions. The link between reduced self-esteem and compulsive buying has also been elaborated theoretically and demonstrated empirically. Compulsive buying is an inappropriate buying behavior with severe economic and affective consequences. Literature on compulsive buying has remarkably improved our understanding on underlying mechanisms leading individuals to buying products beyond their affordability. However, as implied by the definition, pathological illness has to be present for compulsive buying to occur, which excludes majority of the general population (of the US or other developed economies) from being examined and thus limits the practical implications of compulsive buying research. In addition, some proposed relationships between the antecedents and compulsive buying need further discretion.

2.2 Review of Impulsive Buying Literature

For a long time, impulsive buying was the synonym of "unplanned purchasing", individuals lacking of a salient purchase goal (Stern 1962). Studies inspired by such definition emphasize the roles played by products rather than by consumers in motivating impulse purchases (Hausman 2000). Since the early 1980s, researchers have been re-examining impulsive buying and begun to explore its behavioral component (Hausman 2000).

Most recently, researchers appear to agree that impulsive buying involves a hedonic or affective component (e.g., Rook, 1987; Rook and Fisher 1995; Peck and Childers 2006). Rook (1987) proposes that the term impulsive buying refers to a narrower and more specific range of phenomena than "unplanned purchasing" does. "Impulsive buying is a consumer's tendency to buy spontaneously, unreflectively, immediately and

kinetically. Their thinking is likely to be unreflective, prompted by physical proximity to a desired product, dominated by emotional attraction to it, and absorbed by the promise of immediate gratification” (Rook and Fisher 1995). Impulsive buying is a psychologically distinctive type of behavior dramatically different from contemplative modes of consumer choice. Impulsive buying is reported to satisfy consumers’ hedonic desires, including fun, novelty and surprise. Meanwhile, emotional support needs may also be satisfied by the social interaction inherent in the shopping experience (e.g., Rook, 1987; Hausman, 2000).

According to Rook and Fisher's definition, impulsive buying is primarily a response to physical or sensory proximity and positive emotions. For example, when consumers see products vividly displayed in front of them, they cannot resist the temptation to buy the product. Another example would be when consumers were in a good mood, they would buy products or services to maintain and prolong that good feeling although they originally didn't have a purchasing plan. In both cases, consumers' desire reference-points have been shifted by increasing physical or sensory proximity and positive emotions (Hoch and Loewenstein 1991; Loewenstein 1996).

Rook and Hoch (1985) identify five crucial elements that distinguish impulsive from non-impulsive consumer behavior. First, impulsive buying involves a sudden and spontaneous desire to act. The rapid change in psychological state fits well with neurophysiological representations, where an impulse is defined as a wave of active change continuing along a nerve fiber. Second, the sudden urge to buy on impulse throws the consumer into a psychological disequilibrium, leading the individual to a temporary loss of control. The third element involves psychological conflict and struggle. The

fourth distinguishing aspect of impulsive buying involves the reduction of consumers' cognitive evaluation of product attributes. Finally, people usually make impulsive purchases without regard to the consequences.

Antecedents of impulsive buying can be summarized into product, individual, and situational factors. Early research on impulsive buying is product-oriented and impulsive buying is widely discussed in terms of which products are or are not impulse items (e.g., Bellenger, Robertson, and Hirschman 1978). Products meeting following criteria tend to be more frequently purchased on impulse, low price, low marginal need for the item, mass distribution, self-service, mass advertising, prominent store display, short product life, small size and ease of storage (e.g. D'Antoni Jr and Shenson 1973). Individual factors include buying impulsiveness (e.g., Rook and Fisher 1995), in-store browsing (e.g., Bloch, Sherrell, and Ridgway 1986), shopping enjoyment (e.g., Beatty and Ferrell 1998), positive affect (e.g., Beatty and Ferrell 1998), independent self-concept (Kacen and Lee 2002), and need for touch (Peck and Childers 2006). Situational factor includes time available (e.g., Thompson et al. 1990) and money available (Beatty and Ferrell 1998). Additionally, Rook and Fisher (1995) suggest that individuals' normative evaluations (i.e., judgments about the appropriateness of engaging in impulse buying behavior) moderate the relationship between the impulse buying trait and impulsive buying behavior.

Little academic discussion has focused on the possible consequences of impulsive buying. Rook (1987) implies that daily impulsive buying results in unambiguous negative consequences, such as financial problems, disappointment with one's inability to control,

and feeling guilty. Nevertheless, a considerable number of consumers do not think impulsive buying as a problem.

People have been studying impulsive buying for more than 60 years, yet the following problems remain unsolved. First, a new definition is needed. Impulsive buying is traditionally defined as “unplanned buying”, whereas Rook (1987) describes it as an irresistible buying urge. Rook’s definition is difficult to be operationalized and confuses with the current definition of compulsive buying, which explains why many researchers use the two terminologies interchangeably. Second, using the personality trait, impulsivity, to explain most variance in impulsive buying is inappropriate, since impulsive buying is a reflection of impulsivity in the specific context of consumption. Third, motivation of impulsive buying is not fully understood. No theoretical explanation has been provided to explain how hedonic desires turn into “irresistible” buying urges.

Summary of impulsive buying literature. Impulsive buying research explains why individuals engage in purchases originally not planned. Impulsive buying can be occasionally triggered by physical or sensory proximity or more consistently by individuals' prior positive affections. Impulsive buying literature illuminates our understanding of excessive buying in the sense that buying something not planned can be conceptualized as a special form of excessive buying where a consumer sets a "zero" budget for a product but buys the product anyway. However, on the other hand, not all impulsive buying behaviors are specific types of excessive buying. First, such behavior might not happen on a regular basis. Second, such purchases might still fall into a consumer’s mental budget.

2.3 Review of Self-Control Literature

2.3.1 Economics Literature

Self-control has long been recognized as an important determinant of consumption in economics (e.g., Thaler and Shefrin 1981; O'Donoghue and Rabin 1999; Gul and Pesendorfer 2004). This stream of research is an extension to Friedman's Permanent-Income and Modigliani & Brumberg's Life-Cycle hypothesis.

The central idea of the permanent-income hypothesis is that: people base consumption on what they consider their "normal" income. In doing so, people attempt to maintain a fairly constant standard of living even though their incomes may fluctuate over time. As a result, increases and decreases in income that people see as temporary will have little effect on their consumption spending. The idea behind is that consumption depends on what people expect to earn over a certain period of time, saving during high-income periods and borrowing during low-income periods.

Similarly, the life-cycle hypothesis defines individual behavior as an attempt to smooth out consumption patterns over one's lifetime, independent of current levels of income. This model proposes that early in one's life, consumption expenditure may well exceed income as the individuals may be making major purchases related to buying a new home, starting a family, and beginning a career. At this stage of life, the individual will borrow from the future to support these expenditure needs. In mid-life, the expenditure levels off and is exceeded by increase in income. Also during this stage, the individual repays past borrowings and starts saving for his/her retirement. Upon retirement, one's expenditure decreases while one's income decreases more dramatically. During this stage, the individual lives on his/her past savings until death.

In addition to the unrealistic assumption of rationality and fungibility, self-control problems have been proposed as a major critique of the two hypotheses (Thaler 1994). According to Thaler, self-control problems impair the hypotheses in two ways. First, self-control failures prevent households from saving enough for their retirement. Second, since it is easier to save in some situations than others (e.g., people find it easier to save from “lump-sum” payments than from “regular income”), self-control problems can distort consumers’ actual behavior from that predicted by the hypotheses.

To remedy the hypotheses, economics researchers use a variety of dual-self models to explain how individuals make consumption decisions. Generally, a dual-self model assumes an individual to be both a farsighted planner (i.e., maximizing one’s utility under income constraints) and a myopic doer (i.e., easily tempted by immediate rewards). Self-control is conceptualized as “impatience” and measured by “the difference between the most preferred allocation (allocation of expenditure to maximize one’s utility), and the allocation that would be chosen in practice” (Ameriks et al. 2004). A new consumption equilibrium is reached after self-control is added as a constraint to classical consumption functions. Two major findings stand out: 1) self-control failures lead to over-consumption; and 2) there is a robust relationship between self-control and the level of net worth. Although the economic approach is not the focus of this paper, mathematic models provide us with sufficient empirical support that self-control is an important determinant of consumption.

2.3.2 Traditional Psychology and Marketing Literature

Besides economists, researchers in marketing and psychology have also realized the significant impact of self-control on excessive buying (e.g., Rook 1987; Thompson et al 1990; Hirschman 1992; Baumeister 2002).

Rook (1987) reports that some consumers find themselves losing control when confronted with irresistible impulses and end up making excessive purchases. Thompson et al. (1990) find that married women shoppers sometimes experience self-control failures when caught up in certain situations (e.g., when something is on sale or when receiving nice compliments from a sales person). Based on personal interviews, both studies provide vivid descriptions of situations where consumers' self-control are undermined, which offers qualitative evidence that self-control may have huge influence on impulsive buying.

Hirschman (1992) extends the desire-willpower framework of Hoch and Loewenstein (1991) to the realm of compulsive consumption. She believes that this framework is appropriate for understanding both the distressed and sociopathic type of addictive-excessive behavior.

The distressed consumers are often plagued by feelings of self-doubt, incompetence, and personal inadequacy. Their imminent desire is not associated with seeking for hedonic pleasure, but with the reduction of emotional distress, which can be explained by self-regulatory focus theory. This theory defines goals as "representational structures that guide the system in its pursuit of a reference or end state" (Markman and Brendl 2000, P98). When the end state is positive and desired, individuals have an approach goal; when the end state is negative and undesired, individuals have an

avoidance goal (Higgins 1997; Aaker and Lee 2001). Research on self-regulatory focus also describes the ways through which the two types of goals might be achieved: a desired end state may be achieved by maximizing the presence or minimizing the absence of positive outcomes; an undesired end state may be achieved by minimizing the presence or maximizing the absence of negative outcomes (Aaker and Lee 2001). For excessive buyers, an avoidance goal is activated among consumers who do not want to be plagued with negative emotions or stress any more. To achieve the goal, consumers will engage in compulsive behavior so that one's emotions might be repaired (i.e., strategy that minimizes the presence of a negative outcome). Consumers will also attempt to establish boundaries around the use of self-medications to prevent abuse. However, two processes may cause the boundaries to collapse and the self-medication become uncontrollable. One of such processes is that consumers' emotions might worsen as a result of events not connected to their compulsive behavior (e.g., loss of a family member). This may lead the consumers to returning to their self-medication much more frequently than they should have, until an out-of-control level is reached. The second process is when the compulsive activity itself leads to negative emotional responses and consumers have to turn to heavier dose of self-medication, until an out-of-control level is reached. The sociopathic consumers are characterized by strong irresistible impulsive drives and have a strong desire for immediate sensory gratification. They are also more sensitive about being deprived of sought-after pleasures. These consumers employ self-control strategies discussed in Hoch and Loewenstein's paper to impose consistency on inconsistent behavior, such as excessive buying.

Based on the desire-willpower framework, Hirschman (1992) constructs a general theory of compulsive consumption and recognizes the importance of self-control strategies as a possible medication for addictive consumption. Nevertheless, the theory is largely silent about the nature of self-control and the mechanisms of self-control failure.

2.3.3. Most Recent Literature

In two review papers, psychologist Baumeister (2002, 2003) and his colleague define self-control as “the self’s ability to alter its own states and responses” and impulsive behavior as “behavior that is not regulated and that results from an unplanned, spontaneous impulse”. Baumeister and his colleagues do not agree with prior researchers’ claim that consumers engage in impulsive buying because of their irresistible impulses (e.g., Thompson et al. 1990; Rook 1987) . Rather, they believe that most claims of irresistible impulses are a matter of rationalization (i.e., by using various reasons, consumers persuade themselves into yielding to the temptations) instead of genuinely being helpless against strong desires. Baumeister (2002, 2003) argues that the ability to resist the impulses depends on one’s capacity for self-control and therefore it is important to understand the causes of self-control failures.

According to Baumeister, effective self-control is determined by three major ingredients. The three ingredients are standards, a monitoring process and the operational capacity to change one’s behavior. Failure of any of these ingredients leads to a self-control failure.

The first ingredient is "standards". Standards refer to “goals, ideals, norms, and other guidelines that specify the desired response”. Of course, no self-control is needed if one does not want a change. Impulsive buying is less likely to occur among consumers

who know exactly what they look for. Such consumers, in general, are probably less vulnerable to influences from sales personnel, advertisements, etc. On the other hand, uncertainty or conflicts in goals tend to make people more susceptible to loss of self-control. It is recently found that an expense that can be assigned to more than one account (i.e., an ambiguous expense) is more likely to be incurred than an unambiguous expense that is constrained either by existing budgets or by previously constructed accounts (Cheema and Soman 2006).

Very often individuals may have goals that oppose a particular indulgence. Such situation may accurately reflect the condition of many shoppers. For example, although they want to save money on one hand, consumers want to buy something to make themselves happy on the other hand. Quite often, emotional distress may shift the balance in favor of making the purchase, which implies that people who are emotionally upset may be more likely to cast the self-control of being prudent away in the hope that purchasing goods or services will make them feel better.

The second ingredient is the process of monitoring, keeping track of the relevant behavior. Baumeister argues that self-control is undermined when people fail to keep track of their behavior. In the consumer behavior context, impulsive purchases are less likely to occur when people keep careful track of their money and expenditures. This ingredient also explains why some consumers decide to buy on time of high interest rates. This is probably because they fail to calculate how much they will end up paying rather than because they are willing to pay the high price.

The account of the first two ingredients of self-control corresponds to the mental budgeting theory based on mental accounting literature. Heath and Soll (1996) suggest

that consumers set budgets for various expenses, such as expenses of household purchases, entertainment, clothing, or food (e.g., Thaler and Shefrin 1985). As they spend money, they assign their expenses to corresponding accounts and keep track of how much money is left in each account. When a specific budget is depleted, they refuse to spend more money on that account so that excessive buying would not be possible. Particularly, setting a budget and tracking expenses are conceived as two self-control mechanisms to make this process possible. Setting a budget is the operationalization of “standards” in a shopping setting, while tracking expenses is exactly the same as “monitoring”.

The third ingredient of self-control is the capacity to alter the self, which serves as the physical base of self-control. Without this third ingredient, self-control is never possible. A crucial question is how the self produces changes in its responses, such as restraining impulses and overriding incipient responses. Three main types of theories are offered to answer the question. They are strength, cognitive and skill models. A series of experiments has provided consistent support for the strength model rather than the cognitive or skill models (e.g., Muraven and Baumeister 2000; Muraven and Slessareva 2003). The strength model proposes that, to successfully control oneself, individuals must employ some kind of strength or energy resource that matches or surpasses the power of impulses. Therefore, some crucial resource within the self will be depleted after any self-control action, and the depleted resource is no longer available to help the person on subsequent self-control tasks. The term, “ego-depletion” is used to indicate that the self’s resources has been depleted. The resources operate in the same way as an energy or strength: they not only will be exhausted in short term and get replenished after rest, but also seem to be able to grow stronger through regular exercise. In the context of

consumer behavior, people in a state of ego depletion are less likely to resist temptation and tend to buy impulsively. It will be more difficult for them to regulate their behavior toward their long-term goals of saving money and purchasing only things that will be of maximum advantage in the long run.

In addition to the capacity view, Baumeister (2002) suggests that self-control can be conceptualized as a personality trait as well. The trait reflects the differences among people in terms of suppressing their immediate desires and committing to their long-term goals. Lately, a trait self-control scale has been developed by Tangney, Baumeister, and Boone (2004) and it is consistent with the view that self-control is a highly adaptive capacity that offers a variety of benefits on the individual.

The review papers by Baumeister (2002, 2003) and his colleague contribute to the consumer behavior literature in three aspects. First, the nature and characteristics of self-control is understood. Self-control can be conceptualized both as a capacity to change the self and a personality trait and self-control is highly adaptive both as a capacity and personality trait. Second, the mechanisms of self-control failure are proposed. Self-control failure can be attributed to three ingredients- standards, monitoring and the capacity to change. Third, impulsive buying can be attributed to the undermining of self-control rather than to so-called “irresistible impulses”. Nevertheless, more empirical evidence is needed to validate this theory in a consumer behavior context. Recently, some researchers have made efforts toward this end.

Mansfield et al. (2003) conceptualize self-control as a personality trait and find significant difference in numbers of credit card possessed between college students with high and low self-control scores. Vohs and Faber (2004) report that self-control process is

implicated in consumer decisions, such that when self-control capacity is depleted, consumers tend to make unwise consumption decisions.

Summary of self-control literature. Self-control can help individuals to overcome buying impatience. Recent self-control literature identifies the three conditions under which willpower fail to function, resulting in excessive buying.

CHAPTER 3

DEFINITION AND TYPOLOGY

3.1 Definition of Excessive Buying

An important factor that hinders research progress in the area of excessive buying is a lack of a clear definition. Danziger (2002) describes excessive buying as buying things people do not need. Schor (1998) finds that many American consumers continually compare their lifestyles and possessions to those of a selected group of people whom they admire and want to be like, resulting in millions of “overspent” Americans. Marketing researchers have been examining the phenomena of impulsive and compulsive buying, both behaviors sharing similar consequences with excessive buying (i.e., economic and emotional consequences) (e.g., O’Guinn and Faber 1989; Roberts 1998; Rook 1987). An emerging theme from previous work is that excessive buying is a purchasing behavior whereby consumers continually spend more than they can afford, leading to devastating economic and emotional consequences. Based on the above observations, I define excessive buying as “an *individual* type of buying behavior whereby consumers *repetitively* spend more than they should based on financial considerations”. Section 3.2.3 presents a discussion about how this behavior shares similarity with and differs from impulsive and compulsive buying behavior.

A first challenge to define the construct lies in determining whether the adjective, “excessive”, should be defined subjectively (i.e., perception-based) or objectively (comparing to “hard data”, e.g., personal debt information). Two reasons lead me to define excessive buying as a perception-based as opposed to an “objective criteria” (i.e.,

comparing to “hard data”)-based construct. First, a perception-based definition rules out the influence of external factors (e.g., socioeconomic status and geographic locations) on consumers’ buying behavior. For instance, buying a \$50K Mercedes sedan may be excessive buying for a person with a \$40K annual income, whereas it is not necessarily excessive buying for another person with a \$120K annual income. Second, many consumers engage in budgeting or at least have a rough idea about how much money they can afford for specific products (Heath and Soll 1996). In terms of measurement, a perception-based definition can be easily operationalized by a psychometric scale. Using a psychometric scale reduces some of the measurement problems related to use of “hard data”. For instance, since consumers have different budgets for different product categories, obtaining valid “hard data” on excessive buying is difficult, if not impossible. In addition, people are more willing to provide answers to a psychometric scale, which does not infringe upon consumers’ financial privacy. However, one downside of a psychometric scale is that respondents’ answers may not be accurate due to social response biases.

A second challenge of defining the construct pertains to determining the perception-based standard against which excessive behavior is compared. In addition to "financial consideration", alternative examples of such standards could be the number of shopping trips, the time spent on shopping or buying (Faber 2004), the amount spent on purchases compared with significant others. "Financial consideration" standard is preferred over other alternatives because it emphasizes the potential negative economic consequences of excessive buying and thus strengthens the practical implications of this dissertation research. In comparison, excessive number of shopping trips does not

necessarily imply any financial embarrassment for an individual, as she/he can have numerous window shopping trips without any purchases.

The “individual” element suggests that the construct is operationalized and measured at the individual level. It is acknowledged that excessive buying behaviors can occur at the household level. I conceptualize household buying behavior as a summation of individual buying behaviors. The “repetitive” element characterizes excessive buying by overspending on a regular basis, similar to compulsive buying. It also suggests that individuals engage in excessive buying as a result of same or similar stimuli.

3.2 Conceptual Typology of Excessive Buying

Excessive buying is often understood and operationalized as a uni-dimensional construct. Nevertheless, previous literature in popular press indicates that there are different types of excessive buying (e.g., Danziger 2002; Schor 1998). Danziger (2002) argues that consumers need a reason to buy things they do not need. Among somewhat overlapping justifiers Danziger offers, social connection, spiritual connection with God, and emotional satisfaction are important motivators. Schor (1998) attributes Americans’ obsession with shopping to the fact that consumers always compare their own positions to those of wealthier people. The compulsive and impulsive buying literature also suggests that a variety of factors, such as negative emotions and proximity, lead consumers to yielding to immediate gratification and giving up their long-term economic goals. I believe that the qualitative accounts imply an underlying structure of excessive buying that taps the dynamics of emotional and cognitive motives. In the following section, the “time-inconsistent preferences” theory is used to synthesize past literature, explore different types of excessive buying, and differentiate excessive buying from

impulsive and compulsive buying. Bargh's automaticity theory is later discussed to explain how excessive buying might be a result of unconscious mental processes as well.

A time-inconsistent preference is "one that would not have been made if it had been contemplated from a removed, dispassionate perspective" (Hoch and Loewenstein 1991). Put simply, a time-inconsistent preference is a choice decision made against one's long-term interests. The time-inconsistent preferences theory is chosen as an integrating framework for two reasons.

First, excessive buying can be conceptualized as a special case of time-inconsistent preference since excessive buyers repetitively spend more than they can afford, acting against their long-term economic and potential emotional interests. The time-inconsistent theory aims to bridge the gap between the perceived self-interests and observed behaviors (Loewenstein 1996), fitting nicely with this research. Second, time-inconsistent preference theory has been applied to explaining a wide range of consumer behaviors in which consumers are unable to delay gratification and jeopardize long-term self-interests, such as impulsive buying (Vohs and Faber 2004). Thus, using this theory as the integrating framework helps to differentiate excessive buying from impulsive and compulsive buying. Revisions and extensions are made to this theory based on more recent research findings. Figure 1 outlines the theoretical framework, implying that excessive buying can be both conscious and automatic.

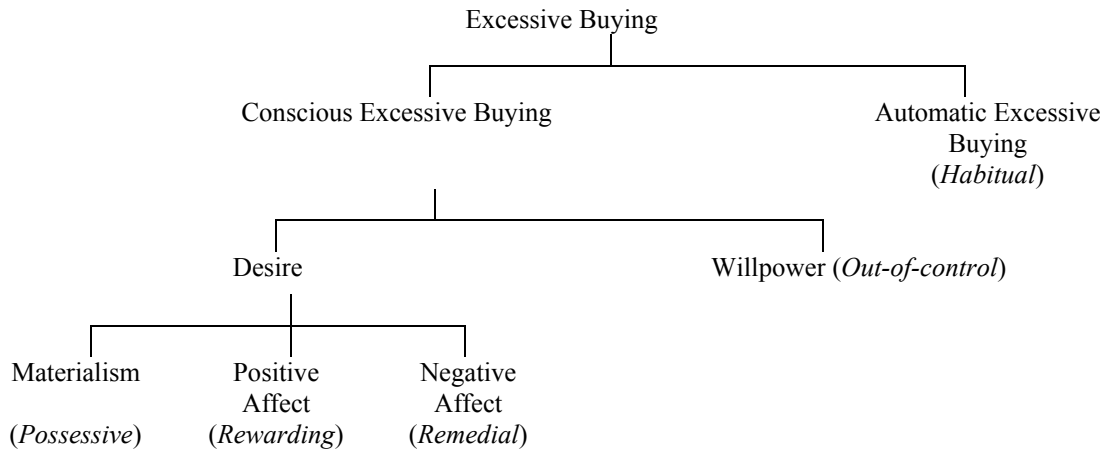


Figure 1 Conceptual Typology of Excessive Buying

3.2.1 Excessive Buying as a Conscious Behavior

Hoch and Loewenstein (1991) conceptualize time-inconsistent preference as a result of two separate mechanisms, desire and self-control. In the context of current research, consumers involve themselves in excessive buying either as a result of strong desire or self-control failure.

3.2.1.1 Excessive Buying as a Result of Strong Desire

According to the time-inconsistent preferences theory, a consumer's desire to own an object is a summation of: a) the satisfaction that a consumer derives from owning the object (with a value function slope α) and, b) the deprivation that a consumer derives from not owning the object (with a value function slope β), that is,

$$\text{Desire} = D1(\alpha) + D2(\beta)$$

β is zero when the consumer is in a no-adaptation case (not imagining oneself possessing the object), where a consumer derives satisfaction only from owning an object based on his/her long-term interests. Hoch and Loewenstein (1991) argue that sometimes

β is so large that a consumer cannot resist the temptation to buy, although it is against his or her long-term interests. Deprivation, induced by adaptation (imagine oneself possessing the object), intensifies the desire and motivation to purchase. The desire hypothesis explains why individuals engage in excessive buying. The thought of not owning a product makes them so uneasy that they have to buy it even though they cannot afford it. Under such circumstances, consumers' desire reference point has shifted from no-adaptation to adaptation.

Several types of factors are responsible for reference point shifts, materialism value, proximity, positive affect, and negative affect (Loewenstein 1996; Hoch and Loewenstein 1991). Due to the "repetitive" characteristic of excessive buying, I am more interested in how materialism value, positive and negative emotions change consumers' desire reference points, whereas the impact of proximity is often product or environment dependent.

Materialism is a central value in contemporary American consumption culture. It is conceptualized as a value that individuals place on their worldly possessions (Richins and Dawson 1992). People holding strong material values place possessions and their acquisitions at the center of their lives. Possessions are perceived as sources of happiness and are used to judge one's successes against others'. A high level of material consumption in itself serves as a goal and an everyday priority for materialists. Possessions and their acquisitions are preferred over other life goals in materialists' daily pursuit (Fromm 1976; Richins and Dawson 1992). When materialists come across purchasing decisions, their perceived urgency of want for products/services intensifies the desire to acquire and possess, like a "fever that consumes all the potential energy it

can get access to" (Csikszentmihalyi and Rochberg-Halton 1981). Under such circumstances, consumers' desire reference points are shifted from non-adaptation to adaptation, whereas other life goals such as maintaining financially sound positions are pushed into the background.

Materialism can alter individuals' desire reference point through a second mechanism as well. Aspiring for financial success is an important aspect of American culture (Kasser and Ryan 1993), especially for materialists. Procurable monetary wealth determines their success and happiness. Free access to education and self-development opportunities lead most Americans to primarily viewing social class standing in terms of upward mobility. Consequently, materialists constantly make "upward" monetary possession comparisons. "People faced with an adverse social comparison want what their more fortunate peers already possess, and they do not want to wait" (Hoch and Loewenstein 1991). When individuals feel that a product may win admiration or status for them, they cannot resist the temptation to buy even at the expense of their long-term economic interests. I refer to excessive buying behavior driven by materialism value as "*possessive excessive buying*".

The impact of *positive affect* on reference point change is well documented (e.g., Rook and Gardner 1993, Vohs and Faber 2004). For example, Rook and Gardner (1993) find that 85 percent of their survey responses indicate that a positive emotion will be more conducive to excessive purchases. Respondents feel that positive emotions abet unconstrained feeling and higher energy levels. In order to prolong the positive feelings, people have stronger needs to reward themselves and bias their evaluations of surrounding objects toward an emotion-congruent direction, implying that potential

purchase objects are more attractive (Vohs and Faber 2004). As a result, people might engage in excessive buying, since the thought of not being able to reward themselves is rather depressing. I refer to excessive buying behavior driven by positive emotions as “*rewarding excessive buying*”.

Another factor that enhances the likelihood of desire reference-point shift and excessive buying is *negative affect* (e.g., O'Guinn and Faber 1989, Hirschman 1992). Successful consumption experience seems extremely desirable to consumers in negative emotions, as the perceived benefits are primarily psychological and free consumers from any immediate purpose (Lancy 1980). The psychological benefits could act as a buffer against affective cost of negative emotions, leaving consumers totally absorbed in consumption experiences and indulged in a fantastic escape from reality (Mathwick, Malhotra, and Rogdon 2001). Shopping and consumption are effective coping strategies to minimize the presence of negative emotions and alleviate consumers' emotional responses (Lazarus 1999). Therefore, when encountering negative emotions and shopping decisions, consumers tend to adapt to the notion of possessing the objects. Deprivation induced by the reference point shift intensifies consumers' purchasing motivations, resulting in excessive buying. I refer to excessive buying behavior driven by negative emotions as “*remedial excessive buying*”.

3.2.1.2 Excessive Buying as a Result of Self-Control Failure

Self-control, defined as “the process by which people initiate, adjust, interrupt, terminate, or otherwise alter actions to promote attainment of personal goals, plans, or standards” (Heatherton and Baumeister 1996), has been recognized as a significant determinant of people's consumption behaviors (Thaler and Shefrin 1981; Hoch and

Loewenstein 1991). Many consumers report experiencing self-control failures when encountering shopping impulses or sales temptations, resulting in excessive buying (Vohs and Faber 2004; Thompson et al. 1990). Prior research also finds that mentally distressed consumers are often plagued by feelings of self-doubt, incompetence, and personal inadequacy. They are less likely to exercise self-control successfully and more likely to surrender to their desires and engage in excessive buying (Hirschman 1992). I believe that an understanding of why consumers lose self-control will help us to understand the occurrence of excessive buying.

Baumeister (2002) suggests that effective self-control is determined by three ingredients. The first ingredient is “standards”. Standards refer to “goals, ideals, norms, and other guidelines that specify the desired response”. Uncertainty or conflicts in goals make people more susceptible to self-control failures. The second ingredient is the process of monitoring, keeping track of the relevant behavior. In the context of buying behavior, self-control is jeopardized when people fail to keep track of their expenses. The third ingredient of self-control is the capacity to alter the self. Individuals must employ some kind of resources to overcome temptation. In the context of consumption, people who do not have sufficient self-control resources tend to buy excessively and find it more difficult to regulate their behavior toward their long-term economic interests. I refer to excessive buying behavior driven by self-control failure as “*out-of-control excessive buying*”.

3.2.2 Excessive Buying as an Automatic Behavior

Recent empirical tests explicate that most of a person’s everyday life is determined by unconscious mental processes (Bargh and Chartrand 1999). Prior research

has provided us with sporadic yet convincing evidence that excessive buying can be the result of unconscious/automatic mental processes: “I couldn’t tell you what I bought or where I bought it. It was like I was on automatic” (O’Guinn and Faber 1989, P154). Psychological research suggests that even the visual cue of a credit card logo spurs spending (Schor 2000, P20).

I propose that a considerable portion of excessive buying should be the result of unconscious mental processes. Consumption goals can be activated consciously or unconsciously and then operated all outside of awareness (Bargh 2002). Especially, similar or familiar features of environment can automatically activate goals associated with the features in the past, leading individuals to acting in accordance with the same goals. In a shopping context, when consumers enter familiar stores where they used to commit excessive buying, the same consumption goals that drive consumers to buy excessively (e.g., to prolong positive emotions) can be activated automatically and guide consumers’ buying behavior. As a result, consumers again engage in excessive buying. The necessary and sufficient conditions for such automated processes are frequency and consistency of the use of the same set of mental processes. When the mental processes become habitual, excessive buying occurs unconsciously and swiftly. I refer to excessive buying behavior driven by habits as “*habitual excessive buying*”.

3.2.3 Excessive versus Impulsive and Compulsive Buying

Desire hypothesis in the "time-inconsistent theory" (Hoch and Loewenstein 1991) can help differentiate excessive buying from impulsive and compulsive buying. Behavioral consequences of the three kinds of buying behaviors may also enable us to see the differences. Rook and Fisher (1995) imply that impulsive buying occurs when

consumers' thinking is "prompted by physical proximity to a desired product, dominated by emotional attractions to it (such as fun, novelty, and surprise), and absorbed by the promise of immediate gratification". Vividly displayed products (proximity) and positive emotions have been shown to stimulate consumers' spontaneous desires and set impulsive buying in motion (Rook 1987, Beatty and Ferrell 1998). By comparing impulsive buying to excessive buying, I make three conclusions. First, excessive buying is driven by materialism value, positive emotion, or negative emotion-induced reference point shifts, whereas impulsive buying is mainly driven by either proximity or positive emotion-induced reference point shifts. Second, in terms of behavioral consequences, impulsive buying can become excessive buying when a consumer sets a zero mental budget for the purchased item. However, impulsive buying might not necessarily be excessive buying when the purchased item is within the consumer's mental budget. Third, excessive buying occurs on a regular basis, whereas impulsive buying is usually triggered spontaneously.

Compulsive buying is defined as "one of the chronic, repetitive purchasing that becomes a primary response to negative events or feelings" (O'Guinn and Faber 1989). Compulsive buying generally arises from the generalized feelings of alienation and weakening of self-esteem. The compulsive buying literature is pervasive with examples of consumers succumbing to temptations to remedy their negative emotions (Hirschman 1992; Valence et al. 1988). Adaptation to enjoying shopping experiences assists consumers to overlook real world situations and alleviate negative emotional responses. Under such circumstances, consumers find surrounding objects extremely desirable and cannot resist the temptation to purchase. By comparing compulsive buying to excessive

buying, I contend that first, compulsive buying is a specific type of excessive buying. Compulsive buying is repetitive and driven by negative emotion-induced reference point shifts, whereas excessive buying can be driven by materialism value or positive emotion-induced reference points shifts as well. More importantly, pathological illness has to be present for compulsive buyers, but not for excessive buying. Studies of excessive buying capture broader consumer segments. Second, the two behaviors bear similar behavioral consequences, namely, consumers end up buying things they should not buy under economic considerations. However, compulsive buying can be understood as an extreme form of excessive buying to the extent that the potential economic consequences of compulsive buying are much more severe, usually involving maxing out one's credit cards and filing for personal bankruptcy. Behavioral consequences of excessive buying range from having to watch for one's budget more closely to filing for personal bankruptcy.

Excessive, impulsive, and compulsive buying can all be the result of desire reference point shifts, albeit induced by different factors. Table 1 compares the three kinds of behaviors along motives, psychological mechanism, behavioral consequences, and other relevant information.

Based on the conceptual typology of excessive buying discussed earlier, a psychometric scale to measure excessive buying is developed and validated in CHAPTER 4. The scale consists of five factors of items that measure five different types of excessive buying. The newly developed excessive buying scale is subject to nomological testing in CHAPTER 5.

Table 1 Comparison of Excessive, Compulsive, and Impulsive Buying

	Excessive Buying	Compulsive Buying	Impulsive Buying
Motive	<ul style="list-style-type: none"> 1) Alleviation of negative affect 2) Maintaining positive affect 3) Gaining social recognition 4) For the sake of "possessing" 5) n.a. 	<ul style="list-style-type: none"> 1) Alleviation of negative emotions 2) n.a. 3) n.a. 4) n.a. 5) n.a. 	<ul style="list-style-type: none"> 1) n.a. 2) Maintaining positive emotions 3) n.a. 4) n.a. 5) Satisfying hedonic desires: fun, novelty, and surprise
Psychological Mechanism	<ul style="list-style-type: none"> 1) Materialism-induced desire reference point shift 2) Positive affect-induced desire reference point shift 3) Negative affect-induced desire reference point shift 4) n.a. 5) Self-control failure 6) A result of habit 	<ul style="list-style-type: none"> 1) n.a 2) n.a. 3) Caused by negative affect-induced desire reference point shift 4) n.a. 5) Self-control failure 6) A result of habit 	<ul style="list-style-type: none"> 1) n.a. 2) Positive affect-induced desire reference point shift. 3) n.a. 4) Proximity-induced desire reference point shift 5) Self-control failure 6) n.a.
Repetitive	Repetitive	Repetitive	n.a.
Behavioral Consequence	Spend more than what one should (financially)	Buy things one don't need or of no use	Buy things that one don't plan for

CHAPTER 4

SCALE DEVELOPMENT

I follow the scale development paradigm proposed by Churchill (1979) and DeVellis (1991, 2003). The whole process consists of four separate studies. The first two studies are designed to generate the initial pool of items to measure excessive buying and purify the scale items (please refer to Wu, Malhotra, and van Ittersum (2006) for research design and analysis details). Studies three and four are designed to demonstrate reliability and validity of the scale by using a student and a random US adult sample. In study one, items to measure excessive buying are devised based on past literature and an exploratory survey. The purpose of study two is to employ Confirmatory Factor Analysis to purify scale items. Studies three and four are conducted based on the initial results produced by studies one and two. In later sections, I describe the samples and analysis results for studies three and four.

4.1 Sample Description

A student (for study three) and a random US adult sample (for study four) are used for scale development and validation purposes.

4.1.1 Student Sample

Undergraduate students at the Georgia Institute of Technology participated in study three. They participated in the scale development study as part of their course requirement. Four hundred and sixteen students completed the questionnaire during a two-week period. Fifteen of the responses are deleted because of either obvious inconsistent response patterns or a large number of missing data within one

questionnaire, leaving me with 401 usable questionnaires. Demographic information of the student sample is presented in Table 2.

Some researchers have argued against using student subjects in consumer research (e.g., James and Sonner 2001). Three reasons convince me that a student sample is suitable for this particular research. First, excessive buying is prevalent among undergraduate students. Although their incomes are limited, undergraduate students are easily tempted and risk-seeking both physically and financially. In fact, they are among the fastest growing groups engaging in excessive buying. Therefore, using a student sample is appropriate in finding out the “real” characteristics of excessive buyers. Second, compared to a random adult sample, undergraduate students have higher education levels and are better able to understand survey questions and answer them in desired manners. Such characteristics improve the quality of survey data especially when a questionnaire is long and includes complex questions. According to a pretest, the questionnaire for study three takes around 25 minutes to complete and it includes a few difficult questions. Undergraduate students should be more capable to handle the high task demands. Third, compared to a random adult sample, student sample is more homogeneous in terms of demographic variables, such as income, age, and social status. Using a student sample hence circumvents the need to consider the influence of external factors on consumer buying behavior.

Table 2 Demographic Characteristics of the Student Sample

Sample Characteristics	Number of Obs	Distribution (%)
Age Profile:		
Under 20	69	17.2
20-25	326	81.3
Above 25	6	1.5
Income Profile:		
Less than \$10,000	209	52.1
\$10,000- \$29,999	135	33.7
\$30,000- \$49,999	19	4.7
\$50,000- \$79,999	12	3.0
Equal to or more than \$80,000	26	6.5
Ethnicity Profile:		
Black	35	8.7
White	296	73.8
Hispanic	8	2.0
Asian	52	13.0
Other	10	2.5
Gender Profile:		
Female	198	49.4
Male	203	50.6

4.1.2 Adult Sample

Besides the student sample, a random adult sample is also used for validation and generalization purposes. Online respondents as many as four thousand (all within US) are recruited via Esearch Inc, a California-based independent marketing research company. Four hundred and twenty three surveys are returned, yielding a response rate of 10.6 percent. All subjects responded within 24 hours after a recruiting email was sent out. Nineteen of the responses are deleted because of obvious inconsistent response patterns, straight-line answers (e.g., all the answers are "4"), or too short answering time (less than 7 minutes), leaving me with 404 usable responses. Demographic characteristics of the adult sample are representative of contemporary US population. The balanced gender distribution of this sample will provide more external validity to the new excessive buying scale. Similar studies are previously conducted using female respondent-

dominated samples (e.g., Faber and O'Guinn 1992). Table 3 describes demographic information of the adult sample.

Table 3 Demographic Characteristics of the Adult Sample

Sample Characteristics	Number of Obs	Distribution (%)
Age Profile:		
30 and under	77	19.1
31-40	109	26.9
41-50	77	19.1
51-60	99	24.5
Over 60	42	10.4
Income Profile:		
Less than \$30,000	121	30.0
\$30,000- \$49,999	86	21.2
\$50,000- \$79,999	101	25.0
\$80,000- \$119,999	65	16.1
Equal to or more than \$120,000	31	7.7
Education Profile:		
Some school, no degree	67	16.6
High school graduate	84	20.8
Some college or associate degree	125	30.9
Bachelor's degree or some graduate school	76	18.8
Master's degree or above	52	12.9
Marriage Profile:		
Single	100	24.7
Married	237	58.7
Divorced	50	12.4
Widowed	17	4.2
Ethnicity Profile:		
Black	26	6.4
White	347	85.9
Hispanic	10	2.5
Asian	9	2.2
Other	12	3.0
Gender Profile:		
Female	219	54.2
Male	185	45.8

4.2 Questionnaire Design

For both studies three and four, the following items are included in the questionnaires: excessive buying, impulsive buying (scale developed by Rook and Fisher 1995), and compulsive buying (scale developed by Faber and O'Guinn 1992) scales.

Twenty five items of excessive buying scale are developed upon: 1) the Self-Report Habit Index (Verplanken and Orbell 2003), 2) the Self-Control Trait scale (Tangney et al., 2004), 3) the Financial Success Index (Kasser and Ryan 1993), 4) the Material Value scale (Richins and Dawson 1992), and 5) the Compulsive Buying scale (Valence, d'Astous, and Fortier 1988).

4.3 Student Sample Result

Before using principal-axis factor analysis to examine the underlying structure of excessive buying, it is necessary to ensure that the data matrix has sufficient correlations to justify the application of factor analysis. Two statistical tools help to achieve this goal: the Bartlett tests of sphericity and the Kaiser-Meyer-Olkin (KMO) tests of sampling adequacy (Hair et al. 1998; Bearden, Hardesty, and Rose 2001). The Bartlett test of sphericity provides statistical proof that the correlation matrix under study has significant correlations among at least some of the items. Test of the student data indicates that there are sufficient correlations among the items and that the data are appropriate for factor analysis. Additionally, KMO test of sampling adequacy is an index ranging from 0 to 1. Reaching 1 indicates that each item is perfectly predicted without error by other items. According to Hair et al. (1998), a value of KMO test of sampling adequacy below 0.50 is unacceptable. All values of the KMO test of sampling adequacy of the student data are over 0.90.

In an effort to further evaluate the underlying structure of excessive buying, a series of confirmatory factor models is examined. The models are estimated using the covariance matrix via LISREL 8.51 (Joreskog and Sorbom 1996). The confirmatory factor analyses result in a final 15-item, five-factor scale of excessive buying detailed in

Table 4. Ten items are removed because of low factor loadings or high cross loadings. Overall, the five factors explained 81 percent of the total variance, exceeding the 60 percent threshold (Malhotra 1999). Indices generated by the measurement model suggest a good fit: [$\chi^2= 168.19(80df.)$, ($p= 0.00$); Root Mean Square Error of Approximation (RMSEA)= 0.05; Standardized Root Mean Square Residual (SRMR)=0.05; Comparative Fit Index (CFI) = 0.98; $n=401$] (Hu and Bentler 1999).

Table 4 Psychometric Properties of Excessive Buying Scale- Student

Factor Items	α	CR	SL(t)
Materialism Value Factor (MVF)	0.86	0.86	
1. I like a lot of luxury in my life, although I may not have enough money to pay for all my purchases.			0.81 ^a
2. I buy material objects as a sign of success, although the purchases might put me into financial difficulties.			0.83(t=18.00)
3. I derive a lot of pleasure from buying nice things, although I may have to stretch financially.			0.84(t=18.32)
Negative Affect Factor (NAF)	0.92	0.92	
4. Shopping is a way of making myself feel better, even if I might face financial difficulties afterwards.			0.91 ^a
5. When I am on an emotional low, I spend more than I should based on financial consideration.			0.82(t=22.86)
6. To me, shopping is a way to relieve stress, although I might have to stretch financially.			0.93(t=29.12)
Habitual Behavior Factor (HBF)	0.87	0.88	
7. I will often buy something I really want without much thinking, although I shouldn't buy them based on financial consideration.			0.78 ^a
8. It is typical for me to spend imprudently, although I may not have enough money to pay for all my purchases.			0.86 (t=18.39)
9. During shopping trips, I often spend more than I should (based on financial consideration) before I realize it.			0.88(t=18.70)
Positive Affect Factor (PAF)	0.93	0.93	
10. I spend a lot when I am in a good mood, although the purchases might put me into financial difficulties.			0.89 ^a
11. When I am on an emotional high, I buy a lot of things, although I may not have enough money to pay for all my purchases.			0.91(t=27.95)
12. I like to shop when I am in a good mood, even though I buy things that I shouldn't based on financial consideration.			0.91(t=27.55)
Self-Control Factor (SCF)	0.74	0.75	
13. I keep good track of my expenses for budgeting purpose. *			0.74 ^a
14. I can effectively prevent myself from buying things I shouldn't buy based on financial consideration. *			0.61(t=10.23)
15. I scrutinize and evaluate my buying behavior for budgeting purpose. *			0.76(t=11.48)

CR: composite reliability; SL: Standardized Loadings; * are reverse worded items

^a the coefficient for the indicator was fixed to 1.00 when t-values of other items were calculated.

To explore alternative structures of excessive buying, a series of measurement models is examined to compare against the five-factor first order model. Indices generated by the alternative models are reported in Table 5. All four models are nested with one another (Rindskopf and Rose 1988). A series of χ^2 -difference tests and other fit indices imply that the five-factor model fits the data best, as shown in Table 5. This finding is consistent with what I propose earlier: excessive buying is a complex behavior that manifests itself in various dimensions, demonstrated by Figure 2.

Table 5 Comparison of Alternative Structures of Excessive Buying- Student

Models	5-factor first-order model	1-factor first order model	Second-order model with "MVF" as second-order factor ⁴	Second-order model with "HBF" as second-order factor ⁵
χ^2	168.19	1243.26	393.59	400.71
Degrees of Freedom	80	90	89	89
$\Delta\chi^2$	-----	1075.07	225.40	232.52
χ^2/df	2.10	13.81	4.42	4.50
Root Mean Square	0.05	0.20	0.10	0.10
Error of Approximation				
Standardized Root Mean Square Residual	0.05	0.10	0.12	0.12
Comparative Fit Index	0.98	0.73	0.93	0.93
Goodness of Fit Index	0.95	0.67	0.88	0.88
Adjusted Goodness of Fit Index	0.92	0.55	0.83	0.83
Incremental Fit Index	0.98	0.74	0.93	0.93
Relative Fit Index	0.95	0.67	0.90	0.89

Note: Chi-Square Differences, $\Delta\chi^2$, represent comparisons of each model with the 5-factor first order model.

⁴ Because it explains the most total variance, the MVF factor is chosen as a second order factor.

⁵ Because wording of the HBF factor is more general compared to that of other factors, the HBF factor is chosen as a second order factor.

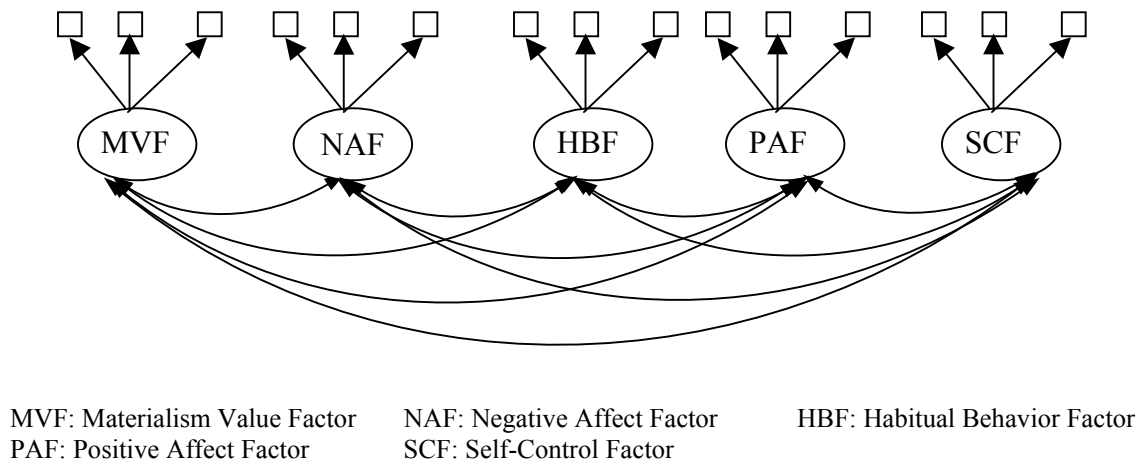


Figure 2 Five Factors of Excessive Buying

Cronbach's alphas are calculated for the five factors of excessive buying. They are all greater than 0.70, in accordance with the standard proposed by Nunally and Bernstein (1994). For comparison purpose, CFA-based composite reliability is also calculated for each factor (Fornell and Larcker 1981). The composite reliability threshold of 0.60 or greater is exceeded by all five factors (Bagozzi and Yi 1988). All of the standardized loadings (SL) are close to or exceed the threshold of 0.7 (Hair et al. 1998). The above results are summarized in Table 4.

To measure the amount of variance captured by the construct in relation to the amount of variance due to measurement error, the Average Variance Extracted (AVE) by each factor is calculated (AVE_{MVF} 0.68, AVE_{NAF} 0.79, AVE_{HBF} 0.71, AVE_{PAF} 0.82, and AVE_{SCF} 0.51). All the AVEs exceed the threshold of 0.50 (Fornell and Larcker 1981).

Convergent validity is implied by the strength of the factor loading of each observed item on its proposed factor. The metric for each factor is established by fixing the coefficient for one indicator to 1.00 for each factor. Other than these fixed loadings, all items have significant t-values (i.e., all greater than 2.37), suggesting that convergent

validity is achieved (Mathwick et al. 2001). To further confirm this conclusion, the Square Multiple Correlations (representing the proportion of item variance accounted for by the assigned common factor) for all 15 items average 69.93 percent (Anderson and Gerbing 1988).

Discriminant validity among the five factors can be demonstrated by calculating the confidence intervals (plus or minus two standard deviations) around the factor correlations. In this study, none of the confidence intervals surrounding the factor correlations contain “1.0”⁶. Therefore, discriminant validity among the factors is established (Anderson and Gerbing 1988). Discriminant validity can also be achieved if the square root of the AVE is larger than correlation coefficient (Fornell and Larcker 1981, Chin 1998). All of the correlation estimates meet such a criterion (Table 6).

Table 6 Estimated Factor Correlation Matrix-Student

	Mean	SD	AVE	Correlation Matrix				
				1	2	3	4	5
1. MVF	2.73	1.29	0.68	0.82				
2. NAF	2.53	1.47	0.79	0.66	0.89			
3. HBF	2.97	1.44	0.71	0.62	0.63	0.84		
4. PAF	2.78	1.39	0.82	0.77	0.78	0.70	0.91	
5. SCF	3.41	1.27	0.51	0.37	0.44	0.58	0.38	0.71

AVE= average variance extracted. Value on the diagonal is the square root of AVE.

Construct discriminant validity helps to differentiate construct of interest (i.e., excessive buying) from similar constructs (compulsive buying and impulsive buying).

Construct discriminant validity can be assessed by constraining the estimated correlation

⁶ The correlations between the five factors and the standard deviations are reported as follows: MVF and NAF (0.66, 0.03); MVF and HBF (0.62, 0.04); MVF and PAF (0.77, 0.03); MVF and SCF (0.37, 0.06); NAF and HBF (0.63, 0.04); NAF and PAF (0.78, 0.02), NAF and SCF (0.44, 0.05); HBF and PAF (0.70, 0.03); HBF and SCF (0.58, 0.04); and PAF and SCF (0.38, 0.05).

parameter (ϕ_{ij}) between them to 1.0 and then performing a χ^2 -difference test (Anderson and Gerbing 1988). A significantly lower χ^2 value for the model in which the correlations are not constrained to unity indicates discriminant validity. A series of χ^2 -difference tests suggests that discriminant validity is displayed between: 1) “impulsive buying” and the five factors of excessive buying, and 2) between “compulsive buying” and the five factors of excessive buying⁷. Discriminant validity is also examined to see if the square root of the AVE is larger than the correlation coefficients (Table 7). The discriminant validity test results suggest that excessive buying is a unique construct and it encompasses a wide range of behaviors not covered by impulsive or excessive buying.

Table 7 Construct Discriminant Validity- Student

	sqrt(AVE)	Correlation Matrix	
		IB	CB
MVF	0.82	0.51	0.27
NAF	0.89	0.53	0.28
HBF	0.84	0.74	0.34
PAF	0.91	0.56	0.23
SCF	0.71	0.56	0.24

AVE= average variance extracted

4.4 Adult Sample Result

Before using principal-axis factor analysis to examine the underlying structure of excessive buying, the Bartlett tests of sphericity and the Kaiser-Meyer-Olkin (KMO) tests of sampling adequacy (Hair et al. 1998; Bearden, Hardesty, and Rose 2001) are conducted. The Bartlett test of the adult data indicates that there are sufficient

⁷ Results of the chi-square difference tests were reported as follows: MVF and IB (df=54, χ^2 = 287.63; df=53, χ^2 = 757.45), NAF and IB (df=54, χ^2 = 965.40; df=53, χ^2 = 283.31), HBF and IB (df=54, χ^2 = 611.20; df=53, χ^2 =278.50), PAF and IB (df=54, χ^2 = 1057.87; df=53, χ^2 = 269.74), SCF and IB (df=54, χ^2 = 496.04; df=53, χ^2 = 291.38); MVF and CB (df=35, χ^2 = 1191.41; df=34, χ^2 = 447.69), NAF and CB (df=35, χ^2 = 1755.06; df=34, χ^2 = 532.57), HBF and CB (df=35, χ^2 = 1413.68; df=34, χ^2 =603.53), PAF and CB (df=35, χ^2 = 1849.51; df=34, χ^2 = 516.48), SCF and CB (df=35, χ^2 = 750.29; df=34, χ^2 = 400.98).

correlations among the variables and the data are appropriate for factor analysis. In addition, all values of the KMO test of sampling adequacy of the adult data are over 0.90, exceeding the 0.50 threshold (Hair et al. 1998).

In an effort to further evaluate the underlying structure of excessive buying, a series of confirmatory factor models is examined. The models are estimated by using the covariance matrix via LISREL 8.51 (Joreskog and Sorbom 1996). Overall, the five factors explained 82 percent of the total variance, exceeding the 60 percent threshold (Malhotra 1999). Indices generated by this measurement model suggest good fit: [$\chi^2=216.20_{(80df)}$, ($p= 0.00$); RMSEA= 0.07; SRMR=0.04; CFI = 0.97; $n=404$] (Hu and Bentler 1999).

Table 8 Psychometric Properties of Excessive Buying Scale- Adult

Factor Items	α	CR	SL(t)
Materialism Value Factor (MVF)	0.86	0.87	
1. I like a lot of luxury in my life, although I may not have enough money to pay for all my purchases.			0.70 ^a
2. I buy material objects as a sign of success, although the purchases might put me into financial difficulties.			0.83 (t=15.68)
3. I derive a lot of pleasure from buying nice things, although I may have to stretch financially.			0.94 (t=17.30)
Negative Affect Factor (NAF)	0.92	0.91	
4. Shopping is a way of making myself feel better, even if I might face financial difficulties afterwards.			0.91 ^a
5. When I am on an emotional low, I spend more than I should based on financial consideration.			0.87 (t=25.71)
6. To me, shopping is a way to relieve stress, although I might have to stretch financially.			0.87 (t=25.60)
Habitual Behavior Factor (HBF)	0.84	0.84	
7. I will often buy something I really want without much thinking, although I shouldn't buy them based on financial consideration.			0.68 ^a
8. It is typical for me to spend imprudently, although I may not have enough money to pay for all my purchases.			0.89 (t=15.37)
9. During shopping trips, I often spend more than I should (based on financial consideration) before I realize it.			0.81 (t=14.41)
Positive Affect Factor (PAF)	0.94	0.94	
10. I spend a lot when I am in a good mood, although the purchases might put me into financial difficulties.			0.93 ^a
11. When I am on an emotional high, I buy a lot of things, although I may not have enough money to pay for all my purchases.			0.93 (t=33.03)
12. I like to shop when I am in a good mood, even though I buy things that I shouldn't based on financial consideration.			0.89 (t=29.72)
Self-Control Factor (SCF)	0.83	0.84	
13. I keep good track of my expenses for budgeting purpose. *			0.76 ^a
14. I can effectively prevent myself from buying things I shouldn't buy based on financial consideration. *			0.80 (t=14.94)
15. I scrutinize and evaluate my buying behavior for budgeting purpose. *			0.83 (t=15.29)

CR: composite reliability; SL: Standardized Loadings; * are reverse worded items

^a the coefficient for the indicator was fixed to 1.00 when t-values of other items were calculated.

To explore alternative structures of excessive buying, a series of measurement models is examined to compare against the five-factor first order model. Indices generated by the alternative models are reported in Table 8. All four models are nested with one another (Rindskopf and Rose 1988). A series of χ^2 -difference tests and other fit indices imply that the five-factor model fits the data best, demonstrated in Table 9. This finding is consistent with the result from the student sample and what I propose earlier: excessive buying is a complex behavior that manifests itself in various dimensions.

Table 9 Comparison of Alternative Structures of Excessive Buying- Adult

Models	5-factor first-order model	1-factor first order model	Second-order model with "MVF" as second-order factor	Second-order model with "HBF" as second-order factor
χ^2	216.80	1132.34	468.13	502.71
Degrees of Freedom	80	90	89	89
$\Delta\chi^2$	-----	915.54	251.33	285.91
χ^2/df	2.70	12.58	5.26	5.65
Root Mean Square Error of Approximation	0.06	0.18	0.10	0.11
Standardized Root Mean Square Residual	0.04	0.10	0.15	0.15
Comparative Fit Index	0.97	0.79	0.92	0.92
Goodness of Fit Index	0.93	0.70	0.86	0.85
Adjusted Goodness of Fit Index	0.90	0.60	0.82	0.79
Incremental Fit Index	0.97	0.79	0.92	0.92
Relative Fit Index	0.94	0.74	0.89	0.88

Note: Chi-Square Differences, $\Delta\chi^2$, represent comparisons of each model with the 5-factor first order model.

Cronbach's alphas are calculated for the five factors of excessive buying and all of them are greater than 0.70, in accordance with the standard proposed by Nunally and Bernstein (1994). For comparison purpose, CFA-based composite reliability is also calculated for each factor (Fornell and Larcker 1981). The composite reliability threshold of 0.60 or greater is exceeded by all five factors (Bagozzi and Yi 1988). All of the standardized loadings (SL) but one (0.68) exceed the threshold of 0.7 (Hair et al. 1998). The above results are summarized in Table 8.

To measure the amount of variance captured by the construct in relation to the amount of variance due to measurement error, the Average Variance Extracted (AVE) by each factor is calculated (AVE_{MVF} 0.68, AVE_{NAF} 0.78, AVE_{HBF} 0.64, AVE_{PAF} 0.84, and AVE_{SCF} 0.63). All the AVEs exceed the threshold of 0.50 (Fornell and Larcker 1981).

Convergent validity is implied by strength of the factor loading of each observed item on its proposed factor. The metric for each factor is established by fixing the

coefficient for one indicator to 1.00 for each factor. Other than these fixed loadings, all items have significant t-values (i.e., all greater than 2.37), suggesting that convergent validity is achieved (Mathwick et al. 2001). To further confirm this conclusion, the Square Multiple Correlations (representing the proportion of item variance accounted for by the assigned common factor) for all 15 items average 71.47 percent (Anderson and Gerbing 1988).

Discriminant validity among the five factors can be demonstrated by calculating confidence intervals (plus or minus two standard deviations) around the factor correlations. In this study, none of the confidence intervals surrounding the factor correlations contained “1.0”⁸. Therefore, discriminant validity among the factors is established (Anderson and Gerbing 1988). Discriminant validity can also be achieved if the square root of the AVE is larger than correlation coefficient (Fornell and Larcker 1981, Chin 1998). All of the correlation estimates meet such a criterion (Table 10), except that the square root of AVE_{MVF} is a little bit smaller than the correlation between MVF and PAF (0.83 vs. 0.85).

Table 10 Estimated Factor Correlation Matrix- Adult

	Mean	SD	AVE	Correlation Matrix					
				1	2	3	4	5	
1. MVF	2.85	1.43	0.68	0.83					
2. NAF	2.69	1.63	0.78	0.81	0.88				
3. HBF	3.13	1.51	0.64	0.72	0.72	0.80			
4. PAF	2.73	1.59	0.84	0.85	0.87	0.76	0.92		
5. SCF	3.04	1.40	0.63	0.34	0.40	0.57	0.43	0.80	

AVE= average variance extracted. Value on the diagonal is the square root of AVE.

⁸ The correlations between the five factors and the standard deviations are reported as follows: MVF and NAF (0.81, 0.02); MVF and HBF (0.72, 0.03); MVF and PAF (0.85, 0.02); MVF and SCF (0.34, 0.05); NAF and HBF (0.72, 0.03); NAF and PAF (0.87, 0.02), NAF and SCF (0.40, 0.05); HBF and PAF (0.76, 0.03); HBF and SCF (0.57, 0.04); and PAF and SCF (0.43, 0.05).

Construct discriminant validity helps to differentiate construct of interest (i.e., excessive buying) from similar constructs (compulsive buying and impulsive buying). Discriminant validity is examined to see whether the square root of the AVE for the five factors is larger than the correlation coefficients between the five factors and impulsive and compulsive buying scales (Table 11). Such discriminant validity test results suggest that excessive buying is a unique construct, different from impulsive and compulsive buying.

Table 11 Construct Discriminant Validity- Adult

	sqrt(AVE)	Correlation Matrix	
		IB	CB
MVF	0.83	0.65	0.64
NAF	0.88	0.68	0.75
HBF	0.80	0.75	0.66
PAF	0.92	0.73	0.75
SCF	0.80	0.46	0.37

AVE= average variance extracted

4.5 Summary of Scale Development Results

This chapter reports on the development and validation of a psychometric scale to measure excessive buying. Based on a series of structural equation modeling results, I find that the new excessive buying scale is reflected by five inter-correlated factors: habitual, out-of control, possessive, remedial, and rewarding factors. The summed index exhibits internal consistency reliability, face validity, convergent validity, and construct discriminant validity to satisfactory levels. The new excessive buying scale is an individual-oriented instrument devised to measure a buying behavior occurring on a regular basis. Such buying behavior can be triggered by materialism, emotions, self-control failures, and habit. In addition, based on the discriminant analysis results, I have

demonstrated that excessive buying is indeed different from compulsive and impulsive buying.

CHAPTER 5

A CAUSAL MODEL

Nomological validity can be demonstrated by a construct's possession of distinct antecedent causes and consequential effects (Iacobucci, Ostrom, and Crayson 1995). Past literature in consumer research and psychology provides a theoretical framework upon which I can test the nomological validity of the newly developed excessive buying scale. Specifically, it has been suggested that there are both positive and negative drivers of excessive buying, such as hedonic values derived from past shopping experiences (e.g., fun and escape from real world) and negative affect (e.g., Rook 1987; Hausman 2000; Beatty and Ferrell 1998; Hirschman 1992; Vohs and Faber 2004). Individual difference variables also influence the likelihood of consumers engaging in excessive buying (e.g., Beatty and Ferrell 1998; Valence et al. 1988). In addition, consensus has been reached that excessive buying can lead to both economic and affective consequences (e.g., O'Guinn and Faber 1989; Rook 1987; Schor 2000; Warren and Tyagi 2003). In the following sections, ten hypotheses are formulated to test the nomological validity of excessive buying⁹. Figure 3 summarizes the ten hypotheses to be developed.

⁹ It should be noted that, here, I do not include a complete list of antecedents and consequences of excessive buying. For validation purpose, only those constructs conceptually distinct from excessive buying are chosen in order to avoid potential confounding effects.

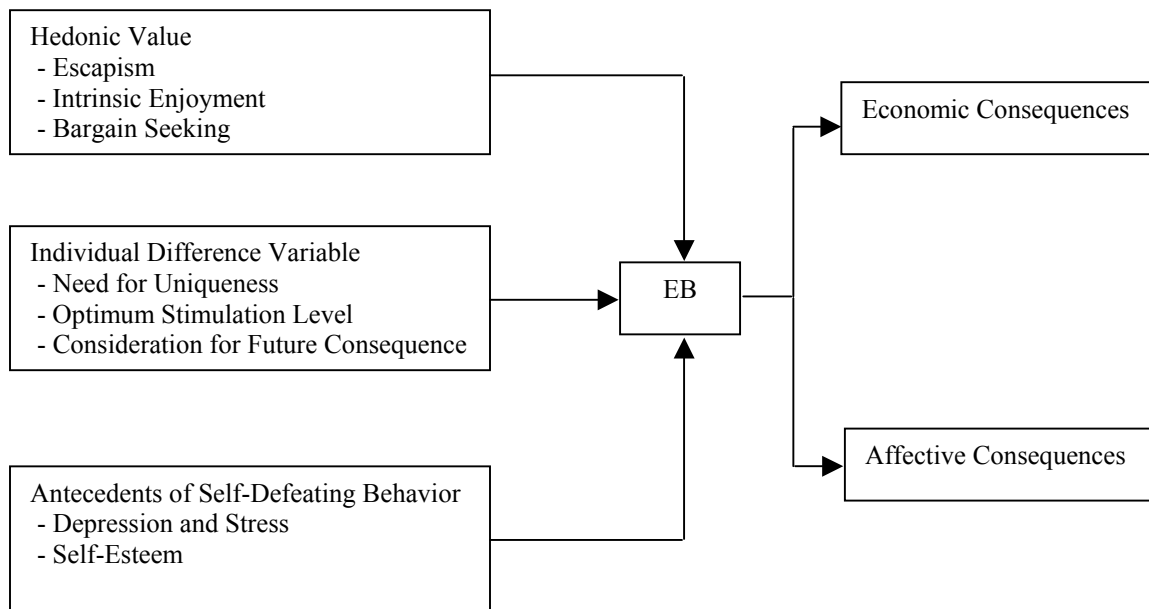


Figure 3 Nomological Map of Excessive Buying

5.1 Antecedents of Excessive Buying

5.1.1 Hedonic shopping values

Customer value is defined as "an interactive, relativistic preference and experience" (Holbrook 2003, P46). Individuals derive both hedonic and utilitarian shopping values from previous shopping experiences, which in turn influence patronage intentions (e.g., Stoel, Wickliffe, and Lee 2004; Babin and Babin 2001). In fact, "consumers purchase good and services and perform consumption behaviors for two basic reasons: (1) consummatory affective (hedonic) gratification, and (2) instrumental utilitarian reasons." (Batra and Ahtola 1990, P159).

Particularly, researchers find that consumers are often drawn to excessive buying by the spontaneous hedonic responses they anticipate during shopping. For instance, many excessive buyers describe experiencing the sudden urge to buy as being "exciting",

"thrilling", or "wild" and the impulse to buy makes them feel "good", "happy", or "satisfied" (Rook 1987). Excessive buyers also report that shopping helps them forget about their real world problems (Faber 2004). To excessive buyers, seeking such experiential values is far more important than the mere acquisition of products or services, which explains why excessive buyers usually indicate a low level of interest in the product/service purchased. In the experiential view of consumption, the act of actual purchase can generate hedonic value and may serve as the climax of a buying process. The act of purchase may involve a steady flow of fantasies, feelings, and fun (Babin, Darden, and Griffin 1994; Holbrook and Hirschman 1982).

Hedonic shopping value reveals the potential entertainment and emotional worth of shopping and manifests itself in a variety of forms. Increased arousal, heightened involvement, perceived freedom, escapism, perceived shopping enjoyment, and bargain hunting may all imply a hedonically valuable purchasing experience (Babin et al., 1994). Among them, I propose that escapism, perceived shopping enjoyment, and bargain seeking can lead to excessive buying.

The escapist benefits of shopping lead many consumers to engaging in excessive buying. As a coping strategy, escapism implies that individuals use activities to avoid current unhappy events or get away from depression or stress in daily life (Hirschman 1983). The escapism aspect of hedonic value reflects a state of psychological immersion and allows consumers to temporarily escape from reality (Mathwick and Rigdon 2004). When psychologically absorbed in shopping experience, consumers narrow their focus of attention down to a single element in the present environment, such as sights, sounds, colors, textures, or people in a shopping mall (Faber 2004). Consciously or

unconsciously, consumers focus their attention on an immediate and concrete low-level task, that is, they make purchases in a simple stimulus-response fashion without considering the long-term consequences of their actions (Heatherton and Vohs 1998). A second consequence of cognitive narrowing is that individuals fail to recognize the implausibility of beliefs, allowing non-critical, irrational thoughts to surface and produce magical or fanciful thinking (Faber 2004; Heatherton and Baumeister 1991). Such an ability to fantasize and engage in magical thinking allows excessive buyers to avoid the reality that they cannot afford their purchases and take no control over their purchasing behaviors (Faber 2004). Through narrowing individual's cognition, escapism can serve as a relaxant to relieve day-to-day boredom or stress. The following quotes vividly illustrate how the escapist benefits brought by narrowed cognition lead to excessive buying:

I enjoy shopping when it helps me forget my problems" (Babin et al. 1994, P646).

It was almost like my heart was palpating. I wouldn't wait to get in to see what was there. It was such a sensation. In the store, the lights, the people, they were playing Christmas music. I was hyperventilating and my hands were starting to sweat, and all of the sudden I was touching sweaters and the whole of it was just beckoning to me (Faber 2004, P20)

I'm thinking, 'Gee, wouldn't it be nice to really be able to do this, to really be able to afford this,' knowing all along full well I couldn't possibly (Faber 2004, P21).

Empirically, researchers have reported that, in Internet usage and shopping contexts, some individuals experience "flow states" and online searching enables them to experience a fantastic escape from reality. Individuals are made to feel as if they are in another world and focus their attention on the searching or auction behavior, resulting in

a heavier usage of the Internet or a large volume of transactions compared to their counterparts (e.g., Korgaonkar and Wolin 1999; Mathwick et al. 2001). Therefore,

H1: Individuals who have a higher tendency to use shopping as an escape from reality are more likely to engage in excessive buying.

Perceived shopping enjoyment is another important hedonic benefit provided by shopping activities (Bloch et al. 1986). Perceived shopping enjoyment is defined as "the pleasure one obtains in the shopping process" (Beatty and Ferrell 1998). Perceived shopping enjoyment has been found to be a significant precursor to excessive buying (Kwon and Armstrong 2002; Beatty and Ferrell 1998). This finding can be interpreted through two mechanisms. First, individuals engage in a shopping relationship for two basic reasons, either because they "want to" or because they "have to" (Bendapudi and Berry 1997). Relationships that individuals "want to" maintain are driven by intrinsic motivations, whereas relationships that individuals "have to" maintain are driven by external constraints. In the retailing context, for those consumers who go shopping driven by intrinsic motivations, they are more likely to experience the entertaining and enjoyable benefits of shopping. Because of their positive affinity toward shopping which is intrinsically motivated, these consumers will have increased intentions, opportunities, and actual engagement in excessive buying (Kwon and Armstrong 2002). Second, consumers who enjoy shopping (referred to as "recreational shoppers") oftentimes gain more gratification from the process of shopping than from the merchandise purchased. Recreational shoppers spend more time shopping and shop longer before making a purchase. Therefore, if an individual enjoys the act of shopping in general, he or she tends to browse and touch products/service longer and talk to salespeople longer.

Recreational shoppers are more likely to buy something they should not, as they expose themselves to a wider range of stimuli and therefore their self-control is more likely to be undermined. Thus,

H2: Individuals who enjoy shopping are more likely to engage in excessive buying, compared to their counterparts.

Consumers may also derive hedonic values through bargain seeking (Babin et al. 1994). In the sociology literature, bargain-seeking consumers are usually portrayed as rational and calculating. Very little hedonic value is involved during the shopping process (Stone 1954). More recently, however, researchers have suggested that seeking low prices does not have to be driven by cool cognition. Rather, the process may serve as an end in itself, as it provides consumers with emotional satisfaction (e.g., Schindler 1989; Cox, Cox, and Anderson 2005; Barbin et al. 1994). Morris (1987) posits that bargain seeking shoppers gain pleasure from beating the system. Schindler (1989) corroborates Morris' view by suggesting that paying a low price can induce feelings of pride, intelligence, and a sense of achievement. In order to feel a sense of pride, excitement, and perhaps accomplishment, some consumers go shopping just for the sake of bargain seeking. By doing so, they may push themselves into a dark tunnel. Although they buy something on sale, they are actually not saving money. Either they buy things they are not going to touch again for the rest of the lives, or, in order not to miss such great deals, they buy things that are far beyond their affordability. The following quote illustrates how bargain seeking can lead to excessive buying.

I knew I shouldn't be buying. But I'd hit a sale, and it was just so great. Then afterwards I'd feel horrible. (van Dusen February 27th, 2005, F7)

H3: Individuals enjoying bargain-seeking are more likely to engage in excessive buying, compared to their counterparts.

5.1.2 Individual difference variables

During the past twenty years, individual difference variables have been used to explain why consumers engage in excessive buying. Among these variables, impulsivity and compulsivity have been found to have significant impact on excessive buying (e.g., Beatty and Ferrell 1998; O'Guinn and Faber 1989). However, for nomological validation purposes, these two variables are not chosen for this study, due to the fact that measurement scales of the two variables are too similar to that of excessive buying. To avoid potential confounding effects, three individual difference variables (consumers' need for uniqueness, optimum stimulation level, and consideration for future consequences) are chosen for nomological validation purpose.

Consumers' need for uniqueness (CNFU) is defined as the "trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self-image and social image" (Tian, Bearden, and Hunter 2001, P52). It is conceptualized as subsuming three behavioral dimensions. The first dimension is creative choice counterconformity. It reflects that consumers seek social distinction from most others by making unique choices that are approved by most others. The second dimension is unpopular choice counterconformity that refers to the selection of use of products and brands that deviate from group norms. The third dimension is avoidance of similarity, which refers to the loss of interest in, or discontinued use of, possessions that become commonplace (Tian et al., 2001). I propose that CNFU has a positive impact on excessive buying. To convey

one's uniqueness via consumer goods, individuals with a high CNFU, compared to those with a low CNFU, are more willing to pay for distinctive product designs even when significant costs are involved (Bloch 1995). Besides the distinct physical design, higher prices enhance the perceived exclusivity of the object, making the object even more desirable to individuals with a high CNFU. In addition, uniqueness of the designs may be further enhanced by high purchase prices, which exclude ownership of the objects from majority of the society (Belk, Wallendorf, and Sherry 1989; Tepper 1997; Amaldoss and Jain 2005). Therefore, even though they might not be able to afford, individuals with high CNFU are more likely to be drawn by a high price differentiating offering.

H4: Individuals with high CNFU are more likely to engage in excessive buying, compared to those with low CNFU.

The notion that consumer behavior is sometimes driven by the mere desire to obtain a satisfactory level of stimulation has been well received (e.g., Raju 1980; Steenkamp and Burgess 2002). Past research suggests that people tend to prefer intermediate levels of stimulation, referred to as the optimum stimulation level (OSL) in the literature, and that there are reliable individual differences in the amount of stimulation considered as optimal by individuals (McReynolds 1971). The relationships between OSL and personality traits relevant to consumer behavior are extensively investigated (Raju 1980; Steenkamp and Baumgartner 1995; Steenkamp and Baumgartner 1992). Particularly, it is suggested that OSL is positively correlated with various exploratory tendencies in the consumer context, such as purchasing new products and brands (Venkatraman and Price 1990) and variety seeking (McAlister and Pessemier 1982). It is also suggested that OSL is positively related to impulsivity (Steenkamp and

Baumgartner 1995) and risk-taking behavior (Raju 1980). Consequently, individuals with higher OSL patronize more retail outlets than those with lower OSL. Individuals higher on OSL are also more interested in products/services and activities that involve potential risks, including physical and financial risks (Steenkamp and Burgess 2002). I argue that individuals with higher OSL have a greater chance to engage in excessive buying, since they patronize stores more often and are more willing to take financial risks. Therefore,

H5: Individuals with higher OSL are more likely to engage in excessive buying, compared to those with lower OSL.

Consideration of future consequences (CFC) is conceptualized as an individual difference variable that refers to "the extent to which individuals consider the potential distant outcomes of their current behaviors and the extent to which they are influenced by these potential outcomes" (Strathman et al. 1994, P743). Essentially, this construct captures individual's weighting of the immediate vs. the future outcomes of current behaviors. At the low end of the continuum, individuals are more concerned about maximizing immediate benefits even at the expense of future costs. Individuals with low CFC place priority on their immediate over distant needs and therefore they expect to satisfy their immediate needs. At the extreme, individuals may refuse to consider future consequences of their present behaviors (Strathman et al. 1994). Consequently, lower CFC is positively linked to impulsivity and greater alcohol and tobacco abuse (Strathman et al. 1994). I argue that individuals with lower CFC are more likely to engage in excessive buying as a result of weak self-control over buying behavior. Recall that effective self-control depends on well-defined standards or goals, careful monitoring of one's behavior, and sufficient control resources (Baumeister 2002; Baumeister and

Heatherton 1996). Failure of any of these three factors leads to collapse of self-control. In the retailing context, consumers who are concerned about the future implications of their current buying behavior are likely to have well-defined goals and exercise successful self-control. In contrast, consumers with low CFC will easily forgo their long-term economic goals and pursue immediate gratification (buying things they cannot afford), even though the future stake is high. Therefore,

H6: Individuals with lower CFC are more likely to engage in excessive buying, compared to those with higher CFC.

5.1.3 Negative drivers of excessive buying

Broadly speaking, excessive buying driven by negative factors can be conceptualized as a type of self-defeating behavior, in which consumers deliberately or intentionally participate in a buying behavior that has clear or potential negative impact on their long-term economic interests. A review of the literature on self-defeating behavior suggests that very few individuals desire to harm themselves. Rather, self-defeating behavior is either a result of using ineffective approaches and strategies (i.e., counterproductive model, not relevant to the current study), or a tradeoff one has to make (i.e., tradeoff model) (Baumeister and Scher 1988).

The tradeoff model can be used to explain why consumers engage in excessive buying. The basic notion of the tradeoff model is that an individual has multiple goals and desires, but current situation sets two of them in opposite directions. Self-defeating behavior occurs when the person makes a bad choice between available alternatives. It occurs when immediate benefits falsely seem to outweigh long-term costs (Baumeister and Scher 1988).

Ample evidence has been accumulated that depression and stress lead to excessive buying (e.g., O'Guinn and Faber 1989; Hirschman 1992; Rook and Gardner 1993; Vohs and Faber 2004). The finding is consistent with predictions based on the self-defeating behavior theory. Leith and Baumeister (1996) explain that depression and stress cause people to make choices in a way that leads to nonoptimal course of action. Specifically, people want to escape the aversive state and indulge immediate impulses to make themselves feel better, which amounts to giving short-term affect regulation priority over other self-regulatory goals (Tice, Bratslavsky, and Baumeister 2001). In the retailing context, when consumers are faced with emotional distress, they are more likely to buy something with potential negative economic consequences. Therefore,

H7: Individuals who are depressed and stressed are more likely to engage in excessive buying, compared to their counterparts.

Compared to the general population, excessive buyers have consistently been shown to possess lower self-esteem (e.g., Roberts 1998; Faber 2004). This finding is also consistent with the prediction based on the theory of self-defeating behavior. Impairment in self-esteem is generally accompanied by negative affect, such as anxiety and depression (Baumeister 1997). People are faced with two choices- either to accept the bad evaluation of themselves or to endure the negative feelings induced by decreases in self-esteem. Usually, people would be reluctant to revise their self-appraisal and would choose to linger with the negative feelings induced by decrease in self-esteem. Consequently, people are likely to choose responses that escape from the aversive feelings and self-awareness. As a result, people focus on immediate, low-level tasks without considering potential long-term consequences, leading to self-defeating behavior. In the

retailing context, consumers with lower self-esteem are more likely to buy things they should not as an escape from negative self-appraisal and accompanied negative affect.

Therefore,

H8: Individuals with lower self-esteem are more likely to engage in excessive buying, compared to their counterparts.

5.2 Consequences of Excessive Buying

The serious and perhaps even detrimental consequences of excessive buying make the issue of great interest to researchers and policy makers. Past academic research and journalistic reports hold many interesting discussions about the consequences (e.g., O'Guinn and Faber 1989; Rook 1987; Schor 2000; Warren and Tyagi 2003). It is suggested that excessive buying leads to both economic and affective consequences.

5.2.1 Economic consequences

Excessive buying incurs negative economic consequences as consumers repetitively spend more than they should based on financial considerations. Consumers may engage in excessive buying for different reasons, but the economic consequences are much more similar. They are not able to abide by their budgets or keep up with their spending. For example, O'Guinn and Faber (1989) find that the debt load of excessive buyers is much heavier than that of the general population. Excessive buyers have to use a larger portion of their monthly income to service their debts. In some extreme cases, excessive buyers file for personal bankruptcy (Schor 2000). Additionally, excessive buyers develop more reliance on credit cards. They usually have a larger number of credit cards than the general population and pay fewer of them in full each month (Roberts 1998). Thus,

H9: Excessive buyers are more likely to incur negative economic consequences, compared to non-excessive buyers.

5.2.2 Affective consequence

Many researchers find that after buying excessively, people experience a lot of negative affect, such as shame, guilt, and frustration (e.g., O'Guinn and Faber 1989; Rook 1987; Roberts 1998). Generally, excessive buyers suffer from negative affect for two reasons. First, consumers' financial security is threatened due to the horrifying spending habit. Consumers feel financially insecure and guilty about their behaviors. Second, excessive buying is used as a self-medication for low self-esteem, depression, or stress. Although consumers may be gratified in the short term, their subjective well-being is going to suffer days after the purchase. They develop guilt and uneasy feelings toward the purchases when they find themselves out of control. In addition, Hirschman (1992) proposes that when the medication activity leads to negative responses (such as guilt), people have to turn to heavier doses of medication, thereby triggering a vicious cycle. Thus,

H10: Excessive buyers are more likely to experience negative affective consequences, compared to non-excessive buyers.

5.3 Questionnaire Design

To quantitatively examine the nomological validity of excessive buying, questionnaires for studies three and four (CHAPTER 4) include scales based on the following references detailed in Table 12. The consumption emotion scale used in study four is significantly shorter than the one used in study three. An explanation is provided in Appendix C.

Table 12 Scales and References

Scales	Reference
Escapism and Enjoyment	Mathwick and Rigdon (2004)
Bargaining Seeking	Cox et al. (2005)
Consumer's Need for Uniqueness	Tian et al. (2001)
Consideration of Future Consequences	Strathman et al. (1994)
Optimum Stimulation Level	Steenkamp and Baumgartner (1995)
Depression and Stress	Lovibond and Lovibond (1995)
Self-Esteem	Rosenberg (1965)
Economic Well-Being	Rosenstone, Hansen, and Kinder (1986)
Credit Card Debt	Roberts and Jones (2001)
Personal Debt	Newly developed
Consumption Emotion	Richins (1997)
Health Consciousness ¹⁰	Gould (1988)
Impression Management	Paulhus (1991)

5.4 Student Sample Result

Simple correlation coefficients between excessive buying and proposed antecedents are first examined. Antecedents that have no significant correlations (at 0.10 level, two-tailed test) with excessive buying are excluded from further analysis for

¹⁰ I explain in section 5.4 why "health consciousness" and "impression management" scales are included in the questionnaires.

parsimonious purpose. Such antecedents include bargaining seeking, optimum stimulation level, and depression. Before testing the nomological relationships, it is important to establish discriminant validity between excessive buying and the antecedents. Discriminant validity can be examined to see if the squares roots of the AVEs of the five excessive buying factors are larger than the correlation coefficients. The discriminant validity test results suggest that excessive buying is different from all the antecedents, as shown in Table 13. Reliability of the antecedent and consequence scales is reported in Table 14.

Table 13 Discriminant Validity: Excessive Buying and Antecedents- Student

	sqrt(AVE)	Correlation Matrix					
		ESC	ENJ	CFC	CCC	STR	SE
MVF	0.82	0.37	0.21	-0.26	0.15	0.18	-0.20
NAF	0.89	0.64	0.55	-0.15	0.18	0.22	-0.21
HBF	0.84	0.43	0.26	-0.33	0.12	0.21	-0.12
PAF	0.91	0.42	0.31	-0.26	0.16	0.20	-0.17
SCF	0.71	0.23	0.14	-0.33	-0.14	0.13	-0.21

Table 14 Reliability of the Antecedents and Consequences- Student

Measure	Cronbach's α	# of Items	Measure	Cronbach's α	# of Items
ESC	0.92	3	EWB	0.71	4
ENJ	0.95	3	PEM	0.86	5
CFC	0.86	12	NEM	0.74	4
CCC	0.83	4	PD	0.70	3
STR	0.85	7	CD	0.80	4
SE	0.90	10			

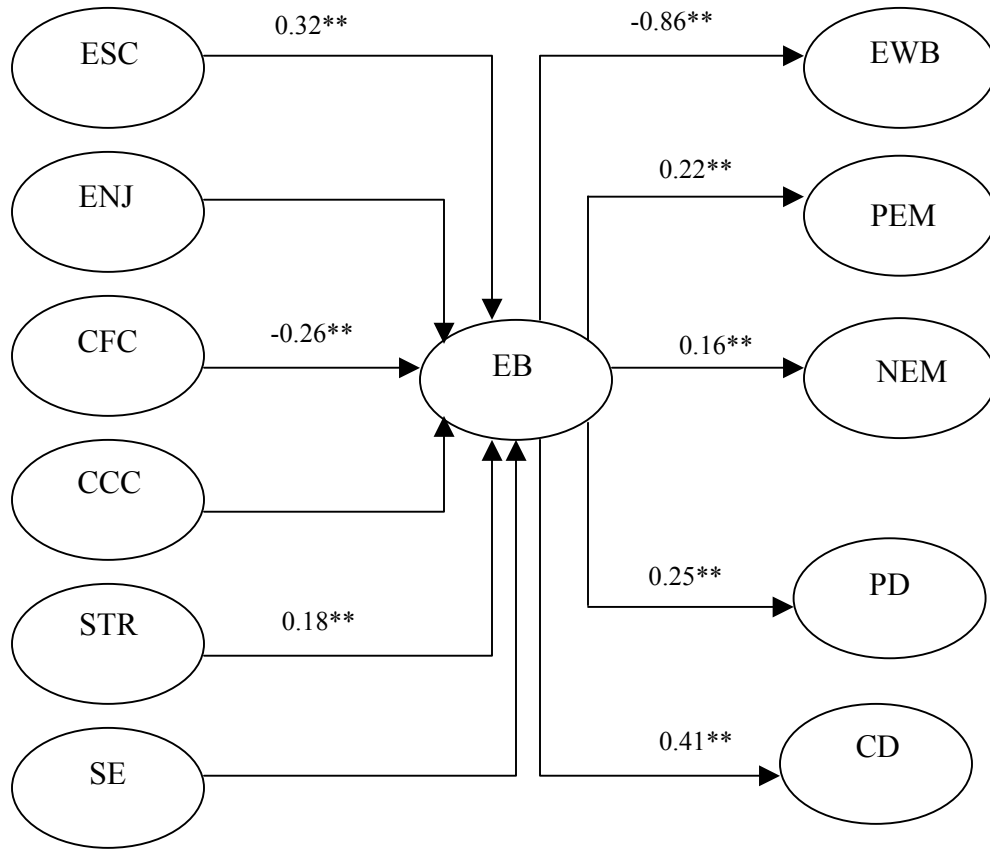
ESC: Escapism
 SE: Self-Esteem
 MVF: Materialism Value Factor
 PAF: Positive Affect Factor
 PEM: Positive Emotion
 CD: Credit Card Debt

ENJ: Shopping Enjoyment
 STR: Stress
 NAF: Negative Affect Factor
 SCF: Self-Control Factor
 NEM: Negative Emotion

CFC: Consideration for Future Consequences
 CCC: Creative Choice Counterconformity
 HBF: Habitual Behavior Factor
 EWB: Economic Well-Being
 PD: Personal Debt

A series of structure models is tested to investigate the antecedents and consequences of excessive buying. Indices generated by the structure model in Figure 4

suggest good fit: [$\chi^2 = 4416.68$ (2534df), (p= .00); RMSEA= 0.04; SRMR= 0.07; CFI = 0.90, n=401]. Specifically, it is found that: 1) escapism has a significant positive impact on excessive buying, 2) perceived shopping enjoyment has no impact on excessive buying, 3) consideration for future consequence has a negative impact on excessive buying, 4) consumers' creative choice counterconformity (one dimension of consumers' need for uniqueness) has no impact on excessive buying, 5) stress has a positive impact on excessive buying, 6) self-esteem has marginal effect on excessive buying, 7) excessive buying has a negative impact on consumers' economic well-being, 8) excessive buying leads to both positive and negative affective consequences, 9) excessive buying incurs more personal debt, and 10) excessive buying leads to higher level of credit card debt.



** : $p < 0.05$ (two-tailed)

ESC: Escapism	ENJ: Shopping Enjoyment	CFC: Consideration for Future Consequences
SE: Self-Esteem	STR: Stress	CCC: Creative Choice Counterconformity
EB: Excessive Buying	EWB: Economic Well-Being	PEM: Positive Emotion
NEM: Negative Emotion	PD: Personal Debt	CD: Credit Card Debt

Figure 4 Nomological Validity of Excessive Buying- Student

Common method variance (CMV) is defined as the amount of spurious covariance shared by measures specifically because of the common context in which the measures are collectively gathered. CMV, a source of method variance, occurs when all of the variables are measured at the same or very close points in time, or collected by using one type, or a few similar types, of self-report measurement scales (Podsakoff et al. 2003). Consequently, correlations among variables are artificially inflated. One

recommended remedy to reduce CMV is the Marker-Variable Technique (Lindell and Whitney 2001), which is more efficient than its counterparts (Malhotra, Kim and Patil 2005). Since all the measures in my dissertation studies are collected by a single questionnaire, using the Marker-Variable Technique is appropriate and necessary to minimize the influence of CMV on proposed relationships. The "health consciousness scale" is included in the questionnaires, as it is theoretically unrelated to any of the other measures in the questionnaires. The smallest correlation coefficient between health consciousness and other measures is calculated (0.001) and used to adjust the correlation matrix of excessive buying and its antecedents and consequences. The adjusted correlation matrix is subject to subsequent structural equation modeling analysis. I find that all the significant relationships remain unchanged after CMV is controlled. In order to test the robustness of the above finding, a sensitivity analysis is then conducted. I use two new correlation values (0.05 and 0.10) to adjust the original correlation matrix of excessive buying and its antecedents and consequences. The new correlation matrix is subject to structural equation modeling analysis. The sensitivity analysis results corroborate my earlier finding that CMV has little impact on the proposed relationships. Table 15 summarizes the CMV analysis results.

Socially desirable responding (SDR) is defined "as the tendency to give answers that make the respondent look good" (Paulhus 1991). SDR is a problematic issue in psychological assessment, as subjects respond to a range of questionnaire items in order to look good, rather than to answer the questions truthfully according to the specific item contents. SDR occurs frequently when questionnaire items are sensitive and private, leading to systematic biases that obscure the measurement of content variables.

Particularly, SDR has been found in past impulsive and compulsive buying research (Mick 1996). Two measures of SDR most frequently used in psychometric research are developed by Paulhus (1991) and Crowne and Marlowe (1960). I choose the "impression management" scale developed by Paulhus (1991) to assess the impact of SDR on proposed relationships, because it is a "newer, stricter measure" of social desirability responding (Mick 1996) and is much shorter than the other scale (20 items vs. 33 items). I find that the impression management scale is significantly negatively correlated with excessive buying scale. As expected, the new excessive buying scale is susceptible to SDR: respondents who want to look good are more likely to rate themselves lower on the excessive buying scale. To examine if SDR has a distorting effect on the nomological validity of excessive buying, a new correlation matrix of excessive buying and its antecedents and consequences is computed after controlling for a total score of impression management (Mick 1996). The new correlation matrix is subject to subsequent structural equation modeling analysis. The results suggest that the impact of SDR is very limited. Table 15 summarizes the results of SDR analysis.

Table 15 Impact of CMV and SDR- Student

	Structure Model Coefficients					
	No CMV	CMV Levels ¹		SDR ²		CMV & SDR ³
		0.00	w/ CMV	Sensitivity Test		
		0.001	0.05	0.10		
Antecedents						
ESC-->EB	0.32**	0.32**	0.32**	0.31**	0.32**	0.32**
ENJ-->EB	0.00	0.00	-0.01	-0.02	0.01	0.01
CFC -->EB	-0.26**	-0.26**	-0.22**	-0.16**	-0.23**	-0.23**
CCC-->EB	0.06	0.06	0.03	0.00	0.05	0.05
STR-->EB	0.18**	0.18**	0.17**	0.17**	0.18**	0.18**
SE-->EB	-0.07	-0.07	-0.04	0.00	-0.03	-0.03
Consequences						
EB-->EWB	-0.86**	-0.86**	-0.87**	-0.89**	-0.85**	-0.85**
EB-->PEM	0.22**	0.22**	0.14	0.05	0.20**	0.20**
EB-->NEM	0.16**	0.16**	0.10**	0.04**	0.18**	0.18**
EB-->PD	0.25**	0.25**	0.17**	0.08	0.19**	0.19**
EB-->CD	0.41**	0.41**	0.32**	0.21**	0.39**	0.39**

Note: 1- relationships are estimated after controlling for common method variance.

2- relationships are estimated after controlling for socially desirable responding bias.

3- relationships are estimated after controlling for common method variance and socially desirable responding bias.

**p<0.05 (two-tailed)

Shopping behavior is found to vary with gender (e.g., Beatty and Ferrell 1998). In this study females score higher on all of the five factors of excessive buying than males do, consistent with prior research findings. To see if gender serves as a moderator on the strength of the path from the antecedents to excessive buying, an interaction effect is tested via LISREL (Jaccard and Wan 1996). A chi-square difference test result [$\chi^2=17.49_{(6df)}$, (p= .00)] concludes that gender does have a moderating effect, as summarized in Table 16. Specifically, using excessive buying as an escape from reality is more common among female shoppers. Stress and low self-esteem are more likely to result in excessive buying amid female shoppers than their male counterparts.

Table 16 Effect of Gender- Student

	Structural Model Coefficients	
	Female	Male
Antecedents		
ESC-->EB	0.46**	0.20**
ENJ-->EB	-0.07	0.06
CFC -->EB	-0.19**	-0.26**
CCC-->EB	0.02	0.07
STR-->EB	0.34**	0.07
SE-->EB	-0.12*	0.01

**p<0.05 (two-tailed)

*p<0.10 (two-tailed)

5.5 Adult Sample Result

Discriminant validity between excessive buying and the antecedents is examined to see if the squares roots of AVE of the five excessive buying factors are larger than the correlation coefficients. The discriminant validity test results suggest that excessive buying is different from all the antecedents, shown in Table 17. Reliability of the antecedents and consequence scales is also reported in Table 18.

Table 17 Discriminant Validity: Excessive Buying and Antecedents- Adult

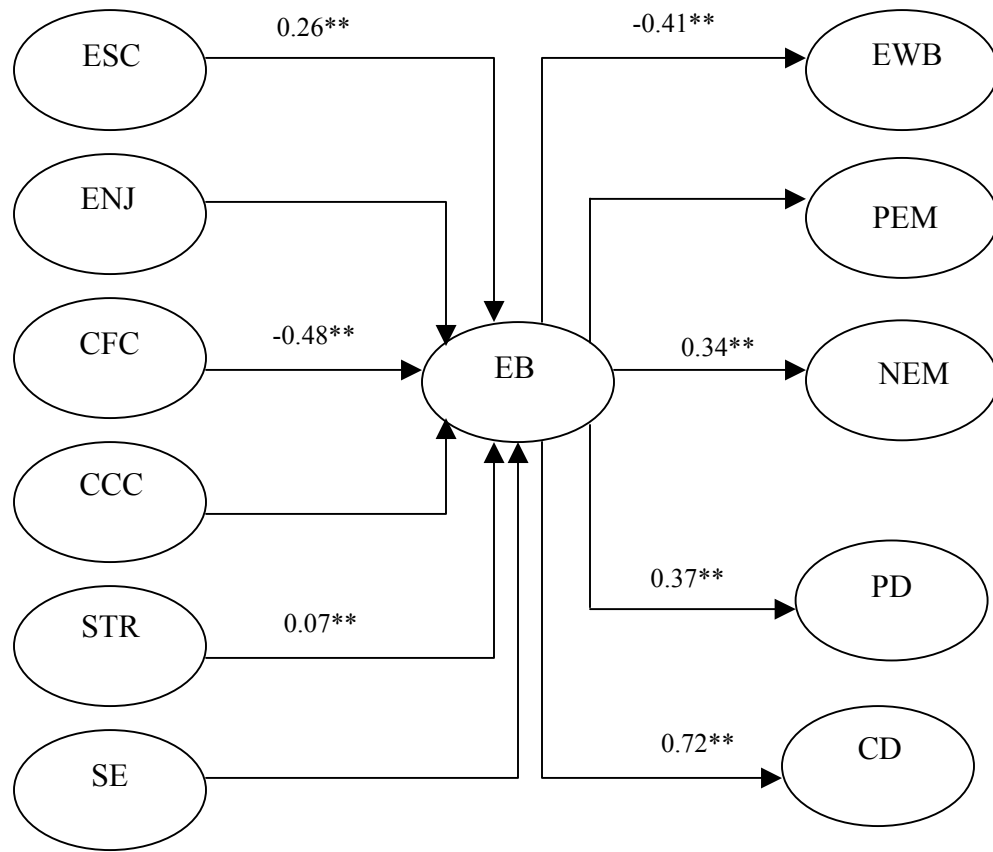
	sqrt(AVE)	Correlation Matrix					
		ESC	ENJ	CFC	CCC	STR	SE
MVF	0.83	0.53	0.34	-0.45	0.29	0.36	-0.17
NAF	0.88	0.62	0.52	-0.48	0.25	0.36	-0.32
HBF	0.80	0.41	0.26	-0.49	0.24	0.31	-0.25
PAF	0.92	0.53	0.39	-0.49	0.23	0.35	-0.29
SCF	0.80	0.14	0.02	-0.44	-0.15	0.13	-0.23

Table 18 Reliability of the Antecedents and Consequences- Adult

Measure	Cronbach's α	# of Items	Measure	Cronbach's α	# of Items
ESC	0.89	3	EWB	0.74	4
ENJ	0.94	3	NEM	0.82	4
CFC	0.86	12	PEM	0.88	5
CCC	0.92	4	PD	0.78	3
STR	0.91	7	CD	0.80	4
SE	0.92	10			

ESC: Escapism
 SE: Self-Esteem
 MVF: Materialism Value Factor
 PAF: Positive Affect Factor
 PEM: Positive Emotion
 CD: Credit Card Debt
 ENJ: Shopping Enjoyment
 STR: Stress
 NAF: Negative Affect Factor
 SCF: Self-Control Factor
 NEM: Negative Emotion
 CFC: Consideration for Future Consequences
 CCC: Creative Choice Counterconformity
 HBF: Habitual Behavior Factor
 EWB: Economic Well-Being
 PD: Personal Debt

A series of structure models is tested to investigate the antecedents and consequences of excessive buying. Indices generated by the structure model in Figure 5 suggest good fit: [$\chi^2 = 4524.23$ (2534df), (p= .00); RMSEA= 0.05; SRMR= 0.08; CFI = 0.90, n=404]. Specifically, it is found that: 1) escapism has a significant positive impact on excessive buying, 2) perceived shopping enjoyment has no impact on excessive buying, 3) consideration for future consequence has a negative impact on excessive buying, 4) consumers' creative choice counterconformity (one dimension of consumers' need for uniqueness) has no impact on excessive buying, 5) stress has a positive impact on excessive buying, 6) self-esteem has marginal effect on excessive buying, 7) excessive buying has a negative impact on consumers' economic well-being, 8) excessive buying leads to negative affective consequences, 9) excessive buying does not lead to positive affects, 10) excessive buying incurs more personal debt, and 11) excessive buying leads to higher level of credit card debt. The adult sample results are very similar to that of the student sample except that the affective consequence of excessive buying is mixed for the student sample while excessive buying only leads to negative feelings for the adult sample (please refer to Figure 5).



** : $p < 0.05$ (two-tailed)

ESC: Escapism	ENJ: Shopping Enjoyment	CFC: Consideration for Future Consequences
SE: Self-Esteem	STR: Stress	CCC: Creative Choice Counterconformity
EB: Excessive Buying	EWB: Economic Well-Being	PEM: Positive Emotion
NEM: Negative Emotion	PD: Personal Debt	CD: Credit Card Debt

Figure 5 Nomological Validity of Excessive Buying- Adult

SDR is again found in the adult sample responses. CMV and SDR are assessed and controlled in the adult sample. Additional structure model parameters are estimated and contrasted with the ones of the original model. As in the student sample, the effects of CMV and SDR on proposed relationships are limited. A summary of the results of the CMV and SDR analyses is shown in Table 19.

The moderating effect of gender is also tested but not found [$\chi^2 = 4.14$ (6df), $p > .10$].

Table 19 Impact of CMV and SDR- Adult

	Structure Model Coefficients					
	No CMV	CMV Levels ¹		SDR ²	CMV & SDR ³	
		0.00	w/ CMV		Sensitivity Test	
		0.003	0.05	0.10		
Antecedents						
ESC-->EB	0.26**	0.25**	0.25**	0.24**	0.25**	0.24**
ENJ-->EB	0.03	0.03	0.02	0.02	0.04	0.04
CFC -->EB	-0.48**	-0.47**	-0.48*	-0.50**	-0.42**	-0.41**
CCC-->EB	0.01	0.01	0.01	0.00	0.01	0.01
STR-->EB	0.07*	0.07*	0.06*	0.05	0.06*	0.06*
SE-->EB	-0.03	-0.03	-0.02	-0.01	-0.01	-0.01
Consequences						
EB-->EWB	-0.41**	-0.41**	-0.32**	-0.22**	-0.42**	-0.42**
EB-->PEM	0.14	0.14	0.07	0.01	0.16	0.16
EB-->NEM	0.34**	0.33**	0.29**	0.21**	0.31**	0.30**
EB-->PD	0.37**	0.37**	0.29**	0.20**	0.37**	0.37**
EB-->CD	0.72**	0.72**	0.68**	0.62**	0.73**	0.72**

Note: 1- relationships are estimated after controlling for common method variance.

2- relationships are estimated after controlling for socially desirable responding bias.

3- relationships are estimated after controlling for common method variance and socially desirable responding bias.

**p<0.05 (two-tailed)

* p<0.10 (two-tailed)

5.6 Discussion of Empirical Findings

In this chapter, the goal is to examine the nomological validity of excessive buying. Ten hypotheses are formulated based on hedonic shopping values and the self-defeating behavior theory. To empirically test the nomological validity, a series of structural equation modeling analyses is conducted to compute the correlation coefficients between excessive buying and its antecedents and consequences. The following conclusions can be drawn.

First, excessive buying is different from all the proposed antecedents, supported by the discriminant validity test results. Second, it is found that: 1) using shopping as an escape from reality can lead to excessive buying, 2) excessive buying can also be triggered by stress, and 3) a person who seriously considers the potential outcomes of her/his current behaviors is less likely to engage in excessive buying. Third, as expected, excessive buying can lead to financial embarrassment and negative feelings. Fourth, the new excessive buying scale is susceptible to SDR. However, the impact of SDR on the relationships between excessive buying and its antecedents and consequences is limited. CMV also has limited impact on the proposed relationships. Finally, excessive buyers are more likely to be plagued by financial crisis and experience post-purchase guilt and anxiety.

Nevertheless, a few of the hypotheses are not supported by the empirical evidence. It is quite possible that the original hypotheses are rejected because of the complexity of the structure model. In fact, these hypotheses could be well supported had I used other research design rather than survey research, such as experiments. On the other hand, however, the insignificant relationships may provide the following alternative views toward the proposed hypotheses. First, "intrinsic shopping enjoyment" does not necessarily lead to excessive buying. Recreational shoppers may pay attention to a wide range of retail attributes, such as display and in-store promotions. Therefore, a larger set of inputs is incorporated into individuals' purchasing decision-making processes, which make in-store evaluations and affective responses more intense, either positive or negative (Arnold and Reynolds 2003). Hence, if the result of such evaluation is negative, recreational shoppers become rather disappointed with the shopping experience, making

fewer purchases than intended or no purchase at all, not to mention excessive purchases. In addition, although recreational buyers shop more often than their counterparts, the physical shopping behavior does not indicate these shoppers spend more than they should, as they may simply engage in window shopping.

Second, shoppers who enjoy bargain hunting are not essentially excessive shoppers per se. As long as they are not obsessed with finding great deals in order to cheer themselves up, price-sensitive shoppers will probably not run into financial troubles.

Third, individuals who are high on “consumer’s need for uniqueness” (CNFU) bear the same risk of engaging in excessive buying as those with low CNFU. The CNFU is a product-oriented construct, reflected by three intercorrelated dimensions: creative choice counterconformity (CCC), unpopular choice counterconformity (UCC), and avoidance of similarity (AOS). The first dimension emphasizes that individuals manage to create their personal images via material possessions, whereas the latter two dimensions reflect that, in order to express their uniqueness, individuals holding such traits tend to select or use products and brands that deviate from social norms or are not popular among ordinary consumers. Choosing expensive products and brands beyond most individuals' affordability can help them to convey their distinctiveness, possibly only one of the ways to do so. More often, individuals with high CNFU are drawn by products and brands that are socially disapproved or typically unpopular. In such cases, uniqueness can still be achieved, yet the products and brands are worth little monetary value.

Finally, past literature seems to suggest that individuals with lower self-esteem are more prone to self-defeating behaviors as a result of ego threats. In contrary to traditional views, I do not find a significant relationship between low self-esteem and excessive buying, which has two alternative explanations. In particular, individuals with lower self-esteem often have certain aspects of life on which they consider themselves quite positively and they act the same way as individuals with high self-esteem when those aspects are questioned. Under such circumstances, little behavioral differences should exist between individuals with high and low self-esteem. Besides, ego threats do not result from an absolute level of self-esteem. Rather, the disparity between ideal self-view and actual self-view is a much better predictor of vulnerability to ego threats and resulting self-defeating behavior (Baumeister 1997).

CHAPTER 6

CONCLUSION

Shopping is an indispensable part of modern life. While it brings some consumers joy and happiness and maximizes their utility, it poses serious threats to others' financial and emotional lives. However, such consumer differences have not been well illuminated in prior research, nor have there been any means to measure them. The intention of this dissertation research is to conceptualize and develop a multi-item scale that captures individual differences in making purchases relative to one's affordability. The scale also provides new perspectives on why individuals spend more than they should based on financial considerations. The present research not only fills the gaps in our understanding of excessive buying, but also provides policymakers with guidelines about combating excessive buying and reducing its impact, thereby contributing to social welfare of the US society.

6.1 Findings and Implications

Based on emerging themes reported in previous qualitative research, I define excessive buying as "an individual type of buying behavior whereby consumers repetitively spend more than they should based on financial considerations". This perception-based definition helps clarify what the research domain exactly entails and offers two advantages: 1) it circumvents the need to consider influences of external variables on buying behavior, and 2) it can be operationalized by a psychometric scale. This definition also enables researchers to include big consumer segments in their future research, strengthening the external validity of studies in this field.

Building on the “time-inconsistent preferences” and automaticity theory, a conceptual typology of excessive buying is developed. It specifies five different types of excessive buying: possessive, remedial, habitual, rewarding, and out-of-control excessive buying. This typology captures a wide variety of situations when individuals engage in excessive buying and offers a systematic approach to studying the subject.

I develop a fifteen-item psychometric scale to measure excessive buying based on the typology. A series of four studies, integrating a range of methodologies, suggests that excessive buying is both a theoretically and practically relevant construct and that the resulting scale possesses good reliability and validity. In particular, the scale exhibits internal consistency, convergent, and test-retest reliability to satisfactory levels.

Additionally, validity is successfully demonstrated through discriminant analysis. I have empirically provided supporting evidence that excessive buying is a unique construct, different from compulsive and impulsive buying. All of the analyses used here employ recognized psychometric procedures and standards similar to those reported in other recent scale-development work (e.g., Tian et al. 2001). Based on the conceptual and empirical materials presented earlier, excessive buying emerges as a distinctive construct comprised of five dimensions. Development and validation of the measurement instrument of excessive buying will greatly facilitate future empirical investigations in this field.

In addition, antecedents and consequences of excessive buying are proposed to test the nomological validity. Hypotheses are derived based on hedonic shopping values and the self-defeating behavior theory. Analysis results from a student and a random adult sample suggest that excessive buying can be triggered by desires to escape reality,

stress, or little consideration for potential outcomes of one's current behavior. As expected, excessive buying leads to worse economic well-being, heavier personal and credit card debt, and negative emotions toward the purchases. The excessive buying scale is susceptible to SDR. However, the impact of SDR and CMV on proposed relationships is marginal.

Finally, it is useful to discuss some of the implications of this research. From a theoretical standpoint, the definition and conceptual typology help to differentiate excessive buying, compulsive buying, and impulsive buying. Compulsive buying is an extreme form of negative emotion-induced excessive buying. Pathological illness has to be present among compulsive buyers, while not so for excessive buyers. Impulsive buying is driven by situational factors, such as physical proximity and availability of time, and occurs occasionally. In contrast, excessive buying is abet by more stable factors, such as habit and self-control, and happens on a regular basis. From an empirical perspective, the new excessive buying scale will facilitate quantitative examinations in the field. The supported hypotheses not only explain why individuals engage in excessive buying but also illuminate the directions in which new antecedents and consequences of excessive buying can be investigated.

The profile of high excessive buyers may also be identified, so that effective help can be targeted toward these individuals. For example, excessive buyers tend to have a high stress level. US communities could therefore offer seminars to teach them about other therapies to deal with stress rather than making unlimited purchases, such as exercise or face-to-face interactions with individuals with similar problems. Non-profit organizations could offer psychological consulting services to such individuals as well.

Policymakers also have the opportunity to encourage advertisement campaigns that draw individuals' attention to the issue of excessive buying and its devastating consequences. With never been so easy access to credits, many individuals, especially the younger generations, actually engage in excessive buying without realizing it. It is the government's responsibility to teach its citizens the nature of excessive buying, the consequences of it, and how to minimize its impact.

6.2 Limitations and Future Research

I developed a psychometric scale to measure excessive buying in the dissertation. A possible downside of a psychometric scale, however, is that people may be in denial of their behavior. Thus, relating the psychometric scale to “hard data”, such as statistics about consumers’ credit card, personal debt, and mortgage information, will provide further insights into excessive buying and additional evidence for external validity of the scale.

A few of the hypotheses regarding the nomological validity of excessive buying are not supported. It is quite possible that the good hypotheses are rejected because of the complex structural model and survey research design I use. To further validate these hypotheses, other research design such as experimentation can be employed by future research.

It might also prove profitable to explore the relationship between excessive buying and various consumer characteristics. For instance, it is interesting to examine which personality traits will moderate the relationship between stress and excessive buying, as shopping is only one of the possible self-medications consumers employ to release stress. Additionally, one could explore the relationship between personality traits

and certain types of excessive buying. For instance, one wants to find out whether individuals with trait A are more prone to possessive buying than remedial buying.

Last, additional research is needed to measure excessive buying in different ethnic groups and cultures. Recent studies (e.g., Kacen and Lee 2002) have revealed differences in compulsive buying between eastern and western cultures. Therefore, it would be intriguing to see if there are ethnic or cultural group differences in excessive buying behavior and if the consequences are different.

APPENDIX A

QUESTIONNAIRE USED FOR STUDY THREE

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree					7= strongly agree	
	1	2	3	4	5	6	7
1. I reflect about my health a lot.	1	2	3	4	5	6	7
2. I'm very self-conscious about my health.	1	2	3	4	5	6	7
3. I'm generally attentive to my inner feelings about my health.	1	2	3	4	5	6	7
4. I'm constantly examining my health.	1	2	3	4	5	6	7
5. I'm alert to changes in my health.	1	2	3	4	5	6	7
6. I'm usually aware of my health.	1	2	3	4	5	6	7
7. I'm aware of the state of my health as I go through the day.	1	2	3	4	5	6	7
8. I notice how I feel physically as I go through the day	1	2	3	4	5	6	7
9. I'm very involved with my health.	1	2	3	4	5	6	7

Using the following scale, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree					7= strongly agree	
	1	2	3	4	5	6	7
1. I will often buy something I really want without much thinking, although I shouldn't buy them based on financial consideration.	1	2	3	4	5	6	7
2. It is typical for me to spend imprudently, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7
3. During shopping trips, I often spend more than I should (based on financial consideration) before I realize it.	1	2	3	4	5	6	7
4. Frequently I buy things I really like, even if I might face financial difficulties afterwards.	1	2	3	4	5	6	7
5. It is difficult for me to refrain from buying something I really want, even though the purchase may put me into financial difficulties.	1	2	3	4	5	6	7
6. I can effectively control myself so that I only buy things that I can afford.	1	2	3	4	5	6	7
7. I can't stop myself from shopping, even if I have to stretch myself financially.	1	2	3	4	5	6	7
8. I keep good track of my expenses for budgeting purposes.	1	2	3	4	5	6	7
9. I can effectively prevent myself from buying things I shouldn't buy based on financial consideration.	1	2	3	4	5	6	7
10. I scrutinize and evaluate my buying behavior for budgeting purposes.	1	2	3	4	5	6	7
11. I buy items that elevate my status, even though I shouldn't buy based on financial consideration.	1	2	3	4	5	6	7
12. I buy things that win me admiration from others, although I may not have enough money to pay for them.	1	2	3	4	5	6	7
13. I buy trendy products, even if I have to stretch myself financially.	1	2	3	4	5	6	7
14. I buy expensive things, although I shouldn't based on financial consideration.	1	2	3	4	5	6	7
15. I buy items that impress people, even if I might face financial difficulties afterwards.	1	2	3	4	5	6	7

	1= strongly disagree						7= strongly agree	
	1	2	3	4	5	6	7	
16. I like a lot of luxury in my life, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7	
17. I buy material objects as a sign of success, although the purchases might put me into financial difficulties.	1	2	3	4	5	6	7	
18. I derive a lot of pleasure from buying nice things, although I may not have enough money to pay for them.	1	2	3	4	5	6	7	
19. The more purchases I make, the happier I am, even if I have to stretch myself financially.	1	2	3	4	5	6	7	
20. Shopping is a way of making myself feel better, even if I might face financial difficulties afterwards.	1	2	3	4	5	6	7	
21. When I am on an emotional low, I spend more than I should based on financial consideration.	1	2	3	4	5	6	7	
22. To me, shopping is a way to relieve stress, although I might have to stretch financially.	1	2	3	4	5	6	7	
23. I spend a lot when I am in a good mood, although the purchases might put me into financial difficulties.	1	2	3	4	5	6	7	
24. When I am on an emotional high, I buy a lot of things, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7	
25. I like to shop when I am in a good mood, even though I buy things that I shouldn't based on financial consideration.	1	2	3	4	5	6	7	

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree						7= strongly agree	
	1	2	3	4	5	6	7	
1. Often when buying merchandise, an important goal is to find something that communicates my uniqueness.	1	2	3	4	5	6	7	
2. I often combine possessions in such a way that I create a personal image for myself that can't be duplicated.	1	2	3	4	5	6	7	
3. When a product I own becomes popular among the general population, I began using it less.	1	2	3	4	5	6	7	
4. I usually opt to buy a product/brand that is not popular in the general population.	1	2	3	4	5	6	7	
5. I actively seek to develop my personal uniqueness by buying special products or brands.	1	2	3	4	5	6	7	
6. When it comes to the products I buy and the situations in which I use them, I have often broken customs and rules.	1	2	3	4	5	6	7	
7. When buying, a goal is to avoid products that are commonplace in the general population.	1	2	3	4	5	6	7	
8. Products don't seem to hold much value for me when they are purchased regularly by everyone.	1	2	3	4	5	6	7	
9. I often think of the things I buy and do in terms of how I can use them to shape a more unusual personal image.	1	2	3	4	5	6	7	
10. I have often gone against the understood rules of my social group regarding when and how certain products are properly used.	1	2	3	4	5	6	7	
11. I enjoy challenging the prevailing taste of people I know by buying something they wouldn't seem to accept.	1	2	3	4	5	6	7	
12. When I dress differently, I'm often aware that others think I'm peculiar, but I don't care.	1	2	3	4	5	6	7	

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree					7= strongly agree	
1. I get so involved as I shop that I forget everything else.	1	2	3	4	5	6	7
2. Shopping makes me feel like I am in another world.	1	2	3	4	5	6	7
3. Shopping "gets me away from it all."	1	2	3	4	5	6	7
4. I enjoy shopping for its own sake, aside from any products or services I may eventually purchase.	1	2	3	4	5	6	7
5. I shop for the pure enjoyment of it.	1	2	3	4	5	6	7
6. Compared to other things I could have done, the time spent shopping is truly enjoyable.	1	2	3	4	5	6	7
7. Shopping is rewarding in itself.	1	2	3	4	5	6	7
8. During shopping trips, I feel the excitement of the hunt.	1	2	3	4	5	6	7
9. I enjoy hunting for bargains.	1	2	3	4	5	6	7
10. I like to comparison-shop.	1	2	3	4	5	6	7
11. I get a thrill from finding a real bargain.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent the following statements are characteristics of you.

	1= extremely uncharacteristic					7= extremely characteristic	
1. I consider how things might be in the future, and try to influence those things with my day to day behavior.	1	2	3	4	5	6	7
2. Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.	1	2	3	4	5	6	7
3. I only act to satisfy immediate concerns, figuring the future will take care of itself.	1	2	3	4	5	6	7
4. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	1	2	3	4	5	6	7
5. My convenience is a big factor in the decisions I make or the actions I take.	1	2	3	4	5	6	7
6. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	1	2	3	4	5	6	7
7. I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.	1	2	3	4	5	6	7
8. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.	1	2	3	4	5	6	7
9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	1	2	3	4	5	6	7
10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.	1	2	3	4	5	6	7
11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	1	2	3	4	5	6	7
12. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree				7= strongly agree		
1. I like to continue doing the same old things rather than trying new and different things.	1	2	3	4	5	6	7
2. I like to experience novelty and change in my daily routine.	1	2	3	4	5	6	7
3. I like a job that offers change, variety, and travel, even if it involves some danger.	1	2	3	4	5	6	7
4. I am continually seeking new ideas and experiences.	1	2	3	4	5	6	7
5. I like continually changing activities	1	2	3	4	5	6	7
6. When things get boring, I like to find some new and unfamiliar experience.	1	2	3	4	5	6	7
7. I prefer a routine way of life to an unpredictable one full of change.	1	2	3	4	5	6	7

Below is a list of the ways you might have felt or behaved. Please tell us how often you have felt this way during this year.

	1= None of the time				7= All of the time		
1. I am bothered by things that usually don't bother me.	1	2	3	4	5	6	7
2. I do not feel like eating; my appetite is poor.	1	2	3	4	5	6	7
3. I feel that I can't shake off the blues even with help from my family or friends.	1	2	3	4	5	6	7
4. I feel that I am just as good as other people.	1	2	3	4	5	6	7
5. I have trouble keeping my mind on what I am doing.	1	2	3	4	5	6	7
6. I feel depressed.	1	2	3	4	5	6	7
7. I feel that everything I do is an effort.	1	2	3	4	5	6	7
8. I feel hopeful about the future.	1	2	3	4	5	6	7
9. I think my life has been a failure.	1	2	3	4	5	6	7
10. I feel fearful.	1	2	3	4	5	6	7
11. My sleep is restless.	1	2	3	4	5	6	7
12. I am happy.	1	2	3	4	5	6	7
13. I talk less than usual.	1	2	3	4	5	6	7
14. I feel lonely.	1	2	3	4	5	6	7
15. People are unfriendly.	1	2	3	4	5	6	7
16. I enjoy life.	1	2	3	4	5	6	7
17. I have crying spells.	1	2	3	4	5	6	7
18. I feel sad.	1	2	3	4	5	6	7
19. I feel that people dislike me.	1	2	3	4	5	6	7
20. I can't get "going".	1	2	3	4	5	6	7
21. I find it hard to wind down.	1	2	3	4	5	6	7
22. I find it difficult to relax.	1	2	3	4	5	6	7
23. I feel that I am using a lot of nervous energy.	1	2	3	4	5	6	7
24. I find myself getting agitated.	1	2	3	4	5	6	7
25. I tend to over-react to situations.	1	2	3	4	5	6	7
26. I feel that I am rather touchy.	1	2	3	4	5	6	7
27. I am intolerant of anything that keeps me from getting on with what I am doing.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly <u>disagree</u>					7= strongly <u>agree</u>	
1. I often buy things spontaneously.	1	2	3	4	5	6	7
2. "Just do it" describes the way I buy things.	1	2	3	4	5	6	7
3. I often buy things without thinking.	1	2	3	4	5	6	7
4. "I see it, I buy it" describes me.	1	2	3	4	5	6	7
5. "Buy now, think about it later" describes me.	1	2	3	4	5	6	7
6. Sometimes I feel like buying things on the spur of the moment.	1	2	3	4	5	6	7
7. I buy things according to how I feel at the moment.	1	2	3	4	5	6	7
8. I carefully plan most of my purchases.	1	2	3	4	5	6	7
9. Sometimes I am a bit reckless about what I buy.	1	2	3	4	5	6	7
10. If I have any money left at the end of the pay period, I just have to spend it.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly <u>disagree</u>					7= strongly <u>agree</u>	
1. On the whole, I am satisfied with myself.	1	2	3	4	5	6	7
2. At times I think I am no good at all.	1	2	3	4	5	6	7
3. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
4. I am able to do things as well as most other people.	1	2	3	4	5	6	7
5. I feel I do not have much to be proud of.	1	2	3	4	5	6	7
6. I certainly feel useless at times.	1	2	3	4	5	6	7
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4	5	6	7
8. I wish I could have more respect for myself.	1	2	3	4	5	6	7
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4	5	6	7
10. I take a positive attitude toward myself.	1	2	3	4	5	6	7

Using the scale below, please indicate how often you experience the following feeling or behavior.

	1= <u>never</u>					7= <u>very often</u>	
1. Bought things even though I couldn't afford them.	1	2	3	4	5	6	7
2. Felt others would be horrified if they knew of my spending habits.	1	2	3	4	5	6	7
3. Made only the minimum payments on my credit cards.	1	2	3	4	5	6	7
4. Bought myself something in order to make myself feel better.	1	2	3	4	5	6	7
5. Wrote a check when I knew I didn't have enough money in the bank to cover it.	1	2	3	4	5	6	7
6. Felt anxious or nervous on days I didn't go shopping.	1	2	3	4	5	6	7

Using the scales below, please answer the following questions:

	1= <u>Much better off</u>					7= <u>Worse off</u>	
1. Would you say that you are financially better off or worse off than you were a year ago?	1	2	3	4	5	6	7
	1= Gone up much more					7= Fallen behind	
2. In comparison with the cost of living, how has your income changed during the last year?	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly <u>disagree</u>					7= strongly <u>agree</u>	
1. Compared to people I know, my debt load is light.	1	2	3	4	5	6	7
2. I don't have extra income to save in anticipation of future events.	1	2	3	4	5	6	7
3. My total debt load (relative to income) is heavy.	1	2	3	4	5	6	7
4. I use the totality of my credit card's credit limit.	1	2	3	4	5	6	7
5. I have been told that my current credit limit is insufficient to pay for my purchases.	1	2	3	4	5	6	7
6. When I use my credit card, I have enough money available at the bank.	1	2	3	4	5	6	7
7. I carry a lot of credit card debt (relative to income).	1	2	3	4	5	6	7
8. I make minimum payments on my credit cards.	1	2	3	4	5	6	7
9. During the past year, I have been able to buy most of the things I needed and planned on.	1	2	3	4	5	6	7
10. This past year I have had to watch my budget more closely than the year before.	1	2	3	4	5	6	7

Please recall recent purchases (excluding grocery shopping) you have made *for yourself*. **Focus on the most recent purchase that you paid more than what you should based on financial consideration.** Use your own words to describe the product and purchase circumstance.

Read each of the following adjectives carefully and indicate the extent to which the *particular purchase* (you recall on the last page) made you feel *during the subsequent few weeks*.

	1= <u>not at all</u>		4= moderately			7= <u>very much</u>	
1. Happy	1	2	3	4	5	6	7
2. Excited	1	2	3	4	5	6	7
3. Anticipated	1	2	3	4	5	6	7
4. Comfortable	1	2	3	4	5	6	7
5. Relieved	1	2	3	4	5	6	7
6. Proud	1	2	3	4	5	6	7
7. Loved	1	2	3	4	5	6	7
8. Anxious	1	2	3	4	5	6	7
9. Scared	1	2	3	4	5	6	7
10. Frustrated	1	2	3	4	5	6	7
11. Regret	1	2	3	4	5	6	7
12. Guilty	1	2	3	4	5	6	7
13. Unfulfilled	1	2	3	4	5	6	7
14. Nervous	1	2	3	4	5	6	7
15. Depressed	1	2	3	4	5	6	7
16. Embarrassed	1	2	3	4	5	6	7
17. Envious	1	2	3	4	5	6	7
18. Lonely	1	2	3	4	5	6	7
19. Sexy	1	2	3	4	5	6	7
20. Loving	1	2	3	4	5	6	7
21. Calm	1	2	3	4	5	6	7
22. Contented	1	2	3	4	5	6	7
23. Optimistic	1	2	3	4	5	6	7
24. Surprised	1	2	3	4	5	6	7
25. Eager	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree			7= strongly agree			
1. I sometimes drive faster than the speed limit.	1	2	3	4	5	6	7
2. I never cover up my mistakes.	1	2	3	4	5	6	7
3. There have been occasions when I have taken advantage of someone.	1	2	3	4	5	6	7
4. I never swear.	1	2	3	4	5	6	7
5. I sometimes try to get even rather than forgive and forget.	1	2	3	4	5	6	7
6. I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5	6	7
7. I have said something bad about a friend behind his or her back.	1	2	3	4	5	6	7
8. When I hear people talking privately, I avoid listening.	1	2	3	4	5	6	7
9. I have received too much change from a salesperson without telling him or her.	1	2	3	4	5	6	7
10. I always declare everything at customs.	1	2	3	4	5	6	7
11. I have some pretty awful habits.	1	2	3	4	5	6	7

	1= strongly <u>disagree</u>					7= strongly <u>agree</u>	
12. I have never dropped litter on the street.	1	2	3	4	5	6	7
13. I have done things that I don't tell other people about.	1	2	3	4	5	6	7
14. I never take things that don't belong to me.	1	2	3	4	5	6	7
15. I have taken sick-leave from work or school even though I wasn't really sick.	1	2	3	4	5	6	7
16. I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5	6	7
17. I don't gossip about other people's business.	1	2	3	4	5	6	7
18. I sometimes tell lies if I have to.	1	2	3	4	5	6	7
19. When I was young I sometimes stole things.	1	2	3	4	5	6	7
20. I never read sexy books or magazines.	1	2	3	4	5	6	7

In order to help us better interpret your responses to the questionnaire, please answer the following questions about yourself.

1. Sex: Male__ Female__
2. Age: ____
3. Race: Black__ White__ American Indian__ Hispanic__ Asian__ Other__
4. Were you raised in the United States: Yes__ No__
5. Marital Status: Single__ Married__ Divorced__ Widowed__
6. Status: Employed No__ Yes__
7. If yes, Full time__ Part-time__
8. Household size: ____
9. What was the total amount of money from all sources available to you for spending last year?
Less than \$10,000__ \$10,000- \$29,999__ \$30,000- \$49,999__
\$50,000- \$79,999__ Equal or more than \$80,000__

Thank you very much for your participation!!

APPENDIX B
QUESTIONNAIRE USED FOR STUDY FOUR

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree					7= strongly agree	
	1	2	3	4	5	6	7
1. Often when buying merchandise, an important goal is to find something that communicates my uniqueness.	1	2	3	4	5	6	7
2. I often combine possessions in such a way that I create a personal image for myself that can't be duplicated.	1	2	3	4	5	6	7
3. I actively seek to develop my personal uniqueness by buying special products or brands.	1	2	3	4	5	6	7
4. I often think of the things I buy and do in terms of how I can use them to shape a more unusual personal image.	1	2	3	4	5	6	7

Using the following scale, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree					7= strongly agree	
	1	2	3	4	5	6	7
1. I will often buy something I really want without much thinking, although I shouldn't buy them based on financial consideration.	1	2	3	4	5	6	7
2. I keep good track of my expenses for budgeting purposes.	1	2	3	4	5	6	7
3. I like a lot of luxury in my life, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7
4. Shopping is a way of making myself feel better, even if I might face financial difficulties afterwards.	1	2	3	4	5	6	7
5. I spend a lot when I am in a good mood, although the purchases might put me into financial difficulties.	1	2	3	4	5	6	7
6. It is typical for me to spend imprudently, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7
7. I can effectively prevent myself from buying things I shouldn't buy based on financial consideration.	1	2	3	4	5	6	7
8. I buy material objects as a sign of success, although the purchases might put me into financial difficulties.	1	2	3	4	5	6	7
9. When I am on an emotional low, I spend more than I should based on financial consideration.	1	2	3	4	5	6	7
10. When I am on an emotional high, I buy a lot of things, although I may not have enough money to pay for all my purchases.	1	2	3	4	5	6	7
11. During shopping trips, I often spend more than I should (based on financial consideration) before I realize it.	1	2	3	4	5	6	7
12. I scrutinize and evaluate my buying behavior for budgeting purposes.	1	2	3	4	5	6	7
13. I derive a lot of pleasure from buying nice things, although I may not have enough money to pay for them.	1	2	3	4	5	6	7
14. To me, shopping is a way to relieve stress, although I might have to stretch financially.	1	2	3	4	5	6	7
15. I like to shop when I am in a good mood, even though I buy things that I shouldn't based on financial consideration.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly <u>disagree</u>					7= strongly <u>agree</u>	
1. I get so involved as I shop that I forget everything else.	1	2	3	4	5	6	7
2. Shopping makes me feel like I am in another world.	1	2	3	4	5	6	7
3. Shopping "gets me away from it all."	1	2	3	4	5	6	7
4. I enjoy shopping for its own sake, aside from any products or services I may eventually purchase.	1	2	3	4	5	6	7
5. I shop for the pure enjoyment of it.	1	2	3	4	5	6	7
6. Compared to other things I could have done, the time spent on shopping is truly enjoyable.	1	2	3	4	5	6	7

Below is a list of the ways you might have felt or behaved. Please tell us how often you have felt or behaved this way during the last 6 months.

	1= <u>None of the time</u>					7= <u>All of the time</u>	
1. I find it hard to wind down.	1	2	3	4	5	6	7
2. I find it difficult to relax.	1	2	3	4	5	6	7
3. I feel that I am using a lot of nervous energy.	1	2	3	4	5	6	7
4. I find myself getting agitated.	1	2	3	4	5	6	7
5. I tend to over-react to situations.	1	2	3	4	5	6	7
6. I feel that I am rather touchy.	1	2	3	4	5	6	7
7. I am intolerant of anything that keeps me from getting on with what I am doing.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent the following statements are characteristics of you.

	1= extremely <u>uncharacteristic</u>				7= extremely <u>characteristic</u>		
	1	2	3	4	5	6	7
1. I consider how things might be in the future, and try to influence those things with my day to day behavior.							
2. Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.	1	2	3	4	5	6	7
3. I only act to satisfy immediate concerns, figuring the future will take care of itself.	1	2	3	4	5	6	7
4. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	1	2	3	4	5	6	7
5. My convenience is a big factor in the decisions I make or the actions I take.	1	2	3	4	5	6	7
6. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	1	2	3	4	5	6	7
7. I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	1	2	3	4	5	6	7
8. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.	1	2	3	4	5	6	7
9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	1	2	3	4	5	6	7
10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.	1	2	3	4	5	6	7
11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	1	2	3	4	5	6	7
12. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly <u>disagree</u>				7= strongly <u>agree</u>		
	1	2	3	4	5	6	7
1. On the whole, I am satisfied with myself.							
2. At times I think I am no good at all.	1	2	3	4	5	6	7
3. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
4. I am able to do things as well as most other people.	1	2	3	4	5	6	7
5. I feel I do not have much to be proud of.	1	2	3	4	5	6	7
6. I certainly feel useless at times.	1	2	3	4	5	6	7
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4	5	6	7
8. I wish I could have more respect for myself.	1	2	3	4	5	6	7
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4	5	6	7
10. I take a positive attitude toward myself.	1	2	3	4	5	6	7

Using the scales below, please answer the following questions:

	1= <u>much better off</u>							7= <u>worse off</u>
1. Would you say that you are financially better off or worse off than you were a year ago?	1	2	3	4	5	6	7	
	1= <u>gone up</u>							7= <u>fallen</u>
	<u>much more</u>							<u>behind</u>
2. In comparison with the cost of living, how has your income changed over the last year?	1	2	3	4	5	6	7	
	1= <u>decreased</u>							7= <u>increased</u>
	<u>a lot</u>							<u>a lot</u>
3. In the last two years, your debt burden has	1	2	3	4	5	6	7	
				4= <u>stays</u>				7= <u>increased</u>
				<u>the same</u>				<u>a lot</u>

Suppose you lose your current household income and there is nobody to turn to financially, please estimate the number of month(s) you are able to maintain your/ your family's current living standard: _____ month(s).

Using the scale below, please answer the following questions.

(0%)	(above 0 to 10%)	(above 10 to 20%)	(above 20 to 30%)	(above 30 to 40%)	(above 40 to 50%)	(above 50%)	
1	2	3	4	5	6	7	
1. Approximately what percentage of your last year take home pay, excluding rent or house payment, went to pay for debts?	1	2	3	4	5	6	7
2. Approximately what percentage of your last year take home pay did you save and invest (including stocks, mutual funds, insurance, bonds, real estate investment, and saving accounts or CDs)?	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly							7= strongly
	<u>disagree</u>							<u>agree</u>
1. Compared to people I know, my debt load is light.	1	2	3	4	5	6	7	
2. I don't have extra income to save in anticipation of future events.	1	2	3	4	5	6	7	
3. My total debt load (relative to income) is heavy.	1	2	3	4	5	6	7	
4. I use the totality of my credit card's credit limit.	1	2	3	4	5	6	7	
5. I have been told that my current credit limit is insufficient to pay for my purchases.	1	2	3	4	5	6	7	
6. When I use my credit cards, I have enough money available at the bank.	1	2	3	4	5	6	7	
7. I carry a lot of credit card debt (relative to income).	1	2	3	4	5	6	7	
8. During the past year, I have been able to buy most of the things I needed and planned on.	1	2	3	4	5	6	7	
9. This past year I have had to watch my budget more closely than the year before.	1	2	3	4	5	6	7	

Using the scale below, please answer the following questions if applicable.

0%-20%	21-40%	41-60%	61-80%	81-100%	
1	2	3	4	5	
1. On average, what percentage of your bank credit card balance is paid every month (after 0% APR period)?	1	2	3	4	5
2. On average, what percentage of your store credit card balance is paid every month?	1	2	3	4	5

Please recall recent purchases (excluding grocery shopping) you have made *for yourself*. **Focus on the most recent purchase that you paid more than what you should based on financial consideration.** Please use a couple of sentences to briefly describe the product and purchase circumstance.

Read each of the following adjectives carefully and indicate the extent to which the *particular purchase* you just recalled made you feel *during the subsequent a few weeks*.

	1= <u>not at all</u>			4= moderately			7= <u>very much</u>
1. Happy	1	2	3	4	5	6	7
2. Excited	1	2	3	4	5	6	7
3. Proud	1	2	3	4	5	6	7
4. Anxious	1	2	3	4	5	6	7
5. Regret	1	2	3	4	5	6	7
6. Guilty	1	2	3	4	5	6	7
7. Embarrassed	1	2	3	4	5	6	7
8. Contented	1	2	3	4	5	6	7
9. Optimistic	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= strongly disagree				7= strongly agree		
1. I often buy things spontaneously.	1	2	3	4	5	6	7
2. "Just do it" describes the way I buy things.	1	2	3	4	5	6	7
3. I often buy things without thinking.	1	2	3	4	5	6	7
4. "I see it, I buy it" describes me.	1	2	3	4	5	6	7
5. "Buy now, think about it later" describes me.	1	2	3	4	5	6	7
6. Sometimes I feel like buying things on the spur of the moment.	1	2	3	4	5	6	7
7. I buy things according to how I feel at the moment.	1	2	3	4	5	6	7
8. I carefully plan most of my purchases.	1	2	3	4	5	6	7
9. Sometimes I am a bit reckless about what I buy.	1	2	3	4	5	6	7
10. If I have any money left at the end of the pay period, I just have to spend it.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent the following statements describe you.

	1= doesn't describe me at all				7= describes me very well		
1. I reflect about my health a lot.	1	2	3	4	5	6	7
2. I'm very self-conscious about my health.	1	2	3	4	5	6	7
3. I'm generally attentive to my inner feelings about my health.	1	2	3	4	5	6	7
4. I'm constantly examining my health.	1	2	3	4	5	6	7
5. I'm alert to changes in my health.	1	2	3	4	5	6	7
6. I'm usually aware of my health.	1	2	3	4	5	6	7
7. I'm aware of the state of my health as I go through the day.	1	2	3	4	5	6	7
8. I notice how I feel physically as I go through the day	1	2	3	4	5	6	7
9. I'm very involved with my health.	1	2	3	4	5	6	7

Using the scale below, please indicate how often you experience the following feeling or behavior.

	1= never				7= very often		
1. Bought things even though I couldn't afford them.	1	2	3	4	5	6	7
2. Felt others would be horrified if they knew of my spending habits.	1	2	3	4	5	6	7
3. Made only the minimum payments on my credit cards.	1	2	3	4	5	6	7
4. Bought myself something in order to make myself feel better.	1	2	3	4	5	6	7
5. Wrote a check when I knew I didn't have enough money in the bank to cover it.	1	2	3	4	5	6	7
6. Felt anxious or nervous on days I didn't go shopping.	1	2	3	4	5	6	7

Using the scale below, please indicate to what extent you agree or disagree with the following statements.

	1= Not true					7= Very true	
1. I sometimes drive faster than the speed limit.	1	2	3	4	5	6	7
2. I never cover up my mistakes.	1	2	3	4	5	6	7
3. There have been occasions when I have taken advantage of someone.	1	2	3	4	5	6	7
4. I never swear.	1	2	3	4	5	6	7
5. I sometimes try to get even rather than forgive and forget.	1	2	3	4	5	6	7
6. I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5	6	7
7. I have said something bad about a friend behind his or her back.	1	2	3	4	5	6	7
8. When I hear people talking privately, I avoid listening.	1	2	3	4	5	6	7
9. I have received too much change from a salesperson without telling him or her.	1	2	3	4	5	6	7
10. I always declare everything at customs.	1	2	3	4	5	6	7
11. I have some pretty awful habits.	1	2	3	4	5	6	7
12. I have never dropped litter on the street.	1	2	3	4	5	6	7
13. I have done things that I don't tell other people about.	1	2	3	4	5	6	7
14. I never take things that don't belong to me.	1	2	3	4	5	6	7
15. I have taken sick-leave from work or school even though I wasn't really sick.	1	2	3	4	5	6	7
16. I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5	6	7
17. I don't gossip about other people's business.	1	2	3	4	5	6	7
18. I sometimes tell lies if I have to.	1	2	3	4	5	6	7
19. When I was young I sometimes stole things.	1	2	3	4	5	6	7
20. I never read sexy books or magazines.	1	2	3	4	5	6	7

In order to help me better interpret your responses to the questionnaire, please answer the following questions about yourself.

10. Sex: Male__ Female__
11. Age: 30 and under__ 31-40__ 41-50__ 51-60__ Over 60__
12. Race: Black__ White__ American Indian__ Hispanic__ Asian__ Other__
13. You currently live in the state of__
14. Marital Status: Single__ Married__ Divorced__ Widowed__
15. Status: Employed No__ Yes__
16. If yes, Full time__ Part-time__
17. Household size: __
18. Education level:
 - Some school, no degree__ High school graduate__
 - Some college or associate degree__ Bachelor's degree or some graduate school__
 - Master's degree or above__
19. What was your annual household income last year?
 - Less than \$30,000__ \$30,000- \$49,999__ \$50,000- \$79,999__
 - \$80, 000-\$ 119,999__ Equal or more than \$120,000__

Thank you very much!!

APPENDIX C

SHORT FORM OF THE CONSUMPTION EMOTION SCALE

Following Richins (2004), dimensionality, internal consistency reliability, and construct validity of the consumption emotion scale are examined to develop a new short scale. First, both exploratory and confirmatory factor analysis results suggest that there are two dimensions of consumption related emotions (25 emotions): positive and negative emotions [$\chi^2=2344.21$, $df=274$, $RMSEA=0.16$, $CFI=0.67$, and $SRMR=0.14$]. Cronbach's Alpha of the entire emotion scale, positive emotions, and negative emotions are 0.87, 0.90, and 0.91 respectively. Table 20 reports the results of internal consistency reliability and construct validity tests.

Table 20 Consumption Emotion Item Analysis

Item	External Criteria	Internal Criteria	
	Correlation with EB	Item-total correlation	Item-subscale correlation
<i>Positive Emotion</i>			
Happy	1 factor SIG*	0.32	0.65
Excited	4 factors SIG	0.37	0.64
Anticipated	NS	0.41	0.54
Comfortable	NS	0.33	0.62
Relieved	NS	0.44	0.58
Proud	1 factor SIG	0.46	0.69
Loved	NS	0.65	0.64
Sexy	2 factors SIG	0.36	0.39
Loving	1 factor SIG	0.61	0.53
Calm	NS	0.55	0.64
Contented	2 factors SIG	0.44	0.65
Optimistic	2 factors SIG	0.58	0.76
Surprised	1 factor SIG	0.57	0.52
Eager	2 factors SIG	0.49	0.57
<i>Negative Emotion</i>			
Anxious	1 factor SIG	0.53	0.53
Scared	NS	0.51	0.75
Frustrated	NS	0.30	0.77
Regret	3 factors SIG	0.34	0.65
Guilty	5 factors SIG	0.32	0.57
Unfulfilled	NS	0.17	0.67
Nervous	NS	0.47	0.79
Depressed	NS	0.40	0.77
Embarrassed	NS (1 factor SIG at .10)	0.39	0.71
Envious	NS	0.46	0.63
Lonely	NS	0.45	0.61

*: Significant at .05 level

"Happy", "Excited", "Proud", "Contented", and "Optimistic" are chosen to be items of a short positive emotion scale, as they are significantly related to the construct of interest, excessive buying, and they represent a moderate level of reliability in terms of internal criteria (Richins 2004). According to Table 20, "Anxious", "Regret", "Guilty", and "Embarrassed" are chosen to be items of a short negative emotion scale, as they are significantly (or nearly) related to the construct of our interest, excessive buying, and they represent a moderate level of reliability in terms of internal criteria (Richins 2004).

Cronbach's Alpha of the short positive emotion scale is 0.86. The correlation between the short positive emotion scale and original positive emotion is 0.98*.

Cronbach's Alpha of the short negative emotion scale is 0.74. The correlation between the short negative emotion scale and original negative emotion is 0.92*. In addition, a chi-square difference test indicates that the shorter scales of emotion actually demonstrate better fit: [$\chi^2=747.74$, $df=64$, $RMSEA=0.18$, $CFI=0.70$, and $SRMR=0.14$], as compared to [$\chi^2=2344.21$, $df=274$, $RMSEA=0.16$, $CFI=0.67$, and $SRMR=0.14$]. Therefore, a short form of consumption emotion scale is as follows:

Table 21 A Short Form of Consumption Emotion Scale

Positive Emotions	Negative Emotions
Happy	Anxious
Excited	Regret
Proud	Guilty
Contented	Embarrassed
Optimistic	

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