Chapter 5

The Self

Roy F. Baumeister

If humans evolved from great apes, why are human selves so much more elaborate than those of apes? To answer this question we must first determine what the self essentially is. The self is not a part of the brain, nor is it an illusion, nor is there a "true self" hidden in some magical realm.

Rather, the self is an essential part of the interface between the animal body and the social system. Human social systems—including culture and civilization—are much more complex than the social systems of other great apes. They present more opportunities and more challenges. The human self has to have capabilities and properties that enable it to deal with these.

As a simple example, consider your name. Your name is not a part of your brain, although your brain has to be able to know and use the name. The name is given to you by others. It locates you in the social system: Imagine trying to live in your town without a name! Your name refers to your body but evokes much more, such as group memberships, bank accounts, transcripts, and resumes. It links you to a family, and some people even change their names when they change families (by marrying). Your name tells people how to treat you. (In modern China, which has an acute shortage of names, there are reports of surgery being performed on the wrong person because several hospital patients have identical names. Police work is likewise easily confused by duplicate names.)

Most animals get what they need (food, shelter, and the like) from the physical environment. Humans get it from each other, that is, from their social system. The functions of the self thus include helping the animal self-negotiate

the social world to get what it needs. Social needs are also prominent in human behavior, and the self is if anything more important for satisfying them than for satisfying physical needs. The first job of the self is thus to garner social acceptance. Beyond that, the self works to secure and improve its position in the social group. It keeps track of information about itself, works to improve how it is regarded by others, identifies itself with important relationships and roles, and makes choices (most of which are social).

If the self exists at the animal/culture interface, then vastly different cultures would likely produce different versions of selfhood. There is some evidence that this is true. The most studied cultural difference in selfhood describes modern Western selves as emphasizing independence, whereas East Asian selfhood features interdependence (Markus & Kitayama, 1991). That is, Asians base their self-understanding on things that connect them to other people, including family, groups, country, and other relationships. Americans and Western Europeans, in contrast, think of themselves as unique and self-creating. Related to this is a greater emphasis on self-promotion and personal superiority in the West, as compared to more pervasive humility in Asian selves (Heine, Lehmann, Markus, & Kitayama, 1999). For more on this, see Chapter 18 on Cultural Psychology in this volume.

Even within Western culture, there are ample variations. American women are more similar to the Asians than American men, often building interdependent self-concepts (Cross & Madsen, 1997), although it is a mistake to see this as indicating that women are more social than men (Baumeister & Sommer, 1997). The independent thrust of modern Western selfhood probably originated in the political and economic changes that occurred starting in the Renaissance, such as the sharp rise in social mobility (Baumeister, 1987). Medieval Western selfhood, as far as can be reconstructed from the literature and historical evidence, lacked many of the problems and motivations of modern Western selfhood, including concern with self-deception, identity crises, and even the belief in an extensive inner, hidden selfhood. Obviously, the human body did not change greatly from the Middle Ages to modern times, so these extensive historical changes in selfhood almost certainly reflect a response to the changing demands of the social system.

History

Social psychology's interest in self had an odd history with unpromising beginnings. As the history chapter in this volume indicates (Chapter 2),

modern social psychology began to take shape in the 1950s. At that time, psychology was dominated by two wildly different paradigms. One was behaviorism, which took a dim view of selfhood. Behavior in that view was a product of reinforcement histories and situational contingencies. There was little room for self-esteem, identity crises, or "black box" invisible entities such as the self.

The other dominant view was Freudian psychoanalysis. It did not quite talk about the self, but did find it useful to talk about the "ego," which was seen in classic Freudian theory as the relatively weak servant of two powerhouse masters, the instinctual drives in the id and the socialized guilt-mongering agent called the superego, which internalized society's rules. The ego, which can be seen as an early theory of self, was a rather pathetic creature trying to carry out the often contradictory demands of these two masters amid the further and often severe constraints of the external world. To be sure, after Freud died there was a movement to revise his theory so as to give more respect and assign more autonomous power to the ego. Across the Atlantic, Gordon Allport (1943) predicted that psychology would devote increasing research attention to the study of ego, and although the term self gradually supplanted the Freudian term ego, he was quite right.

Interest in the self escalated rapidly in the 1960s and 1970s. Quite likely this was fueled by the zeitgeist, which was dominated by youthful rebellion against the establishment and its rules for who to be and how to act, and by the quest to explore and understand inner selves as a crucial pathway to fulfillment and as a vital basis for making life's difficult decisions. By the late 1970s, social psychologists had begun to study many phenomena loosely associated with the self. Incorporating ideas and methods pertinent to the self proved useful in research, and so the evidence accumulated. In the 1980s, before e-mail was available, Anthony Greenwald began distributing an informal newsletter with abstracts of new research findings on the self. His list of addresses on the so-called Self-Interest Group rapidly expanded to include hundreds of researchers who wanted to be kept abreast of the latest work.

Since then, the interest in self has remained a strong theme of social psychology, although the continuity is misleading. The study of self is a large tent containing many other areas of study, and these have waxed and waned over the years. As an incomplete list, consider these terms self-affirmation, self-appraisal, self-awareness, self-concept, self-construal, self-deception, self-defeating behavior, self-enhancement, self-esteem, self-evaluation maintenance, self-interest, self-monitoring, self-perception, self-presentation, self-reference, self-regulation, self-serving bias, and self-verification.

What Is the Self?

In the middle 1990s, faced with the task of producing an integrative overview of research on the self, I searched long and hard for a single core phenomenon or basic root of selfhood, one that could serve as a useful framework for discussing all the work social psychologists had done. I failed. Instead, I reluctantly concluded that at least three important types of phenomena provided three basic roots of selfhood (Baumeister, 1998). This conceptual structure still seems viable and will be the organizational basis for this chapter.

The first basis for selfhood is consciousness turning around toward itself, which is sometimes called "reflexive consciousness." You can be aware of yourself and know things about yourself. For example, you might think about a recent experience of success or failure you have had, including its implications for what possibilities the future may hold for you. You might seek to learn more about yourself by reading your horoscope, by weighing yourself, by timing yourself running a mile, or by taking a magazine quiz. After an accident, you might check your body systematically for injuries. You might read about something that someone did and wonder whether you could do such a thing, whether it be climbing a mountain, learning to paint, shooting someone to death, or winning a Pulitzer prize. All these processes involve how the self is aware of itself and builds a stock of knowledge about itself.

The second basis of selfhood is in interpersonal relations. The self does not emerge from inside the person but rather is formed in interactions and relationships with other people. Moreover, the self functions to create and sustain relationships, to fulfill important roles, and to keep a favored position in the social system. Examples of the interpersonal aspect of self would include getting dressed up for an interview, date, or ceremony, changing your behavior to live up to someone else's expectations, and competing against a rival. You might feel embarrassed on finding that someone has been watching you. You may tell private, personal stories to help a new romantic partner get to know you. You may take on a new identity by joining a group or getting a job. All these involve the self being defined by how it is connected to others and to its efforts to make those relationships strong and satisfying.

The third and final basis of selfhood is making choices and exerting control. You may make yourself keep trying to achieve something despite failure, frustration, and discouragement. You may resist temptation so as to be true to your diet, your wedding vows, or your religious beliefs. You decide what to major in or where to live. You choose your goals and then work toward them even when you might not feel like doing so. You vote, you borrow money and pay it back, you make a promise to a friend and then keep it, and so forth. All these show

the self at work, facing and making decisions, following through on previous commitments, and exerting control over itself.

Self-Knowledge

One important part of the self exists mainly inside the individual's own mind. It consists of information. It starts as people pay attention to themselves, and it grows as they develop concepts and ideas about themselves. Self-knowledge has been extensively studied by social psychologists.

Self-Awareness

Self-knowledge would be impossible without self-awareness, which is the basic process by which attention turns around toward its source. An influential early theory by Duval and Wicklund (1972) proposed that awareness could be directed either inward or outward and that inward, self-directed attention would have various motivating effects on behavior. They came up with a startlingly simple way to induce high levels of self-awareness: seating the research participant in front of a mirror. Later refinements included inducing self-awareness with a video camera and with a real or imagined audience (see Carver & Scheier, 1981).

A trait scale that sorted people according to their habitual levels of high or low self-consciousness was also a reliable source of significant differences for many years (Fenigstein, Scheier, & Buss, 1975). Many articles, such as by Carver and Scheier (for reviews, see 1981, 1982), contained one study that used a mirror or camera and a second study that relied on trait differences. The trait scale also promoted a useful conceptual distinction. It measured private self-consciousness, which referred to people's tendency to reflect on their inner selves and be aware of inner states and processes. It also measured public self-consciousness, which meant attunement to how oneself was regarded by others.

Being aware of oneself has many benefits. It improves introspection and awareness of inner states. Attitude self-reports filled out in front of a mirror are more accurate (in the sense that they better predict subsequent behavior) than those filled out with no mirror present, presumably because of the boost in self-awareness (Pryor, Gibbons, Wicklund, Fazio, & Hood, 1976). Self-awareness likewise seems to intensify awareness of our emotional reactions and may intensify the emotions themselves (e.g., Scheier & Carver, 1977). As we shall see later, it improves self-regulation.

Many aspects of the original self-awareness theory gradually faded from use, but one that has gained in importance over the years was comparison to standards (Duval & Wicklund, 1972). Self-awareness is more than just noticing yourself or thinking about yourself: It usually involves an evaluative comparison to a standard. Standards are ideas about how things might or ought to be: ideals, goals, expectations (held by self or others), norms, laws, averages, past or present levels, and more. Even the simplest acts of self-awareness, such as a glance in the mirror, are more than hey, there I am! Instead, they include comparisons to standard: my hair is a mess, that shirt looks better on me than I thought, am I gaining weight?

Comparison to standards motivates people to try to fit the standard (even combing your hair). Hence people often behave better when they are self-aware than when they are not. Increasing self-awareness improves performance and increases socially desirable behavior (Wicklund & Duval, 1971; Diener & Wallbom, 1976; Scheier, Fenigstein, & Buss, 1974).

The other side of the coin is that when behavior or outcomes are bad, people wish to avoid self-awareness. Counterattitudinal behavior, of the sort beloved of dissonance researchers, made participants avoid mirrors, presumably because they did not want to be aware of themselves when acting contrary to their beliefs (Greenberg & Musham, 1981).

Many behavioral patterns are associated with efforts to avoid self-awareness, including although not limited to wishes to stop being aware of the self in connection with unpleasant things such as failures or misdeeds. Hull (1981) proposed that alcohol use reduces self-awareness and that people often drink alcohol precisely for that effect, either to forget their troubles or to reduce inhibitions and celebrate. (Inhibitions often center around self-awareness, because they invoke a particular standard of behavior and censure the self for violating it.) Thus, alcohol does not actually increase desires to misbehave but rather removes the inner restraints against them (Steele & Southwick, 1985; see also Steele & Josephs, 1990).

Binge eating is also associated with loss of self-awareness and may reflect an active attempt to lose awareness of the self by submerging attention in low-level sensory experiences (Heatherton & Baumeister, 1991). Suicidal behavior likewise can be essentially a flight from painful self-awareness (Baumeister, 1991). Escape from self-awareness may also be central to a variety of more unusual behaviors, such as sexual masochism, spiritual meditation, and spurious memories of being abducted by UFOs (Baumeister, 1991; Newman & Baumeister, 1996). The variety of such acts suggests that people have many reasons for wanting to escape the self, possibly because the modern human self is sometimes experienced as burdensome and stressful (Baumeister, 1991; Leary, 2004).

Greenberg and Pyszczynski (1986) proposed that depression is sometimes marked by getting stuck in a state of self-awareness, especially when that state is unpleasant. Even more broadly, Ingram (1990) found that many pathological symptoms are associated with high self-awareness. In general we must assume that the capacity for self-awareness is a positive contribution to many uniquely human psychological achievements and capabilities, but it carries significant costs and drawbacks.

Self-Concepts, Schemas, and Beyond

The traditional term *self-concept* suggests that a person has a single, coherent, integrated idea (concept) that incorporates self-knowledge. Although the term is still sometimes used, the assumption of coherent unity has proven untenable. Instead, people have numerous specific ideas about themselves, and these may be only loosely related and sometimes contradictory. Markus (1977) proposed using the term *self-schema* to refer to each specific idea or piece of information about the self (e.g., "I am shy"). The self-schema term has the added benefit that a person can be aschematic on some dimension, which means not having a specific or clear idea about the self. Thus, someone may have a self-schema as talkative, quiet, in between—or the person may be aschematic, which means not having any opinion as to how talkative or quiet he or she is.

The multiplicity of self-schemas, as well as multiple social identifications, led many researchers for a while to speak of multiple selves, as if each person had many selves. The idea appealed as counterintuitive but presented all sorts of mischief. For example, if you and each of your roommates all have multiple selves, how could you possibly know which shoes to put on in the morning? Mercifully, the talk of multiple selves has largely subsided. Each person may have ideas of different versions of self (e.g., possible future selves; Markus & Nurius, 1986), but these share an important underlying unity.

The diversity of self-knowledge makes people pliable in their self-views. Meehl (1956) coined the term the "Barnum Effect" to refer to people's willingness to accept random feedback from ostensible experts as accurate characterization of their personalities. Laboratory participants can be induced to regard themselves in many different ways with bogus feedback (e.g., Aronson & Mettee, 1968). Most social psychologists believe that horoscopes have no scientific validity, and so something like the Barnum effect is necessary to explain their appeal: If we tell you that you are too wiling to trust strangers, or are sometimes overly critical of partners, you may be willing to think this is correct.

The emerging picture is that a person has a vast store of beliefs about the self, only a few of which are active in focal awareness at any given time.

The term "the phenomenal self" refers to this small portion of self-knowledge that is the current focus of awareness (Jones & Gerard, 1967), although other terms such as working self-concept and spontaneous self-concept have also been used (Markus & Kunda, 1986; McGuire, McGuire, Child, & Fujioka, 1978).

This view provides several useful implications. First, different situations can activate different self-schemas and this produces different versions of self. McGuire et al. (1978; McGuire, McGuire, & Winton, 1979) showed that things such as race and gender stand out in our self-concept precisely when they stand out in the immediate social context by virtue of being unusual. For example, a boy in a roomful of girls is more aware of being a boy than is a boy in a crowd of boys.

Second, people can be manipulated by having them comb through their stock of self-views in a biased manner. Asking people to recall extraverted versus introverted tendencies—because almost everyone has some memories of both kinds—can get them to think of themselves as relatively extraverted or introverted, and their behavior is likely to be altered to be more consistent with those induced views of self (Fazio, Effrein, & Falendar, 1981; Jones, Rhodewalt, Berglas, & Skelton, 1981). These studies provide important basic clues as to how the self-concept can be changed.

Third, they call into question the sometimes popular notions of one "true" self that differs from other ideas of self. For centuries, writers have romanticized the notion that each person has a single true version of self that is buried inside and can be discovered or realized or, alternatively, can be lost and betrayed by insincere or other false behavior. Although people may be wrong about themselves in various particulars, the notion of an inner true self that is discovered by some kind of treasure hunt is probably best regarded as a troublesome myth. Ideas of self come in multiple, sometimes conflicting versions, and the reality of selfhood is likely an emerging project rather than a fixed entity.

Cognitive Roots of Self-Knowledge

Social psychologists have identified several ways that people acquire self-knowledge and self-schemas, although there does not seem to be any grand or integrative theory about this. Students should be aware of these classic contributions, however.

The self-reference effect refers to the tendency for information pertaining to the self to be processed more thoroughly than other information. In the original studies, Rogers, Kuiper, and Kirker (1977) presented participants with various adjectives and asked them a question about each one. Later they were

given a surprise recall test. If the question had been "does this word describe you?" the word was remembered better than if a different question had been used (e.g., "Do you know what this word means?" or "Is this a short word?"). Thus, thinking about the word in relation to the self created a stronger memory trace. This was true even if the person's answer had been no. Later work confirmed that the self is a particularly potent hook on which memory can hang information, although it is by no means unique (Greenwald & Banaji, 1989; Higgins & Bargh, 1987).

The self also appears to transfer its generally positive tone to information connected with it. People like things that are associated with the self. For example, people like the letters in their names better than other letters in the alphabet (Nuttin, 1985, 1987). This irrational liking can even subtly sway major life decisions. Pelham, Mirenberg, and Jones (2002) found that people tended to have homes and jobs that contained the letters of their names. People named George were more likely than people named Virginia to move to Georgia. (Guess where people named Virginia were more likely to go!) People named Larry or Laura were more likely to become lawyers than those named Dennis or Denise, who tended instead to become dentists. These effects, to be sure, were quite small, but they were significant, and it is astonishing that they would have any effect at all.

Items seem to gain in value by virtue of being associated with the self. People place a higher cash value on lottery tickets they chose than on ones given to them, even though all tickets have the same objective value (Langer, 1975). People like things more when they own them than when not, even though ownership stemmed from a random gift and they had not used them yet (Beggan, 1992; in this case, the items were insulator sleeves for cold drinks—hardly a major symbol of personal identity!).

Self-perception theory was proposed by Bem (1965, 1972) to explain one process of acquiring self-knowledge. The gist was that people learn about themselves much as they learn about others, namely by observing behaviors and making inferences. The core idea is that people learn about themselves the same way they learn about others: They see what the person (in this case, the self) does and draw conclusions about traits that produce such acts. Such processes may be especially relevant when other sources of self-knowledge, such as direct awareness of your feelings, are not strong or clear.

The most famous application of self-perception theory is the *overjustification effect*. It can be summarized by the expression that "rewards turn play into work." That is, when people perform an activity both because they enjoy doing it (intrinsic motivation) and because they are getting paid or otherwise rewarded (extrinsic motivation), the action is overly justified in the sense that there are multiple reasons for doing it. In such cases, the extrinsic rewards tend to take

over and predominate, so that the person gradually comes to feel that he or she is mainly doing it for the sake of the extrinsic rewards. As a result, the person loses the desire or interest in doing it for its own sake.

This effect was first demonstrated by Deci (1971), who showed that students who were paid for doing puzzles subsequently (i.e., after the pay stopped coming) showed less interest in doing them than other students who had done the same tasks without pay. The self-perception aspect became more salient in studies by Lepper, Greene, and Nisbett (1973). In their work, getting rewards reduced children's intrinsic motivation to draw pictures with markers—but only if they knew in advance that they would get a reward. Surprise rewards had no such effect. If you saw someone else painting a picture and getting a surprise reward for it afterward, you would not conclude that the person painted for the sake of the reward, because the person did not know the reward was coming. In contrast, if the person knew about the reward before starting to paint, you might well infer that the person was painting to get the reward. Apparently, people sometimes apply the same logic in learning about themselves.

Motivational Influences on Self-Knowledge

The importance of the self and the diversity of potential information about the self create ample scope for motivations. Self-knowledge does not just happen. Rather, people seek out self-knowledge generally, and they often have highly selective preferences for some kinds of information over others.

Over the years, social psychologists have converged on three main motives that influence self-knowledge, corresponding to three types of preferences. One is a simple desire to learn the truth about the self, whatever it may be. This motive has been called diagnosticity, in that it produces a preference to acquire information that can provide the clearest, most unambiguous information about the self (Trope, 1983, 1986). For example, taking a valid test under optimal conditions has high diagnosticity because it provides good evidence about our knowledge and abilities. Taking an invalid test under adverse conditions, such as in the presence of distracting noise or while intoxicated, has much less diagnosticity.

A second motive is called self-enhancement. It refers to a preference for favorable information about the self (for reviews, see Alicke & Sedikides, 2009; Sedikides & Gregg, 2008). Sometimes the term is used narrowly to refer to acquiring information that will actually entail a favorable upward revision of beliefs about the self. Other usages are broader and include self-protection, that is, preference for avoiding information that would entail a downward revision of beliefs about the self. The idea that people like to hear good things about

themselves and prefer to avoid being criticized is consistent with a broad range of findings.

The third motive emphasizes consistency. Consistency motives have a long and influential history in social psychology, such as in research on cognitive dissonance (Festinger, 1957). Applied to the self, the consistency motive has been dubbed self-verification, in the sense that people seek to verify (confirm) whatever they already believe about themselves (see Swann, 1987), even if that information is unflattering. The underlying assumption is that revising your views is effortful and aversive, so people prefer to maintain what they already think.

Much has been written about what happens when the consistency and enhancement motives clash. If a man believes he is incompetent at golf, does he prefer to hear further evidence of that incompetence, or would he like to be told his golf is really pretty good? One resolution has been that emotionally he favors praise but cognitively he may be skeptical of it and hence more apt to believe confirmation (Swann, 1987).

A systematic effort to compare the relative power and appeal of the three motives was undertaken by Sedikides (1993). He concluded that all three motives are genuine and exert influence over self-knowledge. In general, though, he found that the self-enhancement motive was the strongest and the diagnosticity motive the weakest. In other words, people's desire to learn the truth about themselves is genuine, but it is outshone by their appetite for flattery and, to a lesser extent, by their wish to have their preconceptions confirmed.

One area of convergence between the two strongest motives (enhancement and verification) is the resistance to downward change. That is, both motives would make people reluctant to entertain new information that casts the self in a light less favorable than what they already think. Defensive processes should thus be very strong. This brings up self-deception.

Self-Deception

The possibility of self-deception presents a philosophical quandary, insofar as the same person must seemingly be both the deceiver and the deceived. That seemingly implies that the person must both know something and not know it at the same time. Not much research has convincingly demonstrated effects that meet those criteria (Gur & Sackeim, 1979; Sackeim & Gur, 1979).

In contrast, self-deception becomes much more common and recognizable if it is understood more as a kind of wishful thinking, by which a person manages to end up believing what he or she wants to believe without the most rigorous justifications. An often-cited early survey by Svenson (1981) yielded the

rather implausible result that 90% of people claimed to be above average drivers. Many subsequent studies have yielded similar (and similarly implausible) statistics (see Gilovich, 1991). Because in principle only about half the population can truly be above average on any normally distributed trait, the surplus of self-rated excellence is generally ascribed to self-deception. In general, self-concepts are more favorable than the objective facts would warrant.

The widespread tendencies for self-deception led Greenwald (1980) to compare the self to a totalitarian regime (the "totalitarian ego") in its willingness to rewrite history and distort the facts so as to portray itself as benevolent and successful. A highly influential review by Taylor and Brown (1988) listed three main positive illusions. First, people overestimate their successes and good traits (and, in a related manner, underestimate and downplay their failures and bad traits). Second, they overestimate how much control they have over their lives and their fate. Third, they are unrealistically optimistic, believing that they are more likely than other people to experience good outcomes and less likely to experience bad ones. Taylor and Brown went on to suggest that these distorted perceptions are part of good mental health and psychological adjustment, and that people who see themselves in a more balanced, realistic manner are vulnerable to unhappiness and mental illness.

How do people manage to deceive themselves? A wide assortment of strategies and tricks has been documented. Here are some. The self-serving bias is a widely replicated pattern by which people assign more responsibility to external causes for failures than for successes (Zuckerman, 1979). People are selectively critical of evidence that depicts them badly while being uncritical of more agreeable feedback (Pyszczynski, Greenberg, & Holt, 1985; Wyer & Frey, 1983). People pay more attention to good than to bad feedback, allowing for better encoding into memory (Baumeister & Cairns, 1992), so they selectively forget failures more than successes (Crary, 1966; Mischel, Ebbesen, & Zeiss, 1976). People compare themselves to targets that make them look good rather than other, more intimidating targets (Crocker & Major, 1989; Wills, 1981). They also persuade themselves that their good traits are unusual whereas their bad traits are widely shared (Campbell, 1986; Marks, 1984; Suls & Wan, 1987).

Another group of strategies involves distorting the meaning of ambiguous traits (Dunning, 2005; Dunning, Meyerowitz, & Holzberg, 1989). Everyone wants to be smart, but there are book smarts, street smarts, emotional intelligence, and other forms, so most people can find some basis for thinking they are smart.

The downside of self-deception would seemingly be an increased risk of failures and other misfortunes stemming from making poor choices. For example, people routinely overestimate how fast they can get things done, with the result that many projects take longer and cost more than originally budgeted

(Buehler, Griffin, & Ross, 1994). Sometimes people procrastinate based on an overconfident expectation about how fast they can get a project done, with the result that last-minute delays or problems force them either to miss the deadline or to turn in subpar work (Ferrari, Johnson, & McCown, 1995; Tice & Baumeister, 1997).

One remarkable way that people seem to reduce the risks and costs of self-deception is to turn positive illusions on and off. Normally they maintain pleasantly inflated views of their capabilities, but when they face a difficult decision involving making a commitment, they seem to suspend these illusions and temporarily become quite realistic about what they can and cannot accomplish. Once the decision is made, they blithely resume their optimistic, self-flattering stance (Gollwitzer & Kinney, 1989; Gollwitzer & Taylor, 1995). The full implications of these findings—that apparently people maintain parallel but different views of self and can switch back and forth among them as is useful for the situation—have yet to be fully explored and integrated into a theory of self.

Self-Esteem and Narcissism

The motivation to protect and enhance self-esteem has figured prominently in social psychology, but self-esteem has also been studied as a trait dimension along which people differ. Over the years, a great many studies have examined how people with high self-esteem differ from those with low self-esteem, typically using the Rosenberg (1965) scale to distinguish the two. It is probably the trait most studied by social psychologists, although at specific times others have been highly popular. Interest has been sustained by belief in practical applications, such as the notion that raising self-esteem among schoolchildren will facilitate learning and good citizenship while reducing drug abuse and problem pregnancies (California Task Force, 1990).

Unfortunately, the fond hopes that boosting self-esteem would make people wiser, kinder, and healthier have largely been disappointed. There are in fact replicable positive correlations between self-esteem and school performance, but high self-esteem appears to be the result rather than the cause of good grades (e.g., Bachman & O'Malley, 1977). If anything, experimental evidence suggests that boosting self-esteem causes students to perform worse subsequently (Forsyth et al., 2007). The long-standing belief that low self-esteem causes violence has likewise been shown to depend mainly on overinterpreted correlations and self-reports. Seriously violent persons, ranging from the Nazi "Master Race" killers and despotic tyrants to wife-beaters, murderers, rapists, and bullies, tend to think very favorably of themselves (Baumeister, Smart, & Boden, 1996).

There does remain some controversy concerning the latter. A New Zealand sample studied by Donnellan et al. (2005) provided comfort to those who believe that low self-esteem contributes to violence, insofar as their survey found that children scoring low in self-esteem were later rated by teachers as more likely to get into fights. However, that sample may be unusual because of its high representation of native Maoris, a downtrodden culture with low self-esteem that romanticizes its violent warrior traditions. Controlled laboratory experiments with ethnically homogeneous, Western samples have consistently failed to find any sign of elevated aggression among people with low self-esteem. On the contrary, high narcissism and high self-esteem contribute most directly to aggression (Bushman et al., 2009; Bushman & Baumeister, 1998; Menon et al., 2007).

One thorough search concluded that two benefits of high self-esteem are well established (Baumeister, Campbell, Krueger, & Vohs, 2003). High self-esteem supports initiative, possibly because it lends confidence to act on our beliefs and assumptions and a willingness to go against the crowd. It also contributes to feeling good and happy. These two benefits take multiple forms, such as promoting persistence in the face of failure and a resilience under stress and adversity.

Many contributions to understanding self-esteem do not depend on searching for benefits of high self-esteem. Campbell (1990) showed that self-esteem levels are associated with differential self-concept clarity. People with high self-esteem have clear and consistent beliefs about themselves, whereas the beliefs of people with low self-esteem are often confused, contradictory, and fluctuating. The lack of a stable image of self may also contribute to the greater emotional lability of people low in self-esteem (Campbell, Chew, & Scratchley, 1991).

Self-esteem can be based on different things. Crocker and Wolfe's (2001) research on contingencies of self-worth has found that identical outcomes may affect people differently depending on whether the underlying dimension is an important basis of each person's self-esteem. For example, academic success will boost self-esteem among some students more than others, insofar as some base their self-esteem on school success and achievement more than others.

Although self-esteem tends to be fairly stable over time, it fluctuates more among some people than others. Kernis and his colleagues have studied this by administering a self-esteem scale repeatedly and determining how much each individual changes. Higher instability of self-esteem (i.e., more change) has been linked to multiple outcomes, including aggression and emotional reactions (Kernis, 1993; Kernis, Cornell, Sun, Berry, & Harlow, 1993; Kernis, Granneman, & Barclay, 1989).

Different levels of self-esteem are associated with different social motivations. People with high self-esteem are attracted to new challenges and opportunities

for success. People with low self-esteem favor a cautious, self-protective orientation that seeks to minimize risks, resolve problems, and avoid failures (Baumeister, Tice, & Hutton, 1989; Wood, Heimpel, & Michela, 2003; Wood, Heimbel, Newby-Clark, & Ross, 2005; Wood, Michela, & Giordano, 2000). (The dynamics of self-esteem in close relationships are covered in Chapter 13, this volume, on intimate relationships.)

Given how few direct benefits flow from high self-esteem, why do people care so much about sustaining and even increasing their favorable views of self? The widespread concern is even more surprising given the remarkable range of evidence, reviewed by Crocker and Park (2004), that the pursuit of high self-esteem is often costly and destructive to the individual as well as to other people. The pursuit of high self-esteem can reduce learning, empathy, and prosocial behavior, while increasing aggression and rule-breaking.

One promising answer, proposed by Leary and his colleagues, depicts self-esteem as a sociometer, which is to say an internal measure of how much we are likely to be accepted by others (e.g., Leary, Tambor, Terdal, & Downs, 1995). Self-esteem is typically based on the attributes that make us desirable as a group member or relationship partner: competence, attractiveness, likability, social skills, trustworthiness, reliability, and more. Although having a favorable opinion of yourself may have relatively little benefit, being accepted by others is highly important, and indeed belonging to social groups is central to the biological strategies by which human beings survive and reproduce (Baumeister & Leary, 1995; Baumeister, 2005). Thus, ultimately, concern with self-esteem is nature's way of making people want to be accepted by others. When people cultivate self-esteem by deceiving themselves and overestimating their good traits, rather than by actually trying to be a good person, they are in effect misusing the system for emotional satisfactions and thwarting its purpose.

Viewing self-esteem as a sociometer brings us to the interpersonal aspect of self. Essentially, sociometer theory proposes that self-esteem serves interpersonal functions, and the reasons people care about self-esteem are based on the fundamental importance of being accepted by other people (Leary & Baumeister, 2000). This approach reverses one simple and common approach to understanding psychological phenomena, which is to assume that what happens between people is a result of what is inside them (in this case, that interpersonal behavior is a result of self-esteem). Instead, it contends that the inner processes such as self-esteem emerged or evolved to facilitate social interaction.

In recent years, some interest has shifted from self-esteem to narcissism, which can be understood as a relatively obnoxious form of high self-esteem (although there are a few puzzling individuals who score high in narcissism but low in self-esteem). Narcissism is not just having a favorable view of yourself as superior to others; it also reflects a motivational concern with thinking well of

yourself and with getting other people to admire you (Morf & Rhodewalt, 2001).

Interpersonal Self

The interpersonal aspects of self have received only intermittent attention from social psychologists, although by now most would acknowledge their importance. Self-presentation is probably the most interpersonal of the major themes in the study of self. Research on self-presentation spread widely during the 1980s but has tapered off considerably in recent years, partly because many of the basic questions were answered.

Self-Presentation

Self-presentation, also sometimes called impression management, refers to people's efforts to portray themselves in particular ways to others (Schlenker, 1975, 1980). That is, it indicates how people try to make others view them as having certain traits and properties. Most commonly, people seek to make a good impression, but there can be other intended impressions. For example, a violent criminal may seek to convince others that he is dangerous and unpredictable, so that they will do what he says without fighting back or resisting.

Self-presentation first began to influence social psychology when it was put forward as an alternative explanation for research findings that emphasized inner processes. In particular, studies of attitude change and cognitive dissonance had proposed that when people act in ways contrary to their beliefs, they experience an inner state of unpleasant inconsistency, which they resolve by changing their inner attitude to conform to what they have done. Tedeschi, Schlenker, and Bonoma (1971) proposed instead that people merely want to appear consistent, so they might report attitudes consistent with their behavior, even if they did not actually change their attitude. That is, instead of seeking to rationalize their behavior to themselves, they were simply trying to make a good impression on the experimenters. As evidence, self-presentation researchers pointed out that people showed attitude change when their behavior had been viewed by others but not when it was secret or anonymous (Carlsmith, Collins, & Helmreich, 1966; Helmreich & Collins, 1968). The inconsistency and hence the need to rationalize should have been the same regardless of whether others were watching, but the concern with making a good impression would arise only if other people were paying attention.

The controversy over dissonance raged for years. Eventually the conclusion was that people do change attitudes more under public than private conditions, but this involved a genuine inner change rather than just saying something to look good to the experimenter (e.g., Baumeister & Tice, 1984; Cooper & Fazio, 1984; Schlenker, 1980; Tetlock & Manstead, 1985). Dissonance is not our concern here (see Petty & Briñol, Chapter 7, this volume), but that resolution is quite important for the development of self-presentation theory. Self-presentation came to mean more than just saying things that we do not really mean to make a good impression. Rather, inner processes are strongly affected by the interpersonal context. Over the years, researchers continued to show that much inner cognitive and emotional work is done to project the desired image of self (e.g., Vohs, Baumeister, & Ciarocco, 2005; Schlenker & Leary, 1982).

Methodologically, self-presentation research came to rely heavily on comparing behavior in public versus private conditions (Schlenker, 1980). The assumption was that if people behaved differently in public, the difference reflected their concern with how others perceived them and hence showed that they were motivated to send a particular message about themselves. Over the years, a wide variety of phenomena had been shown to change as a function of whether the behavior was public or private, and so the implications were far wider than cognitive dissonance and attitude change. Aggression, helping, reactance, attributions, self-handicapping, prejudice, and many other behaviors showed these differences, indicating that often such behaviors were guided by interpersonal motivations (Baumeister, 1982). Taken together, these shifts pushed social psychology to become more interpersonal, because many of these phenomena had hitherto been discussed and explained in terms of what happens inside the individual mind, but now they had to be acknowledged as influenced by the interpersonal context.

Crucially, though, evidence of self-presentational and interpersonal motives could not be interpreted as denying that genuine inner processes were also at work (such as with cognitive dissonance) (e.g., Tetlock & Manstead, 1985). Instead, it became necessary to understand the inner and the interpersonal as linked. Ultimately, these findings pointed toward the general conclusion that *inner processes serve interpersonal functions*. This is possibly one of the most important general principles in social psychology.

Eventually, self-presentation research became a victim of its own success: Most of the behaviors studied by social psychologists had been shown to differ between public and private situations, and the basic point of the influence of self-presentation had been made over and over. Recent trends toward studying cognitive processes, biological influences on behavior, and prejudice had less relevance to self-presentation. Although the ideas and methods remain viable

today, there is little current research going on to extend self-presentation theory.

One of the more creative extensions of self-presentation theory in recent years was a review by Leary, Tchividjian, and Kraxberger (1994) showing that self-presentation can be hazardous to our health. That is, people do things to make a good impression even though they know these things may be harmful. Interest in this work was sparked by Mark Leary's conversation with a friend who continued to sunbathe despite having had skin cancer (which is often caused by high exposure to the sun). Leary discovered that his friend was far from unique, and in fact many people sunbathe even after they have had skin cancer, because they believe that a suntan makes them attractive to others. (A tan itself has a mixed history as a self-presentational tool. In the 1800s, sun-darkened skin was associated with the low or working class, because it meant that the person worked out in the sun. The term "redneck" today still conveys this link between sun exposure and low socioeconomic class. However, in the early 1920s, rich people began to play tennis, thereby getting suntans, and the tanned look became fashionable.)

Moving on beyond sunbathing, Leary et al. (1994) identified a host of things people do that are bad for their health but presumably useful for self-presentation. They ride motorcycles without helmets. They smoke cigarettes. They avoid medical treatments for conditions that are embarrassing or undignified.

The implications of this work are thought provoking. Indeed, one influential theory in social psychology has held that people are mainly motivated by fear of death, and that everything people do is aimed toward the overarching goal of prolonging life and even of avoiding the very thought of death (Pyszczynski, Greenberg, & Solomon, 1997). (In fact, the original statement of this theory was in an edited book about self-presentation; see Greenberg, Pyszczynski, & Solomon, 1986.) Yet the review by Leary et al. (1994) repeatedly showed that many people do things that endanger their lives if those actions help to make a good impression on others. Hence making a good impression can sometimes be a stronger motivation than avoiding death. To be sure, making a good impression is probably an important part of maintaining social acceptance, which itself generally serves the goal of protecting and prolonging life, even if the goals sometimes conflict.

Self-Concept Change and Stability

Can the self-concept change? Of course it can, and does. But demonstrating self-concept change in the laboratory has proven difficult.

Interpersonal context and processes appear to be important in self-concept change. Harter (e.g., 1993) has found that children's self-esteem is most likely to change when the child's social network changes, such as when the child enters a different school or when the family moves. This finding suggests that one source of stability of self-concept is interacting with people who know you and have a stable impression of you.

Laboratory studies have sought to show change in self-concept stemming from interpersonal behavior. When people present themselves in a particular way to strangers, they sometimes internalize how they acted, leading them to view themselves as being the sort of person they presented themselves as being (Jones, Rhodewalt, Berglas, & Skelton, 1991). There are competing views as to how this occurs. One is that to present themselves as ambitious. For example, people must retrieve evidence from memory that would depict themselves as ambitious; then when asked to describe themselves, that information has more weight than it otherwise would.

It seems essential, however, that another person hear and believe the self-presentation. When people present themselves in one way but privately scan their memories for evidence of the opposite trait, the memory scans have little effect on self-concept whereas the self-concept shifts to resemble the version that the other person saw (Schlenker, Dlugolecki, & Doherty, 1994). The decisiveness of the interpersonal context was shown by Tice (1992), who showed that essentially identical behaviors led to self-concept change when witnessed by others but not when they were private or confidential.

Receiving feedback from others may or may not bring about changes in self-concept. People accept favorable feedback more readily than critical feedback (Taylor & Brown, 1988). Apart from favorability, another factor is whether people receive the evaluations passively or can assert themselves interpersonally by disputing the feedback. They are less affected if they can dispute it interpersonally than if they receive it without the opportunity to respond (Swann & Hill, 1982).

One of the most elegant theories linking self-concept stability to interpersonal processes was Tesser's (1988) self-evaluation maintenance (SEM) theory. Two different processes govern how a person's self-esteem is affected by relationship partners. The first is reflection, which means that the partner's achievements and attributes reflect on the self in a consistent manner. That is, your partner's good works reflect well on you and your partner's misdeeds reflect badly on you. The other process is comparison, which reverses the valence: Your partner's successes make you look worse by comparison. Which process predominates depends on several factors. If the partner's attribute is highly relevant to your own career or self-concept, comparison is more important,

whereas your partner's successes and failures concerning things irrelevant to your own work foster reflection. The closeness of the relationship intensifies both outcomes. Thus, you are more affected by the successes and failures of your romantic partner than by those of a distant cousin or casual acquaintance.

Executive Function: Self as Agent

The third aspect of self involves what it does, in the sense of how the self acts on the world (and acts on itself). This area of study was slower to develop, as compared with self-knowledge and interpersonal dynamics. Studies on self-regulation, however, has become a major theme of research. It began to increase in the late 1980s and by 2000 had become an ongoing focus of many laboratories. Other aspects of the self as executive function, such as the self as decision maker or as the controller of controlled processes, seem promising areas for further work.

Dual process theories that distinguish between automatic and controlled processes have become widely influential in social psychology. The self is essentially the controller of controlled processes (if not the self, then who else?), and so it plays an important role in such theories. How the self exerts such control is not well understood, and researchers thus far have focused far more effort on the automatic than on the controlled processes, but illuminating the processes of control promises to shed considerable light on this important function of the self. Decision making also involves the self, but that work will be covered in the chapter on decision making (Vohs & Luce, Chapter 20, this volume) rather than here.

Self-Regulation

Self-regulation refers to the self's capacity to alter and change itself and its states, particularly so as to bring them into line with standards such as norms, goals, ideals, or rules. Self-regulation includes diverse areas such as controlling our thoughts and emotions, impulse control and the restraint of problem behavior, and optimizing performance. The everyday term self-control is quite similar to self-regulation and sometimes the terms are used interchangeably, although some researchers make a slight distinction on the basis that self-control refers exclusively to conscious, effortful processes whereas self-regulation also includes nonconscious or automatic regulatory processes, even including the bodily processes that keep the temperature constant and regulate the speed of the heartbeat.

A landmark step in the development of self-regulation theory was Carver and Scheier's (1981, 1982) assertion that self-awareness is essentially for the sake of self-regulation. As you recall, the earlier section on self-awareness pointed out that humans are almost always self-aware in relation to some standard, so that the current state of the self is compared to how it might be. This fact fits well with the idea that self-regulation is the purpose of self-awareness.

Building on that insight, Carver and Scheier (1981, 1982, 1998) imported the concept of the feedback loop from cybernetic theory (e.g., Powers, 1973). The feedback loop is best remembered with its acronym TOTE, which stands for test, operate, test, and exit. Such loops supervise effective self-regulation everywhere. The test involves comparing the current state of the self to the goal or standard. If the test produces an unsatisfactory result, so that the self is not as it should be, then an Operate phase is commenced to correct the problem. From time to time there is another Test phase, to ensure that progress is being made toward the goal. Eventually one of these tests indicates that the self now meets the standard, and the loop is Exited.

The feedback loop incorporates the three essential ingredients of self-regulation. Let us consider each in turn.

Standards The term "regulate" means not just to change but rather to change based on some concept of what ought (or ought not) to be. These concepts are standards. Without standards, self-regulation would have no meaning. Standards can come from external sources such as laws, norms, and expectations, but the self-regulating person internalizes the standard to some degree. The standards are not simply ideas or rules; rather they incorporate the motivational aspect of self-regulation. The amount of effort devoted to self-regulation, and therefore to some degree the success or failure of self-regulation, depends on the extent to which the person embraces the standard and desires to regulate behavior so as to match it.

Standards can be sorted into two main types according to whether the person wants to move toward or away from them (Carver & Scheier, 1998). Positive or ideal standards are ones the person wants to match, and so the purpose of the feedback loop is to reduce the discrepancy between how you are and the standard. For example, a dieter may have a specific target weight (the standard) and strives to lose pounds so as to match that weight. In contrast, negative standards are ones that the person seeks to avoid matching, such as being a liar, a loser, or a drug addict. In these cases, the goal of the feedback loop is to maximize the difference between the actual self and the standard.

An important implication is that the negative standards are more difficult to implement (Carver & Scheier, 1998). It is harder to regulate yourself to not be something than to be something, because there is no obvious direction or goal of change. This can be illustrated by the analogy to a spatial goal. If your

goal is to go to Pittsburgh, then you know where you want to be; you can therefore work on changing your location to move closer, and you know when you have successfully arrived there. In contrast, if your goal is to be far away from Pittsburgh, you do not know exactly where to go, and there is no point at which your regulatory task can be pronounced to have reached success. Thus, common self-regulatory tasks such as quitting smoking are by their very nature problematic, because you are never sure you have permanently quit and the steps along the way do not prescribe doing anything specific.

The difference between positive and negative standards has also been the focus of research by E. T. Higgins. In an influential 1987 article, he proposed that standards could be sorted into ideals (how one wanted to be) and oughts (how one is expected to be, which often involves specifics about what not to do and how not to be) and argued, more provocatively, that different emotional reactions were associated with these two types of standards. Specifically, he contended that failure to reach ideals led to low-energy emotions such as sadness and depression, whereas failure to do as one ought to do produced high-energy emotions such as guilt and anxiety (Higgins, 1987). However, the considerable amount of research aimed at pursuing this intriguing theory of emotion produced results that were mixed at best (Tangney, Niedenthal, Covert, & Barlow, 1998).

The impasse prompted Higgins to revise his approach and emphasize a basic distinction between promotion (standards oriented toward gains) and prevention (standards oriented toward nonlosses) (Higgins, 1997). Higgins has also proposed that we can approach or avoid in either a promotion-oriented or prevention-oriented way, which creates a 2 × 2 motivational space. According to his regulatory focus theory, individuals self-regulate differently when they are pursuing promotion-focused versus prevention-focused goals (Higgins, 1997; Higgins & Spiegel, 2004; Molden, Lee, & Higgins, 2008). Promotion-focused goals emphasize advancement, aspiration, and accomplishment, whereas prevention-focused goals emphasize safety, security, and protection. Individuals in a promotion focus experience self-regulatory success as achieving a positive outcome (a gain) and unsuccessful self-regulation as a missed opportunity for a positive outcome (a nongain), whereas individuals in a prevention focus experience self-regulatory success as protecting against a negative outcome (a nonloss) and unsuccessful self-regulation as incurring a negative outcome (a loss). Furthermore, individuals tend to pursue promotion-focused goals with eager self-regulatory strategies and prevention-focused goals with vigilant self-regulatory strategies.

One application of regulatory focus theory to self-regulation research involves the trade-off between speed and accuracy in goal pursuit, with the eagerness of promotion-focused goal pursuit predicting greater speed and

diminished accuracy relative to the vigilance of prevention goal pursuit (Förster, Higgins, & Bianco, 2003). In an illustrative study, relative to individuals primed with a prevention focus, those primed with a promotion focus were faster at a proofreading task (indicating eagerness) but less accurate at finding complex grammatical errors (indicating lower vigilance).

Regulatory focus also influences whether individuals tend to view goals as luxuries or necessities. A promotion focus facilitates viewing an adopted goal as one of many opportunities for advancement (i.e., as a luxury), whereas a prevention focus facilitates viewing an adopted goal as the essential means for achieving the goal (i.e., as a necessity). As a result, individuals in a prevention focus tend to initiate goal pursuit faster than do those in a promotion focus (Freitas, Liberman, Salovey, & Higgins, 2002).

In addition to influencing how immediately individuals initiate goal pursuit, regulatory focus also affects how they respond to interruptions of their ongoing goal pursuit. Individuals in a prevention focus show a greater tendency than individuals in a promotion focus to resume an interrupted activity rather than initiate a substitute activity (Liberman, Idson, Camacho, & Higgins, 1999).

Monitoring Monitoring refers to paying attention to and keeping track of the behavior that is to be changed. Just as it is difficult to shoot at a target you cannot see, it is difficult to regulate a behavior that you do not monitor. When people want to improve their self-control, the most effective first steps usually involve improved monitoring: Write down what you spend, weigh yourself daily, count the laps you run, and so forth. Failures of self-control often begin with ceasing to monitor. For example, when dieters go on an eating binge, they lose track of how much they eat much more than other people (Polivy, 1976).

The feedback-loop theory by Carver and Scheier (1981) is essentially a theory of monitoring. As we noted, it made the crucial link between self-awareness and self-regulation. Monitoring thus depends on self-awareness. It is no mere coincidence that loss of self-awareness contributes to poor self-regulation. For example, alcohol reduces self-awareness (Hull, 1981), and alcohol intoxication contributes to almost all known manner of self-control problems. Intoxicated persons spend more money, gamble more, eat more, behave more aggressively, engage in inappropriate sexual activities, and so forth (Baumeister, Heatherton, & Tice, 1994).

Willpower The third ingredient is the capacity to change the self. The folk notion of willpower appears to have some psychological validity, in the sense that the self consists partly of an energy resource that is expended during acts of self-control. Following an initial act of self-control, performance on a second, unrelated self-control task is often impaired, suggesting that some energy was expended during the first task and hence was not available to help with the

second task (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998). The resultant reduced resources has been dubbed *ego depletion*, because it suggests that some of the self's (ego's) resources have been depleted.

Is the self made partly from energy? For several decades, self theories were mainly cognitive. They focused on self-knowledge and self-awareness and how these influenced information processing. The first ego depletion findings were thus something of an oddity, because the very idea of self as energy was foreign to prevailing views. However, the influx of biological concepts into psychological theory made energy more plausible, insofar as life itself is an energy process and all biological activities depend on energy. Further work with ego depletion has suggested that the self's resources are linked to glucose, which is a chemical in the bloodstream (made from food) that supplies fuel for brain processes. Effective self-control depends on having a sufficient blood glucose level (Gailliot & Baumeister, 2007), and after acts of self-control, blood glucose levels are diminished (Gailliot et al., 2007).

Depleted willpower does not doom the person to poor self-control. People can overcome depletion and perform effectively. Motivational incentives can encourage people to do this (Muraven & Slessareva, 2003), as can positive emotion (Tice, Baumeister, Shmueli, & Muraven, 2007). Thinking at a highly meaningful, abstract level that incorporates long-range perspectives can also improve self-control, even despite depletion (Fujita, Trope, Liberman, & Levin-Sagi, 2006).

Beyond Self-regulation: Executive Function

The idea that the self consists partly of energy, rather than simply concepts, offers a basis for thinking about some of the self's activities beyond self-regulation. The category of executive function (also called agency, as in being an agent) invokes several other things the self does, including making choices, exerting control over the physical and social environment, and taking initiative. In philosophy, questions of agency invoke debates about free will and freedom of action.

There is some evidence that the same energy used for self-control is used for these other activities. After people make choices, their self-control is impaired, which suggests that the same energy is used for both decision making and self-regulation (Vohs et al., 2008). Conversely, after exerting self-control, decision processes are changed and seemingly impaired (Pocheptsova et al., 2009). There is even some evidence that depletion of glucose contributes to irrational decision making (Masicampo & Baumeister, 2008).

The study of executive function is a promising area for advances in the next decade (see Miyake et al., 2000; Suchy, 2009). Planning, decision making, task

switching and resumption, goal maintenance and change, information updating and monitoring, and other supervisory processes fall into this category, which is of interest not only to social psychology's self theorists but also to brain researchers, cognitive scientists, and others. A full accounting of how these processes operate and interact will contribute greatly to the understanding of this important aspect of the self.

Self-Determination Theory

Social psychology has a long tradition of studying behavior by assuming that the individual responds to causes that lie outside, in the situation. Rebelling against this view, Deci and Ryan (e.g., 1995) have advocated Self-Determination Theory, which depicts the self as an active agent and which emphasizes causes that lie inside the self. In their view, human behavior produces much more beneficial outcomes when people act from internal causes than when they allow themselves to be pushed by external factors. Of course, the simple dichotomy of internal versus external causes is not rigid, and there are many intermediate causes, such as when people internalize and accept influences from their social worlds, but these are seen as in between. The more internal the cause, the better.

Self-Determination Theory grew out of Deci's (e.g., 1971) research on intrinsic motivation, which was defined as the desire to do something for the sake of enjoyment of the activity itself. It was contrasted with extrinsic motivation, which meant a desire to do something based on the results or outcomes it would bring. This distinction led to the discovery of the overjustification effect (see above).

Self-Determination Theory was developed to respond to the complications surrounding the simple distinction between intrinsic and extrinsic motivation. The core emphasis on the importance of agentic action based on inner values and causes remained central, however. Deci and Ryan (1991, 1995) proposed that people have a fundamental need for autonomy, which can be satisfied only by acting in ways that bring the feeling from which our acts originate within the self, as opposed to being controlled or directed by outside forces. It is not enough to contemplate an external reason to do something and then deliberately decide to go along with it. Instead, it is essential that the very reasons for the action be seen as originating within the self.

Not all researchers accept that autonomy is truly a need, in the sense that people will suffer pathological outcomes if they mainly do what they are told or what the situation requires instead of following their inner promptings. Nonetheless, this controversial position represents an important perspective on

human behavior and likely points the way toward the most satisfying and fulfilling ways to live.

Another notable (and less controversial) assertion of Self-Determination Theory is that people have a need for competence. This means learning to control events and to experience yourself as capable and effective. The notion that there is a natural drive to achieve mastery and control is well rooted in psychological theory and implicit in many phenomena, such as findings about learned helplessness (Seligman, 1975) and stress (Brady, 1958). The novel point in Self-Determination Theory is that it is less control than an awareness of the self as capably exerting control that is central to human motivation.

Managing Multiple Goals

Much of self-regulation involves keeping our behavior on track toward goals. Yet people have more than one goal at a time, and so part of managing ourself effectively is juggling the different goals. In recent years, researchers have begun to look at how people manage multiple goals.

Several relevant processes and strategies have been identified. *Goal shielding* refers to the process of protecting our pursuit of one goal from the distracting thoughts and feelings associated with other goals (Shah, Friedman, & Kruglanski, 2002). When people are shielding their pursuit of one goal, they are less prone to think of other goals and less effective at coming up with means of reaching these alternative goals.

Another set of processes involves managing limited amounts of time and effort so as to allocate them where they are most needed. People appraise progress toward various goals. If they think they are ahead of schedule in pursuing one goal, they may decrease their future efforts, a response known as *coasting* (Carver & Scheier, 2009). This allows them to focus their efforts on other goals, for which progress may be more urgent. Notably this is not the same as reducing your efforts when you actually reach or fulfill a goal, because it may happen anywhere along the way, as long as you believe you have made good progress.

Work by Fishbach (e.g., 2009; Fishbach & Dhar, 2005; Fishbach & Zhang, 2009) has focused on the tension between juggling multiple goals (which she calls balancing) and featuring a single primary goal (which she calls highlighting). The greater the commitment to one goal, the more likely it is to be highlighted, which is to say pursued even at the possible cost of neglecting other goals. Meanwhile, when balancing multiple goals, an important factor is how much progress you have made toward each. Focusing on how much is left to do makes you want to zero in on that goal; focusing on how much you have already

achieved can make you temporarily satisfied so you can shift efforts elsewhere (as in the concept of coasting).

Conclusions: Looking Ahead

It is safe to say that the self will remain an important focus of theorizing and research in social psychology. Within the broad topic of self, however, the so-called focal areas of study continue to change. Cultural differences in self-construal have continued to provide new research findings. Self-esteem continues to attract interest, most recently in terms of questions about how much it contributes to positive, desirable outcomes and whether it has a downside. Self-regulation remains a thriving focus of research, possibly because it is one of the central activities of the self and therefore is involved at some level in most of the other processes of self. Other aspects of executive function, such as how the self is involved in decision making and initiative, have only begun to be studied, and these seem likely to attract more attention in coming years.

The increased interest in brain processes has not been kind to self research, however. There has not been great success at finding a particular part of the brain that corresponds to self. Quite possibly the brain operates as many distributed, independent processes, whereas the self is a unity constructed for purposes of social action. Reconciling the reality of self in social life with its elusiveness to cognitive neuroscientists will be a fascinating chapter in the history of self theory.

Other puzzles remain. Self-affirmation, which refers to acting or thinking in ways that bolster the self's main values, continues to have an assortment of intriguing effects, but people are not sure just what process produces those effects (e.g., Schmeichel & Vohs, 2009; Steele, 1988). Self-concept change and self change remain important but understudied phenomena. It is clear that self researchers will not run out of questions in the foreseeable future.

References

Alicke, M., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology, 20*, 1–48.

Allport, G. W. (1943). The ego in contemporary psychology. *Psychological Review, 50*, 451–478.

Aronson, E., & Mettee, D. (1968). Dishonest behavior as a function of differential levels of induced self-esteem. *Journal of Personality and Social Psychology, 9*, 121–127.

Bachman, J. G., & O' Malley, P. M. (1977). Self-esteem in young men: A longitudinal analysis of the impact of educational and occupational attainment. *Journal of Personality and Social Psychology, 35, 365–380.*

Baumeister, R. F. (1982). A self-presentational view of social phenomena. *Psychological Bulletin, 91*, 3–26.

Baumeister, R. F. (1987). How the self became a problem: A psychological review of historical research. *Journal of Personality and Social Psychology, 52*, 163–176.

Baumeister, R. F. (1991). *Escaping the self: Alcoholism, spirituality, masochism, and other flights from the burden of selfhood.* New York: Basic Books.

Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., pp. 680–740). New York: McGraw-Hill.

Baumeister, R. F. (2005). *The cultural animal: Human nature, meaning, and social life.* New York: Oxford University Press.

Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology, 74*, 1252–1265.

Baumeister, R. F., & Cairns, K. J. (1992). Repression and self-presentation: When audiences interfere with self-deceptive strategies. *Journal of Personality and Social Psychology, 62*, 851–862.

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*, 1–44.

Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation.* San Diego, CA: Academic Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review, 103*, 5–33.

Baumeister, R. F., & Sommer, K. L. (1997). What do men want? Gender differences and two spheres of belongingness: Comment on Cross and Madson (1997). *Psychological Bulletin, 122*, 38–44.

Baumeister, R. F., & Tice, D. M. (1984). Role of self-presentation and choice in cognitive dissonance under forced compliance: Necessary or sufficient causes? *Journal of Personality and Social Psychology, 46*, 5–13.

Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality, 57*, 547–579.

Beggan, J. K. (1992). On the social nature of nonsocial perception: The mere ownership effect. *Journal of Personality and Social Psychology, 62*, 229–237.

Bem, D. J. (1965). An experimental analysis of self-persuasion. *Journal of Experimental Social Psychology, 1*, 199–218.

Bem, D. J. (1972). Self-perception theory. In L Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1–62). New York: Academic Press.

Brady, J. V. (1958). Ulcers in "executive" monkeys. *Scientific American, 199*, 95–100.

Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the "planning fallacy": Why people underestimate their task completion times. *Journal of Personality and Social Psychology, 67*, 366–381.

Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology, 75*, 219–229.

Bushman, B. J., Baumeister, R. F., Thomaes, S., Ryu, E., Begeer, S., & West, S. G. (2009). Looking again, and harder, for a link between low self-esteem and aggression. *Journal of Personality, 77, 427*–446.

California Task Force to Promote Self-Esteem and Personal and Social Responsibility. (1990). *Toward a state of self-esteem*. Sacramento: California State Department of Education.

Campbell, J. D. (1986). Similarity and uniqueness: The effects of attribute type, relevance, and individual differences in self-esteem and depression. *Journal of Personality and Social Psychology, 50*, 281–294.

Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology, 59*, 538–549.

Campbell, J. D., Chew, B., & Scratchley, L. S. (1991). Cognitive and emotional reactions to daily events: The effects of self-esteem and self-complexity. *Journal of Personality, 59, 473*–505.

Carlsmith, J. M., Collins, B. E., & Helmreich, R. L. (1966). Studies in forced compliance: 1. The effect of pressure for compliance on attitude change produced by face-to-face role playing and anonymous essay writing. *Journal of Personality and Social Psychology, 4, 1*–13.

Carver, C. S., & Scheier, M. F. (1981). Attention and self-regulation: A control theory approach to human behavior. New York: Springer-Verlag.

Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical and health psychology. *Psychological Bulletin, 92*, 111–135.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior.* New York: Cambridge University Press.

Carver, C. S., & Scheier, M. F. (2009). Action, affect, multitasking, and layers of control. In J. Forgas, R. Baumeister, & D. Tice (Eds.), *Psychology of self-regulation* (pp. 109–126). New York: Psychology Press.

Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229–266). New York: Academic Press.

Crary, W. G. (1966). Reactions to incongruent self-experiences. *Journal of Consulting Psychology, 30*, 246–252.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608–630.

Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392–414.

Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review, 108*, 593–623.

Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin, 122*, 5–37.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology, 18*, 105–115.

Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation* (Vol. 38, pp. 237–288). Lincoln: University of Nebraska Press.

Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31–49). New York: Plenum Press.

Diener, E., & Wallbom, M. (1976). Effects of self-awareness on antinormative behavior. *Journal of Research in Personality, 10*, 107–111.

Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., Moffitt, T. E., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science, 16*, 328–335.

Dunning, D. (2005). *Self-insight: Roadblocks and detours on the path to knowing thyself*. New York: Psychology Press.

Dunning, D., Meyerowitz, J. A., & Holzberg, A. (1989). Ambiguity and self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology, 57*, 1082–1090.

Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York: Academic Press.

Fazio, R. H., Effrein, E. A., & Falender, V. J. (1981). Self-perceptions following social interactions. *Journal of Personality and Social Psychology, 41*, 232–242.

Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology, 43*, 522–527.

Ferrari, J. R., Johnson, J. L., and McCown, W. G. (1995). *Procrastination and task avoidance: Theory, research, and treatment*. New York: Plenum Press.

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

Fishbach, A. (2009). The dynamics of self-regulation. In J. Forgas, R. Baumeister, & D. Tice (Eds.), *Psychology of self-regulation* (pp. 163–181). New York: Psychology Press.

Fishbach, A., & Dhar, R. (2005). Goals as excuses or guides: The liberating effect of perceived goal progress on choice. *Journal of Consumer Research, 32*, 370–377.

Fishbach, A., & Zhang, Y. (2008). Together or apart: When goals and temptations complement versus compete. *Journal of Personality and Social Psychology, 94*, 547–559.

Förster, J., Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance: Built-in trade-offs or separate strategic concerns? *Organization Behavior and Human Decision Processes*, *90*, 148–164.

Forsyth, D. R., Kerr, N. A., Burnette, J. L., & Baumeister, R. F. (2007). Attempting to improve the academic performance of struggling college students by bolstering their self-esteem: An intervention that backfired. *Journal of Social and Clinical Psychology, 26*, 447–459.

Freitas, A. L., Liberman, N., Salovey, P., & Higgins, E. T. (2002). When to begin? Regulatory focus and initiating goal pursuit. *Personality and Social Psychology Bulletin*, *28*, 121–130.

Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self-control. *Journal of Personality and Social Psychology, 90*, 351–367.

Gailliot, M. T., & Baumeister, R. F. (2007). The physiology of willpower: Linking blood glucose to self-control. *Personality and Social Psychology Review, 11*, 303–327.

Gailliot, M. T., Baumeister, R. F., DeWall, C. N., Maner, J. K., Plant, E. A., Tice, D. M., Brewer, L. E., & Schmeichel, B. J. (2007). Self-control relies on glucose as a limited energy source: Willpower is more than a metaphor. *Journal of Personality and Social Psychology, 92*, 325–336.

Gilovich, T. (1991). *How we know what isn't so*. New York: Free Press.

Gollwitzer, P. M., & Kinney, R. F. (1989). Effects of deliberative and implemental mindsets on illusion of control. *Journal of Personality and Social Psychology, 56*, 531–542.

Gollwitzer, P. M., & Taylor, S. E. (1995). Effects of mindset on positive illusions. *Journal of Personality and Social Psychology, 669*, 213–226.

Greenberg, J., & Musham, C. (1981). Avoiding and seeking self-focused attention. *Journal of Research in Personality*, 15, 191–200.

Greenberg, J., & Pyszczynski, J. (1986). Persistent high self-focus after failure and low self-focus after success: The depressive self-focusing style. *Journal of Personality and Social Psychology, 50*, 1039–1044.

Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of self-esteem: A terror management theory. In R. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York: Springer-Verlag.

Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, *35*, 603–618.

Greenwald, A. G., & Banaji, M. R. (1989). The self as a memory system: Powerful, but ordinary. *Journal of Personality and Social Psychology, 57*, 41–54.

Gur, R. C., & Sackeim, H. A. (1979). Self-deception: A concept in search of a phenomenon. *Journal of Personality and Social Psychology, 37*, 147–169.

Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87–116). New York: Plenum Press.

Heatherton, T. F., & Baumeister, R. F. (1991). Binge eating as escape from self-awareness. *Psychological Bulletin, 110*, 86–108.

Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review, 106,* 766–794.

Helmreich, R., & Collins, B. E. (1968). Studies in forced compliance: Commitment and magnitude of inducement to comply as determinants of opinion change. *Journal of Personality and Social Psychology, 10,* 75–81.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319–340.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52,* 1280–1300.

Higgins, E. T., & Bargh, J. A. (1987). Social cognition and social perception. *Annual Review of Psychology, 38,* 369–425.

Higgins, E. T., & Spiegel, S. (2004). Promotion and prevention strategies for self-regulation: A motivated cognition perspective. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 171–187). New York: Guilford Press.

Hull, J. G. (1981). A self-awareness model of the causes and effects of alcohol consumption. *Journal of Abnormal Psychology, 90,* 586–600.

Ingram, R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin, 107,* 156–176.

Jones, E. E., Rhodewalt, F., Berglas, S. C., & Skelton, A. (1981). Effects of strategic self-presentation on subsequent self-esteem. *Journal of Personality and Social Psychology, 41,* 407–421.

Kernis, M. H. (1993). The roles of stability and level of self-esteem in psychological functioning. In R. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 167–182). New York: Plenum Press.

Kernis, M. H., Cornell, D. P., Sun, C. R., Berry, A., & Harlow, T. (1993). There's more to self-esteem than whether it's high or low: The importance of stability of self-esteem. *Journal of Personality and Social Psychology, 65,* 1190–1204.

Kernis, M. H., Granneman, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology, 56,* 1013–1022.

Langer, E. (1975). The illusion of control. *Journal of Personality and Social Psychology, 32,* 311–328.

Leary, M. R. (2004). *The curse of the self*. New York: Oxford University Press.

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 32, pp. 1–62). San Diego, CA: Academic Press.

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an inter-personal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68*, 518–530.

Leary, M. R., Tchividjian, L. R., & Kraxberger, B. E. (1994). Self-presentation can be hazardous to your health: Impression management and health risk. *Health Psychology, 13*, 461–470.

Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology, 28*, 129–137.

Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology, 77*(6), 1135–1145.

Marks, G. (1984). Thinking one's abilities are unique and one's opinions are common. *Personality and Social Psychology Bulletin, 10*, 203–208.

Markus, H. R. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35*, 63–78.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.

Markus, H. R., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology, 51*, 858–866.

Markus, H., & Nurius, P. S. (1986). Possible selves. *American Psychologist, 41*, 954–969.

Masicampo, E. J., & Baumeister, R. F. (2008). Toward a physiology of dual-process reasoning and judgment: Lemonade, willpower, and expensive rule-based analysis. *Psychological Science, 19*, 255–260.

McGuire, W. J., McGuire, C. V., Child, P., & Fujioka, T. (1978). Salience of ethnicity in the spontaneous self-concept as a function of one's ethnic distinctiveness in the social environment. *Journal of Personality and Social Psychology, 36*, 511–520.

Meehl, P. E. (1956). Wanted—a good cookbook. *American Psychologist, 11*, 263–272.

Menon, M., Tobin, D. D., Corby, B. C., Menon, M., Hodges, E. V., & Perry, D. G. (2007). The developmental costs of high self-esteem for antisocial children. *Child Development, 78*, 1627–1639.

Mischel, W., Ebbesen, E. B., & Zeiss, A. R. (1976). Determinants of selective memory about the self. *Journal of Consulting and Clinical Psychology, 44*, 92–103.

Miyake, A., Friedman, N. P., Emerson, M. J., Witzki, A. H., Howerter, A., & Wager, T. D. (2000). Contributions to complex "frontal lobe" tasks: A latent variable analysis. *Cognitive Psychology, 41*, 49–100.

Molden, D. C., Lee, A. Y., & Higgins, E. T. (2008). Motivations for promotion and prevention. In J. Shah & W. Gardner (Eds.), *Handbook of motivation science* (pp. 169–187). New York: Guilford Press.

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry, 12*, 177–196.

Muraven, M., & Slessareva, E. (2003). Mechanism of self-control failure: Motivation and limited resources. *Personality and Social Psychology Bulletin, 29*, 894–906.

Newman, L. S., & Baumeister, R. F. (1996). Toward an elaboration of the UFO abduction phenomenon: Hypnotic elaboration, extraterrestrial sadomasochism, and spurious memories. *Psychological Inquiry, 7*, 99–126.

Nuttin, J. M. (1985). Narcissism beyond Gestalt and awareness: The name letter effect. *European Journal of Social Psychology, 15*, 353–361.

Nuttin, J. M. (1987). Affective consequences of mere ownership: The name letter effect in twelve European languages. *European Journal of Social Psychology, 17*, 381–402.

Pelham, B. W., Mirenberg, M. C., & Jones, J. T. (2002). Why Susie sells seashells by the seashore: Implicit egoism and major life decisions. *Journal of Personality and Social Psychology, 82,* 469–487.

Pocheptsova, A., Amir, O., Dhar, R., & Baumeister, R. F. (2009). Deciding without resources: Resource depletion and choice in context. *Journal of Marketing Research, 46,* 344–355.

Polivy, J. (1976). Perception of calories and regulation of intake in restrained and unrestrained subjects. *Addictive Behaviors, 1*, 237–243.

Powers, W. T. (1973). *Behavior: The control of perception.* Chicago, IL: Aldine.

Pryor, J. B., Gibbons, F. X., Wicklund, R. A., Fazio, R. H., & Hood, R. (1977). Self-focused attention and self-report validity. *Journal of Personality, 45*, 514–527.

Pyszczynski, T., Greenberg, J., & Holt, K. (1985). Maintaining consistency between self-serving beliefs and available data: A bias in information processing. *Personality and Social Psychology Bulletin, 11*, 179–190.

Pyszczynski, T., Greenberg, J., & Solomon, S. (1997). Why do we need what we need? A terror management perspective on the roots of human social motivation. *Psychological Inquiry, 8*, 1–20.

Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology, 35*, 677–688.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Sackeim, H. A., & Gur, R. C. (1979). Self-deception, other-deception, and self-reported psychopathology. *Journal of Consulting and Clinical Psychology, 47*, 213–215.

Scheier, M. F., & Carver, C. S. (1977). Self-focused attention and the experience of emotion: Attraction, repulsion, elation, and depression. *Journal of Personality and Social Psychology, 35*, 625–636.

Scheier, M. F., Fenigstein, A., & Buss, A. H. (1974). Self-awareness and physical aggression. *Journal of Experimental Social Psychology, 10*, 264–273.

Schlenker, B. R. (1975). Self-presentation: Managing the impression of consistency when reality interferes with self-enhancement. *Journal of Personality and Social Psychology, 32*, 1030–1037.

Schlenker, B. R. (1980). *Impression management: The self-concept, social identity, and interpersonal relations*. Monterey, CA: Brooks/Cole.

Schlenker, B. R., Dlugolecki, D. W., & Doherty, K. (1994). The impact of self-presentations on self-appraisals and behavior: The roles of commitment and biased scanning. *Personality and Social Psychology Bulletin, 20*, 20–33.

Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization and model. *Psychological Bulletin*, 92, 641–669.

Schmeichel, B. J., & Vohs, K. D. (2009). Self-affirmation and self-control: Affirming core values counteracts ego depletion. *Journal of Personality and Social Psychology, 96*, 770–782.

Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology, 65,* 317–338.

Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science, 3*, 102–116.

Seligman, M. E.P. (1975). *Helplessness: On depression, development, and death.* San Francisco, CA: Freeman.

Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting all else: On the antecedents and consequences of goal shielding. *Journal of Personality and Social Psychology, 83*, 1261–1280.

Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York: Academic Press.

Steele, C. M., & Josephs, R. A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist, 45*, 921–933.

Steele, C. M., & Southwick, L. (1985). Alcohol and social behavior I: The mediating role of inhibitory conflict. *Journal of Personality and Social Psychology*, 48, 18–34.

Suchy, Y. (2009). Executive functioning: Overview, assessment, and research issues for non-neuropsychologists. *Annals of Behavioral Medicine, 37*, 106–116.

Suls, J., & Wan, C. K. (1987). In search of the false-uniqueness phenomenon: Fear and estimates of social consensus. *Journal of Personality and Social Psychology, 52*, 211–217.

Svenson, O. (1981). Are we all less risky and more skillful than our fellow drivers? *Acta Psychologica, 47*, 143–148.

Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology, 53*, 1038–1051.

Swann, W. B., & Hill, C. A. (1982). When our identities are mistaken: Reaffirming self-conceptions through social interaction. *Journal of Personality and Social Psychology, 43*, 59–66.

Tangney, J. P., Niedenthal, P. M., Covert, M. V., & Barlow, D. H. (1998). Are shame and guilt related to distinct self-discrepancies? A test of Higgins's (1987) hypothesis. *Journal of Personality and Social Psychology, 75*, 256–268.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*, 193–210.

Tedeschi, J. T., Schlenker, B. R., & Bonoma, T. V. (1971). Cognitive dissonance: Private ratiocination or public spectacle? *American Psychologist, 26*, 685–695.

Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 181–227). San Diego, CA: Academic Press.

Tetlock, P. E., & Manstead, A. S. (1985). Impression management versus intrapsychic explanations in social psychology: A useful dichotomy? *Psychological Review, 92*, 59–77.

Tice, D. M. (1992). Self-presentation and self-concept change: The looking glass self as magnifying glass. *Journal of Personality and Social Psychology, 63*, 435–451.

Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science, 8*, 454–458.

Tice, D. M., Baumeister, R. F., Shmueli, D., & Muraven, M. (2007). Restoring the self: Positive affect helps improve self-regulation following ego depletion. *Journal of Experimental Social Psychology, 43*, 379–384.

Trope, Y. (1983). Self-assessment in achievement behavior: In J. Suls & A. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 2, pp. 93–121). Hillsdale, NJ: Erlbaum.

Trope, Y. (1986). Self-enhancement and self-assessment in achievement behavior. In R. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 2, pp. 350–378). New York: Guilford Press.

Vohs, K. D., Baumeister, R. F., & Ciarocco, N. (2005). Self-regulation and self-presentation: Regulatory resource depletion impairs impression management and effortful self-presentation depletes regulatory resources. *Journal of Personality and Social Psychology, 88*, 632–657.

Vohs, K. D., Baumeister, R. F., Schmeichel, B. J., Twenge, J. M., Nelson, N. M., & Tice, D. M. (2008). Making choices impairs subsequent self-control: A limited resource account of decision making, self-regulation, and active initiative. *Journal of Personality and Social Psychology, 94*, 883–898.

Wicklund, R. A., & Duval, S. (1971). Opinion change and performance facilitation as a result of objective self-awareness. *Journal of Experimental Social Psychology, 7*, 319–342.

Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin, 90*, 245–271.

Wood, J. V., Heimpel, S. A., & Michela, J. L. (2003). Savoring versus dampening: Self-esteem differences in regulating positive affect. *Journal of Personality and Social Psychology, 85,* 566–580.

Wood, J. V., Heimpel, S. A., Newby-Clark, I. R., & Ross, M. (2005). Snatching defeat from the jaws of victory: Self-esteem differences in the experience and anticipation of success. *Journal of Personality and Social Psychology, 89*, 764–780.

Wood, J. V., Michela, J. L., & Giordano, C. (2000). Downward comparison in everyday life: Reconciling self-enhancement models with the mood-cognition priming model. *Journal of Personality and Social Psychology, 79*, 563–579.

Wyer, R. S., & Frey, D. (1983). The effects of feedback about self and others on the recall and judgments of feedback-relevant information. *Journal of Experimental Social Psychology, 19*, 540–559.

Zuckerman, M. (1979). Attribution of success and failure revisited, or: The motivational bias is alive and well in attribution theory. *Journal of Personality, 47*, 245–287.