Mystery Moods and Perplexing Performance:
Consequences of Succeeding and Failing at a Nonconscious Goal

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Abstract

Models of nonconscious goal pursuit propose that pursuit of goals can occur automatically and nonconsciously, a notion documented in a number of studies to date. The present research explores the consequences of attaining or not attaining an automatically activated goal. Success and failure at nonconscious goal pursuit were predicted to affect subsequent mood and performance in the goal-relevant domain. In two studies, participants were primed with an achievement or impression formation goal, led to succeed or fail at reaching that goal, and then given mood scales or a performance task. Success at a nonconscious goal improved people’s moods, and failure depressed people’s moods. In two additional studies, success and failure at nonconscious goal pursuit also led to changes in subsequent goal-directed behavior. Specifically, individuals who had succeeded at a nonconscious achievement goal performed better on a subsequent achievement task than those who had failed, while the performance of those without a nonconsciously operating achievement goal was unaffected by the success or failure experience. Indirect efficacy beliefs in the form of predictions about future performance were found to partially mediate this performance effect. The studies demonstrate that there are significant downstream consequences of success and failure at nonconscious goal pursuit for mood and behavior.
Mystery Moods and Perplexing Performance:
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The self-regulation process, as conceptualized by most contemporary theorists, is consciously driven. That is, implicit or explicit in current theories of motivation is the notion that individuals choose their goals (and subsequent goal-driven behaviors), engage in goal-directed action, and evaluate their progress toward the goals in a deliberate, conscious fashion (Bandura, 1977, 1986, 1997; Cantor & Kihlstrom, 1987; Carver & Scheier, 1981; Deci & Ryan, 1985; Locke & Latham, 1990; Mischel, 1973; but see Martin & Tesser, 1996).

However, recent models of nonconscious goal pursuit propose that the entire process can be triggered automatically and nonconsciously by the environment (Bargh, 1990; Chartrand & Bargh, 1996; Chartrand & Cheng, in press; Chartrand & Jefferis, in press). These models propose that individuals sometimes pursue goals and engage in goal-directed action without the awareness of having the goals or the explicit intention to pursue them. These nonconscious goals guide subsequent cognition and behavior as if they had been consciously and deliberately chosen.

Regardless of whether the self-regulatory process was personally (consciously) or environmentally (nonconsciously) determined, individuals either succeed or fail at attaining each goal they pursue. Research has demonstrated that successfully reaching consciously held and pursued goals improves – and failing to reach such goals worsens – one's mood and subsequent
goal-relevant performance (Bandura, 1990, 1997; Bandura & Cervone, 1986; Beckmann & Heckhausen, 1988; Carver & Scheier, 1981; Heckhausen, 1991; Nuttin & Greenwald, 1968). Does success and failure at nonconscious goal pursuit yield similar consequences? Given the importance and scope of the consequences of conscious goal pursuit, an exploration of this question is now critical. The present research represents such an exploration.

First, nonconscious goal pursuit is described and evidence for it reviewed. Next, arguments will be presented both for and against the existence of “downstream” consequences of success and failure at automatic goal pursuit. It is hypothesized that there are consequences for mood and subsequent behavior. Three studies testing these hypotheses will then be described.

**Nonconscious Goal Pursuit**

I shall argue that nonconscious goal pursuit can be divided at both the conceptual and empirical level into three stages: (a) the environment automatically activates associated goals and motives, (b) individuals pursue goals they are not aware of having, and (c) individuals succeed and fail at nonconsciously-pursued goals, and this has downstream consequences. The first two stages have accumulated considerable evidence, and it is the final stage that is the focus of the current studies.

**Stage 1: Automatic activation of goals by the environment**

Although many of the goals an individual pursues are the result of conscious deliberation and choice, conscious choice is not necessary for goal activation and operation. In addition to the deliberate mode of activation, goals and intentions can also be set in motion by the environment. Bargh (1990) has argued that intentions and goals are represented in memory in the same way that social constructs such as attitudes, stereotypes, and schemas are represented. Because attitudes, stereotypes, and schemas can be automatically activated by relevant environmental stimuli, goal representations should have this capability as well. Thus, with repeated and consistent choice (i.e., activation) of a particular goal in a certain social situation over time, the representation of that goal may become directly and automatically linked in memory to the representation of that situation. The
goal will eventually come to be preconsciously activated in that situation, independently of the individual's conscious purposes at that time. In other words, situational features in the environment automatically trigger goals chronically associated with those features. Once activated, the goals operate to guide subsequent cognition and behavior, all without awareness.

This first stage has received empirical support. Spencer, Fein, Wolfe, Fong, and Dunn (1998, Experiment 3) gave participants either positive or negative feedback on a bogus intelligence test, and then, while under a cognitive load, subliminally primed participants with drawings of African-American or European-American faces. Results indicated that participants whose self-esteem was threatened via the negative feedback were more likely to have stereotypes automatically activated if they had been primed with African-American faces. These results are particularly interesting given that cognitive load has been shown in past research to inhibit stereotype activation (Gilbert & Hixon, 1991; Spencer et al., 1998, Experiment 2). Importantly, the results suggest that a blow to one's ego (triggering situation) can automatically activate an associated goal to restore the self-esteem.

Additional research has shown that individuals in certain subpopulations can have goals activated by various situations. For example, among individuals who have a chronic egalitarian goal, the presence of a minority group member can automatically activate the goal to be fair (Moskowitz, Gollwitzer, Wasel, & Schaal, 1999). Provocatively, being in a situation of relative power can trigger sex-related goals for men high in the tendency to sexually harass (Barth, Raymond, Pryor, & Strack, 1995). The same situation of power can furthermore activate social responsibility goals for individuals with communal orientations, and power-abuse goals for those with exchange orientations (Chen, Lee-Chai, & Barth, 2001; Lee-Chai, Chen, & Chartrand, 2001). Thus, there is substantial evidence for the idea that social environments can automatically activate associated goals in memory.
Stage 2: Nonconscious goal-directed action and cognition

There is also evidence supporting the second stage of nonconscious goal pursuit -- that nonconscious goals, once activated, guide subsequent cognition and behavior. Individuals are neither aware of the goal activation itself, nor of the goal's subsequent guiding role. For instance, Chartrand and Bargh (1996) demonstrated that information processing goals such as memorization and impression formation can be automatically activated and pursued. In one experiment, participants who had an impression formation goal nonconsciously "primed" via a scrambled sentence task recalled more information about a target and had greater trait organization of that information in memory than did those primed with a goal to memorize. This replicated the results of earlier work on the effects of having conscious memorization and impression formation goals (Hamilton, Katz, & Leirer, 1980). In a second study, participants subliminally primed with an impression formation goal showed evidence of on-line impression formation of a target person, whereas those not so primed did not show such evidence (Chartrand & Bargh, 1996).

Gardner, Bargh, Shellman, and Bessenoff (2002) have provided compelling evoked response potential (ERP) evidence that the same goal pursuit process is engaged in, regardless of the source of goal activation. They demonstrated that when participants pursued a nonconscious evaluation goal, the same brain region that reacts during conscious evaluation (which is unique to the evaluative response) reacted to the stimuli being nonconsciously evaluated.

Shifting focus from cognitive to behavioral goals, Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel (2001) examined the automatic activation and pursuit of the goal to achieve. In one study they found that participants primed with an achievement goal performed better on an achievement task than those not so primed, indicating that they pursued the nonconscious achievement goal just as if they had consciously chosen it. Additional studies revealed that behavior guided by nonconsciously-primed achievement goals is associated with two classic features of behavior guided by consciously-set goals -- persistence at a task and task resumption after interruption (Bargh et al.,
In these and all other existing demonstrations of nonconscious goals, both initial goal activation and subsequent goal pursuit occurred without intention or awareness that a goal was guiding cognition and behavior.

**The Proposed Third Stage of Nonconscious Goal Pursuit: Success and Failure**

Although research has demonstrated that goal activation and guiding action to goal attainment can occur automatically (via environmental activation of that goal’s representation in memory), the process does not stop there. The individual then either achieves or does not achieve (to various degrees) the nonconsciously held and pursued goal. The focus of the current research is on whether there are consequences of succeeding or failing at a goal that one was not aware of pursuing. Potential consequences will now be described.

**Mood**

It is widely known that succeeding or failing at consciously held goals affects one’s mood, such that those who succeed are in a better mood and those who fail are in a worse mood (e.g., Atkinson, 1958; Bandura, 1997; Bandura & Cervone, 1986; Carver & Scheier, 1981; Nuttin & Greenwald, 1968; Weary, 1980). In fact, a common manipulation of mood involves giving individuals positive or negative feedback on their performance in a given domain (e.g., Trope & Neter, 1994). Bandura’s (1990) social-cognitive theory addresses this as well by positing that self-regulation involves evaluation of performance outcomes and affective self-reaction (i.e., feelings toward the self). According to the Rubicon model of goal pursuit (Gollwitzer, 1987, 1990; Gollwitzer & Wicklund, 1985; Heckhausen, 1987, 1991; Heckhausen & Gollwitzer, 1986, 1987), after an individual chooses a goal, forms behavioral intentions to carry out the goal, and engages in goal-directed action, he or she engages in a final “evaluation phase” during which the outcome and one’s performance are evaluated. If the individual succeeds at the goal, then positive self-evaluation will ensue, which includes positive affect. If the person fails and does not achieve the goal, negative affect will ensue (Beckmann & Heckhausen, 1988; Heckhausen, 1991).
Subsequent behavior

Another potential consequence is future performance in the goal-relevant domain. Success and failure at goals are often reflected in the strength of subsequent goal pursuit (often via changes in self-efficacy beliefs), which in turn enacts changes in goal-directed action (Bandura, 1997; Litt, 1988; Locke, Frederick, Lee, & Bobko, 1984; Weinberg, Gould, & Jackson, 1979). When individuals succeed at a goal, they have increased goal strength and persistence, which leads them to perform better at subsequent goal-relevant tasks. When individuals fail at a goal, they have decreased goal strength, which leads them to perform worse at subsequent tasks.

Should nonconscious goal pursuit have similar consequences?

Arguments could be made both for and against the existence of consequences of automatic goal pursuit. On the one hand, there might be no consequences of goal pursuit when the goal was set into motion by the environment and the individual had no conscious awareness of having or pursuing that goal. Everything known to date about the relation between goal pursuit and its consequences for mood and behavior is predicated on the assumption that the individual was cognizant of the goal he or she was pursuing and of whether or not he or she attained that goal. It is the knowledge and conscious awareness of successfully reaching a goal that puts one in a good mood and improves future goal-directed performance. Perhaps conscious evaluation of the progress made toward a goal is necessary in order for it to affect mood and performance. Without knowledge of success or failure or even awareness of the goal itself, there might be no downstream consequences at all (or at least no consequences that are accessible to conscious awareness).

On the other hand, the consequences of succeeding and failing at nonconscious goals may be similar to those of succeeding and failing at conscious goals. This argument rests on the assumption that the existence of consequences does not depend on awareness of the mental processes driving these effects. We are in fact often not aware of our mental processes (Nisbett & Wilson, 1977), nor of what is guiding our daily moods, thoughts, and behavior (Bargh, 1997). For instance, the large priming literature suggests that individuals who have had recent activation of a
given category or construct can be influenced by that activation, without awareness that they were influenced in any way (see Bargh & Chartrand, 2000).

In fact, one could argue that mood should be particularly susceptible to influence by automatic processes because (a) it is quite unstable and frequently fluctuates, and (b) individuals often cannot pinpoint or articulate the origin of their current mood (Keltner, Locke, & Audrain, 1993; Schwarz & Clore, 1983, 1988; 1996; Schwarz, Servay, & Kumpf, 1985). One could further contend that future goal-relevant behavior should also be easily affected by success and failure at nonconscious goal pursuit because a plethora of studies have already shown behavior to be susceptible to influence by a variety of nonconscious processes (Bargh & Chartrand, 1999; Bargh, Chen, & Burrows, 1996; Bargh et al., 2001; Chartrand & Bargh, 1999; Chen & Bargh, 1997, 1999; Dijksterhuis & vanKnippenberg, 1998; Dijksterhuis et al., 1999; Spencer et al., 1998).

Because of this literature, it was predicted that success and failure at nonconscious goals would have important consequences for mood and performance. In spite of substantial research demonstrating the downstream outcomes of various nonconscious processes (see Bargh & Chartrand, 1999, for a review), the consequences of nonconscious goal pursuit remain unknown. Success and failure at automatically activated goals may provide another way by which affect and behavior can be influenced by nonconscious processes. If succeeding or failing at nonconsciously pursued goals affects mood or future performance, one would importantly not be aware of what is influencing his or her mood or performance. The moods would be mysterious, and the performance perplexing. Major aspects of daily existence would be determined by processes that occur outside of intent, awareness, and control. No awareness of an automatic mental process means no conscious control over that process (nor over any ensuing consequences), which may make these particular moods and behaviors seem unpredictable, confusing, or intractable.

**Preview of Studies and Hypotheses**

Three studies were conducted to test the proposed consequences of nonconscious goal pursuit. The general paradigm used for all studies was to prime some participants with a goal,
manipulate whether they succeed or fail at this goal, and then measure mood or performance at a goal-relevant task.

Experiment 1

Overview

An achievement goal was nonconsciously activated or "primed" in half the participants via a supraliminal priming procedure (i.e., Scrambled Sentence Task).² All participants were next given a series of anagrams (presented as a "filler task"), which were either very easy or very difficult to complete in what they were told was the average amount of time. This manipulated "success" and "failure" without the experimenter giving participants explicit positive and negative feedback, which would provide an alternative, consciously-mediated explanation for any effects found on mood. Thus, the manipulations yielded a 2 (Prime Condition — achievement-goal vs. no-goal) x 2 (Anagram Difficulty — easy vs. difficult) factorial design. Finally, participants were given a mood scale. Achievement-primed participants who received the easy anagram version were predicted to report higher mood than those receiving the difficult version. The effect of anagram difficulty was not predicted to have as strong an effect on the mood of participants who were not primed with an achievement goal.

Method

Participants

One hundred nine male and female students enrolled in an introductory psychology course at New York University participated in the experiment in partial fulfillment of a course requirement. Twenty-three of these participants were in the achievement-goal/easy anagram condition, 28 in the achievement-goal/difficult anagram condition, 24 in the no-goal/easy anagram condition, and 34 in the no-goal/difficult anagram condition.

Materials
Four 2 x 2 m cubicles served as the experimental rooms. Each cubicle contained a desk and chair and had its own door, enabling four participants to complete the procedure independently and privately.

Priming task. Two Scrambled Sentence Tests (see Bargh & Chartrand, 2000; Chartrand & Bargh, 1996; Srull & Wyer, 1979) were created to prime either an achievement goal or no goal in participants. Each Scrambled Sentence Task (SST) included 20 items that required the participant to form a grammatically correct four-word sentence from five words presented in a scrambled order. In the achievement-goal condition, words related to achievement were embedded in the items, and in the no-goal condition, all words were neutral with respect to an achievement goal. Examples of the SST items are “strived car finish to he,” “did achieve wash what they,” and “to wants he wash succeed” (achievement-goal condition), and “elevator in once ride the” (no-goal condition).

Anagram task. Participants were led to succeed or fail at the achievement goal (with which half had been primed) via an anagram task taken from Trope and Pomerantz (1998). There were two versions of this task: one consisted of 8 items (easy anagram condition), and the other 28 items (difficult anagram condition). For each item, participants were given a word and instructed to rearrange the letters so that they spelled another word. The shorter version contained fairly easy items such as pots (which could be rearranged to spell “spot,” “tops,” or “stop”), snap, and pea. The longer version included the same eight items from the shorter version, with 20 additional items that ranged from easy (e.g., male) to difficult (e.g., tape, which could be rearranged to form “peat” or “pate,” and sack, which could be “cask”).

Measure of mood. After completing the anagram task, participants were administered the modified version of the bipolar mood scale used by Bargh et al. (1996, Experiment 2c). The scale has been used successfully in past research (Bargh et al., 1996; Chartrand & Bargh, 2002; Salovey & Birnbaum, 1989). The questionnaire contains eight bipolar items differentiating feelings of emotion on 17-point scales (-8 to +8). Participants are asked to rate themselves according to how they felt at that moment. Sample dimensions include bad-good, sad-happy, displeased-pleased,
and **down-related**. Half of the items were keyed in the positive direction and half were keyed in the negative direction in order to control for response bias. Furthermore, two different orders of the scale items were created.

**Procedure**

A maximum of four students participated in any given session. Upon arrival, participants were shown into the experimental cubicles. Each participant was randomly assigned to either the achievement-goal condition or the no-goal condition. The experimenter told participants that they would be taking part in several unrelated experiments. The first experiment, participants were told, examined some of the cognitive processes involved in sentence structure tasks. The pencil-and-paper SST appropriate to each participant’s condition was then administered.

After the participants completed the SST, the experimenter thanked them for completing the first experiment. Participants were told that they would next be given some anagrams to work on as a fun “filler task” to clear their minds for the next task. This casual presentation was given to downplay the task’s importance so that people not primed with an achievement goal would not be trying very hard to achieve on the anagram task.

Each participant was randomly assigned to the easy or difficult anagram condition. Participants were given differential norm information on the amount of time that it took most people to complete the task, and this served as a manipulation of success and failure (see Trope & Pomerantz, 1998). Specifically, participants in the easy anagram condition (who were given the 8-item version) were told that most people took about 8 min to complete the task; pre-testing had shown that the test was usually finished within 2 min (Trope & Pomerantz, 1998). Participants in the difficult anagram condition (who received the 28-item version) were told that most people complete the task in about 2 min, although most people in fact took approximately 8-10 min. Thus, participants in the easy anagram condition were “set up” to succeed at the anagram task, and those in the difficult condition were “set up” to fail at the task.³
Next, the experimenter administered the mood scales in a counterbalanced order. After completing these scales, participants received a verbal funnel debriefing similar to that used by Chartrand and Bargh (1996). The questions probed for general suspicion, as well as for any awareness of the priming manipulation (e.g., noticing the pattern of prime words on the Scrambled Sentence Task). No participant accurately guessed the experimental hypotheses or noticed the pattern of prime words on the SST. Participants were also asked why they were in the mood they reported. Finally, participants were fully debriefed and thanked for their time.

**Results**

Scores from the mood scale were subjected to a 2 (Prime Condition) x 2 (Anagram Difficulty) ANOVA. No significant main effects were found for Prime Condition or Anagram Difficulty, but as predicted, there was a reliable interaction between the two, \( F(1, 105) = 4.20, p = .04 \) (see Figure 1). Specifically, for participants primed with an achievement goal, those given the easy anagram task reported being in a better mood (\( M = 8.39 \)) than those given the difficult version (\( M = -6.07 \)). A post-hoc comparison revealed that this difference was significant, \( F(1, 49) = 5.97, p < .05 \). For participants in the no-goal condition, however, there was no reliable difference between those given the easy anagram version (\( M = 0.54 \)) and those given the difficult version (\( M = 2.79 \)).

**Discussion**

Among participants who were primed with an achievement goal, those led to succeed at the anagram task were in a better mood than those led to fail. There was no such difference among participants not primed with an achievement goal. Recall that participants were not aware of trying to achieve -- the goal was nonconsciously primed. Nonetheless, participants experienced changes in affect as a result of succeeding or failing at it. This provides encouraging preliminary evidence that mood is affected by success or failure at nonconscious goal pursuit. Interestingly, on the funnel debriefing, participants reported not being aware of the source of their mood. Although they would occasionally attribute it to something that happened earlier in their day, most participants reported
not understanding why they felt they way they did. These moods were mysterious to them, and they have therefore been labeled “mystery moods”.

**Experiment 2**

**Overview**

To replicate the mood findings of Experiment 1, a conceptual replication was conducted with several methodological differences. For one, a cognitive goal – specifically, the goal to form an impression of another person – was used to generalize beyond the achievement domain.

In addition, a different priming procedure was used. With supraliminal paradigms such as the SST used in Experiment 1, the priming stimuli themselves are visible and enter into conscious awareness, and yet the individual is not aware of the influence these stimuli have on subsequent processing (see Bargh, 1992). In contrast, during subliminal priming procedures, the individual cannot identify the priming stimuli at all. It has been argued that lack of awareness of the priming stimuli is not as important as lack of awareness of the possible influence the priming had on one’s behavior (Bargh, 1992). However, others might argue that showing the same effects using subliminal priming is desirable to rule out the possibility that participants were more aware of the content of what was being primed than they acknowledged during the funneled debriefing. Thus, Experiment 2 utilized this more conservative test to rule out any explanations based on experimenter demand. Specifically, participants performed a parafoveal vigilance task in which words related to an impression formation goal (or neutral words) were presented to them subliminally.

Following this priming manipulation, participants were instructed to listen to an audio tape recording of a speaker describing a target person. They were therefore put in a situation in which they had an opportunity to form an impression of someone else, if they were so motivated (as only the impression goal-primed participants were predicted to be). The target person was described as engaging in either consistent or inconsistent behaviors, thereby making it either easy or difficult for the participant to form a coherent impression of the target. This manipulated whether participants “succeeded” or “failed” at the impression formation goal.
It is also important to compare the magnitude of the effects of an automatically activated goal with those of a conscious, explicitly-given goal. This would speak to the relative strength of the consequences of nonconscious goal pursuit. Thus, a conscious goal condition was included in Experiment 2 in which some participants were explicitly given the goal to form an impression of the target. The data from participants in this condition could then be compared with the data from the impression-primed participants.

As in Experiment 1, dependent measures included a mood scale. The consequences for mood of succeeding or failing at a goal were expected to be similar, regardless of whether that goal was activated through deliberate, conscious means, or through nonconscious, priming means (Bargh & Chartrand, 1999). Participants in the explicit-goal conditions were instructed to form an impression of the target, and thus were given a conscious goal. Among these participants, those who heard about a consistent target succeeded, and as a result, should be in a better mood than those who heard about an inconsistent target (who failed at a goal they were actively pursuing). The same pattern was expected for those participants in the primed impression-goal conditions, with the only difference being that they should not have been aware of having a goal or of having succeeded or failed at anything. Thus, although the valence of the moods were expected to be the same, they were expected to differ qualitatively. Those who were in a given mood upon succeeding or failing at a conscious goal were expected to be in understood moods, and those who succeeded or failed at a nonconscious goal were expected to be in “mystery moods.” For the no-goal conditions, there should be no difference between the mood of those given the consistent versus inconsistent version of the target.

Method

Participants

One hundred twenty-two male and female students enrolled in an introductory psychology course at New York University participated in the experiment in partial fulfillment of a course requirement. Of these, 28 were in the explicit-goal conditions (14 of these in the consistent target
condition, 14 in the inconsistent condition), 48 were in the impression-goal conditions (23 in the consistent and 25 in the inconsistent target condition), and 46 participants were in the no-goal conditions (25 in the consistent, 21 in the inconsistent condition).

**Apparatus**

The same four cubicles were used as in Experiment 1. Each room contained a portable computer stand on which a PC computer was placed. The “F” and “J” keys on the computer keyboard were labeled LEFT and RIGHT, respectively. The computer task used a program written in Super Lab experiment software.

The procedure for the vigilance task was taken from Chartrand and Bargh (1996, Experiment 2). All priming stimuli were presented outside of participants’ foveal visual field. Three asterisks serving as a fixation point appeared at the center of the screen during the vigilance task, and participants were instructed to focus their gaze on these asterisks at all times during the task. Stimulus words were flashed for 60 ms and were immediately followed by a masking string of letters (also 60 ms) in the same location. Each stimulus word and mask was presented in one of the four quadrants of the computer screen, all equidistant from the fixation point at angles of 45°, 135°, 225°, and 315°. One randomized location order was created that gave all participants the same sequence of locations. In order to enhance the “reaction time task” cover story, the amount of time between word presentations (including the stimulus word and the mask) varied from 2 to 7 s. One randomized order of time interval lengths was given to all participants, which made it impossible to learn or predict the length of time between word presentations. Thus, participants had to remain vigilant, as they were not able to anticipate when the next target would be presented.

**Materials**

**Priming task.** Participants were primed either with stimulus words related to the goal of forming an impression (impression-goal condition) or with neutral words (no-goal condition). Four words were chosen to represent each of these two sets. For the impression-goal condition, the stimulus words were impression, judgment, personality, and evaluate (taken from Chartrand &
Bargh, 1996, Experiment 2). The prime words for the no-goal condition were background, sidewalk, building, and calendar. All participants completed 75 experimental trials, with the four stimulus words for their condition presented repeatedly in a randomized order. Thus, participants had 75 subliminal exposures to either the impression formation words or to the neutral words. (Explicit-goal participants were flashed the neutral words from the no-goal condition.)

**Impression formation task.** The audio tape recording consisted of a male speaker describing a target person named Joe, who was portrayed in a typical day engaging in various behaviors. Joe behaved in either a consistently clumsy fashion (the consistent-target condition) or an inconsistently clumsy fashion – sometimes being klutzy and other times being agile and graceful (the inconsistent-target condition). This was designed to make the participants either "succeed" or "fail" at forming an impression: if Joe was consistently clumsy, then the impression formation process was made easier and they “succeeded.” If Joe behaved inconsistently, then forming a coherent impression of Joe was difficult and they “failed.”

**Measure of mood.** The mood scale from Experiment 1 was again administered.

**Procedure**

A maximum of four people participated in any given session. Upon arrival, the experimenter showed the participants into the experimental "cubicle" rooms and seated them in front of the computer monitors. Each participant was randomly assigned to one of the two priming conditions (impression-goal vs. no-goal) and informed that he or she would be taking part in several separate, unrelated tasks. Separate control group sessions were also run in which all participants were given an explicit goal.

The experimenter told participants that the first experiment investigated attention and visual acuity. The vigilance task was then explained by the experimenter and by instructions on the computer screen. Specifically, participants were told that the task measured reaction times to see how quickly and accurately they could respond to visual stimuli. Very brief flashes would appear on the screen at unpredictable places and times, and the participants' task was to decide whether each
flash appeared on the left or right side of the screen as quickly and accurately as possible. The experimenter then instructed participants to place their index fingers on the two labeled keys of the keyboard and to press the one labeled RIGHT if the flash appeared on the right side of the screen, and the one labeled LEFT if the flash appeared on the left side of the screen. Three asterisks serving as a fixation point would appear continually in the center of the screen, and participants were told that due to the unpredictable timing and location of the flashes, the best way to detect all of them quickly and accurately was to keep their eyes focused on this fixation point throughout the task.

Six practice trials were then given to participants to ensure familiarity with and comprehension of the task. When these were over, the experimenter asked if the participants had any questions. After clearing up any uncertainties, the experimenter began the 75 experimental trials of the 6-min vigilance task (with those in the explicit-goal condition receiving the neutral priming condition).

After participants completed this priming procedure, the experimenter randomly assigned the session as a whole to one of the two speech conditions (consistent-target or inconsistent-target). The experimenter told participants that the second task involved listening to an audio-cassette recording of a speaker telling a story. Participants in the impression-goal and no-goal conditions were simply told to listen to the audio tape and be prepared to answer several questions when the tape was over. Participants in the explicit-goal condition were told that the speaker on the audio tape would describe another person. They were instructed to listen to the story and try to form an impression of the target and better understand what kind of person he is. The experimenter then played the appropriate recorded speech.

Upon conclusion of the recording, participants were given the mood scale. Finally, participants received a funneled debriefing similar to that used in Experiment 1. Following the general queries at the beginning, participants were probed for awareness of the words subliminally flashed during the parafoveal vigilance task. They were also probed for any awareness of goals
they may have had during the audio listening task (especially the goal to form an impression of the person being described). None of the participants correctly guessed the experimental hypotheses; none correctly identified any of the subliminal prime words; none reported having an impression-formation goal (or any similar goal) during the description of the target person "Joe." Participants were also asked why they thought they were in the mood they were in. After the funneled debriefing, participants were fully debriefed and thanked.

**Results**

There were two control groups with which to compare the primed impression-goal condition: the primed "no-goal" condition and the conscious "explicit-goal" condition. Because primed-goal, no-goal, and explicit-goal do not represent three levels of the same conceptual variable, a 3 (primed-goal vs. explicit-goal vs. no-goal) x 2 (consistent target vs. inconsistent target) ANOVA was not appropriate. Instead, two specific, planned ANOVAs were conducted. First, a 2 (Prime Condition – primed impression-goal vs. no-goal) x 2 (Target Description – consistent target vs. inconsistent target) ANOVA was conducted to determine the effect (if any) of having an impression goal primed over and above not having any goal primed. Next, a 2 (Prime Condition – primed impression-goal vs. explicit impression-goal) x 2 (Target Description – consistent vs. inconsistent) ANOVA was conducted to determine the difference (if any) between pursuing a primed, nonconscious goal versus an explicit, conscious goal.

Mood scores were first subjected to a 2 (Prime Condition – primed impression-goal vs. no-goal) x 2 (Target Description – consistent vs. inconsistent) ANOVA. No main effects were revealed, $F_s < 1$. However, the predicted interaction between Prime Condition and Target Description was uncovered, $F(1, 89) = 4.56, p = .04$ (see Figure 2). Thus, participants primed with an impression formation goal were in a better mood if they heard about consistent Joe ($M = 6.65$) than inconsistent Joe ($M = -5.54$). A post-hoc comparison revealed that this difference was significant, $F(1, 45) = 4.84, p < .05$. Those neutrally primed, however, were in a slightly worse mood if they received the
consistent version \( (M = -4.00) \) than the inconsistent version \( (M = .67) \), although this difference was not significant, \( F < 1 \).

A second 2 (Prime Condition – primed impression-goal vs. explicit impression-goal) x 2 (Target Description – consistent vs. inconsistent) ANOVA was conducted comparing the impression-goal and explicit-goal conditions. There was a significant main effect for Target Description, \( F(1, 72) = 6.92, p = .01 \). Those given the consistent version were in a better mood \( (M = 5.73) \) than those given the inconsistent version \( (M = -5.71) \). There was no main effect for Prime Condition, and there was no interaction between Prime Condition and Target Description \( (Fs < 1) \). This suggests that regardless of whether participants were explicitly given the goal or primed with the goal, they were in a better mood if they were given the "success" manipulation than the "failure" manipulation (see Figure 2).

**Discussion**

Experiment 2 extended Experiment 1 by (a) generalizing the findings to a cognitive, information processing goal, (b) replicating the findings using a subliminal priming paradigm, and (c) comparing the consequences of success or failure at nonconscious goal pursuit to those of conscious goal pursuit.

Among participants subliminally primed with words related to an impression-formation goal, those led to succeed in an impression task were in a better mood than those led to fail. This difference did not exist for participants primed with neutral words. In addition, the explicit-goal condition closely resembled the primed-goal condition: those who succeeded at a consciously held impression goal were in a better mood than those who failed. This was as expected, and replicates previous research demonstrating that mood is affected by success and failure at conscious goal pursuit (Bandura, 1997; Carver & Scheier, 1981; Locke & Latham, 1990). As in Experiment 1, participants in the goal prime conditions were not aware of what was causing their mood, with only two participants relating their mood back to the anagram task. For the rest of these participants, the moods were mysterious. However, those who succeeded or failed at the conscious goal knew why
they were in the mood they were in, and their moods were understood. Thus, although the moods were of the same valence, they were qualitatively different. Taken together, the results from Experiments 1 and 2 provide strong evidence that success and failure at nonconscious goal pursuit influence mood.

Experiment 3

The third experiment looked at another possible consequence of success and failure at nonconscious goal pursuit: subsequent performance. Individuals who succeed at a conscious goal have stronger subsequent goal strength and persistence (often as a result of increased efficacy beliefs) than individuals who fail. This often manifests as improved performance on a goal-relevant task. As a first step, we wanted to test whether performance is affected by success and failure at nonconscious goal pursuit.

Overview

The methodology of Experiment 3 was the same as that of Experiment 1, except that a different dependent measure was administered (i.e., a performance measure instead of a mood scale). Participants were first either primed or not with an achievement goal. Then they were given the easy or difficult anagram task as the success/failure manipulation. This yielded a 2 (Prime Condition — achievement-goal vs. no-goal) x 2 (Anagram Difficulty — easy vs. difficult) factorial design. Finally, participants were given a portion of the verbal section of the Graduate Record Examination (GRE) to test their performance at a subsequent verbal task. For participants primed with an achievement goal, it was predicted that those given the easy anagram task would perform significantly better on the subsequent GRE task than those given the difficult anagram task. This same difference was not expected for those not primed with an achievement goal.

Method

Participants

Seventy-nine male and female students enrolled in an introductory psychology course at New York University participated in the experiment in partial fulfillment of a course requirement.
Thirty-eight participants were in the achievement-goal conditions (20 of these in the easy anagram and 18 in the difficult anagram condition), and 41 were in the no-goal conditions (20 in the easy anagram and 21 in the difficult anagram condition).

Materials

Participants worked in the same cubicle rooms used in Experiment 1. The same SST priming materials and easy and difficult anagram tasks from Experiment 1 were administered. The dependent variable was scores on a GRE verbal test. The verbal section of the GRE was chosen because it tapped the same achievement domain in which participants had just succeeded or failed (i.e., verbal ability). Items were taken from several old exams found in a GRE practice exam book.

Although the verbal section of the actual GRE consists of four subsections, some of the subsections tap the “verbal ability” closest to solving anagrams better than others. Specifically, the “analogies” and “opposites” are direct, clear tests of vocabulary skills, which is the specific skill tapped by the anagrams. Thus, 8 analogies and 8 opposites were chosen to represent the full range of difficulty: 2 items within each set of 8 were considered “very easy,” 2 were considered “very difficult,” and the rest (n = 4) fell into the “moderate difficulty” range. The 16-item test had a multiple choice format, with five answer options for each question. The order of the two subsections was counterbalanced between participants.

Procedure

There was a maximum of 4 participants in any given session. Upon arrival, the participants were shown into the cubicles. Participants were randomly assigned to either the achievement-goal or no-goal condition.

The experimenter told participants that they were taking part in several unrelated experiments. The first experiment would examine some of the cognitive processes involved in sentence structure tasks. The pencil-and-paper SST appropriate to each participant’s condition was then administered. After the participants completed the SST, each participant was randomly assigned to the easy or difficult anagram condition and administered the appropriate anagram task.
Next, the experimenter explained that for the final task, they would be filling out a form that was "similar to the verbal section of the Scholastic Achievement Test (SAT)." The verbal GRE form was then administered. Finally, participants received a funneled debriefing similar to that used in Experiment 1. Participants were probed for general suspicion, and asked if they noticed any pattern to the words on the SST. No participant accurately guessed the experimental hypothesis or noticed the pattern of prime words on the achievement SST. After the funneled debriefing, participants were fully debriefed and thanked.

**Results**

GRE scores were computed by counting the number of correct items. Scores ranged from 0 to 16 items correct and were subjected to a 2 (Prime Condition) x 2 (Anagram Difficulty) ANOVA. There was no main effect for Prime Condition ($F < 1$), but there was a main effect for Anagram Difficulty, $F(1, 75) = 8.08, p = .006$, such that those earlier given the easy anagram task did better on the GRE ($M = 10.33$) than those earlier given the difficult anagram task ($M = 8.69$). As predicted, a significant interaction also emerged, $F(1, 75) = 4.93, p = .03$. Achievement-goal participants did better on the GRE if they had earlier been given the easy anagram task ($M = 10.90$) than difficult anagram task ($M = 7.89$; see Figure 3). A post-hoc analysis revealed that this difference was significant, $F(1, 36) = 12.33, p < .01$. This was not true for no-goal participants, with those given the easy anagram task performing only slightly better ($M = 9.75$) than those given the difficult anagram task ($M = 9.38$), $F < 1$.

**Discussion**

Experiment 3 provides evidence that success and failure at an automatically activated goal can improve or worsen performance at a subsequent task in a goal-relevant domain. The findings for subsequent performance are arguably the most intriguing findings of all. That actual performance (and on a standardized test) might be affected by a mental process that occurs without the individual's intention and awareness is consistent with a growing body of evidence suggesting that behavior can be influenced automatically by various environment-activated processes (Bargh &
Chartrand, 1999; Bargh et al., 1996; Chartrand & Bargh, 1999; Chen & Bargh, 1997, 1999; Spencer & Steele, 1999; Steele, 1997; Steele & Aronson, 1995, 1998). It also underlines the importance of further exploring the consequences of nonconscious goal pursuit.

**Experiment 4**

The goals of Experiment 4 were twofold: to conceptually replicate the performance effect of Experiment 3, and to explore what is mediating it. There were two procedural differences between Experiments 3 and 4. First, a different priming procedure was employed. Specifically, the subliminal technique used to prime an impression formation goal in Experiment 2 was used in Experiment 4 to prime an achievement goal. Moreover, a different success/failure manipulation was used in Experiment 4. Experiments 1 and 3 manipulated success and failure via differential norm information about the length of time necessary to complete an anagram task. In Experiment 4, participants were given a series of letters and told to write down as many words as they could using those letters. The letters were either very common -- making it easy to form words -- or not. It was hypothesized that succeeding and failing at the subliminally primed achievement goal would affect one's belief in one's ability to effectively engage in a subsequent language skills task. These changed efficacy beliefs were hypothesized to mediate the performance effects, such that increases in efficacy would lead to enhanced subsequent language task performance, and decreases in efficacy would lead to dampened performance.

**Efficacy beliefs as mediator**

Self-efficacy refers to the beliefs one holds about one's skill, competency, and ability in a given domain. Such efficacy beliefs are often revised upon success or failure at conscious goals. In fact, this process is an important component of Bandura's efficacy theory, which holds that goals specify standards which, if met, result in higher efficacy beliefs. "Enactive mastery experiences are the most influential source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to succeed. Successes build a robust belief in one's personal efficacy. Failures undermine it." (Bandura, 1997, p. 80).
However, efficacy beliefs may not be revised by success and failure at nonconscious goal pursuit. Self-reported efficacy beliefs are consciously held and, as such, would be expected to change as a result of conscious deliberation and decision-making. Consequently, it could be argued that one would need to receive feedback about one's performance in order for the success or failure to affect efficacy beliefs. Perhaps efficacy beliefs are only revised upon careful reflection of one's abilities and competencies in a given domain (Bandura, 1997), or at least upon receiving explicit feedback. Thus, two measures of efficacy were included in the current study. One was a direct, self-reported measure of one's ability (presumably stable over time and across situations) in the verbal domain. The second measure was more indirect; it asked participants to predict their future performance in that domain. Since their predictions for future performance are not solely based on one's beliefs in one's stable, enduring abilities in a given domain, there might be more room for movement following a subtle, implicit manipulation using this measure.

Overview

Participants were subliminally primed with an achievement goal or not in an initial parafoveal vigilance task. Next, they were led to succeed or fail at the nonconscious achievement goal (if they had one) in a word formation task, which was presented as a fun filler task. Participants then completed a form on which they indicated (a) their overall efficacy in the language domain, and (b) their predicted performance on an immediately administered language task. Finally, they were given a verbal section from the GRE. The order of these last two tasks was counterbalanced. It was predicted that among participants primed with an achievement goal, those who were led to succeed at the word formation task would (a) have higher predictions for their immediate performance on a language task, and (b) perform better at the GRE task, than those who were led to fail at the word formation task. There were no expected differences on self-reported stable efficacy beliefs. Also, no differences were expected from participants not primed with an achievement goal.
Method

Participants

One hundred forty-one students (85 female; 56 male) taking an introductory psychology course at a large midwestern university participated in the study in partial fulfillment of a course requirement. Thirty-five participants were randomly assigned to the achievement goal/difficult language task condition, 41 to the achievement goal/easy language task condition, 35 to the no goal/difficult language task condition, and 30 to the no goal/easy language task condition.

Apparatus and Materials

The apparatus and materials for the priming procedure was identical to that used in Experiment 2, with the following exception: the four critical prime words were achieve, succeed, strive, and perform. The neutral words were the same as those used in Experiment 2.

The word formation task consisted of a blank sheet of paper with eight letters at the top of the page. The task was to form as many words as possible using the letters at the top. The letters given the participant were either common letters in the English language (i.e., R, L, E, T, A, N, O, S), or not as common (i.e., P, V, O, M, I, C, U, F). This was the success/failure manipulation; those given the common letters were in the success condition because it was relatively easy to form words using those letters (e.g., tar, not, tan, let), and those given the less common letters were in the failure condition because it was difficult to form words using those letters.

The efficacy questionnaire included various filler items to disguise the purpose behind the form. The direct efficacy question was, “How good are you at the following domains?” Several domains were listed, including language skills. Participants rated their efficacy on a 9-point scale. The more indirect measure of efficacy was, “If, right now, someone gave you one of the following tests, what percentage of the items on the test do you think you would get correct?” Participants chose a number from 1 (0-9% of items correct) to 10 (90-100% of items correct), with each number giving a 10 percentage point range. Below this question was a list of domains. The critical domain was “test of language skills”, which was closest to that of the word formation task they just
completed. Other domains included “test of math skills”, “test of spatial skills”, and “test of analytical skills”.

The GRE task was identical to that used in Experiment 3.

Procedure

Participants completed the study in groups of 2-5. Each participant was randomly assigned to one of the four conditions. Upon arrival, the experimenter greeted them and brought them to the lab. They were given the same cover story for the parafoveal vigilance task that was used in Experiment 2, and the procedure was also identical. Participants in the achievement goal condition were flashed with the achievement-related words over 75 trials, and those in the no goal condition were exposed to the neutral words.

Next, participants were told that a three-minute break was necessary before they began the next portion of the study. The purpose of this break was to “clear their minds for the next task.” They were told that a “filler task” would be used, which consisted of a “fun word formation task”. They would be stopped after three min. to begin the next portion of the experiment. Participants randomly assigned to the easy language task condition were then given the easy version of the word formation task, and those assigned to the difficult language task were given the difficult version. Participants were all stopped after three minutes to complete the next portion of the experiment.

The experimenter then gave participants either the efficacy questionnaire, or the verbal GRE. The order of these questionnaires was counterbalanced so that any effect that one form had on the other would be minimized.

Results

As in Experiment 3, GRE scores were computed by counting the number of correct items. Scores ranged from 0 to 16 items correct and were first subjected to a 2 (Prime Condition) x 2 (Word Formation Difficulty) ANOVA. There were no reliable main effects for Prime Condition or Word Formation Difficulty (ps > .10), but there was a significant interaction between the two, $F(1, 137) = 3.90$, $p = .05$. As in Experiment 3, achievement-goal participants did better on the GRE if they had
earlier been given the easy word formation task \( (M = 7.73) \) than difficult word formation task \( (M = 6.17; \text{see Figure 4}) \). A post-hoc analysis revealed that this difference was significant, \( F(1, 74) = 8.08, p = .006 \). This was not true for no-goal participants, with those given the easy word formation task performing only slightly better \( (M = 7.53) \) than those given the difficult version \( (M = 7.69) \), \( F < 1 \).

A test of mediated moderation (Baron & Kenny, 1986) was next conducted to see if either of the efficacy items mediated the relationship between succeeding or failing at an unconscious goal and later performance in that domain. The direct measure of stable efficacy beliefs was not affected by the success or failure at the nonconscious goals, \( F < 1.0 \), and it therefore did not mediate the performance effects. However, the indirect measure of efficacy yielded more promising results. Figure 5 shows the results from this path analysis. The beta for the direct effect of moderation (i.e., the effect of the Prime Condition x Word Formation Difficulty interaction on GRE performance) is \( \beta = -.68, p = .05 \). However, when efficacy is included as an additional predictor of GRE performance, this effect of the interaction on GRE performance is reduced to \( \beta = -.43, \text{ns} \).

**Discussion**

Experiment 4 provided additional evidence that success and failure at nonconscious goal pursuit has an impact on later performance in the same domain. Replicating the results of Experiment 3, participants who succeeded at a nonconscious goal to achieve via a language task later did better at another language task than those who failed at a nonconscious goal to achieve. The performance of those without a nonconscious goal to achieve did not differ as a function of whether they succeeded or failed. Thus, there is substantial support for the notion that succeeding and failing at goals that are pursued outside of conscious awareness has important consequences for performance in the goal-relevant domain.

In addition, Experiment 4 provided support for the hypothesis that subtle, implicit changes in efficacy beliefs are at least a partial cause of these performance effects. Individuals who succeed at a nonconscious goal believe that they will do better at an immediate verbal task, and this leads to better performance. Individuals who fail at a nonconscious goal have decreased implicit efficacy
beliefs, which in turn lead to worse performance. Interestingly, but perhaps not surprisingly, direct measures of stable efficacy beliefs were not affected by the subtle and temporary manipulations used in this study.

**General Discussion**

That we live in a social world and interact with other people almost constantly suggests that we are motivated to deal with people in an appropriate manner and to try to get along with them (Brewer, 1991). As a result, people may often have goals triggered by social situations and work towards them unwittingly. For instance, at a party situation one may have a self-presentational goal activated, or in an interview an ingratiation goal, or at school an achievement goal, or with siblings a competition goal, all without the individual’s awareness or intent that these goals are operating to guide cognition and behavior. The current research represents an attempt to better understand the consequences of such nonconscious goal pursuit.

**The Nature of Mood**

Experiments 1 and 2 were conclusive as to the effect of success and failure at nonconscious goal pursuit on mood. Those who succeeded were in a better mood and those who failed were in a worse mood. This was consistent across both studies, which employed different goals (an achievement goal in Experiment 1 and an impression formation goal in Experiment 2), different priming paradigms (supraliminal in Experiment 1; subliminal in Experiment 2), and different control conditions (no-goal in Experiment 1; no-goal and explicit-goal controls in Experiment 2). Thus, the generalizability and robustness of the consequences for mood are apparent.

That a nonconscious process can affect mood is compatible with a recent conceptualization of mood as being a “rolling average” of the positivity or negativity of one’s current environment (Chartrand, Bargh, & van Baaren, 2002). Conscious and nonconscious processes are both thought to play a role in determining mood. Supporting the latter, Chartrand et al. (2002) found that the automatic evaluation of stimuli in the environment as good or bad has consequences for mood: if mostly positive automatic evaluations are being made, an individual will be in a good mood and not
know why, and if mostly negative automatic evaluations are being made, he or she will be in a bad mood without knowing why. Because mood was affected by success and failure at automatic goal pursuit in the current studies, there is now additional evidence for the notion of mood being determined in part by nonconscious mental processes. This contributes to our understanding of the nature of mood and expands the current notions of what can influence or change it. Not only can conscious thought and reflection produce changes in mood; nonconscious success and failure experiences can produce such changes as well.

These moods that were created in the first two studies were also mysterious. Participants reported on the funneled debriefings that they did not understand the origins of their moods. In the few cases where they thought they understood the source, they were wrong, attributing it to something that happened before the experiment. For the most part, the responses indicted confusion and just a general sense of feeling a certain way and not knowing why. These mystery moods are qualitatively distinct from the understood moods that result from succeeding or failing at a consciously held goal, as demonstrated in Experiment 2.

Experiment 3 demonstrated that success and failure at nonconsciously pursued goals affect future goal performance. This contributes to a growing literature documenting the ways in which behavior can be affected by processes outside of awareness, current intentions, and control. For instance, the automatic evaluation of stimuli in the environment as good or bad leads to behavioral, motoric tendencies to approach and avoid, respectively (Chen & Bargh, 1999). Another example is research showing a link between perception and behavior such that merely perceiving another person engage in a behavior can lead one to perform that behavior oneself (Chartrand & Bargh, 1999). Moreover, priming a trait construct or stereotype in individuals can lead them to behave in line with that trait or stereotype (Bargh et al., 1996; Dijksterhuis & Bargh, 2001; Dijksterhuis & van Knippenberg, 1998; Dijksterhuis et al., 1999). In the case of stereotype activation, this can lead to a self-fulfilling prophecy, with the perceiver’s own stereotype-congruent behavior leading the stereotyped person to behave in line with the stereotype (Chen & Bargh, 1997).
Although it may be comforting to some individuals to believe they have complete control over their actions in all situations, this may not always be the case. Behavior can be influenced by a process triggered directly by the environment – an automatically activated goal with subsequent success or failure at that goal. Performing well or poorly on tasks such as the GRE administered in Experiment 3 has significant implications for one’s success in life. But because the goal pursuit is not accessible to conscious awareness, individuals cannot control it or defend against its effects. When individuals succeed at an automatic goal and subsequently perform better, they probably would not want to stop the process. But when they fail at a goal and then do worse at a task, they probably would. But without awareness that they had a goal in the first place, they certainly will not be aware of the effect it has downstream on their future behavior (Wilson & Brekke, 1994).

Directions for Future Research

There are many possible avenues for future research. For one, it might prove fruitful to explore the limits of the performance effects and determine whether they would generalize beyond the achievement domain. Experiments 3 and 4 tested performance on an achievement task because an achievement goal had earlier been activated and pursued. There may be something special about achievement-based performance that makes it more vulnerable to being affected by processes outside of conscious awareness. Or perhaps other types of future behavior would be affected just as easily, such as forming a less coherent impression after failure at an impression formation goal, or getting along better with others after success at an ingratiation goal.

Another direction for future research would be to further explore the mystery moods resulting from success and failure at nonconsciously goal pursuit. Specifically, negative mystery moods may lead to a number of consequences. If an individual is in a negative mood and does not know why, he or she may engage in various self-defensive mechanisms to bolster feelings of self-worth (Tesser, Martin, & Cornell, 1996; Weary, 1980). One might test whether self-enhancing mechanisms such as self-serving definitions of success (Dunning, Leuenberger, & Sherman, 1995), self-affirmation (Steele, 1988), positive illusions (Taylor & Brown, 1988), and implicit stereotyping
and prejudice (Spencer et al., 1998; von Hippel, Sekaquaptewa, & Vargas, 1997) surface during this different type of threat: negative mystery mood resulting from automatic goal pursuit. This potential “consequence of a consequence” of automatic goal pursuit would further extend the range of implications for social judgments and behavior.

**Automatic Goal Pursuit as Adaptive**

Automatic goal pursuit may be quite functional and adaptive. Goals become automatized to better serve our long-standing desires, and this increases the likelihood that we will engage in behavior that satisfies our chronic, enduring motives (see Bargh & Chartrand, 1999). Recent evidence suggests that the capacity for conscious self-regulation is quite limited and easily depleted (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven, Tice, & Baumeister, 1998), which implies that nonconscious self regulatory systems may be a necessity for everyday functioning. Consistent choice of a goal in similar situations makes it capable of automatic activation at a later date. This is to the individual’s advantage because he or she does not have to expend the resources necessary to deliberately and consciously choose the goal and goal-directed behaviors every time. Perhaps we have evolved automated systems of adaptive behavior that “take care of us” when we’re not paying attention or when our mind is elsewhere – all without conscious intervention or diminishing valuable cognitive resources. This idea is consistent with a host of other studies which have shown automatic processes to be generally adaptive (e.g., Chartrand & Bargh, 1999, 2000; Chen & Bargh, 1999).

**Conclusion**

Much of human behavior is related to motivation, and the last 30 years have taught us much about the unfolding of chosen goals. Recent work on nonconscious goal pursuit has suggested that the goal pursuit process can bypass conscious mediation altogether. Individuals can have goals automatically activated by the environment, and then pursue those goals as if they had been consciously chosen. The present research goes beyond this by suggesting that individuals succeed or fail at nonconsciously pursued goals, and this success or failure has consequences for mood and
performance. Individuals who succeed at nonconsciously operating goals are in a better mood and perform better at subsequent goal-relevant tasks than those who fail. Mood and behavior are major components of human existence, and thus a better understanding of any process outside of awareness, intent, and control that influences them is a good (conscious) goal to have.
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Endnotes

1. One notable exception to this rule is the causal uncertainty model of Weary and her colleagues (Weary & Edwards, 1996; Weary, Jacobson, Edwards, & Tobin, 2000), which holds that causal uncertainty beliefs (i.e., beliefs about one's inadequate understanding of causal relations in the social world) can become automatically and nonconsciously activated and guide subsequent goal adoption and information processing. Another exception is contemporary ego-enhancement researchers (e.g., Dunning & Hayes, 1996; Dunning et al., 1995; Steele, 1988; Taylor & Brown, 1988; Tesser, 1988), who believe that individuals are motivated to restore the ego (or self-esteem) when it is threatened, and that this driving motive (which is often nonconscious) is behind various esteem-restoring, ego-enhancing behaviors. Of course, Freudian psychologists also believe in unconscious sources of motivation (e.g., Freud, 1901/1965), although their methods for studying it are usually quite different from those of experimental research psychologists.

2. A note on the achievement goal is in order. There is a large literature documenting a general achievement motive (see Atkinson, 1958; Atkinson & Litwin, 1960; McClelland, 1965, 1985a, 1985b; McClelland, Atkinson, Clark, & Lowell, 1953). People want to do well. This may especially be true for college students, who are constantly in testing situations that are very achievement-oriented. Thus, it is likely that many of the student participants would have an achievement motive during this experiment. Because of the ubiquitousness of this particular motive, one must look at the achievement goal in the current study in terms of degree of activation. Although most participants might have an achievement goal to some extent, some will have it more than others. What will determine the degree of the achievement goal is the situational context. In the current study, those participants primed with an achievement goal should have a stronger goal to succeed and do well than those not so primed. Past research using the same priming technique did in fact find differences in the extent to which an achievement goal was activated (Bargh et al., 2001).
3. Participants were not actually given a time-limit, so they could work on the anagrams as long as they liked. This was done for two reasons. First, it was more consistent with the casual way in which the task was presented. Second, it would minimize any feelings by participants that they have been evaluated by the experimenter in any way, because once they think they have been evaluated, this might affect their subsequent self-evaluation and provide an alternative explanation for any obtained results.

4. Item-difficulty was determined for each item by its location on the original GRE. That is, items on the GRE are arranged according to difficulty, such that there is a progression from easiest items first to most difficult items last.
Figure Captions

Figure 1. Mood means for Experiment 1 as a function of Prime Condition and Anagram Difficulty

Figure 2. Mood means for Experiment 2 as a function of Prime Condition and Target Description

Figure 3. GRE means for Experiment 3 as a function of Prime Condition and Anagram Difficulty

Figure 4. GRE means for Experiment 4 as a function of Prime Condition and Word Formation Difficulty

Figure 5. Path analysis of mediated moderation for Experiment 4
The bar graph shows the mean GRE scores under different prime conditions. The x-axis represents the prime condition: 'Achievement Goal' and 'No Goal'. The y-axis represents the mean GRE score. For the 'Achievement Goal' condition, there are two bars: one for 'Easy Anagram' and one for 'Difficult Anagram'. The 'Easy Anagram' has a score of approximately 11, while the 'Difficult Anagram' has a score of approximately 8. For the 'No Goal' condition, the 'Easy Anagram' has a score of approximately 10, and the 'Difficult Anagram' has a score of approximately 9.
The bar chart illustrates the mean GRE scores under two conditions: achievement goal and no goal. The chart compares easy word formation and difficult word formation.

- **Achievement Goal**
  - Easy Word Formation: Approximately 7.5
  - Difficult Word Formation: Approximately 6.5

- **No Goal**
  - Easy Word Formation: Approximately 7.0
  - Difficult Word Formation: Approximately 7.5
Nonconscious Goal Pursuit

* * * 

*p < .05; **p < .01; †p < .15