Chapter 21
The Goal Construct in Social Psychology

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Goals constitute the focal points around which human behavior is organized. Much of what people think about, feel, and do revolves around the goals they are trying to meet, or those goals they have already met or dismissed. Goals can influence major life decisions such as choosing one's career path, as well as more mundane everyday choices, such as which book to read. Goals guide one's behavioral responses to the social environment, such as whether one responds to a provocation by being competitive, collaborative, or resigned, for instance. And goals, and the ways in which people pursue them, also determine people's evaluations, moods, and emotional experience both during a pursuit and after a pursuit has been completed or abandoned. The scholarship on goals in social psychology has reflected the centrality of goals in people's lives, and consequently the goal construct has been defined, examined, and challenged, iteratively, throughout almost the entire century of empirical psychology (e.g., Aron, 1955; Atkinson, 1964; Austin & Vanhouven, 1956; Bandura, 1986; Barsh, 1990; Carver & Scheier, 1998; Deci & Ryan, 1985; Gollwitzer, 1990; Higgins, 1997; James, 1890; Kruglanski, 1996; Lewin, 1926; Locke & Latham, 1990; Mishel, Cantor, & Feldman, 1996).

In the current chapter, we propose a contemporary framework for understanding what goals are and how they influence human experience and behavior. In particular, we address how goals are activated, the characteristics of their operation, and the ways in which they interact with one another. We anchor the framework with a set of definitional assumptions about the structure and content of goals. In support of our framework, we draw primarily on research conducted over the last decade that is characterized by its social-cognitive approach. By adopting this approach to the study of goals we also emphasize the implicit nature of motivation, including the ways in which goals can become activated outside conscious intention and operate according to a variety of implicit mechanisms. This stands in contrast with much of the traditional research on goals, which has focused on the conscious processes involved in setting a goal and moving toward its completion (e.g., Carver & Scheier, 1981; Gollwitzer, 1999; Locke & Latham, 1990).

We organize the chapter into our major parts. We consider in the first part ("What Is a Goal?") a working definition of goals as well as a set of assumptions underlying goal research. We then move onto the second part ("Decision II: On the Activation of a Goal"), which considers theory and findings on the determinants of goal activation. We discuss in the third part ("On the Operation of a Goal") the various characteristics of active goal operation that involve goal-related knowledge activation, evaluations, and affective experience. In the fourth and final part ("On the Interaction among Goals"), we turn to an arguably more realistic view of goals—one that assumes that people are constantly switching their attention and motivation from goal to goal, depending on a host of situational and personal variables (e.g., Atkinson & Birch, 1970). Any given goal pursuit potentially interferes with other possible pursuits, and thus we examine the special
The Goal Construct

Challenges that simultaneous goal pursuits pose and the ways in which interaction and interdependence among goals occur. Our best guess in this chapter is to develop a goal framework that both grounds previous work as well as generates new questions and research directions.

WHAT IS A GOAL?

We define a goal as a cognitive representation of a desired outcome that involves the actions, emotions and behaviors. Aspects of this definition have been echoed in goal literature throughout the past 50 years (e.g., see Carter & Scher, 1981; Goldstein & Moskovita, 1986; Heggins & Kruglanski, 2000; Locke & Lawton, 1990; Sorrentino & Higgins, 1985). In what follows we explicitly consider a set of more detailed assumptions about goals that underlie this definition and much of the recent work on this topic. These assumptions can be organized into those that concern the structure of a goal in memory versus those that involve the content of goal representations.

The Structure of Goals

Researchers have long assumed that goals exist as cognitive representations in memory (Bargh, 1990; Hull, 1934; Kruglanski, 1996; Tolman, 1932), even if various theoretical treatments of goals over the last hundred year have varied in terms of explicitly mentioning this point. We argue that although there is a general consensus that goals exist in memory, an explicit consideration of this point inevitably leads to certain implications, which have not been as widely discussed or tested. The fact that goals exist as knowledge structures suggests at least three characteristics. First, as a memory construct, a goal necessarily fluctuates in accessibility (i.e., its activation potential; Higgens, 1996b). This means that the likelihood of the goal being activated will vary across time and situations according to its accessibility at the moment.

Another characteristic concerns the multiple memories underlying any given goal. In particular, rather than a goal consisting of a unitary, discrete construct, it consists of a wide array of interconnected memories that are related to that goal (e.g., means of attainment and opportunities) and becomes associated with one another through a variety of ways. For example, the interconnection among memories underlying the goal of riding a bike might develop through direct experience (e.g., when the bike tilts left, shift weight to the right) as well as semantic and episodic knowledge (e.g., bike riding is a form of exercise and recreation perfect for a sunny summer afternoon).

The fact that goals consist of many memories that are interconnected naturally leads to the third characteristic of goals. Namely, the memories of a goal become activated according to complex knowledge activation processes (Anderson, 1983; Anderson & Reder, 1999; Collins & Loftus, 1972; Neely, 1975, 1991; Noser & Snyder, 1975; Sniffen & Schneider, 1977). In particular, it has long been postulated that the activation of a given memory will influence the activation of those memories with which it is connected. The manner of this influence can be either excitatory or inhibitory. With excitatory connections, as one memory of a goal construct becomes activated and therefore becomes more accessible, the memories interconnected with it should become activated and accessible as well. In this way, making one component of a goal construct more accessible can render much of the construct as a whole more accessible. For instance, the activation of a single memory concerning the level of achievement could automatically lead to the activation (i.e., greater accessibility) of many other memories associated with achievement (see the research on stereotype activation, e.g., Bargh, Chen, & Burrows, 1996; Devine, 1989). But other connections among goal memories are inhibitory in nature; such that the activation of one goal automatically leads to the inhibition (i.e., lower accessibility) of another, competing goal. For instance, the activation of a central goal (e.g., academic achievement) might inhibit another templating goal (e.g., partying-Fishbach, Friedman, & Kruglanski, 2008; Shah, Friedman, & Kruglanski, 2002).

Notably, the link between any two memories may not be bidirectional. Just because the activation of one goal memory can render accessible an associated memory, the same facilitative effect may not emerge in the reverse direction. For example, when considering the relationships among competing goals, whereas an immediately tempting goal can activate an overriding, more important goal, the reverse is not necessarily true. In fact, some recent research suggests that the same important goal might actually inhibit the tempting one (see Fishbach et al., 2003). In this sense, the connection among any two goal-related memories cannot be inferred merely on the basis of how one memory influences the activation of the other.

These three characteristics of goal structure (i.e., varying accessibility, multiple memories, and excitatory and inhibitory links) would be consistent with, and explained by, numerous types of cognitive models of memory, including simple associative networks as well as connectionist models, for example. A consideration of the types of cognitive architecture that might be able to explain and reproduce goal phenomena is beyond the scope of this chapter and we consider it to be one of the next challenges that social-cognitive psychologists will face in the near future, just as it has been the case with research on attitudes and stereotypes (e.g., Bassil & Rokeach, 1965; Mitchell, Nosek, & Banaji, 2003; Smith, 1996).

The Content of Goals

Read these structural characteristics, what type of knowledge is reflected by goal memories? The answer to this question directly builds on our definition of goals as representations of desired endpoints that direct behavior, evaluation, and evaluation. Below we consider in more detail what this view implies about the nature of goal memories.
Ends and Means

First and foremost, goals contain information about end states. End states are the reference points toward which behavior is directed. One notable feature of end states is that they can vary in their abstractness (Hovland, Mueckler, Asch, & Book, 1954; Jeannerod, 1992; Kornfield & Sloane, 1981; Olson, 1980; Kuglinski et al., 2002; Miller, Galanter, & Pribram, 1960; Powers, 1975). For example, a goal may involve an end state that entails searching tangible and perceptual in the world (e.g., having a cup of coffee) or one that is relatively more abstract and conceptual in nature (e.g., achieving fame).

Goals entail more than just end states, however. They also include the variety of behaviors, plans, and objects that enable one to reach that end state. For instance, the goal of getting a cup of coffee might entail temporarily ordered, procedural information about first grinding coffee beans and then putting them into a filter in a coffee machine (see Norman, 1982), and the goal of achievement might include behaviors such as studying at the library and paying attention in class (Aarts & Dijksterhuis, 2000; Bandura, 1997; Bargh & Gollwitzer, 1994; Carver & Scheier, 1998; Castells & Aarts, 2000; Emmons, 1992; Sehman & Aikens, 1997; Shah & Kruglanski, 2002; Vallacher & Wegner, 1985; Vallerand & Ratelle, 2002; Wiemels, 1985). The behaviors and objects associated with an end state can also vary in abstractness. For instance, the end state of achievement might include the specific behavior of mentally writing lecture notes as well as the relatively more general behavior of being punctual.

When considering ends versus means, it quickly becomes apparent that without any end state can be understood as a means for a higher-order end state. For instance, the means of studying in order to attain academic success could constitute an end state with its own associated means (e.g., take notes and go to library). In such a hierarchical organization, the terms "end state" and "means" are clearly meaningful only in relation to one another. Despite the relative nature of the terms, they are nevertheless useful in that they identify the point toward which a person is striving, and the specific means in which that person might succeed. In this way, the "end state" organizes one's behavior, whereas the variety of means can be somewhat interchangeable or substitutable, and an inability to utilize one means does not necessarily imply that the end state is abandoned (e.g., Kuglinski et al., 2002; Trose, Marin, & Cornell, 1996).

Evaluative Information

We assume that a goal consists of an overall end state and the behaviors, objects, and plans needed for attaining it. But is that all a goal is? Just because someone possesses knowledge about how to put a tree house together, for instance, does not mean that that knowledge constitutes a goal. This leads to a second important aspect of the concept of goal constructs—the end state (and its associated means) has to be desirable (Carver & Scheier, 1981; Castells & Aarts, 2005; Kuglinski et al., 2002; Peak, 1955; Pervin, 1989; Shah et al., 2002; Young, 1961). By definition, a goal that is desirable must be associated in some way with positive affect. We argue that, in line with the long-standing notion that people are motivated to approach pleasure and avoid pain (Arnold, 1969; Bogardus, 1935; Corwin, 1921; Daroff, 1947; Fridja, 1986; Laing, 1984; Lazarus, 1991; Lewin, 1955; Mowrer, 1960; Osgood, 1953; Thurstone, 1931; Young, 1959), the positivity in a goal representation is what imbues the construct with its motivational force. In other words, the primary reason that goals influence and guide behavior is because the positivity associated with them is inherently motivating (see research on expectancy-value models, Atkinson, 1974; Tolman, 1932).

Although we define goals as desirable end states, and therefore assume that they must include positive evaluative information in their representation, it is not yet clear exactly how goals become desirable. For instance, a goal might become positive and desirable in a conscious and intentional manner, such as when a person sees a friend playing a complicated, fun game and wants to learn in order to join in. Or, a goal can become desirable in a more implicit, unconscious fashion, such as through repeated pairings (i.e., conditioning) of a given activity and consequent reward experiences. Recent research has provided support for the latter claim. Castells and Aarts (2005) first implicitly conditioned a goal (e.g., playing a puzzle) with positive evaluations by creating a computer task in which they paired aspects of a task (e.g., the words "puzzle" and "number") with positive words (e.g., "happy"). They found that participants who had received positive (vs. neutral) conditioning of the puzzle words subsequently showed greater motivation to begin the puzzle task.

What Distinguishes a Goal Construct from Other Social Psychological Constructs?

We have noted so far that a goal construct varies in accessibility, consists of many interconnected memories, and operates according to rules of evaluation. There are many similar constructs in psychology, and these may generate some confusion. Here we will attempt to clarify the differences between goals and several other constructs.

Goals have been distinguished from other hypothetical constructs primarily by the nature of their effects on behavior (Aarts, Gollwitzer, & Hassin, 2004; Bargh, Gollwitzer, Lee-Chua, Barroso, & Tov雷斯, 2001; Fazio & Pyszczynski, 2003; Kawada, DeSteno, Gollwitzer, & Bargh, 2004; Shah & Kruglanski, 2003; see review by Fossaro and Liberman, Chapter 9, this volume). In particular, the strength, or activation, of a goal only dissipates when the goal has been reached, whereas the activation of semantic constructs dissipates at a constant rate from the moment of activation (Atkinson & Birch, 1970; Gollwitzer & Moskowitz, 1996; Lewin, 1935; McClelland, Atkinson, Clark, & Lowell, 1953). Specifically, whereas Lewin (1935) suggested this, a goal will stay active until the discrepancy between the actual and desired state is reduced, others have argued that the goal...
The Goal Construct

strength will actually increase over time until it is met (Atkinson & Birch, 1970; McClelland et al., 1953), or when the person becomes particularly difficult to sustain (Brehm & Self, 1989; Wright, 1996). This suggests, for example, that when the goal of achievement has been activated, the person will increase his or her efforts for as long as the goal has been maintained (or until he or she encounters an insurmountable obstacle). In contrast, when more semantic knowledge about achievement has been activated, that activation should rapidly decay over time such that the person may quickly lose some evidence of that activated knowledge in perception or judgment (see Bargh et al., 2001).

It follows that a cue for a goal (e.g., the word "achievement") does not always influence behavior in a goal-related fashion; rather, its influence depends on other variables such as the nature of the task and whether the goal is applicable to it. In addition, whereas all goals include semantic knowledge, not all semantic constructs are goals (i.e., have motivational force) or positively associated with them. As we consider how a goal might come activated and then operate, we review the ways in which researchers have distinguished between goals versus other types of constructs.

ON THE ACTIVATION OF A GOAL

What determines whether a given goal is activated and then guides behavior? The main theme of classical goal research has been that goals are enacted when people deliberately and purposely decide to adopt them (Bandura, 1986; Carver & Scheier, 1990; Dekey & Ryan, 1989; Goldfried, 1980; Locke & Latham, 1990; see also Gollwitzer et al., 1997). This would suggest that a goal becomes activated via conscious, intentional thought. For instance, a person might consciously consider whether to intentionally pursue the goal of being funny while at a dinner party.

However, research over the last decade on how goals become activated suggests a different perspective. Many of the insights in this work follow from the definition of goals, and the assumptions regarding their structure in memory in particular. We noted earlier that goals consist of interconnected memories that become activated (i.e., more accessible) according to knowledge activation principles. This means that the perception of any stimulus that is strongly associated with the goal should be sufficient for the goal to become activated (Bargh, 1990; Bargh & Barndollar, 1996; Bargh et al., 2001; Gollwitzer, 1999; Jacoby & Kelley, 1987; Kruglanski, 1996; Shah & Kruglanski, 2003; see also McClelland, Koestner, & Weinberger, 1989). Importantly, the perception of a stimulus does not have to be conscious (e.g., Greenwald, 1992; Greenwald, Deine, & Abrams, 1996). And, even if people's perception of a stimulus is conscious, they may not be aware that it has activated a whole array of associated memories, including goal constructs (see Ferguson & Bargh, 2004a).

In general, by considering goals as constructs in memory, recent goal research acknowledges the possibility of unconscious goal activation. We review below the kinds of stimuli that are capable of triggering goal activation, this range of stimuli, and, by necessity, why they are associated with that goal. In this way, not only does our review address the ways in which goals can become activated, it also further reveals the kinds of stimuli that are part of the goal construct.

It is also important to note that although we concentrate in this section on the ways in which goals are activated, the findings also necessarily speak to the operation of a goal. That is, we infer the activation of a goal from how the goal influences behavior, judgment, attitudes, and emotions. Although goal activation and goal operation are often empirically difficult to distinguish, we can assume that goal activation precedes goal operation. Therefore, we emphasize in the next section the minimal requirements for a goal to be activated, and we then turn our attention to the types and kinds of downstream consequences of activation in subsequent sections.

Priming by End States and Means

In one of the first tests of how a goal can become activated and influential without the person's awareness or intention, Chartrand and Bargh (1999) subtly primed participants with either a person impression or memory goal. They administered to participants a scrambled sentence task in which participants had to create grammatically correct four-word sentences out of groups of five scrabbled words (Snell & Myer, 1979). Some sentences included words related to forming an impression (e.g., judge, impression, and personality), whereas others contained words related to memorization (e.g., remember, recall, and retain). Participants were then asked to read through a set of behaviors about a fictional person and were told that some of the behaviors would be given a surprise recall test afterwards. The results showed that those who had merely read a few words related to forming an impression in fact processed and integrated the behavioral information about the target in a way similar to when someone is intentionally trying to form an impression. That is, they formed more clusters of the behaviors around personality traits and were also more likely to show deeper processing of those behaviors that were inconsistent with the overall personality theme (e.g., see Hamilton & Shotman, 1996; Sanger & MacMillan, 1992). This was one of the first demonstrations of how information-processing goals can become nonconsciously activated and influential.

But, what is the behavioral evidence that a goal is nonconsciously activated? Bargh and colleagues (2001) tested for goal activation by first asking participants to complete a word-search puzzle. Whereas for some participants some of the words were related to achievement (e.g., strive, achieve, and master), for others none of the words were related to this goal. After this subtask exposure to the notion of achievement, participants were asked to complete a series of other word-search puzzles. Those who were exposed to achievement words found significantly more words than those in the control condition. These findings demonstrate that by simply reading words related to a given end state, a person is likely to
perform goal-congruent actions unknowingly and unintentionally.

How might a nonconsciously activated goal compare with one that is consciously activated? To examine this question, participants in another study (Barth et al., 2001) were explicitly told to cooperate, were subtly primed with cooperation words via a scrambled sentence task, or were not primed in any way. Each participant then played a resource management game with another participant in which they had to fish from a lake while ensuring that the lake did not become depleted. The results showed that those in the nonconsciously activated goal condition, as well as those in the nonconsciously activated goal condition, showed more cooperation than those in the control condition. It appears that a nonconsciously primed goal can have an effect similar to a conscious prime on goal-congruent behavior.

Another predominant issue concerns the evidence for the activation of a goal versus some other construct. That is, in these tests of nonconscious goal activation, how do we know that a goal was activated, versus perhaps some semantic concept related to the goal? For example, was participants' achievement behavior due to the influence of the goal of achievement or simply the semantic concept of achievement? Perhaps the priming task simply increased the concept of achievement, and then participants interpreted the situation as achievement related and acted accordingly. Recall that whereas the activation of semantic concepts decreases over time, the activation of goals increases over time until the goals are attained. Accordingly, Barth and colleagues (2001) nonconsciously primed participants with achievement and then asked them to complete either a semantic task of evaluating an ambiguous achieving target (Higgins, 1996) or a goalseeking task of word-search puzzles. Participants also completed the measure either immediately after the priming or after a 5-minute delay. In the immediate condition, those in the control condition who did, the goal task performed better than those in the control condition, and those in the priming condition who completed the semantic task performed better than those in the control condition. The critical question concerned the effects for those in the delayed condition. If the semantic concept of achievement was activated, the effects for both the judgment task and the goal task should have decayed. However, if the goal of achievement was nonconsciously activated (in addition to semantic knowledge), the effect on the goal-relevant task should have increased over time. The pattern of results confirmed this, suggesting that the goal of achievement was indeed activated.

More recent research suggests that in addition to end states, goals can also be nonconsciously activated by relevant means and strategies (Shah and Kruglanski, 2003) showed that people who were subliminally primed with a recently learned behavioral strategy showed evidence of pursuing the goal related to the strategy. In one study, before completing anagram tasks, participants learned a strategy for solving anagrams. Those participants who were subliminally primed with the name of that strategy ("first-last," which refers to determining initially whether the first and last letters of the letter string anchor any known words) showed a greater accessibility of words related to anagrams and also exhibited more persistence and better performance. These findings suggest that the perception of (even recently learned) means can activate the goal associated with that means.

Whereas the work described earlier showed that a goal can be nonconsciously activated by semantic cues (i.e., words) closely related to end state or means, what other ways might goals become triggered by the environment? We suggested that the perception of any stimulus that is associated with the goal should be sufficient for the goal to become activated. Because people live in a social environment, a large proportion of these stimuli are social stimuli. Indeed, a body of studies has now uncovered some of the major categories of social stimuli that lead to goal activation.

Primings by Relationship Partners

Goals can include the representation of individuals (e.g., a parent and a teacher) who expect the person to pursue the goal as well as the representation of individuals who pursue that goal themselves. For instance, a person's goal of making money might include representations of that person's father, who expects that person to make money, as well as representations of a best friend who is obsessed with making money. If goals include representations of others, the perception of a relationship partner can systematically activate those goals associated with that partner.

As a demonstration of this principle, Shah (2003) has shown that being subtly reminded of a significant other can activate the significant other's expectations, which can then influence the person's own expectations and performance. Shah demonstrated that participants who were subliminally primed with the name of a significant other who had high expectations for the person (e.g., a father) on an anagram task actually performed longer and performed better than those not primed. In a similar line of research, Traimier and Buehler (2002) claimed that people normatively have achievement goals for impressing their mothers. They accordingly found that those who were reminded of their mother's expectations achieved more on a word-search puzzle than those not reminded.

Relationship partners can further activate the emotional experience that is included in the goal representation. For example, Higgins and colleagues have shown that people can adopt a style that emphasizes nurturance needs (a promotion focus) or one that emphasizes security needs (a prevention focus; see Higgins, 1997). Based on this theory, Shah (Shah, 2003) showed that a significant other's regulatory focus can also influence one's own action toward the task according to regulatory focus. For example, those whose fathers hoped that they would do well on academic tasks (an ideal expectation), and who were primed with words related to father, experienced cheerfulness when given positive feedback on an anagram task and dejection when given negative feedback on the task, in line with the ways in which regulatory focus influences
emotions-specific reactions. Those whose fathers expected them to do well on academic tasks (ought expectation), and who were primed with father-related words, experienced relaxation when given positive feedback on an analog task and agitation when given negative feedback, again in line with research on how regulatory focus influences emotions (e.g., Higgins, Shah, & Friedman, 1997).

Priming by Group Members

In addition to relationship partners activating goals, the perception of (unfamiliar) group members can also initiate the goals that the percipient tends to pursue when in the presence of these group members (Cesario, Flaks, & Higgins, 2006). When one encounters another person, an automatic preparation to interact with that person, either in an approach or an avoidance manner, is activated, depending on that person's implicit attitudes toward that group. The result is that the perception of a group member activates one's goals toward that group (in addition to stereotypes) and those goals influence behavior. As a demonstration of this principle, Cesario and colleagues (2006) primed participants with gay or straight men and then introduced a mild provocation when the computer failed and participants' data were supposedly lost (a paradigm developed by Bargh, Chaiken, Raymond, & Hees, 1996). The degree to which participants then interacted with the experimenter in a hostile manner constituted the main dependent measure. If the contents of the gay stereotype are more salient, then those who were primed with gay should behave in a more passive manner after the provocation (given that gay men are stereotyped as passive; e.g., Herck, 2000, 2002) compared with those not primed. However, if one's goal to interact with the group member is activated and assuming that most people have negative implicit attitudes toward gay men, those primed with gay men should be more hostile toward the experimenter than those not primed. The results favored the latter hypothesis—priming gay men activated the goal to act with hostility.

Priming by a Stranger's Goal Pursuit

In addition to relationship partners and group members, the perception of another person engaging with goal-related actions might be sufficient to trigger the goal related to those actions, even if the actor is unfamiliar. This is because people (or other people's goals from their actions, and these inferred goals have implications for one's own behavior (Aarts et al., 2004; Aarts, Haslam, & Ferguson, 2005). As a demonstration, Aarts and colleagues (2004) gave participants a vignette about a target person's behavior (which implied a goal), and then participants were placed in a setting where they could behave in line with that goal or not. For instance, in one study, male participants either read about a target person who was trying to pick up women in a bar (implying the goal of seeking casual sex) or read a control passage that did not imply the goal. Participants were then asked to provide feedback on one of the experimenter's tasks to the experimenter, who was determined to half of the particip-

pants as female and to the other half of participants as male. Because men who are sexually interested in women tend to show more helping behavior toward the target person, Baumüller and Tice, 2001; Buss, 1988), those who had read the vignette implying the goal of casual sex gave more feedback (i.e., showed more helping behavior) toward the female experimenter but not the male. These findings show that merely observing someone else's behavior can activate the goal associated with the behavior.

Notably, these "goal contagion" effects reflected the influence of a goal rather than the experience of simple behavior priming (e.g., Bueh et al., 1996; Björkman & van Knippenberg, 1998). Namely, because the dependent measure (giving feedback to a female experimenter) was sufficiently semantically distinct from the primed behavior (picking up women in a bar), the effect was probably due to an overarching goal that contained both behaviors as means.

Summary

The research we have described in this section shows how a goal can become activated (and influential) on the basis of the mere (conscious or unconscious) perception of a goal-related stimulus. There is precedence for this notion in classic goal research, which assumes that the degree to which a person is consciously thinking about a goal determines the likelihood that the person will pursue it (e.g., Bandura, 1986; Deci & Ryan, 1985; Goldscheider, 1909; James, 1890; Lewin, 1935; Locke & Latham, 1990; Michkel et al., 1999). The present analysis expands on classical research, by showing that if accessibility is in fact the underlying mechanism, goals should be able to be activated even by the non-conscious perception of goal-related stimuli.

Importantly, the claim that a goal's influence will depend on its accessibility in memory does not imply that people will behave in line with whatever memories have recently been activated. Once a goal has been activated, its effect on behavior still conforms to the principle of applicability (Higgins, 1996). Increased accessibility of a construct via priming simply means that it will be more likely to be relevant to a situation that is "related" to the relevant goal pursuit to some degree. The degree to which a particular task is goal related determines the extent to which an accessible goal guides behavior.

In our discussion of goal activation, we inferred activation based on the downstream behavioral effects of goals (e.g., puzzle performance, helping behavior, and hostile behavior). In this way, this research joins a long tradition of work on classic findings showing how goals influence behavior. However, in thinking about the downstream consequences of goals on behavior, we now move away from most documenting overt, behavioral effects to unifying more subtle effects that perhaps might mediate between a goal and overt behavior. Specifically, we are interested in examining the ways in which an activated
goal, and in particular a nonconsciously activated goal, influences knowledge accessibility, evaluations, and emotions, and we review these influences in the next section.

ON THE OPERATION OF A GOAL

In this section we identify the characteristics of goal pursuit, including goal-relevant knowledge accessibility, goal-relevant evaluations, goal-relevant moods and emotions, and, of course, goal-relevant choices and behaviors. Just as we did in the section on the activation of a goal, we develop the current section on the operation of a goal based on the definition of the goal construct that we outlined in the beginning of the chapter. In particu-
lar, throughout the following section we note how some of the characteristics of goal operation derive directly from our assumptions about the content and structure of the goal concept. For instance, because goals contain information on evaluations and behaviors, the operation of goals can be characterized by changes in the evaluation of goal-related stimuli and the enactment of goal-congruent behaviors.

Goal-Relevant Knowledge Accessibility

We proposed earlier that increased accessibility of goal-related knowledge is what it means for a goal to be activated. In addition, the accessibility of goal-related knowledge can also be understood as a consequence of goals. This suggests that goal-relevant knowledge should be more accessible during the pursuit of that goal, compared with when the pursuit is over or has not been initi-
ated. For example, the activation of the hunger goal should increase the accessibility of knowledge that is re-
lated to that goal, such as restaurants. In this way, the in-
creased accessibility of restaurants simultaneously repre-

sents what it means for a hunger goal to be activated and one type of downstream consequence of goal activation.

There is a long history of the theoretical notion that the (conscious) activation of a goal influences the types of knowledge that become accessible (Ash, 1935; Bahg, 1997; Bruner, 1957; Goddard, 1996; Jones & Thibaut, 1958; Kluger, 1995; Krujilanski, 1995; Kohl, 1987; McClelland & Atkinson, 1948). Some of the precedent for this started with the New Look research movement. In contrast with the classic view of perception in the first half of the 20th century that perception was entirely driven by the stimu-

lus (Stevens, 1951), New Look research movement observed that people's perceptions are influenced by the value of the stimulant being perceived (Bruner, 1957; Bruner & Postman, 1948; Jones & Thibaut, 1958; McClelland & Atkinson, 1948; for a review, see Greenwald, 1992). For example, in the classic experiment by Bruner and Postman (1948), poor children overesti-

mated the size of coins to a greater degree than rich chil-
dren, for whom the money was presumably less intensely desired. In a review of the New Look research, Bruner (1957) argued that what people want, need, and desire can influence the accessibility of knowledge, and thus how they see the world around them. Each nonconsciously

act of perception is an act of categorization, with multi-
ple categories being available for a given stimu-
lus. People's needs and motives can influence the accessibil-
ity of those categories and thus make them "perceptually ready" to categorize, or perceive, stimuli in certain ways. For instance, when people are looking at an ambiguous object in the distance that looks like a storefront but could be a restaurant façade, they should be more likely to "see" a restaurant when they are hungry than when they are not (see Bruner, 1957, see also Glenberg, 1997).

Recent evidence provides more methodologically rig-
orous support for the theoretical claim of the New Look that an active goal increases the accessibility of related knowledge (Aarts et al., 2001; Baileci & Dunning, 2006; Forsten, Liberman, & Higgins, 2005; Moskowitz, 2002). For instance, Moskowitz (2002) tested whether knowl-
edge that is related to an active goal automatically cap-
tures attention. Based on self-competition theory, peo-
ple who receive negative feedback about an important self-relevant domain should be especially motivated to reestablish competence in that domain. Accordingly, Moskowitz (2002) reasoned that athletes who think about one of their recent athletic failures (e.g., missing a crucial foul shot) should be highly motivated to reestablish their competence as athletes, and if so, those who have recently thought about failure should demonstrate the strongest accessibility of knowledge related to their goal of athleticism. Participants thought about either a recent failure or success in athletics or nothing at all, and then they completed a computer task in which there were distractors either related or unrelated to athleticism (e.g., athletic, fast, and angry). Those participants who had been thinking about failure, and thus who presumably had particularly accessible goal-related knowledge, responded much more rapidly to the distractors than the athletes related versus unrelated. Appar-
ently, when a goal is activated, stimuli related to the ful-
fillment of that goal become highly accessible and auto-
matically attract attention.

But, part of our argument (also consistent with the New Look research) is that the accessibility of goal knowledge should influence the stimuli in the environment to which people pay attention. Does this happen? Aarts, Dittrichschau, and De Vries (2001) manipulated partici-
pants' thirst by asking some of them to consume salty snacks. Participants then completed a lexical decision task in which some of the words were beverages or items used to drink beverages (e.g., juice, soda, and bottle). The results showed that those who had been manipu-
lated to be thirsty showed significantly greater accessibil-
ity of drinking-related words, compared with control words, and compared with nonthirsty participants. Aarts and colleagues (2001) then showed in a second study that thirsty participants were more likely than nonthirsty par-
participants to recall drinking-related objects. These studies demonstrate that the goal of quenching thirst can render accessible knowledge concerning stimuli, actions, and concepts involved in quenching that goal, just as Bruner (1957) and others argued, and, importantly, that greater accessibility then determines the objects to which people attend in their environment.
Although an active goal increases the accessibility of knowledge related to that goal, which then influences the stimuli that one notes, does it influence what people actually see in the world, as New Look researchers claimed? Recent research by Balch and Dunning (2008) has provided support for this notion. In one study, participants were told that they were going to be randomly assigned by the computer to one of two conditions. In one (desirable) condition, they would have to sip an unappealing, green vegetable drink. They were told that the computer would randomly present either a number or letter to them, and that either a number or letter (depending on counterbalancing) would mean that they were assigned to the OJ condition. The computer then flashed the well-known, ambiguous "Bl.13" figure, and then there was a message indicating computer failure. The experimenters, who had not seen what was flashed, asked the participant what he or she saw on the screen. Whereas those for whom the number meant the desirable condition were more likely to see the O, those for whom the letter meant the desirable condition were more likely to see the B. A series of additional experiments demonstrated (using a variety of implicit measures) that the effect was not due to response bias, but rather, reflected what participants actually perceived. On the basis of this work, we conclude that what someone wants does influence how they disambiguate stimuli in the world; critically, this seems to happen because what someone wants influences the types of knowledge that are accessible in memory, which then serve to capture any ambiguous stimuli relevant to that knowledge (see Bruner, 1957; Higgins, 1996).

Interestingly, goal pursuit is not simply characterized by the pursuit of a specific target. As a computer search for the completion of a pursuit leads to the inhibition of related knowledge. Recently, Forster and colleagues (2005; see also Bargh & Mors) have found that participants who are not interested in the target, the accessibility of words related to glasses was greater compared with the accessibility for those who were not searching for the target. This is in line with the findings; we just described. However, once participants found the target, the accessibility declined below the level for control participants. This work is consistent with work in cognitive science showing that knowledge related to fulfilled intentions becomes inhibited (Gosselin & Kuhl, 1995; Liberman & Forer, 2005; Marsh, Hicks, & Bryan, 1999).

Goal-Relevant Evaluations

We argued in the previous section that the accessibility of goal-related knowledge can be understood as evidence of goal activation as well as a consequence of goal activation. In a similar vein, the effects of goal on evaluations of stimuli in the environment can be conceptualized both as evidence that those stimuli are relevant to an active goal and as effects of that active goal. Indeed, we argue in this framework that the evaluations that follow from goal pursuit reveal the nature of the associations in memory between the goals and the concept of the object itself and evaluative information. We therefore suggest that the "effects of a goal" on evaluation and emotion also speak to the content of the representations that are activated.

How then does active goal pursuit influence the way in which people evaluate stimuli related to that goal? In one way, the answer to this question is obvious and straightforward, and seems self-evidently true. When people are actively pursuing a goal, by definition they want (desire) those things that can help them achieve the goal, and similarly should not want those things that prevent them from reaching the goal. For example, being thirsty makes water more desirable and positive because it can alleviate one's thirst, and salty things more undesirable because they can exacerbate one's thirst (see also Loewenstein, 1996). Thus one consequence of goal operation is more positive evaluations of those stimuli that can facilitate the goal, and perhaps more negative evaluations of those stimuli that can thwart the goal (Brendel & Higgins, 1996; Cahanac, 1977; James, 1890; Lazarus, 1991; Levin, 1926, 1955; Mackman & Brenn, 2000; Rosenberg, 1956; Shish & Higgins, 2001).

In what follows, we explore how goals influence evaluations but focus in particular on studies that used implicit rather than explicit measures of evaluation. There are two reasons for this focus. First, implicit measures capture changes in evaluations that are not communicated by people's response biases, self-presentation pressures, or demand effects. In this way, any changes in implicit evaluation as a function of goal pursuit can be regarded as spontaneous and likely to occur in "real-world," non-laboratory settings. Second, research has shown that explicit and implicit evaluations can diverge, and it is not clear whether people rely on different memories and underlying processes (e.g., Gawronski & Strack, 2004; Holman, Gawronski, & Gollwitzer, 2000; Hummer & Schmitt, 2000; Ocasio, 1990; Wilson, Lindsey, & Schooler, 2000). Whereas explicit evaluations seem to guide behaviors of which the person is aware, and thus are easy to guide and monitor, implicit evaluations seem to direct behaviors that are less intentional and relatively more difficult to control and monitor. Given that implicit evaluations influence people's subjective and unintentional behaviors, any effect of goals on implicit evaluations would exploit and demonstrate one way in which goals can guide people's behavior in a subtle and nonconscious manner.

Evaluations of Stimuli Consistent with the Goal

Stimuli are evaluated implicitly in line with one's active goals (Ferguson & Bargh, 2004; Moors & De Houwer, 2001; Morgan, De Houwer, & Knetsch, 2004; Sherman; Rose, Koch, Presson, & Chassin, 2005). In support of this proposition, Sherman and colleagues (2003) found, for example, that chronic cigarette smokers automatically
evaluate cigarette paraphernalia more positively when they are in need of a fix, versus when they just recently satisfied the urge. In one study, heavy smokers who had been instructed to refrain from smoking automatically evaluated smoking-related stimuli in a more positive fashion than those heavy smokers who had just recently smoked. This suggests that when a goal is activated, those stimuli that can help the person to reach the goal are automatically evaluated as positive.

But how long does this implicit positivity last? Ferguson and Bargh (2000) showed that stimuli that are relevant to a currently active, but not recently completed, goal are implicitly evaluated as more positive than control stimuli. This suggests that the effect of a goal on implicit evaluations lasts only as long as the goal is active. In one study, participants who were still involved in a competitive word game automatically evaluated game-related words (e.g., win and achieve) as more positive than those who had never played the game, as well as those who had played the game but were already finished. This demonstrates that the automatic evaluation of stimuli is contingent upon what the perceivers are currently doing at the moment, rather than what the perceivers have just done. In another demonstration of goal-based evaluation, Ferguson and Bargh asked thirty participants to either drink multiple beverages, thereby satiating their thirst, or sample salty, dry pretzels, thereby exacerbating their thirst. The participants then automatically evaluated a series of words that varied in their relevance to thirst. The results showed that those who were still thirst automatically evaluated words that were strongly related to the thirst goal (e.g., water and piece), but not unrelated to the thirst goal (e.g., chair), as more positive than those who had just sated their thirst.

In general, then, there is some evidence for our claim that objects and means related to a goal become more implicitly positive when that goal is active compared with when it is not active. Moreover, whether the end stage itself. When someone is pursuing an achievement goal, for instance, are words such as success and achievement evaluated in a more positive manner? We claim that people who are actively pursuing a goal automatically evaluate relevant end states as more positive compared with when the goal is not being pursued. In a study that tested for this possibility, Ferguson and Bargh (2004) assumed that participants who were asked to think about recent failure in an important, relevant domain would be the most motivated to pursue that end state (reestablish their competence in the domain) compared with those who thought about success in the domain, or who thought about unrelated topics (see research on self-completion theory, e.g., Wicklund & Galster, 1972). Participants who were athletes were thus asked to think about recent failure or success in athletics, or an unrelated topic. Their automatic evaluations of words related to the goal of improving their athleticism (e.g., athletic and agile) were then measured. As predicted, those participants who had thought about failure in athletics generated the most positive automatic evaluations of the end states (and of other types of words) compared to those who had thought about success or an unrelated topic. Consistent with previous research on self-completion theory, this effect emerged most strongly for those for whom the athletic domain was the most important—variety athletes.

The activation of a goal thus renders as positive those end states that are directly related to the goal.

Even though the evaluation of stimuli seems to depend on whether those stimuli are related in some way to people's current goals, this does not mean that stimuli that are not related to the goal will have no value. People's average evaluations of stimuli should indicate the average relevance of those stimuli for the person's goals. Obviously, those stimuli that are consistently useful for a person's important goals might be evaluated as positive most of the time, whereas those that are only occasionally useful might be less consistently positive. If so, it should be the case that people's implicit evaluations of stimuli in default (not-goal-related) settings should predict the likely influence of that goal in a goal-relevant setting. Ferguson (2006b) tested this by measuring participants' chronic, implicit evaluations of end states in one setting, and then testing whether those evaluations predicted participants' goal pursuit in another setting. In one study, participants' implicit evaluation of the goal to be this was measured. A week later, participants were asked to report how much over the previous week they had avoided eating tempting foods, as well as how often they planned to do so in the upcoming week. Participants' implicit evaluations measured a week earlier significantly predicted their goal-relevant behavior, and even did so significantly above and beyond their explicit evaluation of the goal. Such findings suggest that people's chronic goals influence their evaluation of stimuli related to the respective end states.

Evaluation of Stimuli Inconsistent with the Goal

The activation of a goal representation might also lead to more negative to a current, primary goal than the end state itself. In one study, participants who were explicitly primed with a goal consistent (e.g., academic pursuits) implicitly generated positive evaluations of words that were related to another low priority goal (e.g., social life) that might undermine the primed goal (Ferguson, 2006a). But importantly, whereas an active high priority goal undermines the positive value of stimuli related to a competing low priority goal (as in the previous case), an active low priority goal may actually increase the positive value of stimuli related to a competing higher priority goal, because of the motivational priorities of the person pursuing these goals. For example, reminding participants of their social goals led to a more positive evaluation of academic pursuits among students who strived toward academic excellence and considered it more important than social activities (Fischbuch, Zhang, & Trope, 2006; Trope & Fischbuch, 2000). In this section "On the Interaction among Goals," we discuss these patterns of influence between conflicting goals in more detail.

Are there any variables that might determine when negative evaluation of goal-undermining stimuli is most
likely to occur? One possibility is that the extent to which it occurs depends on whether the person can effectively self-disclose in the focal goal domain. The findings of Ferguson (2006a; and Fishbach, Zhang, and Trope (2008) together suggest that negative goal-related evaluations emerge most strongly for those who are skilled in the focal domain. For example, when participants were unconsciously paired with academic concerns (e.g., grades), they automatically evaluated social temptations as more negative-especially so if they had relatively high grade point average (GPA) scores. This suggests that the degree to which goals might shift attention to evaluations of pertinent stimuli in some cases depends on the person's skill level and experience in the relevant goal domain.

We further argue that the activation of a goal can have repercussions for the evaluation of stimuli that are irrelevant to the goal. Recent work by Brendl and colleagues (Brendl, Markman, & Messner, 2003; Markman & Brendl, 2000) has suggested that such "devaluation effects" occur when the activation of a given goal (e.g., hunger) renders as negative those objects (e.g., movie tickets) that might draw resources away from the focal goal (see also Shah et al., 2002). To test this idea, they asked smokers who had or had not recently smoked to purchase coffee tickets for a prize of either cash or ciga-
terettes. A devaluation effect occurred such that deprived smokers bought fewer tickets for the cash prize than those smokers who were not deprived. In this way, the active goal to smoke led to a lower estimation of cash. We conclude that the activation of a goal may make stimuli that are not directly relevant to the overall goal less positive.

Goal-Relevant Moods and Emotions

Beyond evaluations of specific stimuli, how might the operation of a goal influence one's affective state more generally? There are at least two ways to approach this question. It is possible to consider the ways in which goal pursuit might influence people's moods and emotion both during the pursuit as well as after the pursuit has been completed. We first consider the former, and then move to the latter.

Considering our earlier argument that during goal pursuit the related end state and associated means should be evaluated as more explicitly and implicitly positive, it seems possible that the positivity associated with a specific stimulus (e.g., a means) might extend to a more general affective state, such as a mood or emotion. This possibility was supported in research by Fishbach, Shah, and Kruglanski (2004). These researchers documented a transfer of emotions from goal to related means in proportion to the degree of association between the means and proximal goal attainment. In particular, while pursuing a given means, people experience some of the emotions that characterized goal attainment. For example, in one of their studies, participants self-generated a goal (e.g., making friends), and one versus two activities that serve this goal attainment (e.g., joining a fraternity and being helpful to people). Listing a second activity was expected to dilute the association between the goal and the first activity, thereby decreasing the magnitude of the emotional transfer. Accordingly, participants perceived the first activity listed as more enjoyable when it was the only activity listed compared with it being the first of two activities listed. In another study, it was shown that the quality of feelings (promotion or prevention type affect) experienced toward social figures who also serve the attainment of means (e.g., a hairy design in an arm tax allows) varied as function of the type of goals they were help in motivating.

People also experience general affective states during goal pursuit as a result of feedback processes, a possibility posed by cybernetic models of behavioral control. For example, Carver and Scheier (1990, 1998) have argued that people monitor the discrepancy between the desired end state and their current state, and that their mood can be an important part of the feedback for such moni-
toring. Specifically, when people are progressing faster than they expected, a positive mood will be experienced. When people are progressing more slowly than they expected, a negative mood, on the other hand, should result when one's progress is slower than expected. Theoretically, this means that as long as mood is associated with goal performance, a negative mood should prompt people to increase their efforts and pursue, while a positive mood should signal that people should reduce their efforts given that they are moving more quickly than they planned (see Carver, 2003).

What about moods and emotions that emerge after the termination of a goal pursuit? In one way, an answer to this question is straightforward. Psychologists have long recognized that there are general affective consequences for attaining desirable things and failing to do so. Those who attain things that they viewed as desirable feel good; indescribable things are undesirable precisely because they promise to deliver pleasure or an escape from pain. And, by ex-
tension, those who fail to reach something desirable will undoubtedly feel bad. Although people may not be able to accurately calibrate the actual extent to which they will feel good or bad once they reach or fail to reach a goal (Gilbert, Funder, Wilson, Banbury, & Wheatley, 1988; Wilson, Wheatley, Meyers, Gilbert, & Assom, 2000), it is well established that such affective experiencetranspases in this way (e.g., Bandura, 1999, 1991; Carver & Scheier, 1990, 1999; Clore, 1994; Frieda, 1996; Higgins, 1999). Moreover, the nature of a given goal pursuit influences moods and emotions (e.g., Higgins et al., 1997). Spec-
cifically, different goals will lead to different emotional responses to completing the pursuit. A focus on reduc-
ing the discrepancy between one's actual and "ought" self (a prevention focus) leads to feelings of cheerfulness in the case of success and dejection in the case of failure. In con-
trast, a focus on reducing the discrepancy between one's actual and "ought" self (a prevention focus) leads to feel-
ings of cheerfulness in the case of success and anxiety in the case of failure. We therefore suggest that goal pursuit can influence more generalized affective states in addition to evalu-
tions of specific stimuli. Furthermore, the termination of a goal pursuit lulls certain affective states. One impor-
tant question, however, is whether these "effects on at-
tent" can also be considered part of the goal construct; that is, whether they should be considered both part of
what it means for the goal construct to be activated in
memory as well as the consequences of goal operation.
We argued earlier that implicit effects on knowledge ac-
quisition and evaluation can reveal the content of the goal
structure, and we extend this logic to more generalized
affective states. Goal constructs include the positive emo-
tions that characterize goal attainment as well as the neg-
ative emotions that characterize goal failure. These emo-
tions may be associated with the end state as well as with
the transition from goal attainment and the goal struc-
ture (Fishbach et al., 2014; Higgins, 1997). In addi-
tion, emotions are downstream consequences of goal ac-
quisition and goal pursuit, as we reviewed here.

Goal-Relevant Behavior

Goals influence how people choose to act and behave toward the world (e.g., Bandura, 1986; Carver & Scheier, 1998; Dei & Ross, 1980; Fiske, 1988; Gollwitzer, 1990; Locke & Latham, 1990; Miller et al., 1960; Mischel et al., 1990; Norman & Shallice, 1986; Shallice, 1972). The re-
search that we have reviewed in this chapter so far shows
that even nonconsciously activated goals influence overt
behavior, including achievement, cooperation, helping,
expressing anger, seeking casual sex, and much more.
In addition to such overt behavioral effects, goals also
influence more subtle types of action. Thus, Fishbach
and Shah (2006) demonstrated that people possess im-
plicit behavioral dispositions (approach; avoid) toward
stimuli that are consistently desirable (high-priority goal
stimuli) or undesirable (low-priority stimuli). They first
asked participants to generate words related to im-
portant goals and words related to associated, underm-
innovations (e.g., studying, exercising, vs. movies,
alcohol). They then measured participants' implicit be-
behavioral tendencies toward stimuli by asking partic-
ipsants to push or pull a standard joystick in response
to each of those stimuli. Given that previous research has
shown that pulling movements are faster in response
toward desirable stimuli, and pushing movements are faster
response to undesirable stimuli (e.g., Solarz, 1960),
Fishbach and Shah hypothesized that participants would
show implicit behavioral responses in accord with the de-
scriptory of the goal-related stimuli. The results showed
that participants were in fact faster to pull (vs. push) a joy-
stick toward them in response to a goal-related word.
they were also faster to push (vs. pull) the joystick away
from them in response to a temptation-related word. These
implicit behavioral dispositions predict explicit
behavior and successful self-regulation.

It should be noted that although plenty of the research
we have reviewed examined the effects of goals on know-
ledge activation, evaluations, and emotions, it is ult-
imately concerned with predicting behavior. This
research is grounded on the assumption that such phe-
nomena mediate between the goal and more overt
behavior. For instance, the accessibility of knowledge
should eventually translate into how the person behaves
(Higgins, 1996). Similarly, a large and extensive litera-
ture details how evaluative and affective experiences lead
to behavioral effects (e.g., Allport, Johnson, & Fromm,
2005; Carver & Scheier, 1999). In this way recent work
has emphasized the (often implicit) mediators at work
in goal pursuit.

Summary

In this section we discussed the characteristics of goal
operation, including those that involve knowledge activa-
tion, evaluations, moods, and emotions, and behavior.
We now turn to a new direction in the study of goals.
This next section addresses how multiple goals interact,
and it includes topics such as goal competition and self-
control. Just as most of the characteristics we considered
in the previous two sections depend on the definitional
assumptions about the structure and content of goals, so
too does the theory and research in the next section.
In particular, this theory relies on the assumption that
goals are often interconnected with one another and may
contain facilitative as well as inhibitory links.

ON THE INTERACTION AMONG GOALS

Soren Kierkegaard, the Danish existentialist philoso-
pher, instructed his readers to will only one thing
(Kierkegaard, 1858). However, according to modern
good research, it is unclear whether people want or can
ever follow his recommendation (e.g., Kruglanski et al.,
2002). Indeed, in previous sections we discussed how
a variety of stimuli that people might naturally encounter
in everyday situations, including various semantic stimuli
(words), objects, relationship partners, and strangers,
can activate goals. This suggests that in a typical and
richly complex social environment, in which there
undoubtedly exist multiple cues for different goals,
the coordination of simultaneous goals seems inevitable.
In addition, people also at times consciously choose to par-
part several goals simultaneously (e.g., career and family).
In the face of such numerous competing pursuits, a per-
son necessarily has to prioritize the pursuits and resolve
goal conflicts in order to ensure the successful attain-
ment of as many goals as possible (Cantor & LAgrouin,
1989; Emeonna & King, 1988; Higgins, 1997; Markus
& Rossle, 1986; Shah, 2005). Which of multiple goals de-
serves priority? And when does a person decide to em-
phasize the pursuit of a single goal versus balance be-
 tween the pursuits of several goals?

As is evident, an integral part of understanding how
goals operate is an understanding of how multiple
goals interact with each other and together influence behavior,
evaluation, and emotion. Virtually all of our earlier dis-
cussion dealt with the requirements for the activation of
a single goal and the characteristics of the operation of
that goal. In this section, we discuss the challenge pre-
sented by multiple goals and how the interaction among
goals poses a special problem for decision making and
choice. We specifically distinguish between three configurations of multiple goals. First, we consider the implications of pursuing multiple goals of different centrality, which, therefore, pose a potential self-control conflict between a central goal with defined benefits and a less central goal with immediate benefits. Finally, we look beyond the impact of several goals on a single action to the effects of multiple goals on a sequence of actions that unfold over time.

Just as in previous sections, much of the principles we consider in these areas of research derive from the deficit assumptions concerning the structure and content of goal representations that we described at the outset of the chapter. In particular, it is assumed that many goals have been activated simultaneously in the past, or are related with each other in a semantic or emotional meaning. We therefore argue that many goals themselves are interconnected in memory, just as are the memories associated with a single end state. This implies then that the activation of a given goal can automatically facilitate other compatible goals or perhaps inhibit competing goals. This assumption lies at the heart of much of the research on multiple goals.

Multiple Goals of Similar Centrality

How does a person manage multiple goals of approximately equal centrality that conflict with one another? We identify two assumptions that govern research on the effects of multiple goals of similar centrality: goal competition and multiple goal attenuation. In what follows, we discuss their implications for behavior, evaluation, and emotional experience.

Goal Competition

One underlying assumption of goal research is that simultaneously activated goals compete for limited motivational resources. And, because motivational resources are limited, the pursuit of a given goal will inevitably pull resources away from another goal. In particular, goals compete for attention, commitment, and effect (Asendorf et al., 2004; Baumrind, Bratslavsky, Murayen, & Tice, 1998; Forster et al., 2005; Shah et al., 2005; Shah & Kruglanski, 2002).

In one demonstration of goal competition, Shah and Kruglanski (2002) found that priming participants with a background goal (vs. a control word) undermined their commitment to the focal goal, which then hindered the development of effective means for goal pursuit and dampened participants' emotional responses to positive and negative feedback about their goal progress. In one study, participants expected to perform two consecutive tasks corresponding to two goals. While working toward the first task (i.e., the focal goal), they were subliminally primed with the name of the second task they expected to perform later (i.e., the background goal) or with a control prime. The activation of the background goal led to a decline in persistence on the first task, lower performance success, and lower emotional reactance to success and failure feedback. In other words, the activation of an alternative goal pulled away motivational resources from the focal goal.

Because goals compete for attentional resources, the activation of one, focal goal can sometimes lead to the inhibition of another, alternative goal in memory; in this way, the focal goal "shields" itself from alternative ones by directly reducing the accessibility of alternative goals in memory (Shah et al., 2002). Empirically, this inhibition is often reflected in the slowing down of lexical decision times to concepts that represent alternative goals. For example, Shah and colleagues (2002) demonstrated that when a goal-related concept (e.g., "study" vs. control word) was subliminally primed, it slowed down lexical decision time to concepts related to alternative goals (e.g., "jogging"). The degree of inhibition of alternative goals was moderated by participants' commitment to the focal goal they were currently pursuing, such that only highly committed individuals (i.e., those who indicated that the goal is important) inhibited completing goals. In addition, because goals compete with each other, there is a self-regulatory advantage for inhibiting focal goals once they are accomplished, because by inhibiting completed goals, a person frees up resources to be used for new goal pursuits (Forster et al., 2005; Liberman & Forster, 2000).

An underlying assumption in research on goal competition is that goals acquire their motivational force from a limited pool of motivational resources. In other words, any act of self-regulation is by definition resource depleting (Baumeister, Heatherton, & Tice, 1994; Muraven & Baumeister, 2000; Vohs & Heatherton, 2006). Research on go-aperception has provided ample demonstrations for the depleting nature of self-regulatory acts across many self-regulatory domains (see Baumeister, Schmeichel, & Vohs, Chapter 22, this volume). For example, participants who were asked to control their emotional responses or an upcoming movie (vs. watching that movie with no goal in mind) were subsequently less able to persist on holding a handgrip. Or, in another study, participants who suppressed forbidden thoughts (vs. no suppression) were subsequently less likely to persist on trying to solve unsolvable anagrams (Muraven, Tice, & Baumeister, 1998).

But, even when goals are not resource depleting people withdraw from a current, efficient goal in order to save their resources for another upcoming, goal-related task. For example, dietary students often stop dieting to control their food intake just before they undergo an important academic test. In general, over a lifetime's worth of experience with regulating limited motivational resources, people may develop strategies of resource conservation and resource management, which are designed to save self-regulatory resources for future goal pursuits (Shah, 2005). These resource management processes may further operate outside conscious awareness. Shah and her colleagues found that participants who were subliminally primed with the name of an upcoming difficult task (vs. no control) were less likely to put effort into the present task, took longer breaks, and consumed more juice, which they were told was helpful for the subsequent task (Shah, Breaux, & Jungbluth, 2005). This work
suggests that resource management is often strategic (while still automatic) and can follow different pat-
terns of activation, such that lower effort follows pre-
cede actual physiological depletion. Because resource
management is strategic, the extent of decline in goal
performance also depends on one's lay belief that an-
other act of self-regulation is or will be depleting
(Mishra & Junor, 2005).

Takao et al. (2009) have found evidence for the
phenomenon of goal competition. How does goal com-
petition influence a person's evaluations, emotions, and
behavior? First, because of the effects of the activation
and operation of a single goal on evaluations, goal competi-
tion presents some consequences for patterns of evalua-
tion more generally. One such consequence is instability
of evaluations over time. Because various goals wax and
wane in salience, the evaluations of objects related to
those goals (means and hindrances) will also fluctuate.
This means that a decision that is made according to the
goal relevance of options at one point in time may not be as
optimal at a later time when the goal relevance of
those same options has changed. This can be particularly
problematic if the accessibility of the goals and the cor-
responding fluctuation of evaluations all take place
nonconsciously, without the person's awareness. For ex-
ample, a person who selected flight tickets based on low
price may find this selection incompatible with another,
competing goal of saving time, which becomes salient
later on. Because the person may be unaware of this goal
conflict, he or she may experience little satisfaction with
the choice and may regret it if the accessible goal has
changed from saving money to saving time. In this way,
the fluctuating nature of goal activation might some-
times introduce negative emotional consequences and
mean that people are often unsure whether they are
successful in achieving their goals.

Second, what implications does goal competition have
for behavior? With respect to behavioral effects, a natu-
ral choice theory (e.g., the multiaffine utility the-
ory, or MAUT) entails that when people want to make
a single choice in a way that will meet several goals (e.g., or-
dering food that is healthy, tasty, and not too expensive),
they should integrate these various goals by weighing their
relative importance (e.g., Baron, 2006; Reckers &
Raffa, 1976). However, our analysis attests that the rela-
tive weight of a goal in the decision process is not fixed,
and therefore integration is rarely optimal. That is, be-
cause multiple goals that are brought into a decision pro-
cess can directly interfere with the attainment of each
other, people may tend to overemphasize a focal goal in
their decision while discounting other background goals
that are temporarily inhibited by the focal goal. For ex-
ample, when primed with "cow," students may choose to
work on a project that is easy while completely overlook-
ing other goals, such as their level of interest in any par-
ticular project.

Multiple Goal Attainment

We assume that the pursuit of multiple goals is character-
ized by a desire for multiple goal attainment. According to
this assumption, given the presence of several salient
goals and limited motivational resources, self-regulators
search for attainment means that are maximized, that is, means
that are linked to the attainment of several goals simultane-
ously (Kruglanski et al., 2002). For example, a person
may prefer a single goal over another in order to sat-
isfy both hunger and various social motives (to see and be
seen), or commuters may choose to commute by bus be-
cause it can reduce travel time in order to save money and
see friends.

What are the implications of the assumption that peo-
ple try to find means that can meet as many active goals
as possible? Multifinal means are by definition
because they constitute a subset of the original set of means
to a goal and are therefore more difficult to find. Thus,
when individuals wish to achieve multiple goals, any in-
crease in the number of accessible goals negatively af-
fects the number of satisfactory means, thus elevating the
difficulty of the search (Kruglanski et al., 2002; Tversky,
1972). For example, while many restaurants will satisfy
someone's hunger, fewer fewer of them will provide an in-
teresting scene, and fewer still are also not too expensive.
In general, when holding multiple goals people end up
searching longer for satisfying means and they also end up
choosing "compromise" options that are less effective
at satisfying each goal separately (Simonsen, 1989).

Moreover, because compromise options imply that none
of the goals is met very strongly, people may at times
choose to abandon the search for maximal means alto-
gether and focus on only one goal.

The search for multifinal means also has consequences
for evaluation, emotions, and behavior. The preference
for multifinal means may have an adverse effect on the
evaluation of the selected choice options if these options
are only partially associated with the attainment of any ap-
propriate goal (e.g., when the only thing that is ade-
quate is not attractive and moderately healthy). We argued earlier
that goal-facilitating stimuli acquire positive value and
goal-thwarting stimuli acquire negative value (e.g.,
Shimp et al., 2003; Ferguson & Barry, 2004; Fischbarg,
et al., 2004). However, in the course of pursuing multiple
goals, an at-
tainment means to one goal can potentially interfere
with satisfying another goal, and hence, although this
means may be positively evaluated because it facilitates
of one goal, it might also tend to be negatively evaluated
because it hinders another goal. Thus, even though a
given means to an active, focal goal should be particularly
positive because it facilitates that goal, the simultaneous
activation of another goal, one that the given means can-
not facilitate, can end up dampening the positivity of that
means. One consequence of this is that the quest for
multifinal means may undermine the evaluation of a
given available means. Thus, people tend to choose inferior
and de-
cision aversion because none of the means seems satisfy-
ing (Bhar, 1986, 1997; Isen & Lepper, 2003; Tversky
& Shafir, 1992). As one example of this notion, Isen
and Lepper (2000) found that students are more likely
to choose a class assignment when offered a limited array of
courses than when more options are presented. It also follows that
holding a single goal (or fewer goals) should lead to the
positive evaluation of means and decision-making behav-
ior.
tors related to this goal. For example, a student who wishes to select an interesting project to work on would be less likely to defer her choice and be more satisfied with the selected project than her classmate, who might share equal interest in selecting an interesting and easy project.

In terms of the emotional experience of goal pursuit more generally, the quest for multiple goal attainment can lead to mixed emotions and ambivalence when people strive toward incongruent ends (e.g., academics and leisure) and a means to one end (e.g., a textbook) acts as a bindstone to another. Under these circumstances, the same object or activity may be experienced both positively and negatively at the same time and end up seeming ambivalent (e.g., Giampapa, Garthier, & Berzsenyi, 1990). For example, a student who works on an easy but uninteresting project would be both satisfied and unsati- 
fied with her choice.

It was shown that the preference for multifocal means has further behavioral implications, and, in general, people prefer choice alternatives that partially meet or strike a compromise between several goals as often as they may fulfill or highlight a single goal (e.g., Simonson, 1989). As a demonstration, Simonson asked participants to evaluate several consumption products (e.g., apartment, calculator, and television). Participants exhibited a greater preference for options that attack a compromise between several goals (e.g., large/small size and low price) than those that accomplished a single goal (e.g., provided low price).

Because in a multifocal choice the number of acquired goals is inversely related to the number of acceptable means, it follows that there should be a negative relation- ship between the number of goals and the number of ac- ceptable means that a person would choose to pursue. This pattern was demonstrated in a study conducted around lunchtime by Köppez, Fishbach, and Kruglanski (2008), in which participants stated three goals that they felt for that day (vs. goals already accomplished on that day), other than getting lunch, before indicating the number of goals they would con- sider. Compared to participants in the control (accomplished goals) condition, those for whom actual goal al- ternatives were provided significantly fewer food options in which they were interested.

Though highly desirable to have, multifocal means may suffer a disadvantage as well in that they may be per- ceived as less effective and instrumental to goal attain- ment. This may be so because multifocal means can be objectively less effective. But this may also be because perceived effectiveness of a given means to goal attain- ment is determined in part by the strength of the associa- tion between that means and the goal, with stronger asso- ciations leading to higher perceived effectiveness. When the number of goals attached to a given means increases, each association becomes weaker, as demonstrated by a lower retrieval rate of the associated goal when the means is activated (Anderson, 1989; Anderson & Reifer, 1990). The result is a dilution of the means-goal associa- tion, which may reduce the perceived effectiveness of the means with respect to the goal. In a demonstration of such a dilution effect, Zhang, Fishbach, and Kruglanski (in press) found that when participants considered the differ- ent goals (e.g., building muscles and losing weight) that a single means (e.g., working out) could satisfy, an in- crease in the number of goals resulted in a reduction in the perception of the internessentiality of the means with respect to each goal.

As a result of a dilution effect, means that are connect- ed with multiple goals are also less likely to be chosen and pursued when a single (vs. multiple) goal needs to be ful- filled. For example, participants were less likely to use the writing function of a pen that had also been used as a la- ser pointer (vs. was not used as a laser pointer) when they only needed to write (Zhang et al., in press). It appears that multifocal means are desirable when the individual foresees the pursuit of multiple goals, but those same means are judged as less effective and are less likely to be selected when the individual focuses on a single goal.

Self-Control Conflicts

We have identified two underlying mechanisms for man- aging multiple goals that are of similar centrality: goal competition and multiple goal attainment. But people often hold multiple goals that differ in their importance or centrality, and these goals can impose a self-control di-lemma. In what follows, we address such a situation.

People face a self-control problem when the attain- ment of their central, higher-order goals comes at the ex- pense of foregoing low-order desires or temptations (Arkes & Wertenbroch, 2000; Baumeister, Heatherton, et al., 1994; Dhar & Wertenbroch, 2000; Goldwitzer & Moskowitz, 1990; Kivetz & Simonson, 2002; Kuhl & Beckmann, 1983; Loewenstein, 1986; Mezulis & Mischel, 1995; Rachlin, 1997). For example, the pursuit of academic excellence, professional success, or fitness and general health comes with the expense of foregoing low-order although salient goals (e.g., partying, taking long vacations, or consumption of fatty foods, respec- tively). As these examples demonstrate, temptations are defined within a given situation and with respect to the higher-order goals at hand. For example, while going on vacations interferes with pursuing professional success, thoughts about one’s career can undermine one’s ability to relax and enjoy a vacation. This context-specific defini- tion of temptations suggests that when individuals strive toward multiple goals, any goal can potentially constitute an interfering temptation with respect to another, cur- rently more central goal. In response to self-control di- lemmas, people exercise self-control (Dhar & Werten- broch, 2000; Goldwitzer, 1999; Kivetz & Simonson, 2002; Kuhl, 1986; Muraven & Baumeister, 2000), and these self-control operations influence behavior, evaluation, and emotion.

The Operation of Self-Control through Construal

What do self-control operations entail? One category of such operations involves the construal of the self-control conflict in abstract (vs. concrete) terms. For example, in
The Operation of Self-Control through Evaluation and Emotion

Another category of self-control operations includes counteractive control processes, which offset the influence of temptations on adherence to a central goal. Of particular interest, counteractive control processes influence the evaluation of and the affective experience of choice: alternatives related to a central goal and less central temptations when these are in conflict (Fischbach & Trope, 2005; Trope & Fischbach, 2000, 2003).

Research on counteractive control asserts that when people anticipate a self-control problem, they proactively increase the desirability of adhering to a goal relative to yielding to temptation. The presence of tempting alternatives may thus influence goal-directed behavior in two opposite directions: directly, the perception of tempting alternatives decreases the likelihood of adhering to a more central goal; but, indirectly, the perception of tempting alternatives triggers the operation of counteractive control, which then acts to increase the likelihood of adhering to the goal. For example, an invitation to go out on the night before an important exam directly decreases the likelihood of studying for it but may shift, instead, into action counteractive bolstering of the value of studying, which increases the likelihood of engaging with this activity. As a result of counteractive control such invitation has no effect on studying for the exam overall.

Some of the counteractive control operations that people employ to reduce changes in the actual choice situation. For example, people may impose penalties on themselves for failing to adhere to an important goal (e.g., failing to abstain from smoking, or they may eliminate certain choice alternatives such as cigarettes or fatty foods from their environment, thus making their decision irreversible (Ainslie, 1975; Green & Rachlin, 1996; Rachlin & Green, 1972; Schellng, 1928, 1984; Strotz, 1956; Thaler, 1991; Thaler & Shefrin, 1981). In addition, people counteract temptations by changing the positive evaluation of adhering to their goals and pursuing temptations (see also Kuhl, 1986; Mishiel, 1984), and they further change the perceived emotional significance of goals and temptations.

To demonstrate changes in evaluation in response to temptation, Trope and Fischbach (2000) offered participants an opportunity to take a diagnostic test that was described as requiring abstinence from food containing glucose for either a long or a short period (3 days vs. 6 hours). Participants evaluated the test more positively when it required a long (vs. short) period of glucose abstinence (i.e., when the temptation to forego the test was stronger). They also found that whereas the length of the abstinence directly decreased interest in the test, indirectly increased interest in undergoing the test, by increasing its positive evaluation. Other studies demonstrated similar effects on the motivational state by succeeding on goal-related activities. When facing strong versus weak temptations, participants reported that goal pursuits were associated with more intense pride while failing on goal pursuits was associated with more intense guilt.

Bolstering the value and emotional reactivity of a goal in response to a temptation can be deliberate and may require some level of conscious awareness. Inattentional, and processing resources (Baumeister et al., 1998; Mishiel, 1996; Muraven & Baumeister, 2000; Trope & Neyer, 1994; Voila & Heatherton, 2000). However, our analysis suggests that goals and the process of self-regulation may not require conscious and intentional, and follows that processes of self-control and overcoming temptations can also proceed nonconsciously (Ferguson, 2008a, 2006b; Fischbach et al., 2003; Goldzweir, Bayer, & McGuillo, 2005; Moskowitz, Goldzweir, Wenz, & Scholl, 1999). One such implicit strategy involves the activation of goal representations in response to cues for temptations (Fischbach et al., 2008).

For example, Fischbach et al. assessed the lexical decision time to respond to words representing a potential goal following the subliminal presentation of words representing potential temptations. They found that subliminal/templet primes (e.g., "drugs" vs. control words) facilitated the lexical times for goal-related targets (e.g.,
"bicide"). In addition, goal-related primes (vs. control words) inhibited the lexical time for temptation-related targets, and these implicit and asymmetrical activation patterns were shown to increase success at self-control.

Other implicit self-control operations involve changes in the implicit positivity of goals and emotions. For example, Fishbach, Zhang, and Trope (2006) documented an implicit negative evaluation of temptations and an explicit positive evaluation of goals when these two were in a conflict. In one study, dieters (vs. non dieters) responded faster to positive concepts after being subliminally primed with words related to food (e.g., cake). We claimed that such changes in implicit positivity directly influence behavior (e.g., Ferguson & Bargh, 2004). Indeed, as indicated earlier, Fishbach and Stah (2005) documented a similar tendency to automatically approach stimuli related to a goal (through faster polling responses) and automatically avoid stimuli related to temptation (through faster polling responses). These implicit approach and avoidance responses predicted the occurrence of high-order intercenas. For instance, the rate of responding by pulling a joystick in response to academic targets (e.g., "library") and by pushing a joystick in response to nonacademic, tempting targets (e.g., "party") predicted student participants' GPA scores.

The Bidirectional Relationship between Emotions and Self-Control

We have thus far claimed that self-control operations involve changes in evaluation and emotions. Here we consider more generally the relationship between emotions and success at self-control. We suggest that the resolution of a self-control conflict has implications for one's emotional experience, and in addition, people's emotional experience and mood may affect how they resolve a self-control conflict. In what follows we address these influences.

First, with regard to the effect of self-control on people's emotions, whereas the successful resolution of a self-control conflict is characterized by the experience of positive emotions such as pride, the failure of self-control is characterized by feelings such as shame and guilt. These emotions (e.g., pride vs. guilt) are high leveled, self-conscious emotions that people experience when they engage in a self-control behavior directed toward higher-order goals, and they are qualitatively different from more vague emotions such as happiness and fear that are low level and signal immediate rewards or punishments (e.g., "hot" feelings: Mischel & Mischel, 1999). Presumably, partially the reason that people adhere to higher-order goals is because they wish to experience positive self-concept feelings and avoid negative self-conscious feelings (Becker & Kohnert, 2004; Giner-Sorolla, 2001; Tangney, Miller, Flicker, & Barlow, 1996; Tracy & Robins, 2004). In support of this notion, guilt is associated with failing to maintain social relationships and with overeating, and therefore, considering one's possible guilty feelings leads to improved social relationships (Baumeister, Stillwell, & Heatherton, 1994) and reducing the amount of fatty food eaten by depressed individuals (Giner-Sorolla, 2001).

But how do existing affective states influence the subsequent motivation to exercise self-control? This second relationship refers to the effect of emotions on self-control and previous research poses an apparent contradiction in addressing it. Some research has claimed that positive mood improves self-control (e.g., Wegener & Petty, 1994, 2001), while others have claimed that positive mood impairs self-control (e.g., Aspinwall, 1996; Raghunathan & Trope, 2002). Specifically, researchers have claimed that positive mood impairs self-control because happy (vs. unhappy) people prefer activities that prolong the good mood (for example, benz and Simmonds (1978) reported that participants in a happy mood were less likely to choose those in a neutral mood when helping behavior involved unpalatable information. Similarly, Wegener and Petty (1994) found that happy (vs. neutral or unhappy) participants chose to see more happy film but not more interesting films. Conversely, other mood researchers found that positive mood is often "nuled" for accomplishing tasks that have immediate costs and require self-control (Aspinwall & Taylor, 1997; Raghunathan & Trope, 2002; Trope & Pomerantz, 2006). For example, research on the delay of gratification attests that happy (vs. unhappy) children are better able to wait for a delayed, preferred reward than, for an immediate, less preferred reward (Moore, Czychos, & Underwood, 1976; Schwarz & Pol- jack, 1977). In addition, research on negative feedback seeking (e.g., feedback about a person's shortcomings) reveals that people take an increased interest in this potentially useful information when positive mood is induced. For example, caffeine drinkers who were induced to feel good were more attentive to negative information about the health effects of caffeine (Raghunathan & Trope, 2002). See also Trope & Nemetco, 2002. Also consistent with this latter possibility, there is research showing impaired self-control ability during negative mood states (Leith & Baumeister, 1999; simulation studies: Leith & Baumeister, 2001).

How can these areas of work be reconciled? One view assumes that people's positive or negative mood, elicits emotion-based, or distinct, and perhaps, task-related motivation. We are interested in the role of positive mood to stimulate, the experience of positive moods, and to the extent that they should alter people's behavior (e.g., Cacioppo et al., 1999; Higgins, 1997; Larsen, McGraw, & Cacioppo, 2001; Lazarus, 2000). Accessible goals are one set of stimuli that people need to decide whether to approach or avoid. Thus, it follows that a positive mood should increase people's tendency to adopt any accessible goal, whether the goal is high order (e.g., self-improvement) or low order (e.g., mood management). In this way, happy people should perform better on self-control tasks when they hold an accessible high-order goal but perform poorly when they hold an accessible low-order goal.

The Goal Construct
In support of this analysis, Fishbach and Lahrou (2006) found that when self-improvement goals were accessible, happy (vs. unhappy) participants invested more effort in a task that furthered the goal, even if the task was unpleasant or demanding. Conversely, when mood management goals were made more accessible, happy people invested less effort than unhappy people. In one study that tested for charity donations, happy (vs. unhappy) participants were asked to describe what they generally do to “be better” (high-level, self-improvement) versus “feel better” (low-level, mood enhancement). They were then asked to participate in a local charity campaign that promoted protecting young children from injury or death by improving children’s product safety. Happy (vs. unhappy) participants donated more money when they had considered the self-improvement goal but not when they considered the mood management goal. Other studies replicated the effect of mood on self-control by nonconsciously priming self-improvement or mood management goals, which further demonstrates that the direction of the relationship between mood and success at self-control depends on a person’s accessible goal.

The Pursuit of Multiple Goals in a Choice Sequence

The previous sections refer to situations that involve the consideration of multiple goals of either similar or different centrality, which influence the selection of an action that secures their attainment. Notably however, few goals can be completed by the execution of a single action; rather, goals frequently require taking several actions that maintain goal pursuit over time. The challenge thus faced by individuals faced over repeated choice situations, is a decision between emphasizing, or highlighting, the pursuit of a single goal and balancing among several goals. In this section, we address this challenge and consider how the specific strategy of goal pursuit (highlighting a single goal vs. balancing among several goals) that an individual employs for actions that unfold over time may influence their immediate behavior, evaluations, and emotional experiences. As stated previously, when individuals simultaneously hold multiple goals that they wish to pursue over time, self-regulation may follow one of two possible dynamics: highlighting the pursuit of a single goal in several consecutive actions versus balancing among several potentially incompatible goals across several actions (e.g., Fishbach & Dhar, 2005, 2006; Fishbach, Dhar, & Zhang, 2006). For example, consider a person who chooses to dine out and wishes to both save money and seek pleasure. In the absence of compromise options, that person can balance between these conflicting goals by choosing an expensive appetizer and a less expensive entree, or, the person can highlight one of these goals (e.g., by choosing an expensive appetizer and an expensive entree). Choice highlighting refers to a dynamic of self-regulation where pursuing one goal enhances the commitment to this particular goal relative to competing ones and motivates complementary actions over time. Choice balancing refers to a dynamic of self-regulation where pursuing one goal liberates the individual to pursue other, conflicting goals at the next opportunity (Dhar & Simonson, 1999; Fishbach & Dhar, 2005; Fishbach, Dhar, & Zhang, 2006).

What then determines a person’s interest is choice highlighting versus choice balancing? One factor is how the person interprets the meaning of an action or an action that is congruent with one of the goals. It is possible that a person could interpret such an action as indicating a strong commitment to the respective goal. If so, such an interpretation would then increase the motivation to make similar, compensatory actions and to inhibit any competing goals (Atkinson, 1957; Atkinson & Feather, 1967; Ben, 1972; Feather, 1999; Festinger, 1957; Locke & Latham, 1990). The following choices would then be considered choice highlighting because the person would be prioritizing one goal over the others. On the other hand, it is also possible that a person might interpret that initial choice an indicating regression toward that goal. If so, that person might consequently relax his or her efforts toward the goal, and begin to attend to the other competing goals. In this way, the interpretation of a goal-congruent action as progress signals the reduction of a discrepancy between the present state and goal attainment (Carver & Scheier, 1998; Miller et al., 1960; Powers, 1973). The person’s choices would thereafter be considered choice balancing because he or she would be attempting to pursue multiple goals as much as possible, rather than focusing on a particular goal.

Research by Fishbach and Dhar (2005) demonstrated that people do indeed make inferences concerning goal commitment or goal progress, and these inferences mediate different dynamic of self-regulation when there are multiple goals at stake. As an illustration, these researchers found that when initial academic success was interpreted as indicating greater commitment to academic goals, students were subsequently more interested in pursuing additional academic tasks and they were less interested in pursuing nonacademic leisure activities. Yet, this same level of initial academic performance decreased interest in additional academic tasks and increased interest in tasks that provided randomized and subsequent choice of leisure activities when students interpreted that progress had been made on the academic goals.

In addition to an initial goal-congruent action being able to be interpreted in multiple ways, an initial failure to pursue a goal is also open to multiple interpretations. Such a failure can signal either a lack of sufficient commitment to a goal or a lack of progress toward the attainment of that goal (Fishbach, Dhar, & Zhang, 2005). If people infer low goal commitment based on an initial failure, they tend to subsequently highlight this failure by disengaging from the goal (Gochman & Tesser, 1996; Soman & Cheema, 2004). If, however, following failure people infer a lack of progress toward the goal to which commitment remains intact, they tend to balance between the initial failure and subsequent greater motivation to work harder by choosing additional actions that pursue this goal (e.g., see research on self-completion theory—Bevan & Collinson, 1996;
However, people also demonstrate choice highlighting when they infer commitment and end up performing congruent behaviors. For example, research by Fishbein, Rosen, and Zhang (2000) demotivated that variety-seeking behavior is attenuated and even reversed (indicated by a greater preference for a previously selected item in a sequence) if participants consider their stable preferences based on their initial choice rather than the extent of satiation on that goal. In general, consistency theories in social psychology documented a desire to express consistency in a behavioral sequence; thus once a person engages in an initial action, the person feels that she should pursue similar actions (e.g., Aronson, 1997; Ben, 1972; Giardini, Trost, & Newsom, 1995; Heider, 1958). For example, once participants agreed to display a small sign to advocate driving safety, they were more likely to display a larger sign to advocate the same goal compared with those who did not display the small sign (Freedman & Fraser, 1966). Other researchers have further indicated that behavioral consistency is associated with emotional benefits (Aronson, 1995; Festinger, 1957).

Future Plans Influence Present Actions

We described the effect of past actions on the present preference for actions that pursue the same or different goals, but what about the effect of future, planned actions? Do these actions also influence which goals a person decides to pursue in the present? There is some evidence that planned actions do influence present ones (Bandura, 1997; Oettingen & Mayer, 2002; Taylor & Brown, 1988). Thus, research on self-efficacy (Bandura, 1997) and positive illusions (Taylor & Brown, 1988) attest that cognitively based actions in that will be taken in the future lead to higher motivation to work harder on that goal in the present (see also Atkinson, 1964; Weiner, 1972). But others suggested that future plans can also undermine the motivation to work on a goal in the present. For instance, Oettingen and Mayer (2002) found that positive expectations of future goal pursuit lead to greater effort and successful performance on a focal goal in the present. But the reverse was true for positive fantasies, which are images depicting future goal attainment. Fantasies predicted lower effort on a focal goal in the present. As a demotivation, in one study college students who expected to start a relationship with a person were more likely to initiate an intimate relationship compared with those who experienced positive fantasies about future romantic success.

But regardless of the direction of the influence on the present actions (more vs. less goal pursuit), what is the relative impact of future plans compared with past actions? Building on the observation that people are inherently optimistic (Kohlberg, Griffin, & Ross, 1994; Weinstein, 1989; Zauberman & Lynch, 2005) and therefore believe more goal-congruent actions will be accomplished in the future than in the past, it is possible that future plans have a greater impact on immediate goal pursuits than retrospection on past pursuits (Zhang,
Fishbach, & Dhur, 2006). The direction of the impact should then depend on the framing of the goal pursuit as increasing commitment versus progress. When people consider their level of goal commitment, thinking about plans for future (vs. past pursuits) leads to greater persistence on the goal in the present. As a demonstration, Zhang and colleagues (in press) asked gym members to estimate whether the frequency of their exercise in the coming year or the frequency of their actual exercise regimen last year. Those who considered future (vs. past) exercise were more likely to consume healthy food in the present, if the exercise was framed as increasing commitment to the health goal. But envisioning future (vs. recalling past) exercise decreased the relative preference for healthy food in the present when the exercise was framed as increasing progress toward the health goal.

**When Do People Highlight versus Balance Multiple Goals?**

We described evidence in support of people’s preference for making congruent choices that highlight a single goal when they consider their goal commitment, and people’s preference for making incongruent choices that balance between different goals when they consider their goal progress. Several variables determine the relative focus on commitment versus progress. First, these inferences may be determined by situational cues, such as framing questions that direct one’s attention to different aspects of goal-related actions. For example, Zhang and colleagues (in press) manipulated the degree of optimism that goal pursuit will lead to (high vs. low). Those who were optimistic about goal pursuit were more likely to think about the overall goal in the present, whereas people with lower optimism were more likely to think about the specific actions required to achieve the goal. In another study, Fishbach, Dhur, and Zhang (2006) tested temporal distance (e.g., Trope & Liberman, 2003) as another variable that determines the relative focus on the action itself (for proximal actions) versus the abstract goal that initiated it (for distant actions). They found that actions that were scheduled in the near future signaled their own attainment, whereas actions that were scheduled in the distant future signaled commitment to an overall goal. For example, studying for an exam in the present signaled the accomplishment of an academic task whereas studying in the future signaled the commitment to an academic goal. These inferences in turn increased the amount of time that participants invested to invest in additional actions to an overall goal that were scheduled in the distant versus proximal future (e.g., study for a second exam).

Third, with regard to goals with an obvious end state, the relative focus on commitment versus progress may depend on whether a person attends to the amount of goal pursuit that was accomplished, as opposed to the remaining amount of goal pursuit that is required to meet the goal. Whereas completed actions establish a sense of commitment by signaling to the person that the goal is important, actions that are yet to be taken highlight the amount of progress that is still needed for goal accomplishment. For example, in the decision to participate in a charity campaign, learning about the amount of seed money that was collected thus far provides information regarding the importance of the campaign, which establishes commitment, whereas learning about the amount of money that is needed to complete the campaign goal provides information that establishes a sense of goal progress. It follows that uncommitted individuals, who wish to assess whether the goal is important, would be more influenced by learning about accomplished actions, whereas committed self-regulators, who wish to assess the required efforts in order to accomplish the goal, would be more influenced by considering the remaining distance for goal completion. These predictions were recently tested by Koo and Fishbach (2006) who conducted a field study as part of an HIV/AIDS initiative. Participants in their study were potential donors who were either committed individuals who donated money before or uncommitted individuals who did not donate money before. Uncommitted participants were more likely to donate and donated higher amounts when they read about the amount of money raised thus far as opposed by the amount of money that is still required, whereas committed participants were more likely to donate and donated higher amounts when they read about the amount of money still required than the amount of money that was raised.
Effects on Evaluations and Emotions

These aforementioned dynamics of multiple goal pursuit have further implications for evaluation and emotion. We proposed that in self-control situations, people secure the attainment of an important goal by increasing the positive evaluation of the high-order goal relative to temptations (e.g., Fishbach & Trope, 2005; Trope & Fishbach, 2006). We argued that people perceive an opportunity to balance between the goal and temptations and, hence, view these options as complementary rather than competing. For example, a dieter may choose to balance between low- and high-calorie foods, or choose to highlight a choice of low-calorie foods. We next explore how each of these dynamics influences the evaluation of choice options.

When people plan to highlight the pursuit of a single goal across several actions, they should generate a positive evaluation of objects or means related to this goal, and a negative evaluation of objects or means related to competing alternatives (i.e., temptations). Conversely, when people wish to balance between goals and temptations that they see as complementary rather than competing, they should express a more positive evaluation of objects or means related to the tempting option relative to those that are related to the goal option. The reason for this latter evaluative pattern is that goals (relative to temptation) offer delayed benefits (Ainslie, 1975; Rachlin, 1997; Thores & Stetson, 1984), and therefore when people expect to balance, they prefer to pursue the temptation in the present and postpone goal pursuits for the future and, thus, maximize the attainment from both.

For example, people may choose to indulge today and start a diet tomorrow and therefore express a positive evaluation of temptations found in the present.

In studies that demonstrated these evaluative patterns, Fishbach and Zhang (2006) manipulated the perception of elements that people perceived as complementary or competing by either offering complements or asking participants to choose one versus another. They found, for example, that when healthy and unhealthy foods are included on one menu, participants saw them as complementing and planned to balance between them. As a result, the value of unhealthy foods was higher relative to the value of healthy foods. However, when these foods were presented apart in two different menus, participants saw them as competing with each other and instead highlighted the consumption of healthy foods. As a result, the value of healthy foods was higher. Importantly, when these items were evaluated in isolation (i.e., in the absence of cues for alternative goals), they had similar value.

The evaluation of items related to multiple goals has further influence on the emotional experience that characterizes the self-regulatory process and goal attainment. That is, when people wish to highlight the pursuit of a single goal in a sequence, actions related to this goal are associated with positive emotions and actions that interfere with it are associated with negative emotions. However, when people wish to balance between several goals, actions directed toward one goal can interfere with the attainment of another goal and, hence, might be less associated with positive emotions. Similarly, actions that interfere with the initial goal can advance the pursuit of other goals and be less emotionally negative. For example, socializing before an important exam is less guilt-ridden if a student plans to balance between academic and social pursuits. The result is that when people consider the pursuit of multiple goals across several actions and over time, the emotional experience from goal-related actions is less intense.

Summary

Research reviewed in this section addresses the phenomena surrounding those situations in which multiple goals are at stake. We considered the effects of goals that are of similar centrality as opposed to goals that vary in their relative centrality and impose a self-control dilemma. We also described research on how multiple goals interact when a person only considers a single act of self-regulation, as opposed to when a person considers the pursuit of multiple goals over time and across several decisions. Based on research reviewed here, we suggest that multiple goals (vs. a single goal) present unique implications for people’s behaviors, evaluations, and emotions. We further propose that these effects follow from one definition of the goal construct that we outlined in the first section.

CONCLUDING REMARKS

Multiple researchers across various domains of psychology have documented the wide-ranging effects of goal-directed behavior, attitudes and evaluations, and emotions and needs. In this chapter, we sought to identify the general principles from this literature by focusing on how goals become activated in the first place, the mechanisms that underlie and enable their operation, and the ways in which they interact with one another. Our analysis was grounded in basic definitional assumptions about goals concerning their source in memory and the nature of industries assumed to be relevant to goals. We attempted to showcase throughout the chapter how many of the recent findings we reviewed derive from these definitional assumptions.

One central distinction between past research and the current framework concerns the degree to which people are aware of goal activation and pursuit. Throughout most of the last century of empirical and theoretical psychology, goals have been commonly understood as objects, marks, or experiences that people consciously wish or do not want (e.g., Goldscheider & Moskowitz, 1996; Locke & Latham, 1990). Such conscious desires naturally dictate people’s (conscious) thoughts, emotions, and behaviors. This past research also largely focused on the various determinants and effects of specific types of goals (e.g., accuracy vs. impression formation), and different ways of approaching the same goal (attaining achievement via academic or social means). In contrast with this
work, our framework involves the consideration of goals that can become activated and operate without the person's awareness or intention, either in isolation or among other goal pursuits, a move that reflects much research in social cognition over the last two decades (e.g., Bargh & Chartrand, 1999; Kruglanski et al., 2000). With the assumption that goals essentially consist of constructs in memory that operate according to basic principles of knowledge activation (e.g., Higgins, 1988) comes the potential for such constructs to be activated in memory without the person's awareness. And, just as a given thought, emotion, or action can be prompted by processes that remain implicit, so too can goal pursuit.

In this way, people's choices of actions, emotions, and evaluations can be driven by goals of which they are unaware. It is noteworthy that even though this recent framework differs in arguably substantive ways from much traditional research on goals, it nevertheless follows directly from classical research in social psychology more broadly. In particular, the view that goals can become activated and influence one's perception of features of the environment follows from the tradition in social psychology to understand and document the power of situational forces to influence human behavior (such as Asch, 1952; Cartwright, 1959; Lewin, 1953; Milgram, 1963). In this way, some of the recent work on goals provides a fuller picture of how goals might be selected merely as a function of the prompts and triggers in people's everyday surroundings.

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