

### **CHAPTER 29**

# **Self-Regulation and Spending**

## Evidence from Impulsive and Compulsive Buying

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ontrolling the self is a crucial aspect of human life, with researchers unearthing even more situations in which self-regulation and the executive function serve to guide people in their behavioral choices (Baumeister & Vohs, 2003; Higgins, 1996). One area that has begun to receive attention in the self-regulation literature is buying impulses and decisions (Baumeister, 2002). In Western society, people are constantly encountering tempting products, goods, or services that they may elect to acquire. If the economic crisis of 2008–2009 has highlighted anything, it is that regardless of what people may wish to believe, they clearly cannot have it all. A conflict between "having now" versus "having later" requires the person to engage in self-regulation.

Self-regulation has been characterized as having three component parts: (1) establishing a goal; (2) engaging in actions that lead to obtaining this goal; and (3) monitoring progress toward the goal (Baumeister & Vohs, 2003). For example, one may set a goal of putting at least \$50 a week into savings. To achieve this goal, the person may need to cut back on spending, while monitoring whether the savings that result from these behaviors meet the goal. If not, further cutbacks are enacted and more assessments are made until finally the goal of saving \$50 a week is reached.

Unfortunately, self-regulation efforts are not always successful. Baumeister and Heatherton (1996) identified three causes of self-control failure (1) conflicting goals; (2) failure to track one's own behavior; and (3) depletion of the resources that permit self-control to operate. From our perspective, purchasing behaviors can both contribute to the failure to exert self-regulation and be a response to such failures.

Certainly, most people have numerous goals or plans that compete for their financial resources. People may save for a house; their children's education; retirement; a vacation; a particular good, such as a couch or new car; or any of a number of other things.







These items often compete with each other, in that acquiring one item may necessitate not obtaining another.

Failure to track behavior is also evident in the way people engage in spending. People often resolve to make a budget and stick with it, but not many succeed in doing so. Oftentimes it is difficult to monitor behavior, which makes accurate assessments of spending significantly less likely. At the point of making a purchase decision, rarely do people have their monthly spending balance clearly in mind. In short, keeping track of where one's money goes is a difficult task. Consequently, reaching one's goals regarding purchases becomes less likely.

The last factor influencing self-control in purchasing is resource depletion. This model states that self-regulation is a function of the amount of a person's psychic energy, and that engaging in self-regulation takes away some of that energy. Hence, controlling behavior after engaging in laborious prior self-regulation efforts is more likely to fail (Baumeister, Vohs, & Tice, 2007).

Our purpose in this chapter is to demonstrate how the literatures on two types of purchasing fit what is known about self-control. The purchasing behaviors we highlight are impulsive and compulsive buying. We demonstrate how these behaviors may be used in support of self-regulatory goals, how other factors can affect the success of purchase-related goals, and how resource depletion can explain these various types of buying behavior.

#### **IMPULSE BUYING**

It has been estimated that impulse purchases account for \$4.2 billion dollars in store sales (Mogelonsky, 1998). One study concluded that over one-third (38.7%) of department store purchases are impulse buys (Bellenger, Robertson, & Hirschman, 1978). With shop-at-home television networks multiplying, direct marketing techniques becoming more ubiquitous, and the proliferation of Internet stores, opportunities to engage in impulse buying continue to grow. The likelihood of people succumbing to impulsive purchases may in many cases be traced back to temporary failures in exercising self-control.

Recent definitions of *impulse buying* have pointed out some important characteristics of impulse purchases. Included among these is the notion that the decision to buy is a relatively rapid one (Kacen & Lee, 2002); that there is a diminished concern for consequences of the action (Beatty & Ferrell, 1998; Rook, 1987); and that the decision to buy emerges from a conflict between *affect* (desire) and *cognition* (control) (Hoch & Loewenstein, 1991). These characteristics can also be seen as basic elements of a failed attempt at self-regulation.

Most people attempt to exert self-control to avoid buying everything they desire. Simply put, unless one has an unlimited budget, excessive purchasing conflicts with other goals, such as saving money or buying more desirable items. A serious challenge to the exercise of self-regulation thus occurs when one is faced with an urge to buy. This urge may stem from spotting a desirable brand, other elements of the store environment, or an internal state experienced by the consumer.

It has been hypothesized that factors such as proximity can increase the strength of desire for goods (Hoch & Lowenstein, 1991). Research in self-regulation also points to the role of proximity in producing failures of self-control. Walter Mischel and colleagues







(e.g., Mischel & Ebbesen, 1970; see also Mischel & Ayduk, Chapter 5, this volume) have spent over 30 years showing that children seated near a desired object fare significantly worse in their delay of gratification attempts than do children who are not placed close to such objects. Thus, the temptation of inviting products or goods is more difficult to overcome when the desired product is proximal to the person.

There are two types of proximity that can influence desire (Hoch & Lowenstein, 1991). One is physical proximity, which allows a person to have a sensory experience with an item. Seeing a beautiful watch in the store, touching a cashmere sweater, tasting a free sample at the supermarket, smelling perfume sprayed by a store clerk, or test-driving a car are all ways in which consumers may experience sensory stimuli through physical proximity. A second method of boosting desire for a product is via temporal proximity. The closer in time one is to having a possession, the more difficult it is to delay gratification. In support of this notion, consumers describe impulse buying as an unexpected, immediate, and intense urge to buy (Rook, 1987; Rook & Hoch, 1985). It appears that the initial desire might be the most difficult to control.

Technological and marketing innovations, such as TV shopping channels, the Internet and credit cards, have served to alter proximity and increase desire. However, purchasing urges, even if they are very powerful, do not always lead to action (Rook & Fisher, 1995). In fact, the urge to buy was found to account for just 20% of the variance in impulse buying (Beatty & Ferrell, 1998).

Consumers can utilize various strategies to decrease desire and thereby reduce the likelihood of impulse buying. Control of buying impulses requires willpower. This involves utilizing cognitive effort to exert self-control. As with desire, a number of factors can enhance or diminish this ability. The most common form of exerting willpower is to focus mentally on the costs involved in making a purchase (Puri, 1996; Rook & Hoch, 1985). This may involve considering other uses for the money one is about to spend or reminding oneself of the negative impact of buying the specific item (e.g., "The candy bar will make me fat"; "Buying a martini now means I won't go home and work tonight"; "My spouse will be angry if I bring home another new outfit").

Through interviews with consumers, Rook and Hoch (1985) identified a number of other strategies people use to exert willpower over an impulse buying urge. These included delay strategies, bargaining, and guilt. Delay involves efforts to postpone making a purchase. For example, consumers may say to themselves that they will not make a purchase until they have looked at other items, or that after waiting for some period of time, if they still want the item, then they can come back and buy it. Bargaining strategies involve promising oneself a small reward if the immediate desire is denied (e.g., thinking one can buy the relatively inexpensive, cute earrings if one doesn't buy the expensive purse right now). Finally, to boost resistance, consumers might remind themselves of the guilt they will feel later for making a purchase.

Researchers have demonstrated that cognitive considerations do indeed modify impulse buying behavior (Puri, 1996; Rook & Fisher, 1995). Rook and Fisher (1995), for example, found that normative evaluations of impulse buying moderated the relationship between respondents' own impulsiveness (measured as a personality trait) and what they thought a hypothetical character in a story should do when faced with the desire to make an impulse purchase. For respondents who viewed impulse buying favorably, there was a significant relationship between their own impulsiveness and thinking the character should buy impulsively. However, for respondents who held a negative evaluation of







impulse buying, the relationship between trait impulsiveness and recommendations for others' hypothetical behavior disappeared. A second study replicated these relationships for consumers' actual purchasing behavior. It would thus appear that norms affect resistance and therefore influence the likelihood of impulse buying.

Willpower may help to improve self-control over buying impulses, but there are situations in which it may be difficult to exert willpower. Several researchers have noted the role of mood as an antecedent of impulse buying (Beatty & Ferrell, 1998; Rook & Gardner, 1993; Weinberg & Gottwald, 1982). Impulse buying has been found to occur more frequently when people feel positively than when they are distressed or in a bad mood (Beatty & Ferrell, 1998). Rook and Gardner (1993) reported that 85% of their sample indicated they were more likely to buy on impulse if they were in a positive rather than a negative mood. Pleasure was the most frequently reported mood state preceding impulse buying. Not coincidentally, it has been found that a pleasant mood state can bias evaluations and judgments in a positive direction (Gardner, 1985). By making everything look better, pleasure and other positive moods may increase impulse buying by enhancing desire. People in pleasant moods also want to extend this desirable feeling (Rook & Gardner, 1993) and this motivation may also serve to increase the desire to buy.

Although negative mood states lead to impulse buying less frequently than do positive moods, the effects of negative emotions are not negligible: over one-third of the Rook and Gardner (1993) sample indicated they had made impulse purchases when in a negative mood. These respondents indicated that impulsive purchases are often made with the hope of alleviating the unpleasant mood. In this situation, consumers may be making a deliberate decision not to exert self-regulation in one area (spending) in order to achieve another goal (a more positive mood state; see Tice, Bratslavsky, & Baumeister, 2001). In this case, the effort to exert control is diminished, and impulse buying results from this change in willpower. This notion that people make a conscious decision to reduce self-control is supported by the fact that respondents state that they spend less money on impulse purchases in negative mood states than in positive ones (Rook & Gardner, 1993). This may indicate that consumers have made a conscious decision to permit a small lapse in self-control to achieve the greater good of balancing mood state. Similar findings of reduced self-control during negative mood states have been found for other self-regulatory behaviors (Baumeister, Vohs, DeWall, & Zhang, 2007).

The previous example may be labeled as a self-regulatory failure that occurs through acquiescence (Baumeister, Heatherton, & Tice, 1994) because the person chooses to give up self-regulation. Similar acquiescence failures occur when people are tired from either physical exertion or, more directly, recent use of self-regulatory resources. The ability to command self-regulation successfully has been conceptualized as a finite resource that can be depleted by situational demands (Baumeister, 2002; Bauer & Baumeister, Chapter 4, this volume; Vohs & Heatherton, 2000). Both exerting self-control and making decisions (Bruyneel, Dewitte, Vohs, & Warlop, 2006; Vohs et al., 2008) have been shown to deplete this resource. Thus, use of self-regulatory resources leaves an individual with a lowered ability to maintain self-control soon thereafter. This model suggests that impulse buying may be more common at the end of a shopping trip or after a long day of decision making.

One series of studies has tested the effect of depletion of self-regulatory resources on impulse buying (Vohs & Faber, 2007). In the first study, participants were randomly assigned to either a resource depletion or a no-depletion condition. In the resource deple-







tion condition, participants were instructed to watch a silent video but avoid looking at part of the content on the screen. Control (no-depletion) participants viewed the same tape but with no instructions to avoid looking at any of the content. This manipulation had previously been found to manipulate self-regulatory resources successfully (Schmeichel, Vohs, & Baumeister, 2003).

Following exposure to the video, participants completed a modified version of the Buying Impulsiveness Scale (BIS; Rook & Fisher, 1995). The BIS was initially designed to assess trait impulse buying, but it was reworded to pertain just to the participants' desires, urges, and inhibitions for buying in the current situation. The results of this study indicated that participants in the resource depletion condition scored significantly higher on the modified (State) BIS scale than did the no-depletion participants. Thus, reducing self-regulatory resources seemed to increase the propensity for impulse buying.

In a second study, self-regulatory resources were similarly manipulated with an attention control task, after which participants were shown pictures of 18 high-priced items (e.g., expensive watches, cars). Participants were asked to indicate how much they would be willing to pay for each item. The results showed that resource-depleted participants reported that they would pay significantly more for the items than the no-depletion participants.

Finally, a third study used a different manipulation of self-regulatory resources to examine actual impulse buying. In this study, resource-depleted participants were asked to read aloud a series of boring historical biographies while exaggerating their hand gestures, facial expressions, and emotionality. This task required self-control, because it involved amplifying and creating an emotional reaction while reading dull biographies that lacked emotional content. Participants in the no-depletion condition read aloud the same information but were not asked to change their reading style. After the manipulation, participants were given the opportunity to buy at a discounted price items commonly found in a college bookstore or a supermarket. Participants who experienced resource depletion chose to buy more items and spend more total dollars than those whose regulatory resources were not depleted. This finding was especially strong for participants who scored high in trait impulsive buying (as measured by the original BIS scale; Rook and Fisher, 1995), suggesting that among people for whom impulsive purchasing is a problem, having few regulatory resources available considerably increases the prospect of spending impulsively.

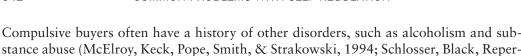
A more recent study (Ackerman, Goldstein, Shapiro, & Bargh, 2009) found that merely imagining having to engage in self-regulation (in this case, not eating tempting food) led people to say they would pay more for products in a procedure similar to the Vohs and Faber (2007) Study 2. Together, these studies suggest that people are more likely to acquiesce to an impulse buying urge when self-regulatory resources are diminished.

#### **COMPULSIVE BUYING**

While impulse buying is a behavior in which almost everyone engages one time or another, compulsive buying is a far more serious problem that affects only a small percentage of people. A general population prevalence study has indicated that about 5.8% of the population may be compulsive buyers (Koran, Faber, Aboujaoude, Large, & Serpe, 2006).







tinger, & Freet, 1994), bulimia (Christenson et al., 1994; Faber, Christenson, deZwaan, & Mitchell, 1995), and depression (Lejoyeux, Tassain, Solomon, & Ades, 1997).

Compulsive buying is defined as chronic, repetitive purchasing that becomes an overlearned and automatic way to cope with negative feelings (Faber, 2000b; Faber & O'Guinn, 2008; O'Guinn & Faber, 1989). Buying provides short-term gratification but ultimately causes harm for the individual and/or others. These negative consequences may range from interpersonal conflicts and financial difficulties to more extreme outcomes, such as divorce, jail sentences for writing bad checks, embezzlement or theft of funds to enable buying, and suicide attempts (Faber, 2004; O'Conner, 2001). In one particularly tragic case, a woman was found dead after being buried under a mountain of items she had compulsively bought and hoarded. It took policeman 2 days to find her body under all of her purchases (Tozer, 2009).

Compulsive buying is a psychiatric disorder that appears to be related to obsessive—compulsive disorder (Frost et al., 1998), impulse control disorder (Christenson et al., 1994; Koran, Bullock, Hartson, Elliott, & D'Andrea, 2002, or both (Hollander & Allen, 2006; Schlosser et al., 1994; Swan-Kremeir, Mitchell, & Faber 2005). Inconsistent results with a range of different pharmacological treatments have contributed to the confusion regarding the underlying basis of this disorder (Grant, 2003; Koran et al., 2002; McElroy et al., 1994). Perhaps because compulsive buying is often classified as an impulse control disorder, some authors seem to confuse compulsive and impulsive buying. While both may be viewed as stemming from self-regulatory failure, they differ in terms of the cause of the failure and the form it takes.

One distinction in self-regulation failure is between an initial violation and a complete breakdown of self-regulation (Baumeister et al., 1994). Initial violations are cases that involve a single instance of failing to maintain a goal-directed behavior, but control can be quickly reestablished afterwards. Alternatively, when there is a complete breakdown in self-regulation, an initial failure can lead to a major binge in the prohibited behavior. Baumeister and colleagues (1994) refer to this effect as *snowballing*.

A second distinction in different types of failure is based on the underlying cause. Most research in self-regulation failure has focused on *underregulation*, which is the failure to exert sufficient self-control. An alternative cause, *misregulation*, occurs when people attempt to exert regulation but do so using unproductive or counterproductive strategies.

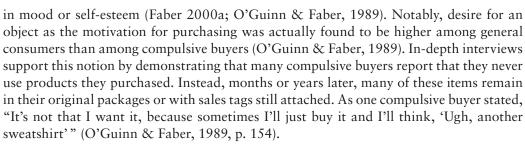
Impulsive buying might best be characterized as a type of initial violation failure that generally results from underregulation. Conversely, compulsive buying appears to be a chronic failure, attributable more to misregulation.

Compulsive buyers often report a repetitive pattern of feeling bad, buying to achieve short-term relief from these feelings, but this is quickly replaced with guilt and further bad self-feelings, leading to an ongoing repetitive cycle. Misregulation occurs because buying is used temporarily to reduce negative feelings. A complete breakdown of the regulatory system can be seen in the reports of many compulsive buyers of multiple, similar items in a shopping trip, such as several T-shirts, sweaters, raincoats, or even cartons of milk (Christenson et al., 1994; O'Guinn & Faber, 1989).

Researchers have found that the primary motivation behind compulsive buying is actually not the desire for the object purchased but rather a temporary improvement







Rather than buying to obtain a desired item, compulsive buyers more likely buy to alter their mood state or arousal level (Elliott, 1994; Faber, 2000b; Faber & Christenson, 1996). A study of compulsive buyers examined over 400 possible triggers of compulsive buying episodes and found two primary categories of antecedents. One comprised stimuli associated with buying (e.g., money, sales, department stores) and the other included negative affective states and behaviors that caused them (Faber, Ristvedt, Mackenzie, & Christenson, 1996). Compared to other consumers, compulsive shoppers report experiencing negative mood states more often prior to shopping, and positive mood states more frequently during shopping (Faber & Christenson, 1996). Although virtually all compulsive buyers indicated that buying changes their mood state, this was true for only about one-fourth of the comparison (general shopper) sample. Compulsive buyers were also more likely to state that this change in mood was typically in a positive direction.

Changes in arousal level may also be an important motivating factor behind compulsive buying. Compulsive buyers also tend to describe their buying experiences as highly arousing, using terms like feeling such as "high," "a rush," "powerful," "excited," "elated," or "out of control" (Faber, 2000a; Faber & Christenson, 1996; McElroy, Keck, & Phillips, 1995). Several compulsive buyers have reported that their buying occurs in response to feeling bored and when they want something exciting to provide a temporary lift. As one compulsive buyer put it:

"There's times when I'm depressed or bored or something. I just want something new and I'll just go and feel like buying and it makes me feel good. I feel different, excited, happy and I'm ready to go on with other boring things." (in Faber, 2000a, p. 41)

The impact of mood and arousal fits with research on self-regulation failure. People attempt to alter or prolong emotional states via affect regulation. Probably the most common attempt at affect regulation is to overcome a bad mood (Baumeister, Vohs, DeWall, et al., 2007). Consumption behaviors, such as eating (see Herman & Polivy, Chapter 28, this volume), drinking alcohol, or taking drugs (see Sayette & Griffin, Chapter 27, this volume), represent other types of affect regulation strategy. Importantly, people believe that these behaviors have the ability to alter mood states but, in actuality, they often fail to relieve a bad mood and may in fact eventually worsen it (see Baumeister, Vohs, DeWall, et al., 2007, for a review). It would appear that buying is also a way to regulate affect. Indeed, phrases like "When the going gets tough, the tough go shopping" illustrate a societal view that buying can improve one's emotional state.

For compulsive buyers, attempts at affect regulation through buying may lead to a pattern of misregulation (see Rawn & Vohs, Chapter 20, this volume). The consumer may attempt to overcome a negative mood state by buying, which serves temporarily to







improve mood. However, soon after buying, a feeling of guilt sets in when the person is reminded that he or she wasted money or failed at the goal of not buying. This negative state can lead to depression and low self-esteem. Consequently, the person feels a strong need to overcome negative self-evaluations, and this need can lead to buying again (to boost positive affect), and so on. This becomes a vicious cycle that is increasingly difficult to break.

Compulsive buyers may be particularly susceptible to this pattern of attempting to cure negative affect with buying, because they often experience painful self-awareness. Self-awareness is an important determinant of maintaining self-regulation. To self-regulate, a person must monitor his or her current circumstances, including progression through the environment, tracking progress to and from the goal, and reevaluating desired outcomes. All of these tasks require a certain degree of self-awareness. Reductions in self-awareness are linked to disinhibition, which in turn leads to self-regulation failure (e.g., Heatherton & Baumeister, 1991; see Carver, Scheier, Chapter 1, this volume).

The need to avoid self-awareness often starts with the presence of exceptionally high standards or expectations for oneself (Duval & Wicklund, 1972). Compulsive buyers have been reported to be perfectionists (DeSarbo & Edwards, 1996; Faber, 2000a; O'Guinn & Faber, 1989). They often report that they tried hard to please their parents during childhood, but generally felt as if they failed (Faber & O'Guinn, 1988). This can clearly been seen in a quotation from one compulsive buyer:

"Because you are the oldest you're suppose to be the good little person. I was always trying to win their [parents'] approval but couldn't. You know you could have stood on your head and turned blue and it wouldn't matter. I got straight A's and all kinds of honors and it never mattered." (in Faber & O'Guinn, 1988, p. 10)

The perception of being unable to please parents, feelings of inadequacy, and failure to receive recognition for diligent efforts leads many compulsive buyers to develop low self-esteem. Numerous studies have found that compulsive buyers have low self-esteem compared to other consumers (Elliott, 1994; O'Guinn & Faber, 1989; Scherhorn, Reisch, & Raab, 1990). The relationship between low self-esteem and having a high standard of comparison (e.g., being perfectionistic) is particularly apparent in interviews in which compulsive buyers compare themselves with their siblings. The following two examples illustrate this:

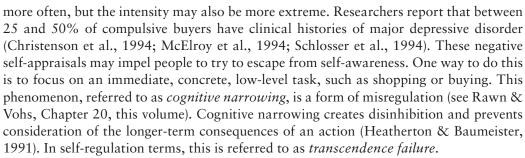
"I have a brother who is now a dentist, who is everything Mother and Dad ever wanted without question. He was bright and he was very engaging and he is very well to do and all of that. And then there is (informant's name) and my mother did my schoolwork ever since I was in fifth grade. She did all of my schoolwork, even my college papers. It's not much to be proud of." (in O'Guinn & Faber, 1989, p. 153)

"Right now my brothers are both millionaires. My father's a millionaire. I was not poor, but I was not very rich." (in Faber & O'Guinn, 1988, p. 9)

Moreover, aversive self-awareness can lead to depression and anxiety (Ingram, 1990). Not surprisingly, compulsive buyers have higher than average levels of depression (McElroy et al., 1994; Schlosser et al., 1994) and anxiety (Christenson et al., 1994; Scherhorn et al., 1990). Not only do compulsive buyers experience these negative feelings







Research on compulsive buying matches the predictions generated from self-regulation and escape theory. If compulsive buying occurs in an effort to cope with adverse self-awareness, it should follow as a direct response to such negative moods. Several studies have shown this to be the case. Compulsive buyers were asked to complete the sentence fragment "I am most likely to buy myself something when. . . . " Almost three-fourths finished the sentence by including some mention of a negative emotion, such as "I'm depressed," or "I feel bad about myself" (Faber, O'Guinn, & Krych, 1987). In a different study, compulsive buyers were asked to nominate from a list of over 400 items factors associated with a worsening of their compulsive buying. A factor analysis of commonly mentioned items indicated that the two things that led to compulsive buying urges were shopping-related stimuli (e.g., being around malls or stores; having money or credit cards) and experiencing negative emotions related to the self (e.g., feeling fat, bored, stressed, depressed, angry, hurt or irritable). Finally, some compulsive buying informants have stated that the only time they escape negative feelings is when they are shopping (Elliott, 1994).

Compulsive buyers may be particularly susceptible to cognitive narrowing when shopping. They frequently mention noticing stimuli such as colors, textures, sounds, and smells while shopping (Schlosser et al., 1994). The concept of *absorption*, which is the tendency to become immersed in self-involving experiences triggered by engagement in external stimuli, has been applied to compulsive shoppers. Individuals high in absorption (1) are emotionally responsive and readily captured by engaging sights and sounds; (2) become absorbed in vivid and compelling recollections and imaginings; and (3) experience episodes of altered states. Perhaps not surprisingly, people who are prone to compulsive buying score higher on the personality trait of absorption than other consumers (Faber, Peterson, & Christenson, 1994). This aspect of shopping was captured by one compulsive buyer's description of a particular episode:

"But it was like, it was almost like my heart was palpitating, I couldn'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." (in O'Guinn & Faber, 1989, p. 154)

The intense level of cognitive narrowing that can accompany compulsive buying episodes is viewed as desirable by these shoppers. It may well be that this phenomenological experience is why many compulsive buyers consider sales people to be an unwanted intrusion in their shopping, and why most prefer to go shopping by themselves rather than with others (Elliott, 1994; Schlosser et al., 1994).







Another consequence of cognitive narrowing is the failure to recognize the implausibility of beliefs, allowing noncritical, irrational thoughts to emerge that produce magical or fanciful thinking (Heatherton & Baumeister, 1991). Fantasies are common among compulsive buyers. Many report that during buying episodes they imagine themselves as being more powerful or admired. Their buying is accompanied by self-perceptions of being more fashionable, more admired, or being part of an exclusive and desirable group (Krueger, 2000; Scherhorn et al., 1990). Some researchers have found that compulsive buyers are more prone to fantasizing than other consumers (Elliott, 1994; O'Guinn & Faber, 1989).

Cognitive narrowing and fantasizing keep compulsive buyers from focusing their attention on the goal of not spending money. Thus, although the behavior creates a temporary boost in self-esteem, arousal, and mood, it soon turns to feelings of guilt, regret, and despair. This creates a lapse-activated pattern of spiraling distress that is common among people suffering from behavioral and impulse control problems (Baumeister et al., 1994).

#### CONCLUSION

An understanding of both buying behavior and the self-regulation process can benefit from greater collaboration and cross-fertilization. In this chapter we have attempted to show how the self-regulation literature can be used better to understand impulsive and compulsive buying behaviors. In doing so, we demonstrated how, when, and why buying may result from self-regulatory failure. Although much of the work has focused on personality factors (i.e., trait characteristics) that can help to explain which people are more prone to engage in these behaviors, the self-regulation literature may be particularly beneficial in explaining situational effects (i.e., state effects), such as why a particular episode of impulsive or compulsive buying may take place.

Self-regulatory research also helps to explain how several commonalities found in descriptions of compulsive buyers work together to cause this behavior. Research regarding cognitive narrowing and misregulation is particularly valuable in explaining compulsive buying behavior. Findings regarding the primacy of emotional regulation over other areas of self-regulation help to explain why compulsive buyers may continue to engage in this behavior despite serious consequences for them and their families. The application of self-regulatory failure to other behaviors such as eating disorders along with compulsive buying, is potentially helpful in explaining the comorbidity among these disorders.

Self-regulation research may also be helpful in distinguishing between different buying behaviors. A good deal of controversy has emerged in the buying behavior literature over whether impulsive and compulsive buying are qualitatively different behaviors, or whether they simply differ as a matter of degree. Work on self-regulatory failure helps to identify their similarities, as well as their differences. Regarding similarities, both disorders may be forms of self-regulatory failure. Regarding differences, however, they may represent different types of failure and stem from different underlying causes. Impulse buying is primarily concerned with single instances or initial violations of self-regulation. Generally, people set a goal and purchase mainly what they intended to purchase. From time to time, however, people may experience a violation of this goal. Typically, this type







of lapse is due to underregulation caused by resource depletion. Following this temporary lapse, people are again able to establish control over purchasing.

Although compulsive buying also represents a form of self-regulatory failure, it is chronic and consistent rather than occasional. As a result, it leads to a complete breakdown of the self-regulatory system. The cause of this problem may more likely be a problem of conflicting goals or ineffective monitoring than one of resource depletion. Repeated buying occurs because emotional goals consistently overpower purchasing goals. Additionally, binge buying and multiple-item purchases common in compulsive buying may stem primarily from an inability to monitor behavior resulting from cognitive narrowing. Thus, the problem of compulsive buying is one of misregulation rather than underregulation (Rawn & Vohs, Chapter 20, this volume).

Research in consumer behavior may also help to extend our understanding of the process of self-regulation. Whereas buying is an everyday activity that can offer much opportunity to those interested in the naturalistic study of self-regulation, self-regulation is a critical component in purchasing behavior. As a result, research at the intersection of these areas seems to represent a perfect partnership to enhance our knowledge of both domains.

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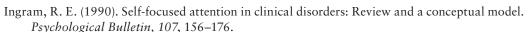




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### CHAPTER 30

# **Attention-Deficit/Hyperactivity Disorder**, and Self-Regulation, and Executive Functioning

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urrent psychiatric taxonomy describes attention-deficit/hyperactivity disorder, or ADHD, as involving developmentally inappropriate degrees of inattention and hyperactive-impulsive behavior. These symptoms frequently arise in early childhood, are relatively pervasive or cross-situational in nature, may persist into adolescence and even adulthood in the majority of clinically diagnosed cases, and result in impairment in major life activities, such as family functioning, peer relations, and educational and occupational functioning, among others (American Psychiatric Association, 2001; Barkley, 2006; Barkley, Murphy, & Fischer, 2008). This perspective emphasizes problems in the realms of attention, impulsiveness, and activity level as being central to a conceptualization of the disorder. But children and adults with ADHD often demonstrate deficiencies in many other motor, cognitive, and emotion regulation abilities (for reviews, see Barkley, 2006, 2010).

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Many of these disabilities fall within the domain of "executive functions" (EFs) in neuropsychology (Barkley, 1997a, 1997b; Denckla, 1996) or "metacognition" in developmental psychology (Welsh, Pennington, & Grossier, 1991), or are affected by these functions. All seem to be mediated, at least in part, by the frontal cortex, and particularly the prefrontal lobes and at least three or more neural networks that are implicated in the neuropsychology of ADHD (Castellanos, Sonuga-Barke, Milham, & Tannock, 2006; Fuster, 1997; Nigg & Casey, 2005; Sagvolden, Johansen, Aase, & Russell, 2005). Theorists have long speculated that problems with executive functioning specifically and self-regulation more generally are at the heart of this disorder, and give rise to the more superficial and surface symptoms represented in clinical diagnostic criteria (Barkley, 1997b; Pontius, 1973).