Losing Control
How and Why People Fail at Self-Regulation

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Introduction:
Self-Regulation Failure in Social and Theoretical Context

Self-regulation failure is the major social pathology of the present time. As America lurches toward the end of the twentieth century, it finds itself beset by all manner of social problems and discontents. Some of these reflect problems of social structure and have economic and sociological roots, but others are based in the difficulties that individual citizens have in managing their lives. Many of these individual difficulties revolve around the inability to control oneself. All over the country, people are miserable because they cannot control their money, their weight, their emotions, their drinking, their hostility, their craving for drugs, their spending, their own behavior vis-à-vis their family members, their sexual impulses, and more. America is regarded by some observers as a society addicted to addiction: Therapies and support groups proliferate, not just for alcoholics and heroin addicts, but for people who cannot control a craving for Coca-Cola, an impulse to beat their children, an urge to masturbate or sleep with multiple strangers, a debt balance on credit cards, or the daily consumption of coffee or chocolate. Some of these problems are large, while others seem small to all but those who suffer from them; but they share an acutely vexed awareness of failure at self-regulation.

The consequences of these problems go beyond individuals. Self-regulation failure is central to many of the problems that are widely discussed and bemoaned as allegedly hastening the decline and doom of America. Teen preg-
Introduction: Self-Regulation in Context

nancy and single parenthood, which supposedly perpetuate a cycle of poverty and which threaten the cherished images of family life, are often the result of a failure to regulate one's sexual actions—either by abstaining from intercourse or, at least, by taking contraceptive precautions. Needless, uncontrolled, unsafe sex has also brought epidemics of several major venereal diseases, from AIDS to gonorrhea. Drug abuse, alcoholism, and binge eating all consist of an inability to stop oneself from indulging one's appetites to excess.

Economists note with chagrin that the American economy suffers because our citizens save and invest much less of their money than citizens of other industrialized countries, and one reason for this is an inability to discipline one's private finances. Indeed, the lack of fiscal discipline goes much further than an inability to save; many people find themselves chronically in debt. Many middle-class citizens struggle with huge credit card balances and ballooning mortgage payments and other debts, while some working-class citizens live in constant fear of having their telephone service or electricity shut off or their furniture repossessed because of unpaid bills, and others find themselves still making monthly payments on cars that have already gone to the junkyard.

Americans continue to pledge lifelong fidelity at their weddings, but in fact they are getting divorces in record numbers, and it took a series of major scares about incurable and deadly venereal diseases to slow the rise in extramarital sex. Instead of working out marital problems, Americans head for divorce court, and many people repeat the cycle with a series of stormy marriages and costly divorces. A new willingness to talk about family problems has revealed epidemic levels of domestic violence: One out of eight or nine American husbands admits to physically attacking his wife in the past year, and wives are equally or perhaps even more likely to attack their husbands (although the husbands are less likely to suffer serious injury). Marital rape, once considered to be a contradiction in terms, has now become recognized as a widespread problem. Children are beaten uncontrollably and are sexually abused as well. Elderly parents are beaten by their own offspring.

Impulsive crimes have risen steadily. Statistics on rape, muggings, murder, robbery, assault, and similar offenses show alarming increases. The increase is not primarily due to any rise of organized crime or planned criminal activity, but rather it mostly indicates a tendency for people to give in to violent impulses. One sign of this is that our prisons are overflowing, not with Mafiosi, but with school dropouts and the offspring of neglecting, absent, alcoholic or addicted, criminal, or abusive parents, who tend to fail worst at instilling self-control in their children.

Meanwhile, even the most law-abiding citizens suffer from problems arising from lack of self-control. Health experts routinely say that many, perhaps even most, causes of American deaths are preventable if only people would regulate their behaviors better: quit smoking, eat right, exercise regularly.

The school achievement of American pupils lags behind the rest of the industrialized world. There are multiple reasons for the problems of our schools, but the lack of discipline of our students is among them. Students cut class, fail to complete homework assignments, disrupt classrooms with misbehavior, and drop out altogether. Instead of learning, many students spend their time in school distracted with issues of violence, weapons, drugs, and sex. Even the most talented students often seem to think that the route to success is less a matter of hard work, good study habits, and meeting deadlines, than of doing extra-credit projects, being creative, and circumventing authoritarian rules with clever excuses and well-phrased requests for special treatment.

Currently there seems to be a widespread hope, which is probably no more than an absurd and idle fantasy, that raising self-esteem will solve these problems. If only we loved ourselves more, the assumption is, all our problems would vanish. From the perspective of self-regulation theory, the fascination with self-esteem is a pathetic and self-indulgent wish. People mess up their lives with various forms of irresponsible behavior, such as abusing alcohol or drugs, spending more money than they have, or abusing marital trust. When the destructive consequences of self-regulation failure catch up with them and they contemplate the sorry state of their lives, they feel a loss of self-esteem. As a result, they come to associate the problem with the loss of self-esteem—but conclude, wrongly, that the low self-esteem is the cause rather than the result of their reckless or self-destructive behavior. Solving their problems would in fact require hard work and self-discipline to change their patterns of behavior and deny themselves the instant gratification of their impulses. Instead of accepting that sober reality, however, people wish that they could effect a magical transformation by merely deciding not to feel guilty any more. They wish to forgive themselves (and be forgiven by others) for their misdeeds and to start a new chapter of their lives with a clean slate and a generous dose of self-admiration. Unfortunately, this prescription does not change the core problems of poor self-regulation; in fact, it merely offers the individual a way to avoid learning from his or her mistakes. It seems likely to lead merely to another round of indulgent, irresponsible behavior and another set of problems.

The three authors of this book have spent many years doing research on self-esteem (e.g., Baumeister, 1982, 1993a; Baumeister, Heatherton, & Tice, 1993; Baumeister, Tice, & Hutton, 1989; Heatherton & Polivy, 1992; Tice, 1991, 1993). Normally, researchers like to see the variables they study become a focus of national interest, because it increases the recognition of one's own work. We cannot, however, go along with the national preoccupation with self-esteem. In our view, America is not suffering from low self-esteem. It suffers from a spreading epidemic of self-regulation failure.

The importance of self-regulation failure has not escaped the attention of social scientists. Psychological research on issues of self-control has expanded dramatically since the middle of the 1980s. Unfortunately, there is not much coordination of this research. Researchers in multiple fields have examined many phenomena in isolation from each other.

The purpose of this book is to pull together much of this work on self-regulation failure. The goal is understanding rather than intervention or social critique. We hope to assemble the information about self-regulation failure,
now scattered among dozens of journals and seemingly unrelated fields of inquiry, in order to identify some general patterns and principles and to offer a resource for others who may wish to know about self-regulation failure for other purposes, including possibly clinical work, social work, policy analysis, and basic research and theorizing. Regarding the last of these, which is closest to our own work, we note that self-regulation failure is of interest in several ways. First, it is an intriguing problem in its own right. Second, it is part of a broader theoretical question of self-regulation per se. (That is, to understand how people control themselves successfully, it is useful to have a body of knowledge about failures of self-regulation, so that one can understand the limits and pitfalls of efforts to regulate the self.)

Third, self-regulation is important for the compelling project of understanding the nature of human selfhood. In our view, a very significant and central part of the self is its activity as a self-regulator. No cognitive, motivational, emotional, or behavioral theory about the self can pretend to be complete without addressing the issue of self-regulation.

WHAT IS SELF-REGULATION?

If life is indeed a miracle, then it is a many-sided one, and one of the most miraculous of these sides is the ability of living things to control themselves. Among most species, the ability to alter oneself is confined to certain limited and innately prepared mechanisms, such as homeostasis, but among human beings the ability to exert control over one’s own inner states, processes, and responses is extensive.

Most living things have some set of inner mechanisms that regulate the system. Homeostasis, after all, is not a neutral state or passive outcome but a dynamic state that is the product of frequent adjustments in response to constantly changing circumstances. Food is ingested and digested. Body temperature is adjusted. Cuts, bruises, and other tissue damages are repaired. Opponent processes spring into action to offset unusual states and conditions (see Solomon & Corbit, 1974). Thus, living systems are all self-regulating.

Among human beings, however, the capacity for self-regulation far exceeds what most other living things can do. Part of the reason for this is the involvement of the conscious human mind in the process. Human beings develop a broad variety of techniques for regulating their actions and inner states. They do so with reference to far more than a steady-state outcome; indeed, people regulate themselves with reference to ideals, long-range goals, others’ expectations, and other standards that may not correspond to anything they have yet experienced. Some people have elevated control over bodily processes to an extraordinary level, such as the yogis who allow themselves to be buried alive for a week or who melt large blocks of ice with their naked bodies.

Human culture has long recognized people’s capacity for regulating themselves. Words such as self-control and self-discipline embody popular conceptions of self-regulation. We shall favor the term self-regulation, but from our perspective self-control has a very similar meaning and self-discipline is only slightly narrower, and we shall use the latter two terms to connect our discussion with the way people talk about these issues and problems in everyday life.

We use the term self-regulation broadly, to refer to any effort by a human being to alter its own responses. These responses may include actions, thoughts, feelings, desires, and performances. In the absence of regulation, the person would respond to the particular situation in a certain way, whether because of learning, habit, inclination, or even innate tendencies. Self-regulation prevents this normal or natural response from occurring and substitutes another response (or lack of response) in its place.

Thus, the essential nature of self-regulation is that of overriding. In an important sense, self-regulation theory requires that the person (or other organism) have multiple processes or levels of action. One process interrupts or overrides another. For example, a person may wish to complete a certain project at work. While she works, she may feel a growing thirst, as her body uses up its moisture. Normally the increase in thirst would prompt her to get a drink; the urgency of the work, however, may prompt her to override this typical response and stay at her desk until the project is completed. She has regulated her behavior in a way to make it depart from normal or habitual ways of acting.

The concept of overriding encompasses starting, stopping, or changing a process, as well as substituting one outcome or response for another. The most basic form of override, however, is simply to bring a response sequence to a stop. The original and rudimentary form of self-regulation is therefore what we call self-stopping: Intervening in one action or response pattern in order to bring it to a halt. Successful self-regulation may involve stopping oneself from drinking another beer, from eating another helping, from thinking about what might have been, from yelling out one’s anger, and the like.

Indeed, most forms of self-regulation can in theory be analyzed as instances of self-stopping, although there are some exceptions (such as getting oneself out of bed in the morning, which requires one to start an action rather than to stop one; although in a sense one stops oneself from indulging in the lazy desire to lie in bed). It is an instructive exercise to try to reduce all self-regulation to self-stopping. Although we do not subscribe to such extremely reductionistic views, one can analyze the vast majority of instances of self-regulation in this way. Addicts stop themselves from indulging their cravings; dieters stop themselves from eating; infantry soldiers stop themselves from running away; decision makers stop themselves from being swayed by improper sources or unwelcome evidence; persevering workers stop themselves from giving in to the pain or fatigue that sends an impulse to quit; angry or distressed people stop themselves from dwelling on what upset them; and so forth.
BASIC INGREDIENTS OF SELF-REGULATION

Although this book is focused on self-regulation failure, some initial comments about self-regulation perse need to be made. In other words, it is useful to have some grasp of what the main processes are, in order to understand how they may fail.

It is necessary to begin with the assumption that there is more than one thing going on inside a human being at any given time. Multiple processes operate in parallel in a complex creature such as a human being. At any moment, the body may be regulating temperature, breathing, and digesting food, the mind may be pondering some problem while also replaying some remembered piece of music, and the emotional system may be reacting to thoughts with various feelings. Self-regulation begins with competition among such multiple processes. Self-regulation is a matter of one process overriding another, and that result emerges from competition among these parallel processes.

To understand self-regulation, it is also necessary to have some concept of a hierarchy among these multiple processes. The competing processes are not equal. Indeed, the hierarchy concept was central to one of the most important works on self-regulation, namely the model advanced by Carver and Scheier (1981, 1982). Higher processes involve longer time spans, more extensive networks of meaningful associations and interpretations, and more distal or abstract goals (see also Baumeister, 1991a, 1991b; Vallacher & Wegner, 1985, 1987). Self-regulation involves higher processes overriding lower processes; when the reverse happens, it is failure of self-regulation. The person may be torn between the desire for a cigarette and the resolution to quit, and the latter is higher on the hierarchy. If the person manages to avoid smoking in that situation, then that was an instance of successful self-regulation, because the self’s resolve overrode the (lower) desire to smoke. It is not self-regulation, however, if the desire to smoke overrides the resolution to abstain. Rather, if the person gives in and has a cigarette, that is a case of self-regulation failure.

Much of the research and theorizing about self-regulation has emphasized the concept of the feedback loops, borrowed from systems theory (Miller, Galanter, & Pribram, 1960; Powers, 1973; Carver & Scheier, 1981, 1982). Feedback-loop theory was advanced in the 1940s in connection with the development of sophisticated weapons such as ballistic missiles, but the most familiar example from everyday life is the room thermostat, which turns on the furnace or air conditioner whenever the room temperature departs from a preset range. Feedback loops are also commonly called TOTE loops; TOTE is an acronym for test-operate-test-exit, reflecting the sequence of steps in such a loop. The initial test phase refers to a comparison of current circumstances (e.g., the room temperature, or a person’s current dress) to a standard (the desired temperature, or the desired level of dress). If there is a discrepancy, such that current circumstances fall short of the standard, then there is a phase of operation: The thermostat turns on the furnace, or the person changes clothes. Then comes another test, to see whether the circumstances have reached the goal or not. If not, the system continues to operate to produce change (more heat; further changes in clothes). Finally, when the circumstances measure up to the standard, the system exits the loop, and the cycle ends.

The feedback loop model presupposes three things that are important ingredients for self-regulation. First, there must be standards; to pursue the example, the thermostat cannot operate without being set to a particular target temperature. When people seek to exert control over themselves, they invoke various standards, which are abstract concepts of how things should be. These may be social norms, personal goals, the expectations of others, and the like. When standards are unclear, ambiguous, lacking, or conflicting, self-regulation will be less effective.

Second, a feedback loop requires some way of monitoring the current circumstances (in the test phase). People can only regulate themselves successfully if they pay attention to what they are doing, or if they have some other way of gaining the knowledge of their responses. People who use their charge cards indiscriminately, without keeping track of how much they are spending, will have a much harder time regulating their finances than people who continue to monitor their expenditures.

Third, people must have some means of operating on themselves in order to bring about the desired changes or responses. As we have said, self-regulation involves overriding responses that might normally, naturally, or habitually occur. If people cannot override these, self-regulation will be unsuccessful.

Understanding self-regulation as an override process portrays the problem as one of competition between responses, and indeed in many instances of self-regulatory challenge people feel as if there is an inner conflict going on, in which they are pulled in opposite directions. The decision to keep to a strict diet conflicts with the urge to gobble down that doughnut that someone has placed on the table in front of you. In some sense, therefore, the stronger response wins. Successful self-regulation therefore requires that the responses high in the hierarchy carry enough strength to override the lower tendencies.

This concept of strength resembles the colloquial concept of willpower. In the familiar example, a person uses willpower to resist temptation. Strong people will be able to resist; weak people will not. Although this common-sense model may have some shortcomings (for example, we should not assume that strength is a constant quantity that reflects some good or bad property of the person’s character), it is valid in some important ways. We shall return to issues of strength repeatedly throughout this book. In particular, factors that deplete or decrease self-regulatory strength may increase the likelihood of self-regulation failure. By the same token, if the lower impulse becomes stronger and stronger—such as if the temptation becomes more appealing, or the person’s deprivation becomes more acute—then it may be able to thwart the person’s efforts to override it.
IMPORTANT OF SELF-REGULATION

The central importance of self-regulation to human life has already been suggested by our opening remarks that linked self-regulation failure to many of the major social problems of our contemporary society. Indeed, the notion that self-regulation is important is far from new. Although ancient philosophers and wise men may have neglected to use the term, they nonetheless recognized its importance. Indeed, the Aristotelian exhortation to pursue moderation in all things can be understood as a recommendation that people regulate their desires and their actions so as to prevent destructive, undesirable extremes.

Traditional conceptions of virtue and vice have often referred to self-regulation patterns. Medieval Christians were frequently warned about the “seven deadly sins,” for example. Five of the seven—greed (avarice), lust, gluttony, sloth (laziness), and anger (wrath)—referred to issues of self-regulation failure, ones that we shall cover in the pages of this book. Thus, the majority of major sins referred to selfish impulses and actions, and sinners were defined as people who failed to overcome these impulses. Meanwhile, virtues such as fidelity, temperance, loyalty, chastity, prudence, courage, humility, and steadfastness celebrated people who did manage to keep their own behavior up to high standards by resisting temptations and maintaining consistency.

Likewise, the traditional male and female sex roles embodied idealized conceptions of self-regulation, although these often tended to be expressed in somewhat different spheres. Male ideals often invoked heroic feats of self-control, such as conquering one’s fear in battle so as to be able to perform effectively and aggressively despite great personal danger. Self-discipline has also been admired in male work, where great accomplishments often require laboring for long grueling hours at strenuous tasks, such as in farming. Female ideals, meanwhile, have placed even greater emphasis on self-control, usually requiring constant exercise over long periods of time rather than more isolated, heroic feats. The culture has treated self-denial, chastity, fidelity, self-sacrifice, emotional control, and dutiful submission to the sometimes arbitrary and capricious commands of others as feminine virtues, and self-regulation is central to all of those. Indeed, it is possible to say that self-control has been the quintessential feminine virtue in Western culture. Although resisting temptation has been regarded as an important task in the achievement of virtue by either sex, there has generally been greater tolerance of occasional lapses by males (whose periodic indulgence in intoxication, sexual shenanigans, or aggressive misbehavior has been regarded as inevitable and perhaps appropriate), which implies that females have generally been held to higher standards than males for the capacity to overcome desires and impulses (for a discussion, see Bullough & Brundage, 1982).

Recent research has continued to verify the value and importance of self-regulation in various ways, as several examples will readily show. One significant problem in our society is the high divorce rate. Kelly and Conley (1987) examined a broad host of personality and attitudinal factors in order to see which ones predicted marital breakup. Three variables stood out as especially powerful predictors. Two of these were the neuroticism of the husband and the neuroticism of the wife, indicating that (not surprisingly) grumpy, unhappy, irritable people are more prone to marital dissatisfaction and divorce. The only other variable that ranked with those two obvious factors was the husband’s impulse control. Thus, marriages break up in large part when husbands are deficient at self-regulation.

In a possibly related finding, Strube, Turner, Cerro, Stevens, and Hinchee (1984) linked lack of control to hostile aggression and family violence. These authors noted that many researchers had suggested that the Type A, coronary-prone personality tended to be accompanied by higher levels of aggression than other personality types, but the nature of this aggressiveness had not been spelled out. Their own research ruled out the notion that Type A aggression is instrumental; instead, it appears that Type A people’s aggression often emerges as a hostile response to frustration and an inability to prevent oneself from violent action when one has been angered.

In one of the most provocative studies to examine long-term effects of self-regulatory capabilities, Mischel, Shoda, and Peake (1988) showed beneficial effects lasting for over a decade. More precisely, children who showed a high capacity to resist immediate temptations and choose delayed gratifications while still preschoolers later became more successful and well-adjusted adolescents. In this study, researchers assessed the children’s ability to delay gratification when the children were 4 and 5 years old. About 10 years later, the researchers contacted the parents for reports on how the children were doing. The adolescents who had been the most self-controlled children were superior in school performance, social competence, and coping abilities (i.e., being able to deal with frustration and stress effectively). Another follow-up study found that the children who had been most able to delay gratification at age 4 had higher SAT scores when they applied to college (Shoda, Mischel, & Peake, 1990).

These findings suggest that self-regulatory capacity is a central, powerful, stable, and beneficial aspect of personality. Research by Funder, Block, and Block (1983) has confirmed its importance in personality. High capacity to delay gratification is linked to being attentive, reasonable, intelligent, resourceful, competent, and cooperative (all of these as perceived by teachers and psychologists). Children who have low ability to delay gratification tend to be aggressive, restless, unable to deal with stress, prone to feelings of victimization, and likely to be regarded as sulky and whiny.

Turning from beneficial to destructive patterns, self-regulation again emerges as a central factor. In an important work synthesizing a great deal of research on many types and patterns of crime, Gottfredson and Hirschi (1990) concluded that the most important generalization about crime and criminality is that they arise from lack of self-control. Most crimes are impulsive actions,
and most criminals exhibit broad and multifaceted patterns of lacking self-control. We shall return to this in some detail as we examine specific processes of self-control failure; for now, the important point is that self-regulation failure has been implicated as possibly the single greatest cause of destructive, illegal, and antisocial behavior.

To put things in a broader context, it appears that self-regulation is a vital aspect of human adaptation to life. A classic paper by Rothbaum, Weisz, and Snyder (1982) argued that human adaptation involves two processes, which they termed primary and secondary control. Primary control referred to the ability to change the environment in order to suit the self. Secondary control, in contrast, involved changing the self to fit in to the environment. As a way of operating on the self, secondary control can be understood as a concept that is closely related to self-regulation. Thus, self-regulation accounts for roughly half of the adaptive activities of human beings.

And, in fact, self-regulation may be the more important half. When Rothbaum et al. (1982) wrote their article, they argued that people generally began by trying to exert primary control (hence the term) and only resorted to secondary control if primary control failed, but research has failed to support that sequence. In fact, subsequent work by these authors consistently found that measures of secondary control were the ones most closely related to successful adjustment (F. Rothbaum, 1988, personal communication). In their work, as in the work by Mischel et al. (1988), self-regulation emerged as the most powerful and decisive key to becoming a successful, well-adjusted person.

Thus, self-regulation has been widely and justly recognized as an important aspect of personality and of human behavior. Society benefits when its members have high self-control, because social relations remain more orderly, predictable, and constructive. Individuals benefit from self-control, because over the long run they have a better chance of meeting their goals, fulfilling their plans, and adapting to their environment.

PLAN OF BOOK

In this book we plan to survey the research literature in several major domains where self-regulation failure has been studied. In reading these literatures, our goal has been to understand each phenomenon on its own terms and then to look for common patterns and principles that hold up across different domains. These patterns and principles constitute a general understanding of self-regulation failure, which can then be reapplied to the individual spheres and domains. It would be unrealistic to expect all self-regulation failures to follow a single causal process or to conform to a uniform pattern. Still, there do exist broad similarities across multiple spheres, and these deserve careful attention and emphasis.

Chapter 2 will discuss the general patterns and principles that we found in diverse forms of self-regulation failure. We shall present these in the form of a general theoretical discussion of self-regulation failure, derived largely from an understanding of how successful self-regulation functions.

The subsequent chapters will present the evidence about specific spheres of self-regulation failure. Our goal has been to cover the main findings and conclusions about each type of self-regulation failure, regardless of whether it fits our theoretical scheme or not. We shall of course refer back to the general theoretical discussion from Chapter 2 wherever appropriate, but we have sought to avoid a Procrustean policy of forcing all research findings to conform to our ideas.

The main body of the book, therefore, is organized by phenomenon rather than by conceptual process. Thus, for example, rather than covering all instances of underregulation together and then proceeding to all instances of misregulation, we cover both underregulation and misregulation in each chapter. The chapters cover the major areas of self-regulation failure so as to be accessible to readers who have a specific interest in one sphere. The four chapters of Part II involve self-regulation failure in several of the main spheres studied by social and personality psychologists: task performance, self-management, mental processes, and emotions. Part III covers self-regulation failures with regard to impulses and appetites, including eating, drinking alcohol, gambling, smoking, shopping, and aggressive misbehavior.

Our final chapter, then, will summarize the mass of evidence in relation to the general ideas and patterns explained in Chapter 2. We shall also seek to outline areas where knowledge remains most fragmentary and incomplete, in the hope that researchers will redouble their efforts in these areas.
General Patterns and Mechanisms of Self-Regulation Failure

The purpose of this chapter is to outline some broad ideas and theories about how self-regulation fails. These can then be examined, tested, and refined in further chapters, in which we examine what is known about specific spheres of self-regulation failure.

There are two main categories of self-regulation failure: underregulation refers to a failure to exert control over oneself, and misregulation refers to exerting control in a way that fails to bring about the desired result, or particularly in a way that leads to some alternative result. Underregulation is more studied, although recently some evidence has accumulated about misregulation too. Accordingly we shall emphasize underregulation. In any case, the two are quite different and follow different processes, so it is necessary to analyze them separately.

Logically, one might suppose that something in the nature of overregulation would be a possible form of self-regulation failure. But overregulation presumably accomplishes its goal, even if it puts extra energy into the task or does more than is necessary, so it is not a form of failure. The only exception would be if overregulation produces some undesirable results, in which case it is a form of misregulation. For that reason, we will not have a separate treatment of overregulation.

The basic features and ingredients of self-regulation were covered in Chapter 1. These include having some standards, monitoring oneself in relation to these standards, and altering the self's responses so as to make them conform better to the standards. Self-regulation failure can occur with any of these; there can be a problem with knowing the standards, a problem with monitoring the self, or a problem with making the self conform to them.

CONFLICTING STANDARDS

The first sort of problem is one of the standards themselves. There could be a complete lack of standards, in which case one does not have any basis for self-regulation (e.g., Karoly, 1993). More common, though, is the problem in which one has multiple standards that are inconsistent, conflicting, or otherwise incompatible. If the person has several conflicting sets of standards, then it is very difficult to decide which one to use as the basis for self-regulation. Shakespeare's Hamlet, for example, depicted a young man torn between conflicting standards. On the one hand, he felt his duty as a prince to be loyal to his king, the man whom his mother had married and who had generally treated him well. On the other hand, he suspected the king to be a usurper who had murdered Hamlet's own father, and if these suspicions were correct it was his duty as a son to avenge his father's death. Caught between these incompatible obligations, Hamlet spent much of the drama paralyzed by indecision, ruminating about the proper course of action, misbehaving in various ways, and even seeming to lapse into madness.

Empirical evidence supports the view that self-regulation is severely hampered by conflicting standards. When people have multiple, conflicting goals, they become unable to manage themselves effectively. Paralysis, confusion, and other dysfunctional patterns result, just as they did for Hamlet. Emmons and King (1988) showed that conflicting goals tend to produce rumination rather than action, and in consequence the person fails to make progress toward any goals. Van Hook and Higgins (1988) showed that discrepant, conflicting self-guides (i.e., internal sets of standards) lead to muddled, indecisive, unsure, rebellious responses, confusion about identity, and emotional distress. They noted that these internal conflicts make self-assessment difficult, which contributes to self-regulatory difficulties.

Maphet and Miller (1982) provided similar evidence in a study with children that was based on the assumption that self-control derives from the internalization of instructions originating with an external, controlling agent. These researchers showed that children could effectively obey instructions that prohibited a certain behavior, even weeks after the prohibition was expressed. If the two authority figures (in this case, two experimenters) disagreed about the rules, however, the child was not likely to conform to their instructions.

REDUCTION OF MONITORING

A second prominent cause of self-regulation failure arises when the person ceases to monitor what he or she is doing. As we saw, effective self-regulation requires that the person frequently evaluates self and actions against the relevant standards, to see how one is measuring up. When the monitoring function breaks down, self-regulation becomes difficult if not impossible. In an authori-
tative overview of the problems that plague clinical, therapeutic efforts to improve self-regulation, Kirschenbaum (1987) concluded that clients' failure to monitor their behavior is a prominent and central cause of self-regulation failure.

A failure of monitoring may be central to one of the most discussed and controversial issues in all of social psychology, namely that of attitude–behavior consistency. For decades, social psychologists studied attitudes on the assumption that people's behaviors are based on their attitudes. Rather abruptly, however, the value of all that work came into question when researchers found that assumption to be false. Wicker (1969) compiled a large body of evidence to suggest that attitudes have at best a weak and inconsistent relationship to behavior. Over the following two decades, attitude researchers scrambled to establish a more compelling link between attitudes and behavior in order to justify the study of attitudes.

One important explanation for the frequent weakness of attitude–behavior correlations was that people often fail to monitor their behavior in relation to these attitudes. Ajzen and Fishbein (1977) pointed out that researchers often measured general attitudes and then sought links to very situationally specific behaviors; for example, a researcher might measure a general attitude about helping other people and then see if those who held the strongest pro-helping attitudes were also the most willing to give blood in response to a specific request. Studies like that often failed to find much of a relationship, partly because people failed to see the request to give blood as relevant to their broad general attitude about helping others. Instead, they may respond to that request in terms of squeamishness about needles, their own commitments or needs to have all their energy that evening, or other factors. Pazio, Powell, and Herr (1983) demonstrated that general attitudes can predict specific behaviors—but mainly when people think about these general attitudes and interpret the immediate situation with reference to them. When reminded of their broad feelings about helping others, for example, people might be more inclined to think of a request to give blood as a test of their helpfulness, and in such cases—that is, when they monitor their behavior against the relevant standards—their behavior does tend to become consistent with their attitudes.

The paradox of deindividuation is also related to issues of monitoring. Deindividuation means losing self-awareness and evaluation apprehension, especially as occurring when the person feels submerged in a group of people (e.g., Diener, 1979; Dipboye, 1977). The paradox was that the loss of individuality was often accompanied by behaviors that seemingly reflected the true feelings and impulses of the inner self. What is lost during deindividuation, however, appears to be very much a matter of the monitoring of self; people cease to attend to what they are doing and evaluate their actions against their own personal standards, with the result that ordinary restraints and inhibitions are suspended. Consequently, behavior may reflect impulses and feelings that would normally be held in check.

A familiar example of deindividuation is the lynch mob, that is, a group of people who take it upon themselves to punish and usually kill someone (usually someone accused of a crime). Mullen (1986) showed that factors conducive to a loss of individual self-awareness were associated with more severe, violent, and deadly behavior by lynch mobs. The implication is that when people stop monitoring their actions individually in relation to their personal standards and ideals, they become capable of performing dangerous and violent acts that lie beyond what they would normally do.

More generally, any loss of self-awareness may contribute to self-regulation failure, because attending to self is the essence of the monitoring function. Alcohol, for example, has been shown to reduce self-awareness (Hull, 1981). People lose the capacity to think about themselves, evaluate themselves, compare themselves to standards, and grasp the implications of current events for their future selves. It has long been known that under the influence of alcohol people will do things that they would not ordinarily do, and even things that they will later regret. One reason, apparently, is that alcohol reduces cognitive processing in relation to the self (Hull, 1981). Self-regulation may therefore be more likely to break down under alcoholic intoxication, allowing the person to perform actions that would normally be inhibited or stifled (e.g., Steele & Southwick, 1985).

Likewise, when the mind is preoccupied with other activities, the capacity to monitor the self may be reduced. And in some cases people want to escape from self-awareness, such as when it is unpleasant to think about the self (e.g., after a distressing failure experience), and the flight from self-awareness will often be accompanied by a reduction or cessation of monitoring and, consequently, by patterns of unusual and disinhibited behavior (e.g., Baumeister, 1991a; Heatherton & Baumeister, 1991).

**INADEQUATE STRENGTH**

We suggested in Chapter 1 that self-regulation involves a kind of strength, analogous to the common-sense concept of willpower. If that is correct, then self-regulation failure may occur when the person's strength is inadequate to the task. In an important sense, self-regulation involves a contest of strength: the power of the impulse and its resulting tendency to act, against the power of the self-regulatory mechanism to interrupt that response and prevent that action.

Strength failure is relevant to the third ingredient of self-regulation, namely the inability to make the self conform to the relevant standards. The problem is not an absence or disappearance of standards, nor is it a failure to monitor the self; indeed, the person may be quite acutely aware of the relevant standard and of his or her failure to live up to it. But the person feels unable
to alter his or her responses to bring them into line with the desired, prescribed ones.

The nature of the "strength" that is needed for successful self-regulation can be illuminated by considering self-stopping, which we noted is probably the first and most basic form of self-regulation. Research suggests that self-stopping involves both mental and physical exertion, as suggested by multiple studies.

The cognitive aspect of self-stopping was studied directly by Gilbert, Krull, and Pelham (1988). These authors showed subjects a videotape of a social interaction, and the videotape contained a sequence of irrelevant and meaningless stimuli at the bottom. Subjects in the control condition simply watched the interaction on the film, and subsequent measures showed that they had processed the social information reasonably well. In the experimental condition, however, subjects were instructed to ignore those irrelevant and meaningless stimuli. This should have been easy enough; after all, the control subjects ignored that gibberish without being instructed to do so. The experimental subjects, however, felt they had to exert control over their gaze in order to prevent themselves from looking at the gibberish at the bottom of the screen, and this effort of self-control consumed some of their attention—with the result that they ended up with a more superficial and incomplete impression of what had happened in the interaction they watched. Self-regulation thus appeared to require some mental effort, to the extent that they were less able to attend fully to what they were watching and hence less able to understand its implications.

The link between self-stopping and physical exertion (usually measured in terms of physical arousal) has been suggested by several studies. Wegner, Shorrt, Blake, and Page (1990) showed that suppressing thoughts about sex led to an arousal response that was higher than actually thinking about sex—thus, it is arousing to stop oneself from thinking about sex. Pennebaker and Chew (1985) required subjects to tell one lie mixed in with a series of truthful responses, and they found that the lie was associated with both the inhibition of incidental nonverbal behaviors (presumably as a means of stopping oneself from revealing one's untruthfulness) and increased psychophysiological arousal. Notari, Wemple, Ingraham, Burns, and Kollar (1982) suggested that the inhibition of facial expression of emotion was marked by increases in physiological arousal. Waid and Orne (1982) found that levels of socialization moderated the tendency of inhibitory response conflict to generate high levels of electrodermal response; the implication is that arousal responses such as anxiety, guilt, and fear may be instrumental in enabling people to inhibit antisocial impulses. Thus, self-stopping often depends on those forms of emotional arousal.

Self-stopping thus appears to involve both mental and physical resources. To override an impulse, a habit, or some other tendency, one often has to exert oneself both mentally and physically. The resource that makes such exertion possible can thus be analyzed as a kind of strength. If a lack of strength makes the person unable to create the necessary cognitive or physical response, self-regulation may fail.

There are three main reasons that someone would have inadequate strength for successful self-regulation: one chronic, one temporary, and one external. The person may lack strength because he or she is a weak person who would probably never be able to override that same impulse. Alternatively, the person may be exhausted or tired, and so he or she is unable on some particular occasion to override a habit or impulse. Lastly, the impulse may be so strong that even someone with well-developed self-regulatory skills would be unable to conquer it. Let us consider each of these causes of weakness in turn.

The first is that of chronic weakness, and this is closest to the common-sense notion of willpower as a character trait. It is almost certainly true that some people have more self-discipline than others, are better able to control their actions and feelings, are more capable of resisting temptation. If self-regulatory capacity is a kind of strength, then like a muscle one should be able to increase its capacity over time (by exercising it frequently). Conversely, it should be vulnerable to becoming weak and incapable if it is not challenged regularly. People who are not accustomed to controlling themselves should find it difficult to do so when it suddenly becomes necessary.

Self-regulatory strength has been studied by Funder and Block (1989) under the rubric of ego control. In their view, people differ on the trait of being able to control impulses, desires, and actions. Risk taking and a capacity to resist immediate temptations (in order to garner greater but delayed rewards) are related to this trait. Ego control holds similarities to what nonpsychologists might call the trait of willpower.

The second cause is temporary. Strength is a limited resource that can be depleted by multiple, simultaneous demands. Like a muscle, it may become tired if it is subjected to considerable exertions in a relatively short span of time, and so even if it is chronically strong it may lose its capacity to function effectively. At any given time, a person's strength is limited, and so when that is used up the person should become incapable of further self-regulation.

Hence factors that consume the person's strength should contribute to self-regulation failure. Physical tiredness should be one factor; the strength model will predict that people will be less effective at self-regulation when they are tired, such as late in the evening. Likewise, confronting stressful or other circumstances that are unusually demanding should also impair self-regulation. When going through divorce, or when coping with a busy season at work or final examinations in school, for example, people should be more likely to exhibit breakdowns in self-regulation (such as would be reflected in increases in smoking, drinking, or overeating). Even the demands of a new self-regulatory task, such as in setting out on a very tough diet, might consume so much of one's strength that one's self-regulatory capacity breaks down in other spheres (such as the capacity to prevent oneself from speaking crossly to others).

A particularly interesting implication is that people's capacity for self-regulation needs to be managed like any other limited resource. It will not be possible to regulate everything at once. Some months will be better than others
to quit smoking, for example; one will be more successful at a time when other demands on one's self-control are relatively low.

The third factor is the strength of the impulse or other response that has to be controlled. If self-regulation depends on one response overriding another, then the strength of the competing response may prevent the override from occurring even if the person has a great deal of self-discipline. The notions of an "uncontrollable impulse" or an "unstoppable desire" reflect the belief that some responses are too strong to be regulated. Self-regulation failure is to be expected in such cases; in general, the stronger the impulse, habit, or desire (or other response), the greater the likelihood of self-regulation failure.

It is also important to remember that impulses and desires do not always remain at the same strength but may become stronger over time. Self-regulation may be initially successful but may eventually fail simply because the competing motivation becomes too strong to be stifled. A simple example of this is the desire to go to the bathroom. Most adults can resist that urge effectively for a period of time, but eventually the need will be too strong to resist, regardless of the person's resources of self-discipline and strength.

The fact that motivations change in strength over time, thereby making the self-regulatory process harder or easier, brings up the relevance of temporal change. The next section will examine an even more important way in which timing affects self-regulatory failure.

**PSYCHOLOGICAL INERTIA**

Because we have depicted self-regulation as a matter of one response process overriding another, the issue of timing is crucial. Two responses may compete in such a way that one will have precedence at one time but another will have precedence at another. As an example, consider the school pupil doing homework on a Saturday afternoon while tempted to go outside and play. Self-regulation is a matter of overcoming the impulse to go play, in order to make himself persist at his work. As the afternoon wears on, the competition between the two processes may shift repeatedly. Perhaps he was physically restless after lunch and the urge to play was especially strong, but later in the day that may wear off, making it easier to continue working. Perhaps there was a rainstorm, in which case the urge to go outside was likely to vanish entirely. Meanwhile, his devotion to his homework might fluctuate as a function of his encouraging successes, his fatigue, or his frustration with it.

It is thus difficult to generalize about how timing will affect self-regulation. There is one general pattern, however, that in the absence of other fluctuations may prove decisive. This is the fact that response sequences apparently are easiest to override early in the sequence. There may be many actions that could easily be stopped early on but may become difficult to stop once they have gained a certain momentum.

This principle may be designated as psychological inertia. The term inertia refers to an obsolete and discredited concept in physics, namely that bodies in motion have a force that impels them to continue moving. Physical motion does not constitute or create any such force. Psychological processes, however, may indeed gain such a force. Thus, the longer someone is doing something, the more difficult it may be to get that person to stop.

The implications for self-regulation are important. Self-regulation will be most effective and will require the least strength when it overrides a response as early as possible. The longer one allows an objectionable response to go on, the harder it will be to stop it, just as a bad habit will be harder to break as it becomes more and more ingrained.

Illustrations of inertia are not difficult to find. Consider the example of self-stopping in terms of the person who is on a diet and gets an impulsive wish to have some ice cream. The diet would suffer a serious setback if the person were to go to the freezer, get out a carton of ice cream, and eat the entire carton. In principle, this outcome could be avoided by self-stopping at any point along the way, before the carton is emptied. In practice, however, we suspect it will be easiest to accomplish this early in the sequence. If the person can avoid getting up to walk over to the refrigerator, the diet is saved, and this might be relatively easy. In contrast, stopping may be much more difficult after the carton has been taken out and opened and the person is sitting at the table with the first spoonful of ice cream already in hand. And once the person has begun seriously eating the ice cream, interrupting the binge in progress may be even more difficult.

A similar argument can probably be made about most other instances of self-stopping. Consider illicit sex, for example. Anyone who has preserved his or her virginity through high school in recent decades probably has an implicit understanding of the principle of inertia. Refraining from sex is undoubtedly much easier if one backs away after (or even before) the first kiss than if one waits to intervene until after an hour of passionate necking and after garments have already been unbuttoned, unvelveted, and unzipped. The longer one waits, the greater the effort of will that is required to override the sexual response.

The hypothesis of psychological inertia is hardly new or unique in our analysis. Indeed, versions of this hypothesis date back at least to the 1920s, when the Zeigarnik (1927) effect was first demonstrated. The Zeigarnik effect indicated that it is particularly difficult to interrupt a response sequence in the middle, and that as one approaches the fulfillment or conclusion of a sequence of actions, interruption brings increased rumination about the interrupted activity. Presumably there would be less rumination and less desire to resume if the response could be prevented from starting or, that failing, interrupted right away rather than later on.

Inertia should not be overstated. As already noted, it is not the only way in which timing is relevant to self-regulation. Sometimes things can lose their appeal, making self-regulation easier after some satisfaction has reduced the motivation. People do, after all, generally stop eating before they have con-
sumed all the food in the house. Some grow tired of watching baseball games after seeing a couple hundred of them, and so they cease watching without having to exert themselves to override any desire. Even bulimic eating binges eventually come to an end. In short, there are multiple factors that can cause responses to stop after a period of time. But as one significant factor among several, inertia is important.

The implication of inertia is that self-regulation can be achieved most effectively if instigated as early as possible. Prevention will be easier and more effective than interruption. Self-regulation failure may therefore gradually snowball; the crucial thing is for the failure to get started, and once failure has begun, then regaining and reasserting self-control will become progressively more difficult.

But even the matter of snowballing is not as simple as it may seem. When self-regulation begins to fail, there are often other factors that come into play. These lapse-activated causes may be totally irrelevant to the onset of self-regulation failure, but they are decisive in transforming a minor failure into a major breakdown. The next section will examine these.

**LAPSE-ACTIVATED CAUSAL PATTERNS**

There has been a great deal of attention—not only in the research literature, but also in the popular press, in works of fiction, and even in everyday gossip—to the factors that conspire to bring a person to break the law, or a resolution, or a diet, or a promise, or some other commitment. That first step that crosses over the imaginary line is of considerable interest as well as drama. This is quite justified: After all, breakdowns in self-control do have to start with some signal failure, and the first step is undoubtedly a central event in that story.

But it is not the whole story. The one step across the line may be the only one, and the person can sometimes step back quickly—that is, reassert self-control. The first violation does not necessarily spell disaster. Sometimes, to be sure, the first step leads to another, and another, and another, until there is a full-blown breakdown of self-regulation, but other times it doesn't. Some researchers have focused their attention on just this issue of what causes some missteps to "snowball" into large-scale breakdowns while others remain minor, exceptional violations. The snowball metaphor is popular because it seems to capture the notion of something growing larger and larger as it continues on its way, just as a real snowball grows by picking up snow when it is rolled across a wintry field.

These lapse-activated snowballing patterns have been documented by some researchers under the rubric of abstinence violation effects (e.g., Marlatt, 1985). As the term implies, they have been mainly noted by researchers working with impulse control. When people break their diets or fall off the wagon or indulge in other activities that they have forbidden themselves, they often find that the initial lapse is quickly followed by a large-scale indulgence.

The key point here is that there are two sets of causes involved in self-regulation failure. One set consists of the factors that lead to the first lapse in self-control, that is, the first violation of one's program. The second set consists of factors that transform the initial lapse into a major binge. The second set only comes into play when the first set has finished causing the lapse.

The "snowball" metaphor for self-regulatory breakdowns is thus clearly inadequate, for two reasons. First, it leaves the extremely important issue of what causes the initial lapse. In terms of the metaphor, it skips the question of where the initial, small snowball comes from. Second, not all lapses do end up snowballing into wholesale self-regulatory breakdowns.

An adequate explanation of self-regulation failure may therefore have to deal with two sets of causes which may be almost entirely separate. The first set of causes produces the initial lapse. The lapse, however, activates a second set of causes, which determine what happens next—in particular, whether there is a snowballing effect in which self-regulation breaks down extensively.

The recognition that two panels of causes may operate to cause failure is not new, even if theoretical models may change. Here is an account from Evagrius of Pontus, born in A.D. 345, whom Russell (1988) called "the greatest of the monastic psychologists." It is an elaboration of themes developed by the great theologian Origen:

> Our souls, having fallen from heaven and now being embedded in the body, are bent, their vision of God blurred. They are dominated by emotional turmoils they cannot shake off... From turmoil arise worldly desires, which open gates for the demons lurking to attack us. Watching us carefully, Satan sees when we are weakened by a particular desire and then sends into the breach demonic troops suited and trained to exploit that particular temptation. Alert to tiny breach, the demons pour through the hole and enlarge the breach. A desire for a woman may quicken in a man's heart, for example; the demons will rush in, flooding the mind with lewd images until his soul is a boiling cauldron. A woman may begin to dwell too much upon the investments she plans for her financial security; the demons will obsession with greed and ensnaring her to avarice. (quoted by Russell, 1988, p. 92)

Evagrius's explanation is especially relevant to a modern psychological approach if one can dismiss the supernatural forces as being merely metaphorical (which Evagrius himself probably would not have done, to be sure). He explains the initial lapse in terms of loss of strength as due to external stress and the mental and emotional overload of coping with the periodic difficulties of life. Amid all that turmoil, the person gives in to some temptation and indulges some impulse. That act of yielding sets in motion other forces (Satan's demons) that enter the picture after the initial breach of proper behavior and help transform the small misstep into a major breakdown.

As we shall find, emotion is often relevant to self-regulation failure—and not necessarily in the way Evagrius suggested, as a cause of the initial weakness, but rather as a factor that contributes to snowballing. In other words, emotions
often enter the picture as lapse-activated causes. When a person violates a personal rule or goal or maxim, he or she may have an (often unexpected) emotional response. That emotion may influence subsequent behavior and contribute to the snowballing effect.

A vivid illustration of the role of emotion in lapse-activated causal patterns is provided in research on extramarital sex (see Lawson, 1988). Many people (particularly men, according to Lawson) reportedly commit their first act of infidelity in a desire for sexual novelty and adventure, and they firmly expect that the episode will remain a minor fling that will pose no threat to their marriage. Once they begin, however, some of them find themselves falling in love with the new sex partner. The affair ceases to be casual and can indeed lead to a breakup of the marriage. In short, the unexpected emotional reaction to the initial action helps produce a snowballing involvement that has serious consequences.

More generally, there are multiple ways in which emotional responses to an initial self-regulatory lapse can figure in lapse-activated causation and set the snowball in motion. Emotion involves arousal, and it consumes and manipulates attention; thus, it uses up both physical and mental strength that might otherwise be available for self-stopping. In addition, sometimes the emotion itself becomes a source of further motivations, such as a desire to continue to have sex or a need to escape guilt. Someone who has long abstained from alcohol or drugs, for example, may feel guilty after an initial lapse, and the desire to blot the guilt out of his or her mind may prompt the person to consume more of the forbidden substance.

One of the ironies of this duality of causal patterns is that certain factors that may support self-regulation in the initial phase can turn about and contribute to self-regulatory failure in the second phase. As an example, consider zero-tolerance beliefs, similar to the ones recently touted by American officials in response to drug use. The zero-tolerance view is that no misstep, no violation, can be allowed, because it will lead almost inevitably to disaster. There is no gray area, no allowance made for minor indulgences, no sympathy of occasional backsliding. Instead, all the attention and effort are focused on making certain that self-regulation is 100% effective at preventing any lapse at all.

Zero-tolerance beliefs are promoted on the not unreasonable assumption that if no one starts taking drugs, no one will become addicted. There is no danger of snowballing, of minor drugs serving as stepping stones to heavier, more dangerous drugs, of growing disregard for the risks or rising enjoyment of the newly discovered pleasures. As such, these beliefs may well contribute to help people avoid taking that first step across the line.

The problem with zero-tolerance beliefs, however, is that if a lapse does happen these beliefs may contribute to subsequent snowballing. And because people are not perfect and do not live absolutely by the rules 100% of the time, some of these lapses are likely to occur. Zero-tolerance beliefs catastrophize the first step in order to frighten people away from taking it. Once they do take it, however, the catastrophe has already seemingly occurred, so there is no particular reason to stop there. Some people may believe that what really matters, namely absolute compliance, has already failed with that first step (the first drug experience, the first cookie that violates the diet, the first cigarette after quitting, etc.), and so one might as well do some more. Others may notice that no catastrophe occurred after all: One had sex, or smoked pot, or skipped church, and instead of the feared cataclysm life went on just as before. Such discoveries may serve to discredit the authoritative sources that warned one against such indulgences in the first place. The person may then feel some extra urge to explore or indulge further in this hitherto forbidden realm.

Thus, zero-tolerance beliefs can be compared to a military strategy of putting all one’s defenses on the front line, with no reserves. The front line is defended maximally well; but if there is a breach, there is no fallback option, and catastrophe ensues.

There are of course other factors that contribute to snowballing effects; we have brought up the zero-tolerance beliefs here merely to illustrate how exactly the same cause, such as a commitment to perfect abstinence, can aid self-regulation and can also undermine and weaken it, depending on the phase of self-regulatory failure. Zero-tolerance beliefs contribute to lapse-activated causes by changing the meaning of an initial lapse. But this is getting ahead of the story. First we must: take a more thorough and systematic look at what might cause the initial lapse.

**RENEGADE ATTENTION**

In reading the research literature on self-regulation, we were repeatedly struck by the central role of attention. In all spheres of self-regulation—controlling emotion, appetites and desires, performances, thought processes, and the rest—the management of attention emerged as a significant factor. Not only was it ubiquitous, but it also seemed widely effective. Managing attention is not only the most common technique of self-regulation, it may well be the most generally effective one (see also Kirschenbaum, 1987).

There are several good reasons for the preeminence of attention in successful self-regulation. In the first place, whatever is not noticed cannot have much in the way of consequences, whereas things that receive extensive attention tend to gain considerable power for producing psychological consequences.

The inertia principle furnishes another reason for the importance of attention. The inertia principle holds that response chains will be harder and harder to interrupt as they go on for longer amounts of time. The implication for self-regulation is that the easiest and most effective approach will be to intervene as early in the response process as possible. Attending to something— noticing it—is inevitably the first step in cognitive processing, and so there is
relatively little inertia to overcome. In colloquial terms, attention management is the optimal strategy for nipping something in the bud.

Once the person loses control of attention, self-regulation becomes much more difficult. Any stimulus that manages to capture the person’s attention will have a much improved chance of generating psychological reactions, such as impulses and desires, that will require ever greater exertions of self-regulatory strength to overcome. For that reason, the best strategy may be to prevent any dangerous or tempting stimulus to capture one’s attention. It is probably easier and more effective to avoid temptation than to resist it. A reformed alcoholic may do quite well in a setting where drinking is neither done nor discussed, because there is little external cause to direct one’s attention to the joys of the grape. In contrast, it may be far more difficult to stay on the wagon if the person resumes going to bars with his or her old friends who still drink.

The importance of managing attention leads to a seemingly paradoxical prediction, namely that being preoccupied can have opposite effects on self-regulation. On the one hand, if the person is seriously preoccupied with thinking about certain things, he or she may be less likely to notice tempting or threatening stimuli, and so there will be less difficulty resulting from conflicting impulses that need to be controlled. On the other hand, if such impulses do arise, being preoccupied may make it more difficult for the person to control them. We noted earlier that self-stopping apparently requires some mental resources, and so self-stopping should become more difficult when people are distracted, preoccupied, or operating under some other form of cognitive load.

Attending to the stimulus is not the only important attentional matter, however. One can also think more or less about the standard or goal that self-regulation is supposed to serve. Then, even when confronted with the threatening or tempting stimulus, one may still manage to retain control.

The key to this second attentional trick can be designated as transcendency. In essence, it involves seeing beyond the immediate stimulus environment. Other species, such as nonhuman animals, seem to find it very difficult to respond to anything beyond the immediate stimulus environment, but human beings can transcend their surroundings to an almost astonishing degree. Indeed, the history of Christian martyrdom records many examples of individuals acquiescing in their own certain death while singing hymns, which often made a deep impression on their executioners and onlookers. Such responses were possible because the martyrs were able to transcend the death-dealing stimuli in their immediate environment and focus instead on their anticipated rebirth and salvation in heaven.

At a more mundane level, the dieter who passes up the dessert, or the student who continues studying rather than stopping to play or rest, is engaging in transcendence too. One refuses to respond merely to the immediate stimulus and instead responds on the basis of more long-range, more abstract, or more distal goals and standards.

Transcendence too has important implications for self-regulation failure. Successful self-regulation often requires one to transcend the immediate stimulus environment. When, instead, the immediate stimulus environment floods awareness and the person is unable to look beyond it, self-regulation will be much more difficult. Thus, one important reason for losing control of attention—leading to self-regulation failure—occurs when the person becomes immersed in the immediate present. The transition from a long-term, broadly meaningful state of mind to a here-and-now, concrete focus is likely to accompany and even cause many significant patterns of self-regulatory breakdown.

The most likely mechanism of transcendence failure would involve cognitive shifts that reject broadly meaningful patterns of thought in favor of attending to immediate, concrete stimuli. Vallacher and Wegner (1985, 1987) provided an insightful and influential analysis of how any given act can be conceptualized at multiple levels, ranging from high levels (marked by long-range time spans and broadly meaningful implications) to low levels (marked by short-term immediacy and physical movement rather than meaning). Baumeister (1991b) has applied this idea broadly to explain a variety of patterns by which people seek to escape from self-awareness and unpleasant emotions. Emotion depends on a broadly meaningful understanding, so emotions exist mainly at high levels of thinking (see also Pennebaker, 1989). To escape from emotional distress, people may therefore shift toward more immediate and low-level styles of thinking.

Transcendence is linked to high levels of thinking, of course, so transcendence would fail whenever people escape into immediate, concrete forms of awareness. By the same token, inhibitions typically exist at highly meaningful levels, because inhibitions usually focus on a meaningful action (e.g., murder) rather than low-level acts (e.g., moving a finger in a way that would pull a gun’s trigger). Inhibitions (and other forms of self-control) are thus weakened or even removed when awareness shifts down to low levels of meaning.

In general, therefore, we should find that transcendence facilitates self-regulation. When people are able to think beyond the immediate situation and interpret events with reference to long-range meanings and implications, they should be able to exert substantial control over themselves and override many impulses. In contrast, when they become immersed in the here and now and their awareness focuses on mere movements and sensations, self-control will cease to be effective.

ROLLING THE SNOWBALL

Thus far we have considered how self-regulation failures can begin, through loss of control of attention and through failure of strength. These are the things that cause people to step across the line and commit the first offense, first sin, first backslide, and so forth. The major instances of self-regulation failure, however, go far beyond the first step. Indeed, they often seem so extreme
that one wonders how the same person could have maintained self-regulation so well up to that point and then lost control to such an extreme. The reason is that the first lapse may set off various reactions that escalate what might otherwise have been a minor lapse into a major breakdown. We turn our attention now to these other factors—in other words, to the lapse-activated causes and the resultant snowballing of self-regulation failure.

We have already mentioned two of the factors that can cause snowballing. First, we noted how zero-tolerance beliefs change their meaning and significance once a violation has occurred. These beliefs may support self-control as long as the person can live up to standards, but once a lapse has occurred, zero-tolerance beliefs tend to imply that the cause is already lost, and so they may foster a tendency to abandon further efforts at self-control. Second, we described the way emotional reactions to the initial lapse can interfere with subsequent self-regulatory efforts.

Another factor that may often contribute to snowballing of self-regulatory failure is a reduction of monitoring. We have already noted that successful self-regulation depends on monitoring oneself so as to compare one's actions and circumstances against the desired standards. Ceasing to monitor oneself can contribute to any phase of self-regulation failure, but there are reasons to think that in many cases it is especially relevant to lapse-activated patterns. More precisely, the person's reaction to the initial lapse may be to stop monitoring. For example, the person may feel guilty about the initial misstep and in order to prevent the feelings of guilt and remorse may make efforts to avoid self-awareness. Once people stop monitoring, it becomes essentially impossible to regulate themselves further.

Reduction of monitoring is actually common to several patterns that may produce snowballing of self-regulation failure. Indeed, zero-tolerance beliefs may even sometimes work by undermining the person's monitoring efforts, because they suggest that there is no longer any point in monitoring oneself.

Some byproducts of self-regulatory lapses may also weaken the tendency to monitor oneself. For example, if one consequence of self-regulatory failure is to drink alcoholic beverages, the person may become unable to monitor. One of the direct effects of alcohol consumption is a reduction in self-awareness (Hull, 1981): People lose the capacity to think about themselves, evaluate themselves, compare themselves to standards, and grasp the implications of current events for their future selves. It has long been known that under the influence of alcohol people will do things that they would not ordinarily do, and even things that they will later regret. One reason, apparently, is that alcohol reduces cognitive processing in relation to the self (Hull, 1981).

Without self-awareness—that is, without being able to reflect on one's actions and think through their implications for one's self—people cannot monitor themselves effectively (see Carver & Scheier, 1981, 1982). Therefore, alcohol use may directly reduce the effectiveness of self-regulation. A person such as a reforming alcoholic, who is trying to avoid drinking, may find that one small violation of being "on the wagon" may quickly snowball into a drunken binge. A reason for this is that the first drink already weakens the capacity to reflect on one's actions, and so the second drink is easier to take than the first, and quickly the person loses count.

Other forms of self-indulgence may also bring an immersion in immediate sensory pleasure that has the same effect, even without the psychophysiological basis, that alcohol has. Thus, the fanatical dieter may find that the first bite of cheesecake after a long period of bland, dull diet food tastes so wonderful that the mind becomes lost in the pleasing sensations and hence stops monitoring what one is doing. Again, the person may quickly lose count of how many bites have been had, until three pieces have been consumed and the person is bloated and suffering from indigestion.

Another, particularly interesting pattern is one of spiraling distress. In some cases, the first lapse of self-regulation may lead, not to pleasure, joy, or relaxation, but to emotional distress. The person may feel guilty, or worried, or disappointed with the self because of having lost self-control, however briefly. (Zero-tolerance beliefs may especially foster such reactions, because they magnify the supposed consequences of any misstep.) This distress is associated with attending to the self, and so it makes it doubly unpleasant to be aware of self. To be sure, some people may respond to this by stepping up their self-monitoring in order to make certain that this does not happen again, but undoubtedly there are many who will be less inclined to monitor themselves when every thought of self brings new distress. In these cases, a vicious cycle develops. Each violation of one's standards brings negative affect, which makes it unpleasant to be self-aware, so the person avoids monitoring his or her own behavior, which makes further violations possible. The longer this goes on, the more unpleasant it is to resume monitoring oneself, because one must recognize that one has severely violated one's desired patterns of behavior.

ACQUIESCENCE: LETTING IT HAPPEN

A theoretically elusive but very important issue is whether people actually acquiesce in their own self-regulation failures. We have analyzed self-regulation failure in terms of depletion of strength and other causes. These make it seem that such failure is something that happens to a person, something that the person is more or less powerless to prevent. On the other hand, some would argue that people allow themselves to fail, that they cooperate in their own failure to exert self-control.

Part of the interest in the issue of acquiescence comes from moral issues. If people cannot help what they are doing, then presumably they cannot be blamed for their self-regulatory failures. On the other hand, if the conscious self
actively participates in abandoning self-control, then the person bears some responsibility for the results of his or her actions.

Given the moral (and legal) implications of this debate, there are powerful and outspoken voices in the national media taking sides. Alcoholics and drug addicts wish to be regarded as helpless and relatively innocent victims of genetic predispositions and of external, evil influences, rather than as irresponsible, self-indulgent pleasure seekers. Criminals wish their violent acts to be ascribed to "irresistible impulses" rather than to be regarded as deliberate choices.

Acquiescence is also important for the basic theoretical understanding of self-regulation failure. Thus, the strength model could be taken to imply that acquiescence has nothing to do with it; when the person’s strength is gone, self-regulation will inevitably fail. Yet while that may be true, most self-regulation failures probably do not occur when the person’s strength is completely gone. The person is merely tired, rather than fully exhausted; and in such circumstances, the person may choose to allow self-regulation to fail, because the tiredness makes the exertion of self-control that much more unappealing. The person does not wish to put forth the effort that would be required for successful self-regulation.

The issue of acquiescence has been the background of several factors we have discussed. For example, one could object to our analysis of how people stop monitoring their behavior after an initial lapse occurred by saying that the person must be cooperating—acquiescing—in the cessation of monitoring. The dieter could count the number of bites, if necessary. The binge drinker is continuing to raise the glass to the lips and to pour or order another drink. The person is thus not a helpless, passive victim of being overwhelmed by forces that make self-regulation impossible; rather, in a sense the person chooses to stop keeping track of his or her own behavior and thus actively allows self-regulation to fail (see Poon, 1989).

Although it is very difficult to obtain decisive empirical data regarding the issue of acquiescence, we suspect that acquiescence is the norm, not the exception. It is rare that human behavior is the result of inner forces that the person is entirely helpless to stop or control. Going on a week-long drinking binge is not like the involuntary blinking of the eyes when a blast of hot air hits the face. In explaining self-regulation failure, therefore, the model of human behavior is less one of deterministic cause-and-effect than one of explaining why people allow themselves to lose control.

Often there are powerful factors that contribute to the person’s acquiescence. In particular, many circumstances make people want to lose self-awareness, to escape from themselves and forget about the image of self they are projecting to the world (see Baumeister, 1991a). When people have had a bad day, or things have made them lose their sense of being a worthy person, or even when the stress of maintaining an acceptable public image becomes excessive, people may want to “let their hair down” and cease being self-aware. A small sensory indulgence such as a couple of drinks or some tasty dessert may often be part of such a relaxation. But these people will then be extra susceptible to the tendency to cease monitoring after the initial indulgence, because they are precisely wanting to escape from self-awareness.

There may indeed be some cases under which self-regulation is literally impossible and so it fails without any acquiescence by the individual. Undoubtedly there are other cases where people simply allow their self-control to lapse. In the subsequent chapters, we shall examine many forms of self-regulation failure, and these will offer some basis for addressing the question of whether people are to some extent responsible participants in these failures.

MISREGULATION

Our discussion thus far has focused on things that may prevent people from engaging in self-regulation. But this is not the only kind of self-regulation failure. It is also possible for people to engage in active efforts at self-regulation—but to do so in a way that is nonoptimal or counterproductive. In such cases, self-regulation failure may also occur—not because of a lack of trying, but because one used a technique or method that produced some result different from the desired one. In a word, it is misregulation, rather than underregulation.

It seems safe to say that the majority of misregulation patterns involve some kind of deficiency in knowledge, especially self-knowledge. The essence of misregulation is that the person tries to engage in self-regulation and knows what effect is wanted, but the regulatory methods produce the wrong effect. The methods must therefore be flawed in some way. If the person knew what the effects of these methods would actually be, he or she would not use them.

The knowledge flaws that lead to self-misregulation can have their origins in multiple places. After all, people are well stocked with beliefs that are simply false (see Gilovich, 1991). Future chapters will examine many ways in which false assumptions can originate, leading to misregulation of self. Let us just briefly review some of them here.

First, there is the problem of overgeneralization. People may assume that what works for one problem in one setting will work elsewhere. Thus, for example, many people feel better after consuming a small amount of alcohol, but in fact alcohol narrows attention, and so under some circumstances alcohol can simply focus the mind even more strongly on one’s troubles (Steele & Josephs, 1990). When depressed people self-medicate by drinking heavily, they may end up feeling even more depressed (e.g., Dowenico, 1990).

Another factor may be the desire to believe that one can exert control even when one cannot, and so one intervenes with occasionally disruptive consequences. A good analogy is much of premodern medicine. Lacking valid techniques for curing illness, but feeling pressure to do something, premodern physicians resorted to various techniques (such as bleeding the patient or even
failure to control oneself. Misregulation consists of controlling oneself in a fashion that produces an undesirable or counterproductive outcome.

We began our analysis of underregulation with the three basic ingredients of self-regulation, as suggested in Chapter 1, namely standards, monitoring, and the capacity to alter behavior so as to bring it into line with the standards. A deficiency with any of these will tend to bring about self-regulation failure.

Standards are the conceptions of how one ought to act or be. When people lack standards, or when they have multiple and conflicting standards, self-regulation becomes difficult or even impossible.

Effective self-regulation also depends on monitoring oneself and one's behavior with respect to the standards. Accordingly, self-regulation failure will become more likely when people cease or fail to monitor themselves. When people stop keeping track of what they are doing or become unable (or unwilling) to pay attention to themselves, self-regulation will be impaired.

The most important aspect of the ability to alter one's behavior—the implementation aspect of self-regulation—is a form of strength. Even despite having clear standards and effective monitoring, people may fail at self-regulation because they lack the strength to alter their behavior in the desired fashion. Self-regulatory strength is akin to the colloquial concept of willpower, although it is necessary to remain cautious and skeptical about incorporating such concepts into psychological theory.

There are several main reasons that strength may be inadequate for effective self-regulation. There may be a chronic lack of strength, such as if the person is weak. This notion is closest to the conventional concept of willpower, and it suggests that certain people who lack self-discipline will tend to be vulnerable to many different forms of self-regulation failure at many times. In principle, however, people could build up their strength over time by practicing self-control or learning to regulate themselves effectively.

Alternatively, strength may be temporarily low, either because they are simply tired or because their strength has been depleted by recent exertions. Self-regulation failure may therefore occur when people are exhausted, such as late in the evening, or during times of stress, when there are many competing demands on one's self-regulatory capacity.

Lastly, strength may be inadequate simply because the impulse or behavior is itself too strong to overcome. Most people can control their appetites to some degree, for example, but if they are deprived of food for long enough the desire to eat may become overwhelming.

Several additional concepts are relevant to underregulation. Inertia refers to the principle that behaviors in progress are more difficult to override and overcome than behaviors that have not yet begun. Partly because of inertia, the management of attention is generally a crucial aspect of effective self-regulation, because it is the first step in information processing. Self-regulation failure will therefore tend to be marked by a loss of control over attention.

Effective self-regulation often requires adopting a long-range perspective
that invokes distal outcomes and higher values—in other words, transcending the immediate situation. One particular form of loss of control of attention is therefore *transcendence failure*, in which the person loses the capacity to see beyond the immediate situation and begins responding mainly to immediate, salient environmental cues.

Unlike underregulation, misregulation occurs despite the fact that the person is successfully controlling his or her own behavior. The person is simply doing this in a counterproductive fashion. Misregulation often arises from faulty assumptions about the self, the world, or the consequences of certain actions. It also arises when people try to control things that cannot be effectively controlled or when they devote their self-regulatory efforts toward protecting their emotions and feelings instead of focusing on the task or problem itself.

Many serious instances of self-regulation failure involve two groups of causes. The first set of causes consists of what leads the person to begin the behavior. The second set, which may only become apparent after that point, transforms the initial behavior into a large-scale breakdown. We have chosen to designate this second set as *lapse-activated causes*, in order to indicate both the switching from one set of contingencies to another and the subsequent escalation (snowballing) of the self-regulatory failure. One example of a lapse-activated causal pattern would be that an initial misdeed creates an emotional reaction that leads to another misdeed, in a vicious cycle. Some causes can even facilitate self-regulation at one stage but hamper it in the other. For example, highly moralistic or absolutist beliefs that catastrophize any misdeed at all may help the person resist the temptation to commit the first misdeed, but if the first misdeed does nonetheless occur, such beliefs then imply that there is nothing left to lose and the person is a hopeless failure, which may then undermine any effort to stop the self-regulation failure from snowballing into a major breakdown.